



Industrial Products Finder

India's Most Trusted & Largest Circulated Industrial Magazine since 1972

ANNUAL 2021 | ₹1200

FOR INSTANT
SUBSCRIPTION



The Mega Issue features over **280 PRODUCTS**...Page No. 33-162

COVER STORY: Re-building manufacturing sector after Covid 19 shock...Page No. 163-185

DEBURRING TOOLS, MULTI-COMPONENT HANDLE BASED



CP Grat-Ex Manufacturing Company, for best results, offers deburring tools with a unique blade and handle design concept. The range of tools offered are for hand-deburring of: edges – straight, inner and curved; both sides of – slot, key-ways, ribs, ridge, sheets; scraper for corner and surface finishing work; and hole front and back side deburring. For over 20 years, CP Grat-Ex has been in the forefront of the design, development and manufacturing of innovative, top quality hand deburring tools. With years of experience in manufacturing an extensive range of high-quality deburring tools, the company has established itself as India's leading brand.

CP GRAT-EX Manufacturing Company
44, Nand Ghanshyam Ind. Estate, Off Mahakali Caves Road
Andheri (E), Mumbai 400 093
Tel: 022-49231200 Mobile: 09820070969
E-mail: cpe@deburringtools.com

SINGLE SHOT OIL SYSTEM – MODEL ELU-2700



Cenlub Industries Ltd offers a wide range of single shot oil system – model ELU-2700. This is mini-hydraulic power pack fitted with a motor and rotary positive displacement pump. The unit is designed for intermittent run only and is best suited for single shot lubrication. Unit is fitted with a suitable pressure switch, float switch and a transparent reservoir (for visually checking the oil level). During on cycle, the electrically driven pump discharges the oil with high pressure, adjustable between 15-20 bars, with the help of an in-built relief valve, which is also safeguarding the system from over-loading. During off cycle, the pressure in the lubrication line is reduced to 1 kg/Sq cm.

Cenlub Industries Limited
233&234, Sector-58, Ballabgarh, Faridabad 121 004
Mobile: 08826794470/71-73
Email: cenlub@cenlub.in

FABMAX™

**38+ YEARS OF EXPERIENCE
IN PIPE BEVELING & CUTTING**

PIPE & BOILER TUBE BEVELING MACHINES

Available up to a diameter of 36"

PIPE CUTTING & BEVELING MACHINES

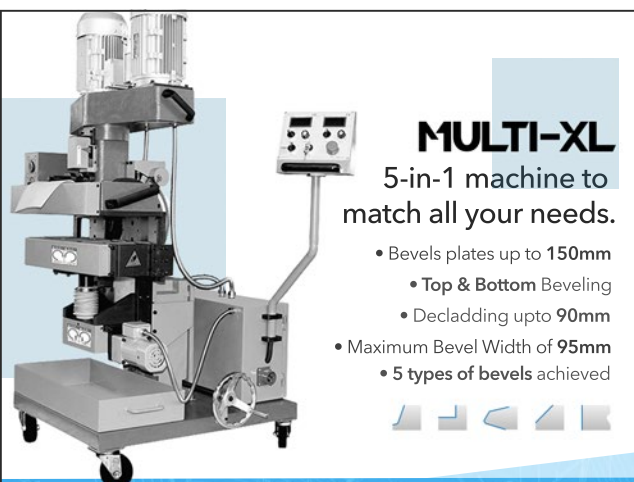
Available up to a diameter of 48"

CUSTOM SOLUTIONS FOR YOUR APPLICATION

Completely customized machines for cold cutting & beveling of pipes, boiler panels and steel tanks

FABMAX Pipe Fabrication Machines Pvt. Ltd.
301-303, 'A' Wing, Durian Estate, Goregaon (E), Mumbai - 400063
Website: www.fabmax.in

+91 93128 22711 022-66787700 info@fabmax.in



MULTI-XL 5-in-1 machine to match all your needs.

- Bevels plates up to 150mm
- Top & Bottom Beveling
- Decladding upto 90mm
- Maximum Bevel Width of 95mm
- 5 types of bevels achieved



INDIA'S TOP AUTO-FEED PLATE BEVELING MACHINES

With our range of 6 models and over 38+ years of industry experience, we cover all applications. Our machines are engineered to give you the best cold machining performance with a surface finish of Ra 3.2 ~ 6.3.

V-MAX Plate Fabrication Machines Pvt. Ltd.
301-303, 'A' Wing, Durian Estate, Goregaon (E), Mumbai - 400063
Website: www.vmax.net.in

+91 84528 87575 022-66787700 info@vmax.net.in



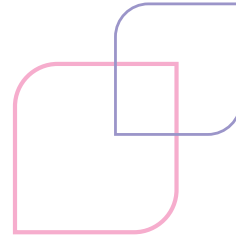
“ Safe habits to protect you against a breakdown ”



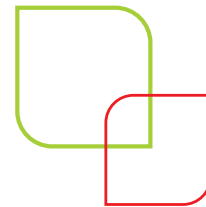
Hand Wash



Sanitizing



Wearing Mask



An ISO 9001 : 2015 Certified System

**“ Safe habits to protect your machine
against a breakdown ”**



BOHMEN

“ WE HELP YOU TO SWITCH SAFELY ”

General Purpose Limit Switches | FRP Position Switches | Safety Switches | Precision Switches
Electromechanical Limit Switches | Weather Proof Switches | Flame Proof Switches.

BOHMEN INDUSTRIES

114B, Marudhar Industrial Estate, Goddev Road,
Bhayander (East), Thane 401105. Maharashtra - INDIA.

Tel: 0091-22-2819 3279 / 2818 3279.

Email: bohmenindia@gmail.com

Website: www.bohmenindustries.co.in





ARM WELDERS
Arm of Quality Solutions

**YOUR
PARTNER
FOR
WELDING SOLUTIONS**

**INDUSTRY
4.0
COMPLIANT**

Combining our experience in Welding and manufacturing, we provide Innovative Robotic welding Solutions through our Best in Class welding equipment.



RAILWAY & METRO

- Robotic and CNC welding automation systems for Coach fabrication – Sidewall/Roof/Underframe/End wall



CONSTRUCTION

- Robotic MIG welding cell for Aluminum Form work
- Rebar Steel welding automated Line



BIW AUTOMOTIVE

- Robotic Spot welding cells for BIW line
- Manual and servo robotic welding guns
- Spot, Projection and Seam welding machines and SPM



FURNITURE

- Robotic Spot and MIG welding cell for Steel furniture



GENERAL FABRICATION

- Wire Mesh Welders for Poultry Cages and Fencing
- Seam Welding Automation system for Transformer Radiator Line



Manual & Servo
Robotic Weld Gun



Projection Welding
Machine
With Auto Nut Feeder



Seam Welder



Wire Mesh Welder



Robotic Spot Welding Cell



Spot Welding SPM



MIG Co2 Welding Cell



Spot Welding SPM

www.armwelders.com

T-96/2, MIDC, Bhosari, Pune- 411 026, India ☎ +91 20 27100063 / +91 83088 00949 ✉ sales@armwelders.com ▶ Arm Welders Applications Channel

India's **No.1** Entrance Automation & Loading Bay Equipment Company



Dock Levelers

With robust construction & state of the art hydraulics, Gandhi Dock Levelers are built to last

- Robotically welded platform and lip in almond anti-slip ST52 steel.
- Single effect lift cylinder, double effect lip cylinder.
- Tilt facility allows Dock Leveler to compensate for canted condition on either side upto 120 mm.
- Safety stop in case of accidental departure of the vehicle.
- Side foot protection steel guards.
- Sturdy integral maintenance strut to support Dock Leveler during maintenance checks.

Dock Shelters | Fire Rated Shutters / Doors | High Speed Doors | Rolling Shutters | Sectional Overhead Doors



ISO 9001 : 2015, ISO 14001 : 2015
BS OHSAS 18001 : 2007



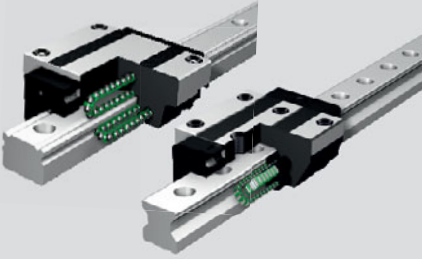
TOLL FREE
1800 209 0200
From Anywhere in India

Corporate Office : Chawda Commercial Centre, Link Road, Malad (W), Mumbai-400064, India

Tel : +91 22 6672 0200 / 0300 (200 Lines) | Fax : +91 22 6672 0201 | Email : sales@geapl.co.in | Website : www.geapl.co.in

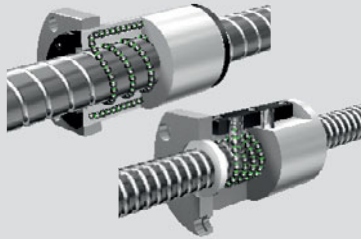
Motion Control Technologies

THK



Linear Motion Guides

THK



Precision Ball Screws

THK



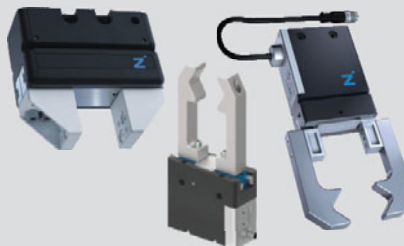
Linear Actuators

ZIMMER
group



Clamps for Linear Guides

ZIMMER
group



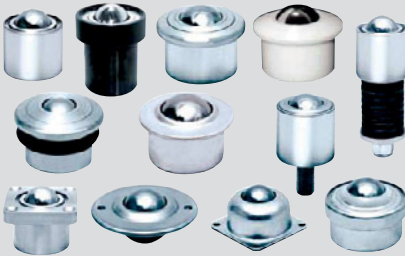
Grippers

NBK



Flexible Couplings

amnitrack



Ball Transfer Units

YHB



Precision Locknut

KHK
STOCK GEARS



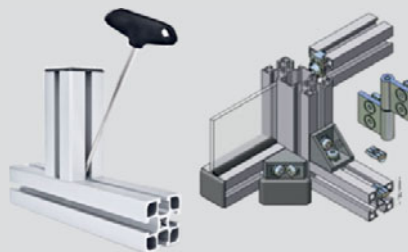
Gears, Racks & Pinions

POWER JACKS



Precision Screw Jacks,
Actuators, Gear Box,

MiniTec
PROFILE SYSTEM



Aluminium Profiles

LIMON
PRECISION & SPEED



Linear Shaft + Support

APEX
PRECISION

Apex Precision Mechatronics Pvt Ltd

303-308, Krishna Bhuvan Annex, 22B, Govandi Stn Road, Deonar, Mumbai - 400088.

Tel: 022-6146 4444 Fax: 022-2556 4987 Email: sales@apexprecision.co.in URL: www.apexprecision.co.in

● BANGALORE ● NEW DELHI ● CHENNAI ● HYDERABAD ●



WHEN IT COME TO SELECTING SECURITY SEALS YOU HAVE ONLY TWO CHOICES EITHER HIGHEST PROTECTION LEVEL OR LOWEST COST.

SAFCON
SECURITY SEAL
Your Shield To Revenue Protection

If you want highest protection level, Safcon is the right choice and if your choice is low price you don't even need security seals as "Poor Security is No Security."



TRUCK TARPAULIN



TRUCKS & CONTAINERS



OIL TANKERS



ELECTRIC METERS



CASH / COURIER BAGS



FOR JUMBO BAGS



FIBRE DRUMS

Consistency in quality, regular upgrade of product range through research & development to provide you peace of mind. Our Security Seal may not be cheapest in the industry but they are the best and most dependable. If you're not looking for just any statutory Security Seal and want real protection, give us a try. We are sure we will become your favourite Security Seal vendor.

- **WIDE RANGE OF PRODUCTS**
- **COST EFFECTIVE PATENTED SOLUTIONS**
- **ZERO-DEFECT QUALITY**
- **ON-TIME DELIVERY**
- **WORLDWIDE CUSTOMERS**

Fully customised with:

- ★ High-rise Moulded Security ID / Logo
- ★ Security Codes
- ★ Consecutive non-repeat Serial Numbering
- ★ Barcoded Serial Numbers.

IMPORTANT NOTE: We sell our Security Seals direct to actual users and guarantee the privacy and integrity that a security seal demands. No chance of getting security seals from market for malpractice.

SAFCON SEALS PRIVATE LIMITED

3B, CAMAC STREET, KOLKATA - 700016, INDIA
Tel: +91 -33-2229-5486 Fax: 91-33-2226-5939
E-mail: sales@safcon.co.in Website: www.safcon.co.in

ISO 9001 : 2015



**TRUST IS GOOD
CONTROL IS BETTER**

**PROUD OF OUR PAST
FOCUSED ON OUR FUTURE**



A Trusted Name in Cables



Empire[®]
CABLES

Cables For Future



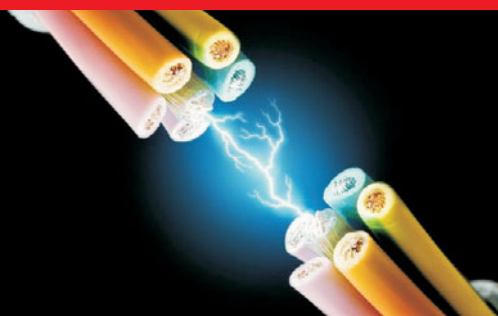
**DEALERS
ENQUIRIES
SOLICITED**



AN ISO 9001 : 2008 CERTIFIED COMPANY

IS : 694

IS : 1554
IS : 7098
IS : 14255



**MORE THAN
40
Years
EXPERIENCE**

Total Cables Solutions

PVC Insulated Industrial Wires & Cables

Aerial Bunch Cable ABC upto 11 Kv.

Solar Cables Available



Manufactured By
EMPIRE CABLE INDUSTRIES PVT. LTD.
115, Phase II Ind, Badli Ind. Area, Delhi-110042
Email: empirecables@yahoo.co.in
PH: 011 - 27893424, 27854325
website: www.empirecables.in

Marketed By
RAGHAV CABLES PVT. LTD.
1853, Surya Bazaar, Bhagirath Palace
Chandni Chowk, Delhi-110006
Email: empirecables@yahoo.co.in
PH: 011 - 23868832, 23874632, 23861610

Intelligent Drivesystems , Worldwide services

COMPLETE DRIVE SYSTEMS FROM A SINGLE SOURCE



The modular structure of our products guarantees maximum variability and flexibility for the configuration of a wide range of individual drive solutions from a single source. High efficiency gear units combined with energy-efficient motors and decentralised or centralised frequency inverters provide a wide range of system solutions with great efficiency and economy.

www.nord.com



NORD DRIVESYSTEMS Pvt.Ltd.

282/2, 283/2, plot no. 15, Village Mann, Taluka Mulshi,
Adj.Hinjewadi MIDC-II, Pune- 411057 Maharashtra INDIA

Toll Free No. 1800 200 2042

India@nord.com, www.nord.com

Member of the NORD DRIVESYSTEMS GROUP



BS:5315 - DIN:3017



SS



MSWD

SAEJ:1508



SSWD

Disc Washer

SS

TBSS



SS

SS

SS



MS/SS



LD

Carbon / Alloy Spring Clamp

CONTENTS

Editor's Note	08
Company Index	14
Products: New Launches	33
Products: General Section	52

COVER STORY: RE-BUILDING MANUFACTURING SECTOR AFTER COVID 19 SHOCK



Rebuilding India's manufacturing sector after COVID 19 shock	164
<i>Meenu Singhal, VP, Industry Business, Schneider Electric India</i>	
Manufacturing strategies beyond COVID-19	166
<i>Prof R Jayaraman, Head, Capstone Projects, Executive Management Education, SPJIMR (S P Jain Institute of Management and Research)</i>	
Four-pronged approach for healthy future of manufacturing sector	169
<i>Aditi Sharma, HSE, Manufacturing and Quality Leader, Cummins India</i>	
Post COVID-19 survival strategies for SMEs	172
<i>Vikas Bajaj, President, Association of Indian Forging Industry (AIFI)</i>	
How to make India's manufacturing industry globally competitive?	174
<i>Zurvan H Marolia, Sr. Vice President, Godrej & Boyce</i>	
Industry 4.0 outlook 2021 & beyond	176
<i>Bhaskar Mandal, Head, Digital Industries, Siemens Limited</i>	
Driving success through automation, digitization, and skilling	178
<i>Neeti Sharma, Sr Vice President, TeamLease Services Ltd</i>	
Redefined business models and tech adoption to help MSMEs thrive post-Covid	180
<i>Dr Rahul Sharma, Director - India, International Zinc Association</i>	
Adopt right measures to minimise COVID-19 risk at workplace	182
<i>Hemant Sethi, Country Head, British Safety Council, India</i>	
Four essentials for SMEs to thrive in post-Covid period	184
<i>Hemant Sapra, Co-Founder and President (Global Marketing) at KARAM Industries and President of Safety Appliances Manufacturing Association (SAMA) in India</i>	

INTERVIEW

George Rajkumar, India Operations & APREG Operations Strategy Director, Grundfos India **186**
"Demand for intelligent pumps is picking up in the market"

Giriraj Kumar Mall, Executive Director, Mallcom India Ltd **188**
"Safe workplace protects workers as well as increases productivity"

Dieter Rasquinha, Director, Mercury Pneumatics Pvt Ltd **190**
"Many countries look at India as a technology hub for engineering goods"

P Gopi, Sales Head - Robot & Machines, Panasonic Smart Factory Solutions India (A division company of Panasonic India Pvt Ltd) **192**
"Robotic welding automation offers good RoI"

Chetan Purav, Proprietor, CP GRAT-EX Manufacturing Company **194**
"Export market is slowly springing back to normal"

Nimesh Karelia, Director, Jay Equipment & Systems Pvt Ltd **196**
"Rising raw material prices is a concern"

Chandmal Goliya, Director, Kusam Electrical Industries Ltd **198**
"To be really Aatmanirbhar, we need minimum laws & taxes"

Avishkar Prakash, GM - Sales, Theeta Electricals Pvt Ltd **200**
"Make in India has picked steam in the post Covid era"

Madhusudan M J, Managing Director, BEKO Technologies India Pvt Ltd **202**
"2020 was tough, but COVID presented us opportunities"

Premal Karelia, MD, Jay Storage Solutions Pvt Ltd **203**
"Exports offer huge potential due to changed geo-political situations"

Santosh Kumar, Managing Director, Instamod Airpipe Pvt Ltd **204**
"We are focusing on verticals showing promising growth"

SECURITY TALK



Invest in right security seals to prevent revenue loss **205**
 Rajesh Kumar Banka, MD, Safcon Seals Pvt Ltd

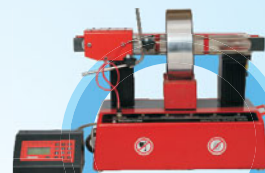
POLYMER UPDATE

Metal detector silicone rubber enhances safety in industries **207**
 Courtesy: Ami Polymer Pvt Ltd

One Stop Solution for BEARING INDUCTION HEATERS



HIB-01
Power
3 - 3.5 kVA



HIB-03
Power
11 - 14 kVA



HIB-02
Power
6 - 8 kVA



HIB-04
Power
22 - 25 kVA



HIR Series

FEATURES

- Robust industrial design
- Simple operations
- Covers wide range of bearings from bore size 15mm and above
- Microcontroller controlled electronics
- Environmentally Sound, Fault finding, self diagnostic function
- Ideal for industrial use maintenance and Production
- Fast, Easy, Reliable and Safe

& many more models...

NOT JUST FOR BEARINGS

Induction heater is ideally suited for shrink fitting of bearings (even with plastic cages) gears, pinions, couplings, pulleys, fly-wheels, sleeves and liners etc.



INVENTUM
Engineering Company Pvt. Ltd.

Office: 201, Kuber Complex, Opp. Laxmi Indl. Estate, New Link Road, Andheri (West), Mumbai 400 053.

Tel.: 91-22-2673 0499 / 590 Mobile: 09819802535

Email: sales@inventumindia.com
 Website: www.inventumindia.com

CASE STUDY



Thermal imaging camera helps solve HVAC duct leak issues

208

Courtesy: FLIR Systems India Pvt Ltd

Simulation software eliminates programming errors in CNC machines

209

Courtesy: CGTech Inc

NEWS FEATURE

ACE banking on premium MHE segment for growth

211

Empire Cables eyes government projects and exports for growth

212

TECHNOLOGY UPDATE

C. And C. Laser Engineering offers PhotoScribe pill marking solution

208

Steel belts shine in solar cell applications

210

Courtesy: Prolific

Washmatic India's new UV sterilizer cabinet enhances safety in restaurants

213

Salvagnini's laser cutting machines enhance sheet metal processing

214

Igus' EC.PR monitoring system ensures safety in crane systems

216

Schmersal helps firms attain functional machine safety cost-effectively

217

INDUSTRY UPDATE

Hindustan Impex seeks distributorship for industrial products for expansion

207

SCHUNK launches slim hydraulic expansion toolholder with cool-flow

219

Elequip Tools receives award from Hercules Hoist

219

CECO Electronics plans foray into solar pumps and robotic controls

220

Ravik Engineers helps Indian firms gain competitive edge with global technology

220

Lubrite Industries making a global impression

220

SS fastener maker Sudhir Automotive eyes expansion

221

SCHUNK's sensory quick-change pallet module increases process transparency

221

Igus' dryspin lead screw nut cost-effectively replaces ball screws in heavy-duty applications

222

Sarabsukh Enterprises crafting growth with innovative VMC technology

223

L&T bags mega EPCC contract from HPCL Rajasthan Refinery for new cracker unit

223

TECHNO-COMMERCIAL

Lasers and machine vision improve pharma manufacturing

224

Courtesy: C. And C. Laser Engineering Pvt Ltd

PhotoScribe Technologies upgrades LMS-650XS laser for optical components ID marking

224

COMMUNICATION FEATURE

Hindustan Power Products empowering global industries

195

Ved Engineering aiding dairy industry growth with modern technology

197

Balaji Switchgears offers smart solutions for automation

201

Gandhi Automations' innovative products offer safety and efficiency

225

Crest Ultrasonics offers efficient metal part cleaning systems

227

Monotech Engineers: A pioneer in metal finishing machinery

228

Libratherm: The one-stop control solution provider for OEMs

229

AJOONI offers long span shelving systems

230

Shri Guru Nanak Electricals offers all-in-one solutions for electrical component

231

Trade Fairs & Conferences

232

Product index

233

FUTURISTIC SOLUTIONS, PREDICTIVE MAINTENANCE.

JAY EQUIPMENT is a leader and always believe in offering futuristic solutions. Our design team continuously works on technological improvements for zero breakdown and maximum productivity.

Our full line services include material movement, lifting, driving, tilting and palletising for various industrial and warehousing applications. Our long-term guarantee* plan allows you to sit back, relax and predict your maintenance costs when it comes to manoeuvrability.

Speak to our experts today to supercharge your process excellence!



PRODUCTS WE OFFER

LIFT TRUCKS | DOCK LEVELER | SCISSORS MAINTENANCE PLATFORM
LIFTING PLATFORMS | DRUM HANDLING EQUIPMENT

Also ask for Lease & Rental Services

INDUSTRIES WE SERVE



SALES & SERVICE NETWORK

Ahmedabad | Bengaluru | Chennai | Delhi | Mumbai | Pune | Vapi

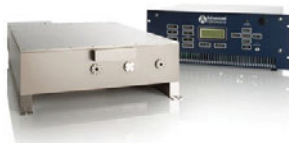
JAY EQUIPMENT & SYSTEMS PVT. LTD.

+91-9146054222/23/24/25 | sales@jayequipment.com | www.jayequipment.com



diode-pumped solid-state laser solutions

www.a-optowave.com



Nano-second, Pico-second,
Femto-second
IR, GREEN, UV & Deep UV
Diode pumped lasers

Industries Served

- Diamond • Automobile • Electronics • Medical Stent Cutting
- Orthopaedic • Tooling • Glass Cutting & Marking

Applications with AOC Lasers:



Marking

Engraving



Internal Glass Engraving
Cutting



Micro-machining
Medical Stent Cutting
Plastic Marking, Cutting



IRADION

Ceramic Core CO₂ Lasers

www.iradionlaser.com



Iradiation Laser, Inc. is focused on the design & manufacturing of patented, RF excited, ceramic core CO₂ lasers. Iradiation ceramic core CO₂ laser provides a significant technical edge when compared to other all-metal lasers in the market.

This technology has been commercialized over the last decade and is now available to serve the wider industrial laser system market.

Watch our lasers in live action on:

<https://www.iradionlaser.com/en/technology/application-videos>

Join our mailing list



QPC LASERS

www.qpclasers.com

Industry's leading OEM diode laser solutions provider



- Automotive
- Consumer aesthetics
- Fibre-optic telecom and datacom
- Defence
- Medical/surgical
- Materials processing
- Optical pumping
- Powers from 5 mW through 5 kW
- Diffraction-limited and multi-mode
- Single-frequency to broadband
- Wavelengths from 780 nm ~ 1950 nm
- CW to 25 GHz
- Actively and passively cooled

PhotoScribe

Laser Technologies

www.photoscribetechn.com

Global Leader for Customized Laser Systems

Optimized Laser Systems

µmachining, µmarking

µfabrication

Custom Laser Development

Industries Served:

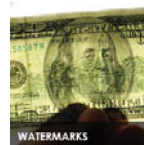
Diamond & Jewellery, Security,

Pharmaceutical, Electronics,

Glass – sub-surface marking,

Plastics – sub-surface marking,

Aerospace, Automotive, Medical



ONE STOP CENTRE FOR ALL LASER NEEDS

C. And C. Laser Engineering Pvt. Ltd.

www.cnclaserengg.com

A/205, Mihar A CHS, M G Road, Nr Charkop Village, Kandivali (W), Mumbai 67

119, Shree Krishna Ind Est, Off Western Express Highway, Ketkipada, Dahisar (E), Mumbai 68

91 22 49727168; 91 9833105515 info@cnclaserengg.com; sawant@cnclaserengg.com



Material Handling Equipments

E.O.T. Crane up to 250 tonnes



- Double Girder E.O.T. Cranes
 - Single Girder E.O.T. Cranes
 - Goliath Crane
 - Jib Crane
 - Transfer Trolley
 - Wire Rope Hoists/Chain Hoist
 - Crane Kits
- and other material handling equipments.



H.O. & Unit - 1:
Plot : 613, Phase - IV, G.I.D.C., Vatva, Ahmedabad - 382 445.

Unit - 2 :
Plot : 5,6,7, Devraj Industrial Park, Piplaj-Pirana Road, Piplaj, Ahmedabad - 382 405.

Contact : 09328739901 | 09377039904 | 09825073608 • info@technoind.com • www.technoind.com



Upskill to rebuild

Industry 4.0 and COVID 19 are the two forces that are mingling and forcing huge changes in the manufacturing the world over. While the former is an ongoing movement (which has taken firm roots in many parts of the globe), the latter is a one-off event that has shaken the world to its core. It has disrupted supply chains across the globe, and many companies have suffered huge losses. Post COVID 19, Industry 4.0 is expected to enable companies to rebuild for the long-term growth.

COVID 19 pandemic has capsized businesses across sectors, presenting them with unprecedented challenges and forcing them to adapt and re-invent to survive and thrive. There has been an indelible impact on the Micro, Small and Medium Enterprises (MSMEs) sector, which employs over 100 million people, accounts for 45 per cent of manufacturing output and more than 40 per cent of the country's exports. The government has already shown intent in re-building the overall MSME sector by announcing investments of Rs 200 billion to uplift this key sector.

Business continuity was the most impacted due to the pandemic, nudging organisations worldwide to re-think their entire business models. As restrictions started lifting, many MSMEs focussed on increasing sales and managing credit as priority areas. However, it remains essential to focus on reimagining business models to optimise operational efficiency. Businesses have to now think of ways to reduce business risk in times of calamity, to optimise supply chains and workforce productivity and to re-look at skills to work best in the 'new normal'.

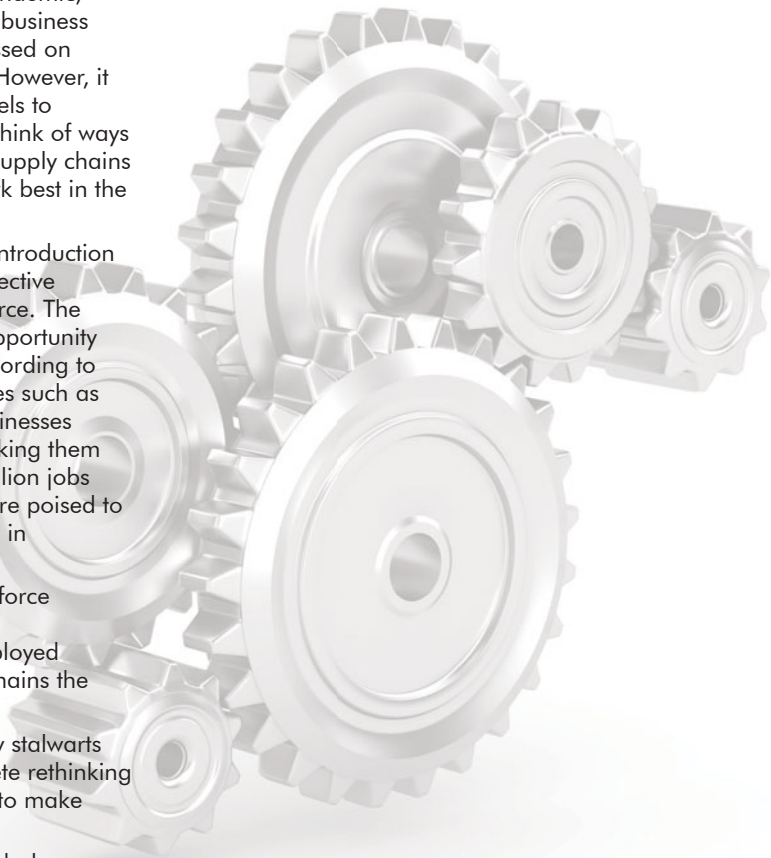
While Covid 19 pandemic has hastened the process of introduction of digital tools in manufacturing, these tools will be ineffective without the training, skilling and upskilling of the workforce. The reskilling of workers is critical to capitalise on the new opportunity that will be created in the new manufacturing world. According to the World Economic Forum (WEF), emerging technologies such as AI, machine learning and big data are transforming businesses while Industry 4.0 is driving a decline in many roles, making them obsolete because of automation. By 2022, nearly 75 million jobs would be superfluous. Fortunately, digital technologies are poised to create 133 million new jobs, ensuring an overall net rise in employment opportunities.

By 2027, India is slated to have the world's largest workforce of one billion between the ages of 15 and 64 years. To ascertain that these people continue being gainfully employed against the backdrop of rising automation, reskilling remains the need of the hour.

In the "Cover Story" of IPF Annual 2021 Edition, industry stalwarts highlight on how Indian manufacturers can do a complete rethinking about their manufacturing and business processes, and to make them more productive and efficient.

There is a visible change in business strategies of big global companies as they realise the futility of depending on one country (read: China) for their requirements. This provides India an opportunity to regroup and make an impact on the global manufacturing industry. IPF, as before, is committed to help Indian industries to compete globally and capitalise on new opportunities.

We, at IPF, have been at forefront in embracing digital tools to disseminate market-relevant information to our readers (especially to MSMEs) to help them sustainably grow their businesses. In fact, IPF





High Performance Hydraulics
Built in India

55
Years of
Excellence



Check Valves



Pressure Control Valves



Directional Control Valves

Happy New Year

2024

Please contact us:

Veljan Denison Limited

Website : www.veljan.in | E-mail : dhilptc@veljan.in, domestic@veljan.in
Ph: +91-8099845832, 9603568999

We help you see your ideas work

Industrial Products Finder Annual 2021

Industrial Products Finder

India's Most Trusted & Largest Circulated Industrial Magazine since 1972

www.IPFonline.com

FOUNDER & EDITOR-IN-CHIEF
PRATAP PADODE

*EXECUTIVE EDITOR
RAKESH RAO
Email: rakesh.r@ASAPPinfoglobal.com

FOR ADVERTISEMENT
Adsales@ipfonline.com

REGIONAL SALES OFFICES:

Ahmedabad/Rajkot: Jayshri Ramani
Mobile: 84228-74010

Bangalore : Albert Louis Raj
Mobile: 84228-74014

Chennai : Santhosh Nath
Mobile: 84228-74017

Coimbatore : John C Nathan
Mobile: 84228-74019

Kolkata : Abhijit Saha
Mobile: 84228-74022

Mumbai : Shami L. Lalwani
Mobile: 84228-74039
Tel: 022-2419 3000. Fax: 022-2417 5734

**New Delhi, NCR, Rajasthan, UP,
Uttarakhand, Chandigarh:** Sanjay Jain
Mobile: 84228-74040.

Pune : Umesh Purohit
Mobile: 84228-74048

Representative in Taiwan : Worldwide Services
Tel: +886-4-2325-1784 Fax: +886-4-2325-2967
Email: global@acw.com.tw

Industrial Products Finder

IPFonline Limited

A-303, Navbharat Estates, Zakaria Bunder Road,
Sewri (West), Mumbai 400 015.
Tel: 022-24193000 Fax: 91-22-24175734



FOUNDER: **R V PANDIT**

Printed and published by Tarun Pal for **IPFonline Ltd. Industrial Products Finder**, (ISSN 0970-6895) is a product news magazine. It is a monthly publication with the publishing office located at First Floor, Canara Bank Building, 103, Greaves Road, Thousand Lights, Chennai - 600 006. **Industrial Products Finder** is registered with the Registrar of Newspapers for India under No RN 22739/72. Format and style of presentation Copyright, © 2017 IPFonline Limited, First Floor, Canara Bank Building, 103, Greaves Road, Thousand Lights, Chennai - 600 006.

*Responsible for selection of news under the PRB Act. While all efforts are made to ensure that the information published is correct, **Industrial Products Finder** holds no responsibility for any unlikely errors that might have occurred. **IPFonline Limited** reserves the right to use the information published herein in any manner whatsoever. While every effort has been made to check the accuracy of information published in this edition, neither **IPFonline Limited** nor any of its employees accept responsibility for any errors or accuracy of claims made by product manufacturers. No part of this publication may be reproduced in any form without the written permission of the publisher. All rights reserved.

was the first publication in the Indian industrial space to offer its online services when it launched www.IPFonline.com in 2000. COVID 19 pandemic has only helped us accelerate our march towards digital solutions and expand our offerings. In the initial months of pandemic, despite constraints (like lockdown, lack of logistics, close down of printing press, etc), IPF continued to serve its discerning readers with its digital platform.

Since April 2020, IPF hosted over 8 webinars (which saw participation of over 40 industry leaders offering tips to tide over the crisis, tap new opportunities, capitalise on government schemes, etc) and conducted over 30 video interviews of industry captains. In addition, IPF organised virtual Buyer-Seller meets where representatives of large PSUs (like SAIL, NTPC and Vizag Steel), Government Organisations (like Indian Railways, Defence Investor Cell of Defence Ministry) and leading private sector companies (like L&T, Godrej & Boyce, Vedanta Aluminium, etc) highlighted their procurement processes, initiatives for buying products & services from MSMEs, and procurement projections for the coming years.

We, at IPF, have been at forefront in embracing digital tools to disseminate market-relevant information to our readers (especially to MSMEs) to help them sustainably grow their businesses. In fact, IPF was the first publication in the Indian industrial space to offer its online services when it launched www.IPFonline.com in 2000.

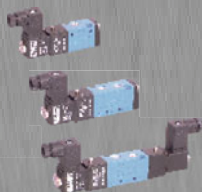
Raising the innovation quotient up, we also launched iNoW to disseminate industrial news on WhatsApp to keep our readers updated on the move.

For the last four years, we have been presenting the IPF Industrial Excellence Awards to recognise companies (who show promising growth and are best among the rest) and contribution of innovative products in the progress of the industry. Against all odds, IPF not only hosted the 5th Edition of the Awards function, but also expanded the scope of the virtual event by organising a conference as part of its first IPF Industrial Excellence Forum 2021 (IIEF 2021) on January 15, 2021. While more than 10 industry experts expressed their views on industry, growth strategies and forecast for 2021, the event was graced by the presence of Mr Devendra Kumar Singh (Additional Secretary MSME Ministry) and Development Commissioner (MSME), Government of India, and Dr Ravi P Singh, Secretary General, Quality Council of India (QCI).

Over 25 awards were presented as part of the 5th IPF Industrial Excellence Awards. The entire award process was seamlessly conducted online. Even the meeting of the Jury - comprising 11 Industry Leaders - was held virtually to select the award winners.

As IPF enters its 50th year, we promise to continue serving manufacturing companies with the same enthusiasm as before and be a partner in their growth journey.

Follow me on twitter @PratapPadode



PNEUMATIC VALVES



MERCURY

Leadership through innovation



PNEUMATIC CYLINDERS



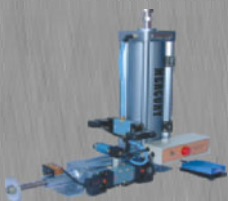
FRL's, FITTINGS,
TUBINGS & ACCESSORIES



Hydro Pneumatic Pumps
Upto 2000 bar



AIR BOOSTERS
1:2, 1:3 & 1:7 Ratio



GREASE PUMPS
Upto 125 gms

Hydro Pneumatic Presses

The efficient, low cost alternative to Hydraulic, power and hand operated presses.



Salient Feature

- 1 Tonne to 45 Tonne Range
- Fast Action
- Energy Efficient
- Complete Aluminium Body
- Compact, Light Weight & Vibration Free
- Low oil Level & approach stroke sensors
- Force & Speed Infinitely Adjustable
- True Two Hand Safety Controls

Mercury Pneumatics Pvt. Ltd.

C-105, Ansa Industrial Estate, Saki Vihar Rd., Andheri (E), Mumbai - 400072. India.

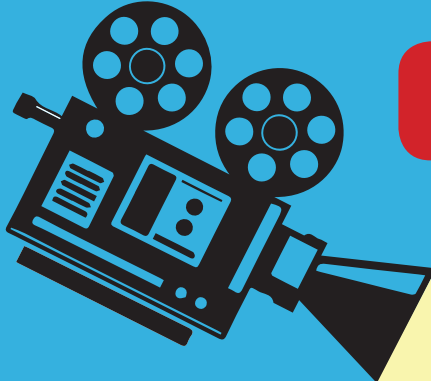
Ph. : +91-40151020

Email : contactus@mercuryindia.net

Website : www.mercuryindia.net

Authorized Sales & Services :

Ahmedabad ● Aurangabad ● Bangalore ● Chandigarh ● Chennai ● Coimbatore ● Indore ● Jaipur ● Kolkata ● Kochi ● Kolhapur ● Mumbai ● New Delhi ● Pune ● Nasik ● Brazil ● U.S.A



WEBINAR SERIES



**Industrial Safety &
Security - How safe are
workplaces in India**



**Recovery Strategies
for SMEs**



**Restarting
Manufacturing Process
Post Lock Down**



**Reweaving the success
story of the textile
industry amid Covid 19**



**Re-inventing India's
export strategy (Co-
Host EEPC India)**



**Is digitalisation cost-
effective for SMEs to
enhance efficiency**



**Is the Indian Technical
Textiles Industry Ready
for a Global Play?**

FOR INQUIRIES EMAIL US AT Shweta.V@ASAPPInfoGlobal.com

98308 95266



LASTS LONGER. PROTECTS LONGER.

Introducing **MFKB**, Mallcom's foremost cut-n-stitch nitrile gloves for better mechanical resistance and durability.



SAFETY GLOVES

Salient Key Features:

Better strip full nitrile dipped in cotton | Interlock lining
Knitted wrist of dust | Contoured designs
Excellent combination of flexibility, mechanical resistance
& oil repellency | Easier to wear for long periods.



Mallcom (India) Ltd.

EN-12, Sector-V, Salt Lake, Kolkata 700 091, India

T: +91 33 4016 1000 | F: +91 33 4016 1010

E: safety@mallcom.in | W: www.mallcom.in



Buy genuine Mallcom safety gear from authorized dealers only. Also available on [amazon.in](https://www.amazon.in)

This listing is provided by **IPF** for easy reference of advertisers and organisations featured in this issue. The highlighted companies are the advertisers.

A C Automation 58, 127	Alpha Products 128
A G Belting Pvt Ltd 148	Ambika Trading Company 129
A M Jeewajee & Sons 150	Amcats Pvt Ltd 146
Abhitron India 68, 70 & 159	Ami Polymer Pvt Ltd 76, 207 & 255
ABR Enviro Systems 84	Amit Engineering 112
Accurpress India Machinery Pvt Ltd 29	Amit Safety Enterprises 144
Acme Air Equipments Co Pvt Ltd 113	Ammbavin 155
Action Construction Equipment Ltd 15, 211	Amro Airtech 92
Aditya Industries 120	Anar Rub Tech Pvt Ltd 146
Ador Welding Ltd 134	AnuVidyut Pvt Ltd 131, 133 & 155
Adroit Technologies (Amada) 117	Apex Precision Agencies 135
Adroit Technologies (Suco+ESI) 111	Apex Precision Mechatronics Pvt Ltd End Paper – II, 143
Aerotech India 86	
Ahamad Associates Plant and Projects 153	ARB Bearings Ltd 94
Aircon Pneumatics 110	Arm Welders Pvt Ltd Cover II
Ajooni Storage Systems 137, 230	Armatic Engineering Pvt Ltd 60
Akuva Infotech Pvt Ltd 102	Association of Indian Forging Industry 172
Albro Trading Co 68	Austenite Fasteners Pvt Ltd 132



Emerged | Empowered | Energized

ACE



*Proud to be Indian.
Proud to be empowering the nation
for last 25 Years*



Cranes | Loaders | Forklifts | Road Equipment | Piling Rigs | Agri Machinery

Action Construction Equipment Ltd.

Mail : marketing@ace-cranes.com, Ph. : 0129-4550000 (100 Lines)

Autrans India Pvt Ltd	36	Capital Engineering Corporation	147
AV&T Solutions Private Limited	128	CECO Electronics Pvt Ltd/Control	
Avron Ply (A unit of SJE Exim Private Limited).	78	Engineering Company	64, 220
Bajaj Steel Industries Ltd.	138	Cendrop Multilub System Pvt Ltd.	124
Balaji Switchgears Pvt Ltd	39, 201	Cenlub Industries Ltd.	C-i, 23
Banner Engineering India Pvt Ltd	36	GTech India Software Solutions Pvt Ltd . . .	101, 209
BEKO Technologies India Pvt Ltd	99, 202	Champion Industries	102
Blowtech Engineers Pvt Ltd	161	Chamunda Equipments	104
Blum-Novotest Measuring &		Chamunda Pharma Machinery Pvt Ltd	156
Testing Technology Pvt Ltd	44	Charun Instruments	80
Bohmen Industries . . . Cover-II Front Gate Fold		Classic Polymers & Resins	145
Boilerhouse Corporation	84	Clean Coats Pvt Ltd	142
Bombay Pharma Equipments Pvt Ltd	154	Compete Tools Pvt Ltd	107
Bright Burnishing Tools Pvt Ltd	111	Concept Engineers	139, 161
British Safety Council	182	Continental Commercial Co	54, 151
Brothers Pharmamach (India) Pvt Ltd.	154	Control Engineering Co	91
C And C Laser Engineering Pvt Ltd . . 6, 208 & 224		Converge Transprint Systems Pvt Ltd	88
C Bole & Co.	52, 56 & 109	CoolFlow Cooling Towers Pvt Ltd	238
C Systems Pvt Ltd	126	Countronics.	42, 78



WellMake

40 Years Old Furnace Manufacturing Company with Quality Latest Designs & Using State of Art Technology and Best Available Inputs

MANUFACTURING RANGE IN ELECTRIC, GAS & FUEL FIRED DESIGNS

- Chamber Type Furnaces
- Forced Air-Circulation Furnaces
- Pit Pot Type Annealing Furnaces for Wires & Strips
- Bogie Hearth Furnaces
- Forging/Normalising/Hardening/Tempering Furnaces
- Gas Carburising/Nitriding Furnaces
- Bell Type Furnaces for Bright Annealing & Heat Treatment
- Conveyorised Furnaces for Hardening and Tempering Plants
- Rotary & Moving Hearth Kilns
- Batch/Continuous Annealing Furnaces
- Melting/Holding Furnaces for Aluminium, Copper/Brass & Other Non-Ferrous Metals Crucible, Tilting Baleout and Reverbratory Type
- Furnaces with Hydrogen Atmosphere
- Furnaces for Gas Generators and Ammonia Crackers
- Aging, Homogenising Furnaces for Aluminium Plants
- Special Purpose Furnaces for Chemical Plants
- Continuous Furnace for Sintering & Brazing



80 Ton Bell Type Bright Annealing Furnace

IMPORT SUBSTITUTES



D-Type Muffles for BA Lines for SS



Muffle for BA Line for SS Line



Corrugated Inner Covers for Bell Furnaces



Various Types of Impellers



Manufacturing and Dispatch Facility



Machining Facility upto 3.6 meter dia



60 Ton Capacity Dual Fuel Fired Sheet Annealing Furnace



Batch Type Muffle Furnace with Protective Atmosphere



Indirect Fired Continuous Conveyorised Ovens



Gas Fired Rectangular Bell Furnaces



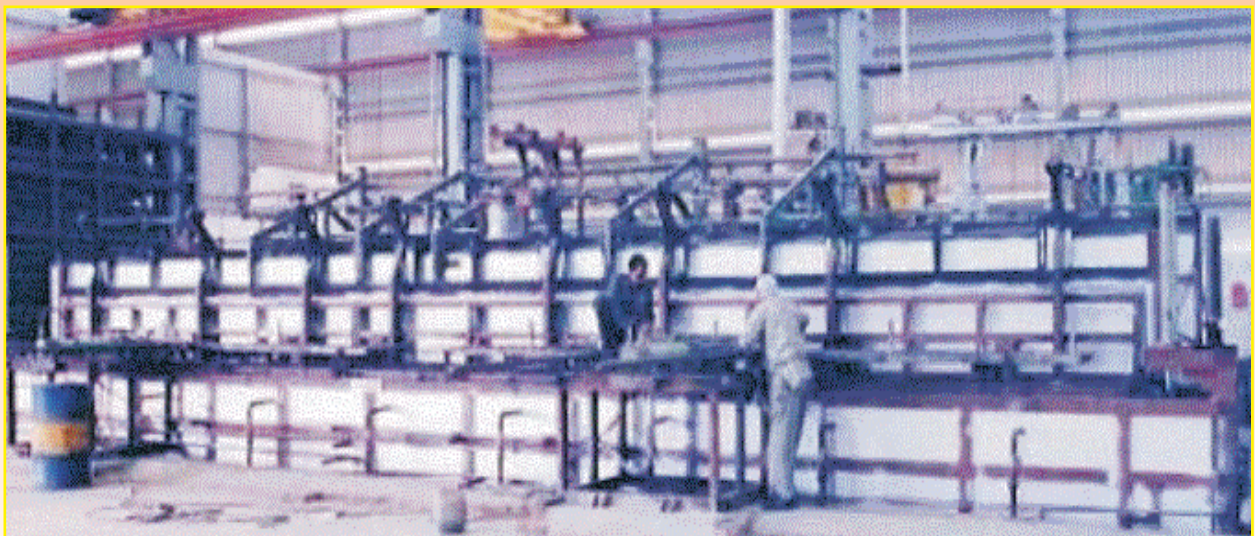
Quenching Furnace For Manganese Steels



Refiner Furnace



Continuous Quenching Tempering & Cooling Line



Hardening Furnace with Quenching Tank for 40 Feet long Bars/Pipes



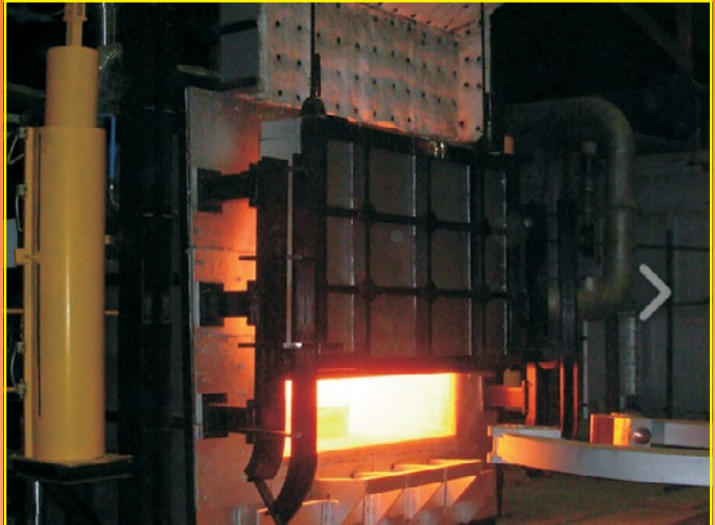
Conveyorised Heating Furnace

ENERGY SAVING DEVICES

Wellmake offers Energy Saving Devices for all type of Fuel or Gas Fired Furnaces wherein Combustion air to be preheated upto 350°C depending upon type of furnace by outgoing flue gases thus giving fuel saving of upto 5 – 6% depending upon type of furnace. The Recuperators fabricated from ERW or Seamless Tubes in grade AISI 304, 316 and 310.

We offer special purpose Sink Roll and Stabilizer Roll Arms, Bush Housings for Rolls Snouts etc. fabricated from AISI 316 L Grade Plates as per customer requirement and specifications.

We also offer Special Purpose, Tailor made Furnaces and Heating Equipments as per Customer's specific requirements of Temperature, Process and Handling Arrangements other than our standard range of Products.



20 Ton/batch capacity Oil Fired Chamber Furnace for Forging with ± 3 degree C Temperature Control.



Continuous Hardening Quenching & Tempering Line for CO₂ Cylinders with Oil Fired Furnaces.



SS 316 L Grade Fabricated Sink Roll and Stabilizer Roll Arms and Bush Housings for Rolls of Galvanising Line.



Please contact with your specific requirements at;

Wellmake Engineering Company Pvt. Ltd.

38 Km, Sector-16, Kasar Road, Opp. Somani Labour Gate, Bahadurgarh 124 507, Haryana.

Mobile: 098108-96055 / 098100-53690

E-mail: wellmake2007@gmail.com | Web: www.wellmake.in

Bulk Material Handling Systems

Product
Range



BELT CONVEYORS



PIPE CONVEYORS



PULSE JET BAG FILTER



IMPACT HAMMER CRUSHER



VERTICAL SHAFT IMPACTOR



SINGLE TOGGLE JAW CRUSHER



CONE CRUSHER



AUTOMATED REFERENCE
METHOD SAMPLER



VIBRATING GRIZZLY FEEDER /
VIBRATING FEEDER



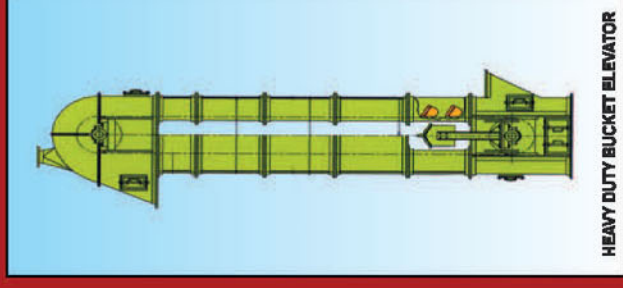
RESONANCE SCREEN



BRUTE FORCE SCREEN



HIGH FREQUENCY SCREEN



HEAVY DUTY BUCKET ELEVATOR

We Also Undertake Turnkey Execution of Cement Grinding Units

Quality Policy

To be customer's delight and achieve allround excellence. To strive for continuous improvement in business performance through commitment of all employees.



MASYC
ISO 9001 : 2008 CERTIFIED CO



MASYC PROJECTS PVT. LTD.

23, Community Centre, Mayapuri, Phase-I, New Delhi-110064
Tel : +91-11-2811 5453, 2811 5745, 2811 3383 Fax : +91-11-2811 6850
E-mail: masyc@masycproject.com Website : www.masycproject.com

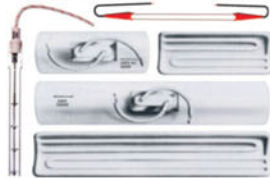
CP GRAT-EX Manufacturing**ECGC Ltd. 25****Company . . C-i, 33/A, 33/B-Booklet, 90 & 194****Electronic Relays (India) Pvt Ltd 55****Crane Control Equipments 38, 60****Elequip Tools Pvt Ltd 219****Creative Carbon Pvt Ltd 124****Eltech Engineers Pvt Ltd 142****Creative Enterprises 159****Eltek Motor (India) Pvt Ltd 68****Crest Ultrasonics India Pvt Ltd 119, 227****Empire Cables Private Limited . . . End Paper – IV, 212****Crozier Hygiene Company 130****Enerpac India Private Limited 71****Cummins India. 169****EPOCH Instruments & Controls Pvt Ltd 60****Custom Logics Pvt Ltd 90****Eppinger Tooling Asia Pvt Ltd 56****D S Electronics 143****Ereva Transformers & Switchgear 138****Darling Muesco (I) Pvt Ltd 162****Esquire Machines Pvt Ltd 159****Deccan Energy Solutions Pvt Ltd 136****Excella Electronics 120****Delta Power Solutions India Private Limited. . . . 125****FABMAX Pipe Fabrication Machines Pvt Ltd . . Paria I****Deratech Machines India Pvt Ltd 87****Fibro India Precision Products Pvt Ltd . . . 61, 86****Dhanaprakash Industrial Corporation 57****Fit Well Engineers. 100****D-Honer Engineers (India) Pvt Ltd 118****FLIR Systems India Pvt Ltd 46, 49-Tag, 208****Digidale Conveyors Pvt Ltd 114****Focusun Energy Systems. 136****Duracarb Cutting Tools. 111****Freesun Energy 136****Dynamic Enterprises. 88****Gandhi Automations Pvt Ltd . . . End Paper – I, 225**

Girish-heat®

Electric Heating Elements



Infrared Radiant Heaters



H.D. Cartridge & 'D' Shape Heaters



Flanged Heater



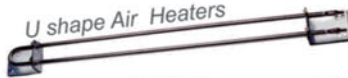
Strip Heaters



Finned Strip Heaters



U shape Air Heaters



Finned Air Heaters



De-humidifier Heaters



Bobbin Heaters



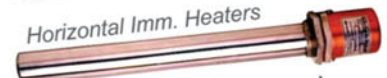
Water Imm. Heaters



Oil Imm. Heaters



Horizontal Imm. Heaters



Vertical Imm. Heaters



Alkali Imm. Heaters



Solar backup Heaters



Mfd & Exported by :

GIRISH ELECTRICAL INDUSTRIES

31, Tavawala Bldg., 147, Lohar Chawl, 2nd Floor, Mumbai - 400002, INDIA.

TEL : 022-22068032 / 22083857 TELEFAX : 91-22-22096234 EMAIL: info@girishheat.com sales@girishheat.com URL: www.girishheat.com

For Panel Board & Switchgear Industries

GIRISHEGO®
THERMOSTATS



SPACE HEATERS

Aluminum Space heaters



with Perforated cover



with Side & Middle Bracket



Perforated Body Space heater



Box Type Space Heater



Strip / Finned strip heaters

Dealers Enquiry Solicited

Mfd by:

GIRISH EGO CONTROLS

31, Tavawala Bldg., 147, Lohar Chawl, Mumbai-400002

TEL: 022-22068032 / 22083857 TELEFAX: 022-22096234

WEB: www.girishhego.com Email: info@girishhego.com sales@girishhego.com

ENCLOSURE HEATER & THERMOSTAT (DIN)



ENERGY REGULATORS



CAPILLARY THERMOSTATS



Mfd by:

SAI EGOTHERM (INDIA)

31, Tavawala Bldg., 147, Lohar Chawl, Mumbai-400002

TEL: 022-22068032 / 22083857 TELEFAX: 022-22096234

WEB: www.saiego.com Email: info@saiego.com, sales@saiego.com

Garg Distributors Pvt Ltd.	96	Hindustan Power Products Pvt Ltd	21, 195
Gears and Gear Drives (India) Pvt Ltd	89	HIS Pumps And Systems Private Limited	80
GGR Enterprises	117, 149	Hi-Tech Adhesives	147
Girish Ego Controls.	19, 137	Hi-Tech Industrial Implements.	96
Girish Electrical Industries	19	Hi-Tech Laser Technologies	141
Givi Misure Pvt Ltd	106	HVD Distributors Pvt Ltd	84
Global Sales & Engineering Services.	150	Hydro-Technik Industries.	88
Globalhunt Machine Tools Private Limited.	50	IBK Engineers Pvt Ltd	38
Godrej & Boyce Manufacturing Company	174	Icon Engineers Pvt Ltd.	94
Grundfos India Pvt Ltd	186	Igus (India) Pvt Ltd	216, 222
GS Hydraulics	119	India tools & Instruments Co.	144
Gulco International India Pvt Ltd	98, 134	Indian Machine Mart	108
H M Gulamali	126	Indo Electricals.	86
Hardware & Pneumatics	128	Infoaccords Technologies	78
Hasmukhlal & Brothers.	104	Innovative Hygiene Products.	128
Heat Treatment Sales & Services.	64	InnoVista Sensors	
HERC Material Handling LLP.	158	India Pvt Ltd	66/A, 66/B, 127 & 129
Hercules Hoist	219	Instamod Airpipe Pvt Ltd	44, 204
Hindustan Impex	38, 207	INSYS Electrical & Controls LLP .	102, 143 & 180



Recipient of
International Star Award
for Quality Geneva

ISO 9001-2015, ISO 14001-2015
CE Conformity EN61558-1:2005+A1:2009

VENER7

QUALITY.VALUE.SERVICE

Largest Exporter
Exporting to 25 Countries
from last 20 Years and more then
2000 Stabilizer are working in
these Countries

Worldwide Service Network

India's Global Brand of Servo Voltage Stabilizers

3 Decades of Power Management

Worldwide Service Network



Wherever you need
power management



► OUR PRODUCTS

- Automatic Servo Voltage Stabilizer
- Distribution Transformer
- Step Up/Step Down Transformers
- Digital Voltage Stabilizer
- Variable Voltage Auto Transformer

HINDUSTAN POWER PRODUCTS (P) LTD.

26, Shivaji Marg, New Delhi - 110015 (INDIA)

Factory : 385, MIE Bahadurgarh (HR)

Phone: +91-11-41428868, Customer C.: +91 9899553000

Mobile no.: +91 9873161519

Email: info@vener7.com, Website : www.vener7.com

International Zinc Association	180	Kavit Polybind Private Limited	130
Inventum Engineering Company Pvt Ltd.	3	KEI Wires & Cables.	152
Jainflex Cables Pvt Ltd	152	Khushboo Engineers	41
Jans Copper Pvt Ltd	114	Kleen & Hygiene Products	54
Jay Equipment & Systems Pvt Ltd	5, 196	Klipco Pvt Ltd	2
Jay Storage Solutions Pvt Ltd	203	Kriton Weld Equipments Pvt Ltd.	96, 134
Jayesh Enterprises	56	K-Tech (India) Limited	154
Jeet Finishing Machines	142	Kusam Electrical Industries Ltd . . 70, 72, 131 & 198	
Jekmin Industries	82	L&T Hydrocarbon Engineering Limited	223
Jungheinrich Lift Truck India Pvt Ltd	67	Landsky Engineers	50
JVS Electronics Pvt Ltd.	72, 74	Levcon Instruments Pvt Ltd	46
Jyoti Architectural Products P Ltd . . 58, 102 & 113		Librathern Instruments Pvt Ltd	123, 229
K M Cables & Conductors.	149	Liftboy Industries	158
K U Sodalamuthu & Co Pvt Ltd.	121	Linear Systems	54, 66 & 153
K Y Industries.	48	Lubrite Industries	40, 50, 127 & 220
Kantilal Chunilal & Sons Appl Pvt Ltd	74	Lucsam Services Pvt Ltd	138
Karadani Engineering Pvt Ltd	80	Lumino Industries Ltd	151
KARAM Industries.	184	M D Cable & Harness LLP.	148
Katariya Steel Distributors	132	M M Huzeifa	52



CENLUB
CENLUB INDUSTRIES LTD.

CENTRALISED LUBRICATION SYSTEM

CENLUB INDUSTRIES LIMITED

233 & 234, Sector - 58, Ballabgarh, Faridabad-121004,
Tel. : 08826794470, 08826794471, 08826794472, 08826794473

CENLUB INDUSTRIES LIMITED

45-B, 2nd Phase, Peenya Industrial Area, Bangalore-560 058
Tel. : 080-23723680, 080-65584624, 080-41273544
Telefax : 080-28374704

E-mail : cenlub@cenlub.in

Website : <http://www.cenlub.in>

M R Electricals	86	Mega Cranes India Pvt Ltd	82
Mac Marketing Corporation	148	Mega Engineering Pvt Ltd	53
Machbow Products	34	Meiban Engineering Technologies Pvt Ltd . .	81
Macro Tech Equipment Pvt Ltd	113	Mercury Pneumatics Pvt Ltd	11, 190
Magma Technologies	88	Mesh Tech Engineering Pvt Ltd	112
Magnetic Corporation of India.	52	MGM-Varvel Power Transmission Pvt Ltd	150
Magnum Switchgear	140	Micro ColdForge	133
Mahavir Oil Corporation	82	Micro Fasteners	123
Malkar Industries	92	Micro Precision Works.	122
Mallcom (India) Ltd	13, 188	Micro Spring Products.	132
Manisha Machinery Pvt Ltd	106	Micro Tools Ltd	112
Mankalp Industries.	158	Minilec India Pvt Ltd.	43
Manomay and Co	120	MM Huzeifa & Co.	90
Mansoori Weldarc India Pvt Ltd.	110	Modern Tools Mfrs	100
Masimalayan Industries	50	Monarch Appliances.	122
Master Industries	108	Monotech Engineers Pvt Ltd	228
Master Seals Engineering	118	Moulik Rubber Industries.	62, 139
Masyc Projects Private Limited. . . .	17, 60 & 66	Nakoda Steel.	138
Mechem Pvt Ltd	48	Nath Pvt Ltd	74

इस परिवर्तनशील समय में निर्यात के लिए दोहरा बीमा
Double assurance for exports in these volatile times.



निर्यातकों के लिए ऋण जोखिम बीमा Credit Risk Insurance for Exporters

एवं /&

बैंकों के लिए ऋण जोखिम बीमा Credit Risk Insurance for Banks

आर्थिक अस्थिरता के इस समय में निर्यात के अनुकूल
ईसीजीसी के साथ ऋण जोखिम का बीमा कराएं।

In these times of economic instability, insure
against credit risk with ECGC's export-friendly
credit risk covers.

अधिक जानकारी के लिए ईसीजीसी के निकटतम कार्यालय से संपर्क करें।
For more information contact your nearest ECGC office.



ईसीजीसी लि.

(पूर्व में भारतीय निर्यात ऋण गारंटी निगम लिमिटेड)

(भारत सरकार का उद्यम)

पंजीकृत कार्यालय: एक्सप्रेस टावर्स, 10वीं मंजिल, नरीमन प्वाइन्ट,
मुंबई-400 021, भारत. टेली: 6659 0500 / 6659 0510,
फैक्स: (022) 6659 0517. टोल फ्री: 1800-22-4500.

ईमेल: marketing@ecgc.in • वेबसाइट: www.ecgc.in

ADVT. NO. : NMD/197/214

Insurance is the subject matter of solicitation.

IRDA Regn.No.124

CIN No. U74999MH1957GO1010918

ECGC Ltd.

(Formerly Export Credit Guarantee Corporation of India Ltd)

(A Government of India Enterprise)

Registered Office: Express Towers, 10th Floor, Nariman Point,
Mumbai - 400 021, India. Tel: 6659 0500 / 6659 0510.

Fax: (022) 6659 0517. Toll-free: 1800-22-4500.

e-mail: marketing@ecgc.in • Website: www.ecgc.in

National Engineering Works	148	Peco Valves Pvt Ltd	162
Neel's Forge Products & Engg Services	159	PFERD	34
Neos Air Filtration Private Limited	156	Photon Controls (India) Pvt Ltd	106
Neotech Equipments Private Limited	125	PhotoScribe Technologies	208, 224
Nicropad Industries	112	Pi-Tech Services	36
Nisha Hydraulics	115	Placka Instruments India Pvt Ltd	161
Nord Drivesystems Pvt Ltd	1	Plasti Surge Industries Pvt Ltd	130
Nutshell Engineers	160	Pooja Steel & Alloys	58
Omega Weldrod Systems	141	Power One Micro Systems Pvt Ltd	63
Orton Engineering Pvt Ltd	48	Power Pulse	251
Packings & Jointings Gaskets Pvt Ltd	153	Powermax Energies Pvt Ltd	136
Paharpur Cooling Towers Ltd	237	Powertech Pollution	
Pai Kane Group	140	Controls Pvt Ltd	72, 74, 129 & 156
Panasonic Smart Factory Solutions India	51, 192	Praj Industries	100
Parmo Welding Machines (P) Limited	134	Prakar Industries	161
Parson Adhesives India Pvt Ltd	66, 107	Precihole Machine Tools Pvt Ltd	Cover IV
Patel Brass Turnomatics Pvt Ltd	132	Precision Industrial Co	151
Pathak Industries (Kol)	97	Precision International	44
Patson Machines Pvt Ltd	45	Precitec Precision Machineries Pvt Ltd	104

Low Morale of your Sales Team?

**Low Conversion Rates
in the Post Covid-19 market?**



Reboot
your
Sales

with **to full potential**
Riddhish Jalnapurkar

Sales Coach, Author and Founder, Sales Insight India

In the competitive Indian market, Sales is more complex than ever before. And more than 80% Sales persons don't receive any formal sales training. While learning on the job is the norm, it leads to low morale and conversion.

You can change that for your company with Riddhish as your Sales Specialist.

Riddhish Jalnapurkar is Sales Coach with a difference.

With more than 25 years of industry experience in Sales and Marketing for complex machines/ systems with National & International Brands, Riddhish conducts **practical and evidence-based sales training programs.**

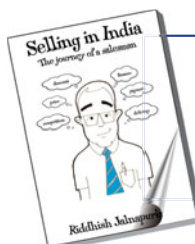
Improve your Sales by up to 20-30% in a span of 3-6 months.

You can get a customised sales training program for your company's budget and requirements.



Sales Insight India

Connect | Collaborate | Conquer



Available on:

amazon

&
amazonkindle



**"SCAN to BUY
NOW
and avail
20% discount"**

Contact  **+91 79841 54987** today to jump start your sales program.

salesinsightindia@gmail.com | www.salesinsightindia.com



Riddhish Jalnapurkar

Pre-Mould Engineers	116	Renu Electronics Pvt Ltd	65
Process Control Devices	123	Reva Industries India Pvt Limited	59
PRO-FILES	46	Rising Sun Enterprises	130
Pro-Med Instruments (P) Ltd	103	RMS Corporation	147
Promivac Engineers	34	Rollring Industries.	120
Protech Engineering & Controls Pvt Ltd	118	S & C Invotek	.62, 64 & 115
Pump Engineering Co Pvt Ltd	121	S P Jain Institute of Management and Research.	166
Pune Techtrol Pvt Ltd.	58	Safcon Seals Pvt Ltd End Paper – III, 205	
Q-FLX Wires & Cables	149	Safe Zone	146
R K Dutt Concerns	56, 62, 100 & 109	Safety Instrumentation Systems.	145
R K Engineering Company	144, 146 & 157	Sahyog Enterprise	118
R&D Engineers	116	Sai Egotherm (India)	19, 96
Raghav Cables Private Limited. . . End Paper - IV		Sales Insight India	27
Ram Ratna Wires Limited	126	Salvagnini Machinery India Pvt Ltd. . . Cover III, 214	
Rashi Cables	152	Sam Products Pvt Ltd	92
Ravik Engineers Private Limited. . .	33, 106 & 220	Sanatan Cable Industries	152
Rechner Automation Systems Pvt Ltd.	94	Sanmac Machines	115
Redson Engineers Private Limited	79	Sarab Sukh Enterprises	42
Reliable Spring Industry	114	Sarabsukh Enterprises	223

ACCURPRESS

PRESTIGE CNC SERVO PRESS BRAKES



BENT ON PERFECTION

ELEVATE YOUR REPUTATION WITH PRESTIGE

Low heat, low noise, low energy consumption and high speed and high accuracy!

- Servo motor driven hydraulic pump yields significant energy saving over the traditional AC-motor pump design
- Power consumption yields significant energy savings over traditional AC-motor systems
- Low heat to extend life of the hydraulic components and oil
- Approach and return speeds of 200mm/sec
- Improved accuracy of $\pm 0.005\text{mm}$
- Low operational noise levels

Also available:

**CNC Press Brakes,
Shears,
Electric Turret Punch Presses,
Robotic Bending Cells**



Accurpress India Machinery Pvt. Ltd

307, Tryksha Desire, Chandkheda, Ahmedabad-382 424

Website: www.accurpress.in • Email: sales@accurpress.in

Mobile No. : +91-70693 00958

Satra International Pvt Ltd 35	SMS Marine Services 157
Schmersal India Pvt Ltd. 90, 217	Solofy Solar 76
Schneider Electric India 164	Spanco Storage Systems. 82, 155
Schunk India Pvt Ltd 219, 221	Sparr Electronics Ltd. 42, 95
Secon Technological Solutions Inc. 40	Sparsh Electronics 150
Secure Meters Limited 116	Sphoorti Machine Tools Pvt Ltd 139
Sensotech 92	SR Prefabs Modular CleanRoom Pvt Ltd. 85
Settlers Engineers (P) Ltd 52	Sree Valsa Engineering Company. 153
Shalco Industries Pvt Ltd 125	Sri Venkateswara Gear Wheels Pvt Ltd 114
Shashi India Pvt Ltd 145	Star Trace Pvt Ltd 157
Shikovi Heatgen Technologies Pvt Ltd 117	Sterling Tools 133
Shivam electronics 107	Subtronics (India) Pvt Ltd 62, 73
Shrey Plastic Moulders 126	Sudershan Measuring and Engineering Pvt Ltd . 122
Shri Guru Nanak Electricals Pvt Ltd 54, 231	Sudhir Automotive Industries Pvt Ltd. . . 75, 221
Sibass Electric Private Limited 80	Supernova Engineers Ltd 140
Siemens Limited. 176	Surfa Coats India Private Limited 76
Sigma Industries 124, 135	Surface Modification Technologies Pvt Ltd. . 135
Simplicity Engineers Pvt Ltd. 98	Surface Technik 142
Sintech Precision Products Limited. 162	Swaraj Secutech Pvt Ltd 145

India's largest manufacturer and exporter of Tubular Heating Elements, Bundles and Systems



Water Heater H/E



Defrost Heater



Cooking Coil



Immersion Rod



Water Immersion
Heater



Air Heater



Storage Water Heater H/E



Finned heater



Finned Heater



Coffee Vending
Machine



Oil Heater



Oven Heater

THEETA ELECTRICALS PVT. LTD.

Plot 18, Sector 3, IMT Manesar, Gurgaon, Haryana 122 050.

Ph: +91-124-4387400 Fax: +91-124-4387405

TOLL FREE No.: 1800 103 8936

sales@theeta.com
www.theeta.com

SW-Wil Swiss Cut India Private Limited	105	Urja Techniques India Pvt Ltd	140
Tapping Machine Tools	98	UT Pumps & Systems Pvt Ltd	124
Tata Hitachi Construction Machinery Company Private Limited	40, 158	VAG-Valves (India) Private Limited	162
Tata Steel Limited	84	Ved Engineering.	77, 197
TeamLease Services Ltd	178	Veena Pharma Machinery.	154
Technic Electronic Corporation	94	Veljan Denison Ltd	9
Techno Industries	7, 141	Vertex Engineering Works	104, 119
The Jaws Mfngs Co	37	V-MAX Plate Fabrication Machines Pvt Ltd. . .	Paria II
The Prolific	93, 210	Washmatic India Pvt Ltd.	47, 213
Theeta Electricals Pvt Ltd	31, 200	Weidmuller Electronics India Pvt Ltd	69
Thermotech Industries India Pvt Ltd	131	Wellmake Engineering Co Pvt Ltd . .	17/A, 17/B
Tidewater Oil Co (India) Ltd	83- Tag	Wendt (India) Limited	108
Trident Pneumatics	157	Whizz Engineering Services Pvt Ltd	161
Tripcon Engineering Pvt Ltd.	121	Wikus India Pvt Ltd.	110
Trisha Engineers.	160	Win Win Diamond Products	109
Unitek Valves Pvt Ltd	160	Winwall Technology India Pvt Ltd	110
Unitop Power Electronics Private Ltd	108	Y K Enterprises.	160
Uplift Elevators And Equipments	155	Zenith Trading Co	156



CP GRAT-EX
Manufacturing Company

NEW SMART DEBURRING TOOLS



Hand-Deburring Tools - Classic Line

For Hand-Deburring of

- Edges - Straight, Inner & curved,
- Both sides of - slot, key-ways, ribs, ridge, sheets,
- Scraper for corner & surface finishing work
- Hole front & back side



Multi-Component Handle based Deburring Tools

For best results, we offer Deburring Tools
with unique Blade & Handle design concepts



Multi-Cutting Edge Deburring Tools

Break-through Design in the History of Deburring
Optimum use of entire cutting edge length



Deburring Tool Head for Inside (ID) & Outside (OD) Diameter

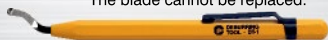


Quick reversal of tool for deburring of ID & OD

CP GRAT·EX Hand - Deburring Tools Classic Line

Deburring Tools with Handle

DT-1 This is a Simple, Economical Tool. It has universal blade C-10 attached to a hexagonal handle with pocket clip. The blade cannot be replaced.



Packing Model	Includes
DT-1 (2) (31014)	2 pcs of DT-1
DT-1 (10) Set (86109)	10 pcs of DT-1

DT-2 In this the blade can be replaced. This includes Hexagonal handle with universal blade C-10.



Packing Model	Includes
DT-2 (31024)	1 pc of DT-2
DT-2 (5) Set (86059)	5 pcs of DT-2

DT-3 Here the blades can be replaced & stored from back side of the handle. The handle body is of ABS plastic & the blade holder is of polyacetal.



Packing Model	Includes
DT-3 (33033)	'D' Handle & 3 Blades C-10, C-20 & C-30

DT-3 (M)-SD

This is Polyacetal body handle & Matallic Blade Holder for longer life.
☒ Ergonomically designed.
☒ Has thumb rest. ☒ Grips well in Hand.
☒ Blades can be stored from backside.



Packing Model	Includes
DT-3(M)-SD (34034)	'D-SD' Handle & 3 Blades C-10, C-20 & C-30

DT-5-SD

Here the Blades can be replaced & the holder can be telescoped to reach & deburr the burrs at depth.
☒ Collet action ensures firm locking of plain surface holders.



Packing Model	Includes
DT-5-SD (34054)	'T-SD' Handle, DT(C)Holder & 5 Blades C-10, C-20, C-30, C-10(C) & C-15
DT-52-SD (34524)	'T-SD' Handle, DT(P) Holder & 2 Blades P1 & P2.

RDT-SD Rigid Deburring Tools (34064)

Extra Heavy duty deburring tool. Strong, Sturdy & Rugged.
 Type RDT-SD includes Handle 'R-SD' & Universal Blade R-10(S).



Key-Way/ Slot Deburrer KWS-SD (34074)

For simultaneous deburring of both edges of slot or key-way. Four cutting edges -2 for std. depth of slot / key-way & 2 for shallow depth. Includes Handle 'T-SD', telescopic holder KW, Blades KW-9 & KW-16.



Sheet / Rib Deburrer Set SDT (34084)

Excellent for deburring one or both edges of sheets / ribs. Width range 0 -12 mm. Cutting edge along the full circle on 2 sides.

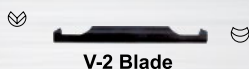


'V' Shaped Sheet / Rib Deburrer VDT-SD (34094)

Unique Tool-has 4 nos 'V' shaped edges 2 nos for 1 to 12 mm width range & 2 nos for 0 to 4 mm width range. Includes handle 'T-SD', Telescopic holder VT & V-4 blade.



Sheet / Rib Deburrer V2-SD (34104)



V-2 Blade

- ☒ Double ended tool.
- ☒ Held & replaceable in collet type T-SD Handle.
- ☒ Deburrs both edges of sheet/ rib of upto 4 mm thickness from one side.
- ☒ Single edge deburring from another side of the tool.



DT-SD (3-in-1) Set (86319)

- ☒ This is a unique Deburring Tool with Handle which can hold three sizes of swivel blades viz. 'R' (6 mm ø), 'C' (3.2 mm ø) & 'P' (2.6 mm ø)
- ☒ The handle has auto release system for easy change of blades & Holders.
- ☒ All the holders and blades can be stored from back side of the handle.
- ☒ Includes Handle 'R-SD', Holders SD-C & SD-P and 7 Blades R-15 (S), C-10, C-20, C-30, P-1, P-2 & P-3.



Handle shown with R-15(S) Blade.

Holder SD-C

Holder SD-P

Handle shown with SD-C Hoder & C-10 Blade.

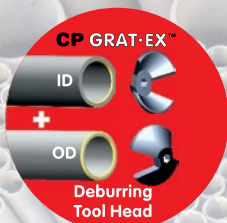
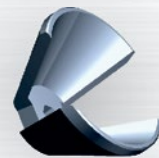
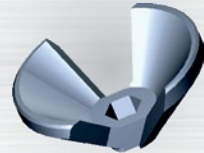
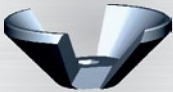
CP GRAT-EX Deburring Tool Head for ID & OD

Patented

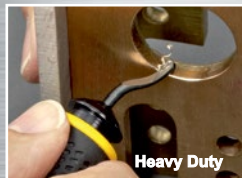
Deburring Tool Head for

Inside (ID) & Outside (OD)
Diameter

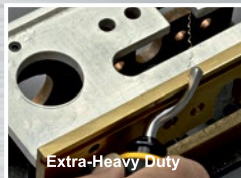
- Rigid, one piece construction - made from HSS (M2) grade material
- Quick reversal of tool for deburring of ID & OD
- Two Flute tools in 3 sizes with 60° & 90° included angle cover range from :
5/8" to 2 ⁷/₁₆" (16 to 62 mm) of ID / Holes
and 5/8" to 2 ⁹/₃₂" (16 to 58 mm) of OD
- Single Flute tool with 60° & 90° included angle cover range from :
5/32" to 1 ¹³/₁₆" (4 to 46 mm) of ID / Holes
and 5/32" to 1 ²¹/₃₂" (4 to 42 mm) of OD
- The tools can be used :
 - Manually with hand held holder / handle OR
 - Manually with power driven tool OR
 - With Machine tool



CP GRAT-EX Deburring Tools - Applications



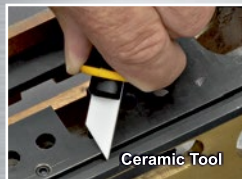
Heavy Duty



Extra-Heavy Duty



Holes / Countersink



Ceramic Tool



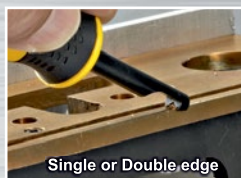
Scraper



Internal Scraper



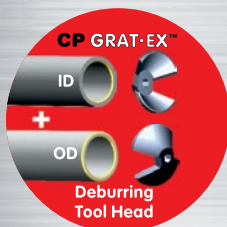
Key-way / Slot



Single or Double edge



Sheet / Rib



MR-10 on St. Edge of Steel from Cutting Edge 3



MC-101 on Small Hole of Steel from Cutting Edge 2



MC-20 on Brass Hole from Cutting Edge 2



MC-10 on St. Edge of Cu. from Cutting Edge 2



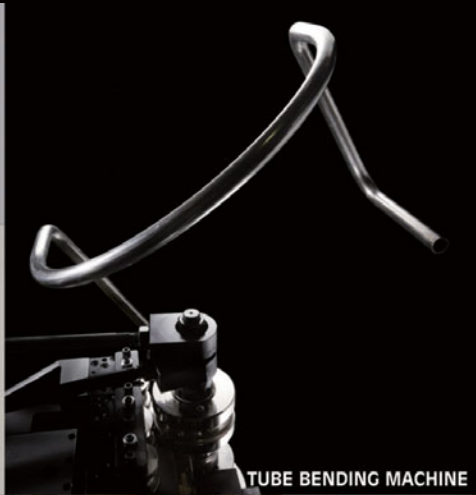
Manufactured by :



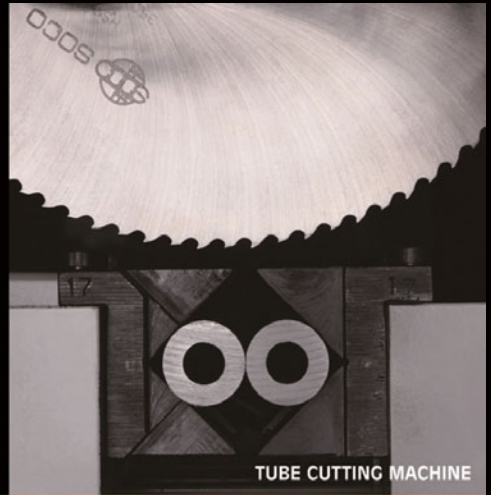
44, Nand Ghanashyam Ind. Estate, Off. Mahakali Caves Rd., Andheri (E), Mumbai 400 093. India
Tel.: (+9122) 49231200 • Email : cpe@deburringtools.com • Website : <http://deburringtools.com>



LASER TUBE CUTTING MACHINE



TUBE BENDING MACHINE



TUBE CUTTING MACHINE

SOCO

You will never cease to be surprised at how many things around you are made of parts and components produced by SOCO solutions. From playgrounds to airports, garage tools to aircrafts parts and from electric cars to windmills, SOCO is proud to be a part in bringing a better and brighter everyday living.



TUBE END FINISHING



Ravik Engineers Pvt. Ltd
111/9, Kishangarh,
Aruna Asaf Ali Marg, Vasant Kunj
Opp. B-4, Vasant Kunj, New Delhi - 110070, India
Landline: 011-41012619, 47085769
Mobile: +91 9310272262, 9310272242, 9310272241
E: info@ravikengineers.com, marketing@ravikengineers.com,
ravikengineers@gmail.com
W: www.ravikengineers.com



PERFORMANCE BY TEAMWORK



KINKELDER
the cutting experts

 Made in Holland

- Full range of HSS & TCT saw blades
- Lowest cost per cut
- Local supply and technical support
- The latest sawing technology
- Over 70 years' experience



111/9, Kishangarh, Aruna Asaf Ali Marg,
Opp. B/4, Vasant Kunj, New Delhi 110 070, India
Landline: 011- 41012619, 47085769
Mobile: +91 9310272262, 9310272242, 9310272241
info@ravikengineers.com | ravikengineers@gmail.com,
marketing@ravikengineers.com | www.ravikengineers.com

DOWNLOAD OUR FREE APP



or scan



Promivac

100% Oil Free Vacuum / Pressure Pumps & Blowers For All Needs & Applications



Turbine, Side Channel, Centrifugal & Roots Type (Twin Lobe) Vacuum & Pressure Blowers, Diaphragm, Piston & Carbon Vane Type Vacuum / Pressure Pumps.

Other Products -

Rotary High Vacuum Pumps : Oil Sealed, V-Belt Driven / Direct Drive & Monoblock Type. Water-ring Vacuum Pumps : Single / Double Stage, Direct Coupled, Monoblock & Cone Type.

Centrifugal Pumps in Gland / Mechanical Seal in CI / SS-316 Construction. Mud / Sewage, Sludge Suction Pumps and host of other liquid handling pumps to suit various applications.

ESTD. 1981

PROMIVAC ENGINEERS

3575, Netaji Subhash Marg, Darya Ganj, New Delhi-110002
Tel: 23281082, 23273965, 23246398, Fax: +91-11-23275160
E-mail: info@promivacpump.com
Website: www.promivacpump.com

B.O: Secunderabad (T.S) Tel.: 040 - 66310917, 27541126, e-mail: hyd@promivacpump.com

PRODUCTS NEW LAUNCHES

MICRO MOTOR SYSTEM - MIM STG3S 3/800

PFERD develops a wide range of micro motor system - MIM STG3S 3/800.

Features:

- This control device for stepless rotational speed control of micro motor handpieces.
- Rotational speed control is possible by hand or foot switch. Max. 80,000 RPM clockwise rotation. Max. 30,000 RPM anti-clockwise rotation.
- It has two switchable connection sockets for micro motor handpieces and four free rotational speed storage spaces per connected handpiece.
- It is protectively earthed, safety extra-low voltage and assembly according to application requirement.

About the company: PFERD engages in development, production and support and distribution of tool solutions on jobs for surfaces and material cutting. It operates as an independent company geared towards offering the user maximum benefit and optimum cost-effectiveness.

Contact:

PFERD, Bengaluru

Tel: 080-42187117

Mobile: 09880665415, 09741481117

Email: sales@swit.in



Sealless Magnetic DRIVE CHEMICAL PUMPS

- Photocine / X-Ray / Filtration Plants
- Electroplating Machines
- Chemicals Industries
- Water Treatment / Etching Machine

- Capacity : 0-250 LPM
- Head : 0-22 Metre
- Motor : One / Three Phase
- MOC : P.P / PVDF
- Nipple / Thread / Flange

100%
Leak Proof



Visit us at:

CHEMTECH 2021
STALL NO. E - 22
24 to 27 Feb 2021

machbow products
MFG. OF MAGNET PUMPS

www.machbow.com

Email : machbow@gmail.com

Plot No. 1878/79, On M-Road, Off Main Road, No. 5, Behind Gujarat Gas Co., Lodhika, GIDC Metoda, Rajkot - 360 021, Gujarat.
Suresh Bhatt (Proprietor) - 07096004831 • Raju Ustadia - 07096004833 • Devak Bhatt - 07096004839

33, First Floor, Suyog Industrial Estate, LBS Marg, Opp, Vitrum Glass Factory, Vikhroli West, MUMBAI - 400 083.
Phone.: 022 - 2578 4069 • Fax : 022 - 2578 6023 • Gopi P Narayanan - 09920 5560 23. 07096004832

PIONEER IN PORTABLE INDUCTION HEATING SYSTEM

A Complete Solution
for
**Metal Forming &
Heat Treatment**

➤ SLEEK ➤

➤ COMPACT ➤

➤ HANDY ➤

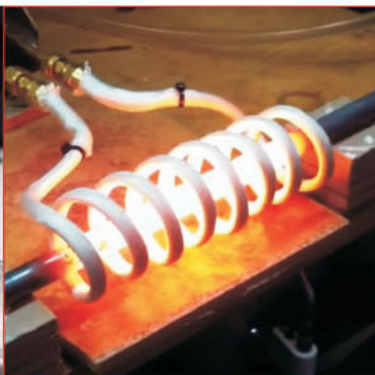
Available from **3 Kw to 1500 Kw**

Suited for:

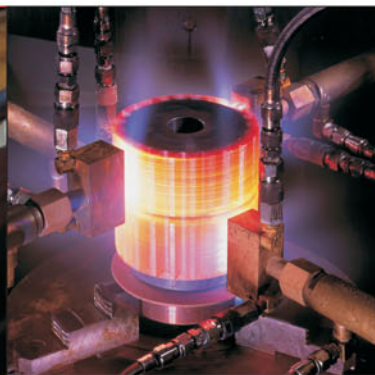
- Surface Hardening
- Pattern Hardening
- Brazing
- Soft Soldering
- Pipe Bending
- Wire Cutting
- Precious Metal melting
- Forging
- Forging Automation
- Partial Heating
- Pipe Resin Bonding
- Sintering
- Special applications



BRAZING



FORGING



HARDENING



MELTING

Our Products:

- Medium Frequency Induction Heating Machine
- High Frequency Induction Heating Machine
- Ultra High Frequency Induction Heating Machine
- Induction Billet Heaters For Forgings
- Induction Melting Furnaces
- Brazing
- Induction Annealing Machine
- Induction Tempering Machine
- Induction Hardening
- Induction Billet Heating
- Powder Metallurgy
- Induction Soldering



Satra International Pvt. Ltd.

Saera Tower Plot No. 1, Sector - 11 Dwarka
Mobile: 9810001305, 9810109848, 9643403022

Email: satra_nitin@yahoo.co.in
satra.international@gmail.com

www.satrainternational.net



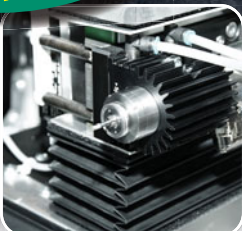
SycoTec

Germany

H. F. Spindles



Applications



Internal Grinding using a SycoTec Spindle



Profile Cutting with a SycoTec Spindle



Robotic Deburring of a Cluster-Gear, using a SycoTec Spindle



Workpiece in Chuck being machined with SycoTec Spindle



Robotic Application of SycoTec Spindle



SycoTec Spindle as a 5th Axis for VMC (Vertical Machining Centre)



PI-TECH Services (Sole Representatives for India)

108, Ashirwad, Green Park (Main), New Delhi-110016, INDIA
Mob : +91-9810603730 WhatsApp No.: +91-8920775032 Tel : 011-26513704
E-mail : pitechserv@gmail.com Web : www.pitechservices.in

PRODUCTS NEW LAUNCHES

RADAR SENSOR - T30R

Banner Engineering India Pvt Ltd manufactures a wide range of radar sensor - T30R.

Features:

- The T30R is a long-range sensor that provides reliable detection and position feedback in extreme applications.
- Reliable detection of high-dielectric targets and lower-dielectric materials in a wider range of applications.
- Radar configuration software, IO-link, remote teach input, and push buttons for flexible set-up and configuration.
- Frequency modulated continuous wave (FMCW) for detection of stationary and moving targets.
- Crosstalk immunity, allowing for multiple sensors to be mounted in close proximity.



About the company: Banner is a global leader in industrial automation helping customers increase efficiency, reduce costs, ensure quality, monitor & control process. Banner manufactures sensors and vision sensors, LED lights and indicators, wireless and safety products.

Contact:

Banner Engineering India Pvt Ltd, Pune
Tel: 020-25654944/66 Mobile: 09372151898
Email: salesindia@bannerengineering.com

EXCAVATOR MINI

Autrans India Pvt Ltd offers a wide range of excavator mini.

Features:

- Conquering the international market, Kubota mini excavator combining the zero-tail and boom swing features.
- The boom swing realizes direct digging operation close to the house edge without putting the machine in motion. Combined with zero-tail-swing structure, the machine is very suitable for operations in tight places.
- The Kubota mini excavator adopts zero-tail-swing structure.
- Its features include: smooth, quick and powerful operation; relying on its highly productive, ultra-maneuverable, cost-efficient, and environment-friendliness, the new hydraulic system is ready to perform the efficient and powerful operation.

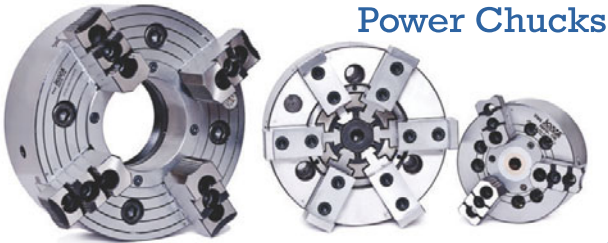


About the company: Autrans India Pvt Ltd, authorised distributors for Kubota mini excavators, Japan and Toku Breaker in India. In 2013, Kubota started selling mini excavators in India through its distributor for the Indian market and sold around 1500+ mini excavators in Indian market.

Contact:

Autrans India Pvt Ltd, Chennai
Mobile: 08045388480
Email: kumar.abhinav@sojitz.com

- ◆ Long Lasting Accuracies
- ◆ Immense Chucking Power
- ◆ Minimum operator Fatigue
- ◆ High productivity



Power Chucks

Power chucks, Chuck Spares, Base Jaws, Soft Jaws and Hard Jaws manufactured in both Standard and Special sizes in 2, 3, 4, 5, 6, 8 and 12 jaw type chucks **upto 800mm** diameter.



Hard Jaws



Soft Jaws

An ISO 9001:2015 Certified Company

We also manufacture - Air / Hydro / Rotary Power Chuck, Preci[®] Chuck, Jaws Eccentric Compensating Chuck (JPCE), Built-in Cylinder Collet Chucks, Base Jaws, Chucks Spares, Special Chucks and Jaws, Hydraulic/Pneumatic Rotary Cylinder, Jaws Boring Rings

www.jawsindia.com



JAYESH ENTERPRISES

**Measuring Technology
on the Right Track**

Taper Gauges



These gauges are manufacture as per customer drawing/requirements.

Gauges Inspected In **NABL** Certified
ISO 17025 : 2017 Laboratory

**Plain
Plug Gauges**



**Thread
Gauges**



Ring Gauges



An ISO 9001:2015 Certified Company

We also manufacture - Special Gauges, Carbide Gauges, Plain And Adjustable Snap Gauges, Key Way Width Gauges, Slip Gauges / Gauge Blocks (Loose)

www.gauges.co.in

103, Ramtekdi Industrial Estate,
Hadapsar, Pune 411 013 Maharashtra (INDIA)
Tel : + 91 91 588 66 112 / 91 588 66 113 / 91 588 66 114
Email : jawssales@jawsindia.com



SEEKING DISTRIBUTORSHIP FOR INDUSTRIAL PRODUCTS

We are leading suppliers of industrial products in whole of Chattishgarh area and adjoining states since last 75 years.

All major Steel and Power plants, Cement plants, Oil Chemical and Gas plants, Construction companies, Casting units, Paper industries maintenance units and ancillary industries are our esteemed customers.

We are biggest (all India ranking) supplier of reputed brand Industrial Lubricants and Bearings to all small and big industries of Chattishgarh and adjoining states.

We are a group of companies with turnover of +300 million. To expand our business spectrum we are seeking Distributorship of likewise reputed Industrial products for Chattishgarh region.

We have efficient experienced sales team, godown space, transportation facility and sufficient financial resources to add and felicitate new products in our sales range.



HINDUSTAN IMPEX

Contact Person: Mitesh Singhania, **Mob no.:** +91 98933-02224

Address: Singhania Bhawan, Near Telghani Naka, Ganj Para, Raipur (C.G.) 492009

Tel: (0771) 4010106, 4088106 | **Email:** info@hindustanimpx.in | **Web:** www.hindustanimpx.in

PRODUCTS NEW LAUNCHES

CONCRETE DRILL BIT

IBK Engineers Pvt Ltd wholesales and supplies a wide range of concrete drill bit.

Features:

- The bit is intended for use on masonry and concrete. Drill guidance for easy starts without jarring or wandering is provided by the Activate centering tip, which keeps the drill in place for a precise hole diameter.
- For smooth work, the carbide plate is grooved and bears notches that penetrate material more easily and prevent jamming in concrete. The SDS plus-5 drill bit allows for effortless drilling.
- It is compatible with rotary hammers with SDS plus holders. Furthermore, AWB brazing and hardening technology reduces vibration during drilling to minimise strain on the user.

About the company:

Established in 2014, IBK Engineers Pvt Ltd, is engaged in the wholesaling, supplying, distributing and trading of deep groove ball bearing, mechanical bearing, roller chain, steel rear sprocket, safety equipment, automotive components, electric equipment, etc.

Contact:

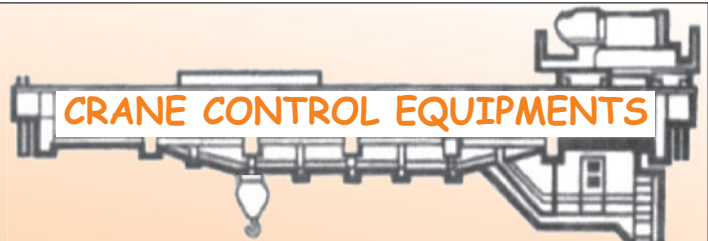
IBK Engineers Pvt Ltd, Bengaluru

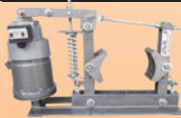
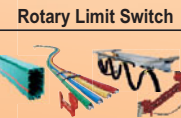
Tel: 080-23726644, 23725544

Mobile: 09880566644 **Email:** raju.kn@ibizkart.com



AN ISO 9001-2015
AND CE CERTIFIED COMPANY



 Electro Hydraulic Thrustor Brake	 Electro Hydraulic Thrustor	 Resistance Box	 Rotary Limit Switch	 Gravity Limit Switch	 Lever Limit Switch
 Master Controller	 Multi Wire Cable Trolley	 Flexible Geared Coupling	 Insulated Conductor Bar	 Radio Remote Control	 Crane Automation
 Wire Rope Load Cell	 Pin type Load Cell	 Safeload Controller	 Armchair	 Crane Scale	 Anti-collision Device

**DEALERS ENQUIRY
SOLICITED**

CRANE CONTROL EQUIPMENTS

Office & Works: B-249, Okhla Industries Area, Phase - I, New Delhi - 110 020.

Tel: 011-41016403 to 405 # **Mobile :** +91 9810009466, 9310009466

Email: info@cranecontrolequipments.com/sales@cranecontrolequipments.com

www.cranecontrolequipments.com / www.cranecontrolequipments.net



BALAJI SWITCHGEARS

- Distributor & System Integrator of Industrial Automation & Switchgear Products.
- Globally Renowned Brands.
- Strong Sales/Technical/Accounts/Logistics Support.
- Over 9,000 Satisfied Clients Across the Globe.
- Over 25,000 Business Transactions Every Year.



LV SWITCHING & CONTROL GEARS



ACB | MCB | MCCB | RCCB | RCBO |
MPCB | Contactors | Relays | Changeovers
ATS | Distribution Board



CONTROLLING & SIGNALLING



Tower Lights | Pushbuttons | Pilot Lights |
Foot Switch | Buzzer | Pendant Station | Joystick



INDUSTRIAL PLUG & SOCKET



Insulated Plugs | Insulated Sockets | Metal Clad P&S
Enclosures with P&S | Receptacles Combinations
(Kaedra)



ENCLOSURE SYSTEMS



Wall Mounted | Floor Standing |
SS Enclosures | Cooling Units | Filters



METERS & CAPACITORS



Meters | EMS Systems | APFC Panels & Relays | Detuned Reactors |
Capacitors



MARKETING OFFICE:

Plot No. 70,
Building A-13,
Rama Road,
Najafgarh Road,
New Delhi-110015

Contact :

+91-11-25910803,
25910804
25910986

HEAD OFFICE :

2006,
Katra Lachhu Singh,
Bhagirath Palace,
Delhi-110006

Contact :

+91-11-23860986,
23874519,
23873969

AUTOMATION



PLC | Drives | HMI | Power Supplies | Servo |
Encoder | Timer | SSR | Limit Switch |
Level Controllers | Soft Starters



WIRES, CABLES & ACCESSORIES



Wires | Cables | Conduit Pipes | Glands | Terminal Blocks |
Din Rails | Wire Ducts | Relay Cards | Tools & Accessories



E-mail: mktg@balajiswitchgears.com

Website: www.balajiswitchgears.com



/bspl.india/



/bspl.india/



Right Way to Lubrication

LUBRITE

Centralised Lubrication Systems



PRODUCT APPLICATION

MACHINE TOOLS INDUSTRIES, STEEL PLANTS,
FORGING INDUSTRIES, PAPER MILLS,
ROLLING MILLS, CEMENT PLANTS, COAL MINES,
FOOD PROCESSING INDUSTRIES,
RUBBER PROCESSING INDUSTRIES,
PRINTING & PACKING & OTHER INDUSTRIES

art masters
9464195007

Manufacturers & Exporters :

LUBRITE INDUSTRIES

OPP. B.N. DUGGAL PETROL PUMP,
G.T. ROAD, PHAGWARA 144 401 (Pb)

Tele : 01824-503488 & 9855382288

Email : Info@lubriteindustries.com

Website: lubriteindustries.com

An ISO 9001 : 2008 Company

PRODUCTS NEW LAUNCHES

WHEEL LOADERS, ZW 370-5A



Tata Hitachi Construction Machinery Company Pvt Ltd is a pioneer in construction equipment manufacturer of wheel loaders, ZW 370-5A.

Features:

- The new ZW 370 wheel loader employs advanced technologies to achieve excellent productivity with enhanced controllability. Furthermore, the machine has a comfortable cab, easy maintenance.
- There are two ways to activate power mode; power mode can be activated by two ways— operators can choose either switch depending on the site required.
- Parallel in tandem for smooth operation as it carries out simultaneous operations. It boosts the efficiency with smooth loading and excavation.
- It comes with ECO mark indicator for fuel for efficient operation. This function encourages operators to utilise fuel efficiently.

About the company: Tata Hitachi Construction Machinery Company Pvt Ltd, the leader in construction equipment in India, enhances the operational performance of its customers, leading to improved profitability and competitiveness by offering constructive solutions.

Contact:

Tata Hitachi Construction Machinery Company Pvt Ltd,
Bangalore

Tel: 080-66953301-05

Fax: 080-66953309

Email: info@tatahitachi.co.in

CNC ROTARY TABLES – NCT-T-SERIES



Secon Technological Solutions Inc manufactures and trades a wide range of CNC rotary tables – NCT-T-Series.

Features:

- This NCT-T NC rotary tables mounted onto a rugged manually adjustable base.
- An integral rotary table structure with a powerful clamping system fitted to tilting base with a working angle range of 0°-10-100° for greater working capacity.

About the company: Secon Technological Solutions Inc is engaged as a manufacturer, trader, service provider, distributor of CNC machines tools, preventive maintenance and consultancy services. Since last three decades, Secon Technological Solutions Inc has built a reputation for itself as highly reliable sales & service providers in the machine tools market.

Contact:

Secon Technological Solutions Inc, Bangalore

Telefax: 080-23575752

Email: secontech2000@gmail.com,

secontech@hotmail.com

PRODUCTIVE BORE FINISHING SOLUTIONS

CNC VERTICAL HONING MACHINE

- The honing head slides on LM guide and ball screw.
- The sliding motion is shock less and smooth.
- Variable spindle speed and reciprocation speed.
- Hydraulic hone expansion.
- Number of Strokes for Roughing & finishing can be programmed in CNC/PLC.
- Tooled up machine.
- Stroke length : 500, 750, 1000 & 1400 mm
- Very compact and optimally designed hydraulic system.



Khushbu
Honing Pvt. Ltd.

F24/1. M.I.D.C. Shirol. Kolhapur-416122.
Maharashtra (IND.) Ph: +91-230.2468859.
Contact at : +91 9371658016, +91 8149714625

E-mail: honing@khushbuindia.com

Web: www.khushbuindia.com

★ ● HUMIDITY ● AMP - HOUR ● TEMPERATURE ★

8/16 Channel Data Logger with USB Pen Drive Output

- ▶ Data saved directly on Pen drive in MS Excel file.
- ▶ Linearised for J/K/R and PT100 Sensors.
- ▶ Rate of logging settable by user in Mins:Secs
- ▶ Digital offset settable for individual channels
- ▶ 4-20mA input with programmable scale for Humidity, Pressure etc. sensors input
- ▶ No complicated/additional logging software
- ▶ Saving data on Pen drive allows large storage at low cost



Mfd. by
COUNTRONICS

ISO 9001:2015 CERT.

3/1/29 First Floor, Sahibabad Industrial Area,
Site 4, UP-201010
Mob: 09810 536887 E-mail: countronindia@gmail.com
Sister Firm: Audiotronics
Website: www.countronics.com

★ EXPORT QUALITY PROCESS CONTROL INSTRUMENTS ★

TDS
CONDUCTIVITY
ORP
pH
DATA LOGGERS
TACHOMETERS
FLOW METERS

24 PORT I/O CONTROLLER

Sparr Electronics Ltd designs and develops a wide range of 24 port I/O controller.

Features:

- This IO controller is a modbus slave device, can read 24 inputs and control 24 relay outputs.
- Isolated power and RS485.
- Relay contacts can handle up to 1A current at 24V DC or 120 Vac.
- 24 digital inputs can be 6-24V or dry contacts driven by internal power supply.
- Serial parameters of RS485 and Slave ID are configurable with this controller.
- Provision for loading factory defaults.
- LED indications for power and RS485 communication.

About the company: Sparr Electronics Ltd, an ISO 9001:2015 certified company, is engaged in the design, development and manufacturing of electronics and communication products to address your business needs. Their products are known for core competencies such as controller boards, protocol and interface converters, wired & wireless connectivity solutions, remote monitoring solutions, indigenisation of imported controller boards.

Contact:

Sparr Electronics Ltd, Bengaluru

Tel: 080-41278033

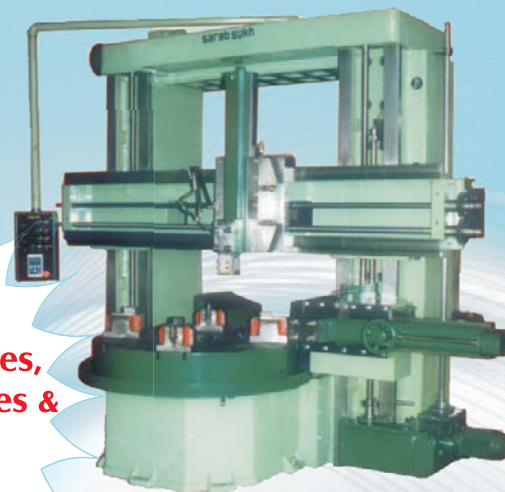
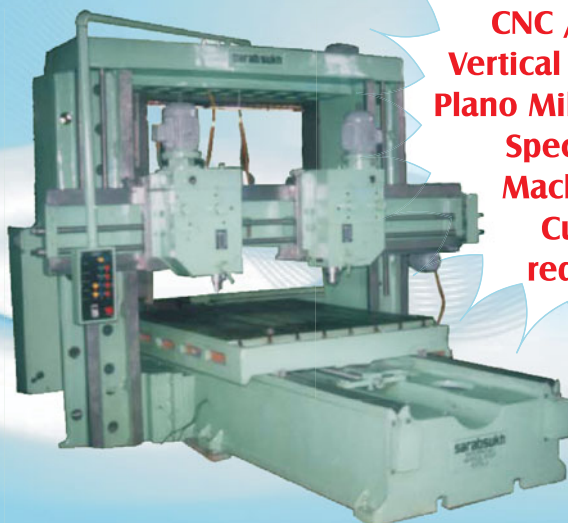
Email: sales@sparrl.com, info@sparrl.com



sarab sukh

ENTERPRISES

Mfrs. of:
**Heavy Duty
CNC / Mechanical
Vertical Turning Lathes,
Plano Milling Machines &
Special Purpose
Machines as per
Customer's
requirement.**



Plot No. 16-17, Industrial Focal Point,
Batala 143 505 (Punjab)
Mobile: 098151-63893 Ph: 01871-223893
Email: sarabsukhbatala@yahoo.co.in
Web: www.sarabsukhmachines.com



'Leaders become great not because of their power, but because of their ability to empower others. '

Minilec started operations in **1965**, since then there is no looking back. Indigenous products, innovations at work, quality products, unmatched services and excellent working environment has made us a market leader in India that manufactures a wide range of products in diverse Protection, Control & Monitoring area.

Our range of products represents unique designs, international standards and upgraded features gives us the cutting edge in global competition.

Product Catagories :

- Alarm Annunciators.
- Motor / Pump Protection Relays.
- Phase Failure (SPP) with Under & Over Voltage Relays.
- Under / Over - Voltage / Current / Frequency Relays.
- Earth Fault / Leakage Relays.
- Electronic Timers.
- Level Controllers & Pump Automation Products.
- Transducers & Multifunction Meters.
- Winding Temperature Relay (PTC).
- Bearing Temp. Monitoring Relay (PT100)

Minilec Products comes with **CE** marking, **CSA** Certification, **RoHS** and **ABS**.

Minilec's Quality Systems are certified by BVQI as per **ISO 9001 : 2015** requirements of International Quality Standards. The products are also thoroughly type tested at different reputed test houses in India, Singapore, Malaysia and Russia as per IEC Standards.



Minilec India Private Limited.

Survey No. 1073 / 1-2-3, Mutha Road, Pirangoot, Pune - 412 111. Tel : 020-67920100. Email : mkt1@minilecgroup.com.

In case of any further query, please feel free to visit our website www.minilecgroup.com

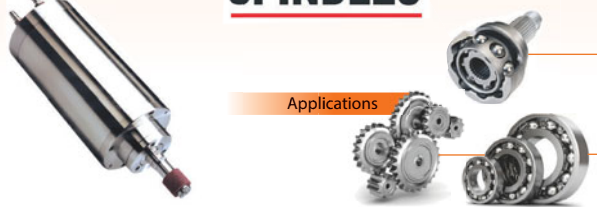
a "YashPrabha" enterprise

Taking New Technology to Outer Space

Proudly Associated with







Italian SPINDLES

Applications

Sole Representatives for: India - Pakistan - Sri Lanka - Thailand

π Precision International

108, Aashirwad, Green Park (Main), New Delhi - 110016, INDIA | E-mail: precinter@gmail.com
 Mobile: +91-8920775032 • Tel.: 011-26513704 | Web: www.precinter.com

BLUM RECEIVER SYSTEMS - RC66

Blum-Novotest Measuring & Testing Technology Pvt Ltd is a supplier of a wide range of Blum Receiver Systems - RC66.

Features:

- These Blum receiver systems guarantees fast and reliable wireless data transmission.
- Universal receiver systems for all Blum measuring systems with radio transmission. Latest-generation transmitter and receiver technology with extremely robust transmission protocol guarantees reliable and fast data transmission.
- Some key benefits of the product are such as broadband transmission, therefore very insensitive against interferences; no influence on other radio systems; absorbing the influence of inconstant measuring speeds; radio-controlled probe activation; easy operation by intelligent pairing procedure between measuring system and receiver.



About the company: Blum Novotest Measuring & Testing Technology Pvt Ltd has made a name for itself in the list of top suppliers of bore gauge, radio receiver in India.

Contact:

Blum-Novotest Measuring & Testing Technology Pvt Ltd,
Bangalore

Tel: 080-23185468 Mobile: 09075004435

Email: info@blumnovotestindia.in

6 ANNIVERSARY

HIGH PERFORMANCE SOLUTIONS BETWEEN THE COMPRESSOR AND THE TOOL -THE FLOW TECHNOLOGY

----- Made In India

HIGH GRADE ALUMINUM PIPE
 Lightweight – No Corrosion
 3/4" to 8"
 Designed & Built for Aggressive Environments

LOWER INSTALLED COST
 Real Labor Savings!
 No Special Tooling Required
 Reduced Worker Fatigue
 Safer Job Site Environment

500kms of compressed air pipeline system in 6 years.

HIGH GRADE ALUMINUM FITTINGS
 Food & Beverage Approved
 Individually Packaged for Cleanliness
 Largest Configuration Selection
 Modular & Reusable

A team of experts is available to provide technical and installation support

Instamod Airpipe Pvt. Ltd.

Head office: 709, Shahpuri Tower, C-58, Janakpuri, New Delhi - 110058
Branch office: 7-D, Muthu Nagar, Upplipalayam Post, Varatharajapuram
 Coimbatore - 641 015 | +91 11 4953 5588, +91 11 4175 5588
E-mail: santosh.kumar@airpipe.in, sales@airpipe.in **Visit:** www.airpipe.in

ASME CE ISO

MAKE IN INDIA



PATSON MACHINES PRIVATE LIMITED

Aspiring for Perfection...

Special purpose machine is a means of achieving lower production cost by increasing productivity. In design of SPMs, we retain features which are essential for the operations, thus reducing the costs. Wherever possible, operations are combined so as to reduce the number of settings and labour involvement. This also improves the component accuracy. SPMs gives you higher output at much lower cost, compared to machining on VMC/HMC.

Multispindle drilling/tapping technology will boost productivity, assure quality and reduce cost of operations enable to withstand global competition. We help to keep pace in the race to globalization. Our specialization is in automatic machines and machining technology. We offer complete machining solutions using appropriate technology.



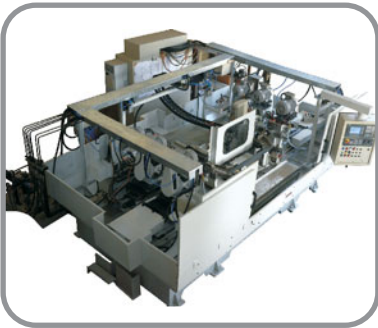
ROTARY INDEXING TYPE SPM



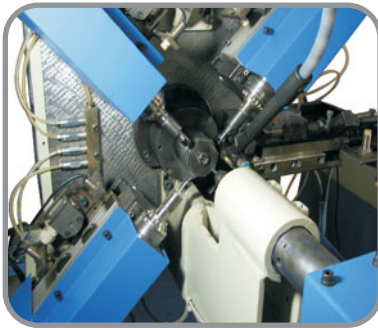
WAY TYPE SPM



MULTISPINDLE DRILLING AND TAPPING SPM



CNC SPM FOR CHASIS COMPONENT



5 AXIS MICRODRILLING SPM



ADJUSTABLE MULTISPINDLE DRILLING & TAPPING MACHINE FOR LED LIGHTING COMPONENTS

OUR OTHER PRODUCTS

Multispindle drilling machines.

Multispindle tapping machines.

CNC machines.

CNC machines for Chasis components.

Turning SPMs.

Assembly SPMs.

Fine Boring machines.

SPMs For Defence Industry.

Multispindle machines for long section material.

STD. Spindle units and slide units.

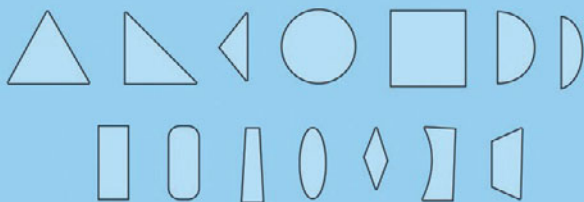
Let Us Know Your Requirements For Right Solutions.

Reg. Office : 'Sneh' C - 11 Erandwane Society, 14/5, Erandwane, Pune 411 004. Tel. : (020) 25442913 M.9823134603

Email: patsontech@gmail.com / info@patsonmachines.in Website : www.patsonmachines.in

WORKS : Shop No.H-3, S. No. 77/1+2+3, Vishnu Malati Ind. Estate, Village Shivane, Pune 411 023.Tel. : (020) 25292830

SPECIAL STEEL SECTIONS



For Cold & Hot Rolled Sections
in Alloy Steel, Stainless Steel
and Mild Steel for manufacture of
Engineers' Files, Surgical Equipment,
Home Appliances & others

Please contact:

PRO-FILES

W-51 & 52, MIDC AREA, TALOJA - 410 208.

Dist.: RAIGAD, MAHARASHTRA

EMAIL: profiles88@hotmail.com

COMPACT THERMAL CAMERA, FLIR Cx-SERIES

FLIR Systems offers a wide range of compact thermal camera, FLIR Cx-Series.

Features:

- This FLIR Cx-Series camera will be ready anytime to find hot fuses, air leaks, plumbing issues, and more. Both C5 and C3-X camera models are packed with professional features that make it easier to inspect.
- The FLIR C3-X is the entry-level camera in the series featuring 128 × 96 (12,288 pixel) thermal resolution. The FLIR C5 offers an expanded feature set including a powerful 160 × 120 (19,200 pixel) resolution thermal imager, video streaming, zoom capabilities, 1-Touch Level/Span, and a higher temperature range.
- This FLIR Cx-Series compact thermal cameras are go-to tools for building inspections, facilities maintenance, HVAC/R, electrical repair, and other troubleshooting applications.

About the company: Founded in 1978, FLIR Systems is a world-leading industrial technology company focused on intelligent sensing solutions for defense and industrial applications.

Contact:

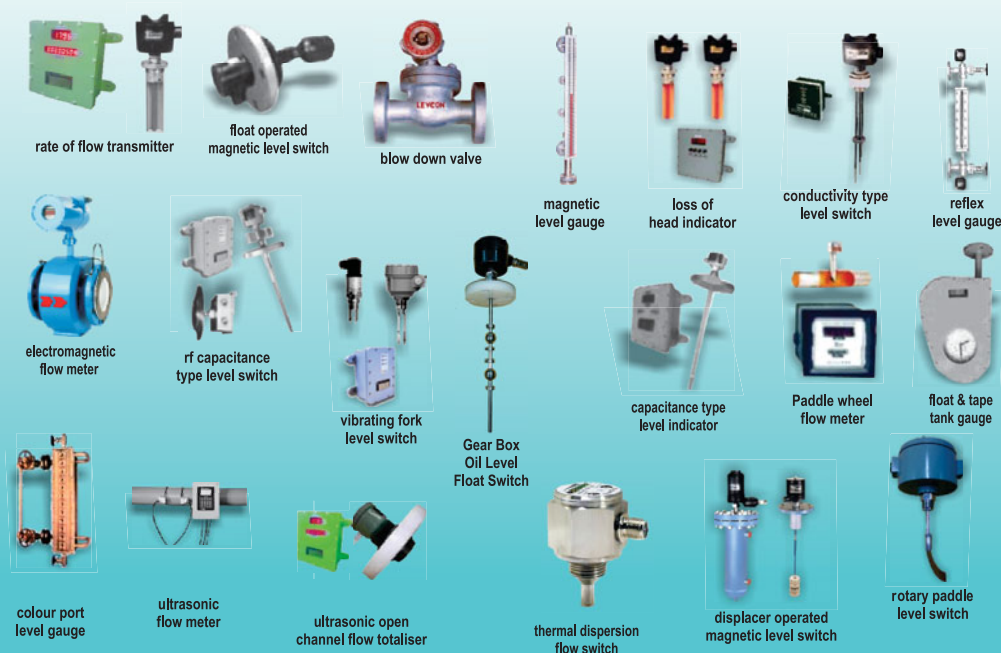
FLIR Systems India Pvt Ltd, New Delhi

Tel: 011-45603555

Email: flirindia@flir.com.hk



SERVING INDUSTRIES TO SATISFACTION FOR MORE THAN FOUR DECADES



PRODUCT RANGE

LEVEL INDICATORS / TRANSMITTERS

- mechanical level indicators
- remote boiler level indicators
- magnetic level gauges
- capacitance type level indicators / transmitters
- displacer level transmitters
- RF capacitance type level transmitters
- reed level indicators
- ultrasonic level transmitters

LEVEL SWITCHES

- displacer operated magnetic level switches
- float operated external cage magnetic level switches
- float operated magnetic level switches
- reed level switches
- conductivity type level switches
- RF capacitance type level switches
- vibrating fork level switches
- rotary paddle level switches
- cable and float level switches
- Oil level float switches

LEVEL GAUGES

- bicolor / color port level gauges
- reflex level gauges
- transparent level gauges
- tubular level gauges
- float and tape type tank gauges

FLOW SWITCHES

- globe / vane type flow switches
- indicating flow relay
- thermal dispersion flow switches

FLOW METERS

- paddle wheel flow meters
- electromagnetic flow meters
- magnetic flow meters
- ultrasonic flow meters
- variable area flow meters

OPEN CHANNEL FLOW TOTALIZERS

- capacitive open channel flow totalizers
- ultrasonic open channel flow totalizers
- float type open channel flow totalizers

LOSS OF HEAD INDICATORS

- capacitive type
- float type

VALVES

- cast iron / cast steel / forged steel valves
- ibf certified blow down valves



Regd. and Head Office:

"RAJKAMAL", 6th Floor, 13 Camac Street, Kolkata - 700017, India.

Phones: 91-33-22832766 / 22903924 Fax: 91-33-2283 2719

Email: info@levcongroup.com

Web: www.levcongroup.com

Industrial Bulk Washing Solutions for your canteen



Capacity up to 8000 Plates/ Hr.

Improve hygiene with high temperature wash and rinse to ensure zero bacterial count • Save up to 70% on water, chemicals, labour and time • Comprehensive AMCs at nominal cost • Safety with low voltage controls, power supply monitoring, dry run protection etc. • Service centres across the country with spare parts stock.



Over 40 models to choose from to suit your requirements

Delhi • Mumbai • Bengaluru • Chennai • Coimbatore • Pune • Kolkata • Bhubneshwar • Chandigarh • Lucknow • Guwahati

Washmatic India Pvt. Ltd.

Ph.: +91 88000 23044 | info@washmaticindia.com

Material & Cable Handling Solution

Range of Products:

- Spring Operated Cable Reeling Drum
- Motorised Cable Reeling Drum
- Cable Drag Chains
- Vibrating Feeders, Screen & Tables
- Vibratory Furnace Chargers
- Unbalance Vibratory Motor
- Current Collector and Slipping Columns



Vibrating Motors (upto 8.5 KW)



Spring Operated Cable Reeling Drum



Cable Drag Chains



Motorised Cable Reeling Drum



Vibratory Furnace Charger



Vibrating Feeders



ORTON ENGINEERING PVT. LTD.

Unit No. 750A, Plot No. 268, Near Water Tank, Pokhran Road, No. 1, Upavan, Thane (West) Pin: 400 606.

Email: orton@rediffmail.com Website: www.ortonengg.com

Tel.: 022-2588 1384 / 2588 1387 / 2588 2420 Telefax: 022-2588 1384 / 2588 1387

GOODS LIFT

KY Industries supplies a wide range of goods lift.

Features:

- The range of goods lift images offered by us can lift the load up to 21000 mm (21 mtrs) and can carry a load weighing from 500 kgs to 1500 kgs.
- This range is offered in electric operated model, wherein power is required only while going up. The range is also designed to work on single phase if required.
- These goods lifts machine can be fitted even on old buildings also. Moreover, they also save on the cost of pillars & side walls..

About the company: KY Industries is engaged in manufacturing and supplying a wide range of material handling equipment. Their range of products are based on most advanced technology and offers matchless quality and performance. Their brand- Mankalp comprises pallet trucks, hydraulic power pack, hydraulic lifts, home lifts & elevators, goods lifts, hydraulic stackers, drum handling equipment, lifting equipments and scissor lifts.

Contact:

KY Industries, Ahmedabad

Mobile: 08048762225, 09833347333

Email: info@kyindustries.com



Quality in Reality

MECHEM



FIBREGLASS (FRP) PRODUCTS

Chemical Tank & Equipment, Chemical Resistant Lining, Aquaculture Tank & Equipment, Water Tank, Children Playground Equipment, Dust Bin, Kiosk, Barrack, Roofing and Seating System, etc.

FIBREGLASS (FRP) BOATS

Pedal Boat, Water Scooter, Passenger Boat, Speed Boat, Work Boat, Jetty, etc. & Steel Boat.

MECHEM PRIVATE LIMITED

CORPORATE OFFICE: S-3/72 (Annexe), 1st Floor, Mancheswar Industrial Estate, Bhubaneswar 751 010, India
Ph: 91 674 2580404, 2585386 Telefax: 91 674 2585886
Email: mechempl@gmail.com Website: www.mechem.in



WINNER
NATIONAL AWARD



QUALITY PRODUCTS OUTSTANDING SSI UNIT



FLIR Exx-Series

INSPECT AND TROUBLESHOOT FASTER THAN EVER

Run efficient survey routes directly from the camera

NEW FLIR Exx-Series with up to 640 × 480 resolution



Images for illustration purpose only.

Discover more: flir.in/exx-series

For more information, please call us at +91-11-4560 3555
or write to us at flirindia@flir.com.hk

[f](#) /FLIR | [t](#) /FLIR | [v](#) /FLIR

NITROGEN GENERATORS

Landsky Engineers offers nitrogen generators from Turkey-based Mikropor in India.

Features:

- These nitrogen generators work on the principle of "pressure swing adsorption"(PSA).
- These are two bed adsorber systems. N₂ is separated from air using CMS (Carbon molecular sieve) as adsorbent. The Nitrogen generator consists of two adsorber vessels filled with CMS, a valve assembly, air filters, pressure regulator and a N₂ receiver.
- The whole unit is skid mounted and ready to use. N₂ purity level can be from 95 – 99.999% depending on the application.
- The unit is fully automatic in operation. Customers can get rid of N₂ cylinders by installing these units and have 24 x 7 N₂ generation at their own facility.
- A touch screen PLC system controls the complete sequence of operations.

About the company: Mikropor is a Turkey based company incorporated in the year 1987. It is one of the leading manufacturers of atmospheric air filtration and compressed air systems for a variety of industries.

Contact:

Landsky Engineers, Bengaluru

Mobile: 09845288674

Email: nandakumar.k@landskyairvac.com

**ELECTRONIC CONTROLLERS**

Lubrite Industries offers a wide range of electronic controllers.

Features:

- This electronic controller can also be used to on-off motorized units. This device maintains the lubrication cycle as well as monitors the operation of float switch and Pressure switch at the same time.
- These electronic controllers are suitable for Units such as: LAU-03FPS, LAU-05FPS, LAU-08, FPS & LDU-03 FPS however, the contactor is to be used in this case. Fault relay contacts can also be used for audio/visual commands or for interlocking the machine in case of lubrication failure.
- In case arrangement for a contractor is not possible, ECC-5 can be used. It is a complete solution with an inbuilt controller and contactor.

About the company: Lubrite Industries is one of the major Indian manufacturers of Centralised Lubrication Systems. Over the last three decades, it has been endeavour to produce quality products for the end users. The manufacturing plant located at Phagwara is equipped with modern facilities to manufacture and assemble the vast range of Lubrite products.

Contact:

Lubrite Industries, Phagwara

Tel: 01824-503488 Mobile: 09855382288

Email: info@lubriteindustries.com

**6" THREE PHASE BOREWELL PUMP SET**

Masimalayan Industries offers a wide range of 6" three phase borewell pump set.

Features:

- These pumps all components are manufactured from material as per Indian standard specification. Motors are designed to operate under large voltage functions.
- These motors have well designed sleeves and thrust bearing for long life. Motors stator & rotors are vacuum impregnated and coated properly to ensure corrosion resistance, high operating efficiencies of pump sets result in high water discharge rate and low power consumption.
- All rotating components and assemblies are dynamically balanced to ensure long bearing life and vibration free smooth operation. The pump sets are compact and slim and can be installed in narrow wells.

About the company: Masimalayan Industries produced domestic pumps in quality and sold in Tamilnadu, Kerala and Karnataka. Currently they are producing and selling domestic pumps, agriculture pumps, submersible pumps, V-4 pumps, compressors.

Contact:

Masimalayan Industries, Coimbatore

Mobile: 09894088536

Email: info@masimalayanindustries.com

**PLATE CLAMP**

Globalhunt Machine Tools Private Limited offers an excellent quality plate clamp.

Features:

- It is low height & side clamping, leaving the entire top surfaces free for machining.
- Effective & positive clamping of flat jobs like plates, flats irrespective of the size.
- A Spherical washer is used in plate clamps to avoid it from swiveling.
- Springs are provided for quick release of clamping force & jaws.
- Due to low height it is suitable for clamping a workpiece with a small contact area.
- It is useful for clamping the job whose height is five mm more than the thickness of the plate clamp and also develops a high tightening force.
- In addition to this provided clamp is available in various designs and specifications to meet any specific needs.

About the company: Established in 2011 (Formerly - Globalhunt Engineering Company), they are manufacturer & supplier for industrial machines, clamping elements, workholding equipment, magnetic equipment & machine tool accessories etc.

Contact:

Globalhunt Machine Tools Private Limited, Aurangabad

Mobile: 08046027263

Email: akshay@kbassociate.com



GLOBAL INNOVATION IN ARC WELDING TECHNOLOGY

SHIELDED METAL ARC WELDING (SMAW)



400AT3
IGBT Based 400amps
Rectifier

GAS METAL ARC WELDING (GMAW)



400KR2
Thyristor Based 400amps
MIG/MAG Machine



400RX1
IGBT Based 400amps
MIG/MAG Machine



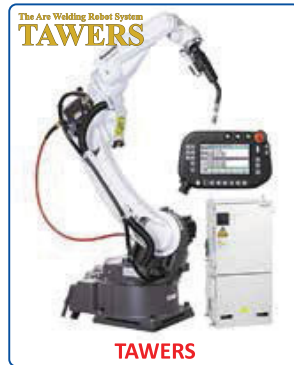
350GL4
Digital 350amps
MIG/MAG Machine
*Supports Welder to achieve
mature still Weld*

GAS TUNGSTEN ARC WELDING (GTAW)



400TX3
IGBT Based 400amps
Pulse TIG Machine

ROBOTIC ARC WELDING



TAWERS



ACTIVE TAWERS



SUPER ACTIVE TAWERS

PROCESS TRAINING TO CUSTOMERS / INSTITUTES



Robotic Welding



Arc Welding in Progress



Manual Welding

Panasonic Smart Factory Solutions India

Presents Range of Welding Equipment: MMAW | MIG/MAG | TIG | Plasma Cutting | Welding Accessories | Welding Robots
Panasonic has set-up its own state-of-the-art welding equipment manufacturing facility at Jhajjar Near Gurugram, Haryana, India.

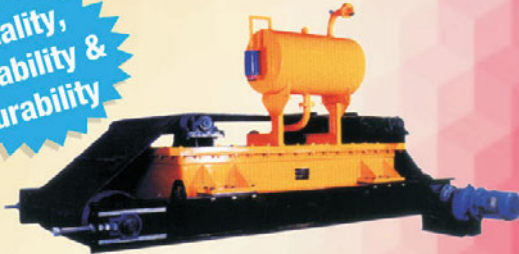
For Enquiry Contact: +91-9729900200 / Email: welding.info@in.panasonic.com

Web: www.panasonic.com/in/welding

MAGNETICS CORPORATION OF INDIA



**Quality,
Reliability &
Durability**



We Manufacture • Suspension Magnets • In Line Over Band Magnetic Separators • Cross Belt Over Band Magnetic Separators • Metal Detectors • Vibratory Feeders • Magnetic Pulleys • Magnetic Drum Machines • Bin Vibrators • Lifting Magnets • Permanent Magnets

MAGNETICS CORPORATION OF INDIA

C-96 & C-97, 2nd Stage Peenya Indl. Estate, Bangalore 560 058.
Ph: 080-2836 0556, 41170454, 41170459 Fax: 080-2836 0226
E-mail: sales@magcorpindia.com, magcorpindia@gmail.com
Website: www.magcorpindia.com

SETTLERS ENGINEERS (P) LTD.



FRP Cooling Towers

Manufacturers of:

- Cooling Towers
- Heat Exchangers
- Condensers
- Process Cooling



Heat Exchangers



Wooden Cooling Towers

MANUFACTURED BY:

SETTLERS ENGINEERS (P) LTD.

27-28, KOCHAR MARKET ROAD, BESIDE E.S.I. HOSPITAL, LUDHIANA 141 001.
PH: (0) 0161-2422493, 2422366, 4060547 (F) 2560293, CELL: 98141-01255
Email: info@settlersengineers.com Website: www.settlersengineers.com

PRODUCTS GENERAL SECTION

ROTARY GEAR PUMPS

C Bole & Co offers a wide range of positive displacement rotary gear pumps for handling oil and other semi viscous liquids.



Features:

- These pumps find applications for furnace oils, fuel oils, molasses, paints and pigments, castor oils, gasoline, inks, gums, sizing liquids, glue, polymers and other industrial applications; can be also used in applications like pressure feeding of fuel in burners, turbines, fluid couplings, compressors, etc.
- Pumps can be supplied in SS 316, gun metal, bronze construction with heating/cooling jackets; pumps can be supplied with special mechanical seal, which prevents leakage near shaft end; the pump body is made of 2-piece type i.e., only one joint in the body which reduces the maintenance cost.
- It has easily replaceable bushes with positive lubrication arrangements; it has proved more efficient due to suction and delivery in the line with the rotors; for handling all kinds of oils and other similar corrosive viscous liquids, pumps are supplied in CIMS construction.
- For viscous corrosive liquids and chemicals, pumps can be supplied in stainless steel, gun metal or bronze construction with helical gears for smooth as well as efficient running and built-in relief valve for dependable and trouble free pumping of viscous liquids.

About the company: C Bole & Co offers wide range of seal-less magnetic drive monoblock, chemical process pumps which ensures 100% leak proof operation. They are ideal for transfer of corrosive chemicals, acids, dyes, solvents, toxic and fuming liquids, petrol, kerosene, water etc.

Contact:

C Bole & Co, Mumbai
Tel: 022-23424350, 23429641 Fax: 022-23424040
Email: cboleco@yahoo.com, cboleco@hotmail.com

GROUND BALL SCREWS

M M Huzeifa offers a wide range of ground ball screws.

Features:

- These screws are made through grinding process. On ground screws journal machining is performed prior to thread grinding which ensures precise concentricity with the ball thread.
- These products advantages are zero backlash, precision accuracy from C0 to C7.
- Low noise available in 9 mtrs in single length.



About the company: M M Huzeifa was established in 1973 in Mumbai. Today, the company has made a name for itself in the list of top suppliers of ball & roller bearings/bushes, rubber transmission belts in India.

Contact:

M M Huzeifa, Mumbai
Tel: 022-23423272, 23401096, 23461095
Fax: 022-23401096 Email: sales@mmhuzeifa.com



MEGA ENGINEERING PVT LTD

AN ISO 9001, 14001 & OHSAS 18001 COMPLIANT COMPANY

**27 YEARS OF RELIABLE
DELIVERY & QUALITY**

**A LEADING MANUFACTURER OF HIGH TENSILE, STAINLESS
STEEL, DUPLEX AND SUPER DUPLEX GRADE FASTENERS
CATERING TO THE INDIAN AND GLOBAL MARKET**

**EIL, PDIL, AND NPCIL APPROVED
PED 2014/68/EU AND MERKBLATT AD 2000
CERTIFIED**

Proven track record with supplies to renowned companies such
as GE Oil & Gas, ITT Pumps, Alfa Laval, Thermax, Finolex, L&T
Valves, BPCL, IOCL, HPCL, Toyo, Tecnimont, Technip.

Supplies made to US, Italy, Spain, China, Singapore, Kuwait,
Qatar, Malaysia, Indonesia, Nigeria & Egypt

**RANGE OF SIZES: 1/2" TO 4", M12 TO
M100 WITH LENGTHS OF UPTO 6 MTRS**

**SPECIALIZING IN : STUDS, HEX HEAD
BOLTS AND HEX NUTS**

**FULLY EQUIPPED
WITH LATEST
MANUFACTURING &
IN-HOUSE TESTING
FACILITIES**

REGISTERED ADDRESS & WORKS:

PLOT NO. A-55, HALKARNI MIDC, MURKUTEWADI VILLAGE, CHANDGAD
TALUKA, KOLHAPUR DIST., MAHARASHTRA, INDIA -416552

Web site: www.megaengg.com

Contact email: info@megaengg.com Phone No: +91 8425848263



PVC CHAINS

Continental Commercial Company designs, manufactures and offers PVC chains.

Features:

- These are made from UV protected PVC; plastic chains in solid 7 mm thickness material are used for crowd control, displays, gardens, and numerous non-load bearing uses.
- These PVC chains are available in a bag of 100 mtr length of the chain, in various colours; plastic chains in solid 4mm thickness material are used for toys, pets, displays, gardens, and numerous non-load bearing uses.
- These PVC chains are available in a bag of 100 mtr length of the chain, in various colours.



About the company: Established in the year 1977, Continental Commercial Company is a manufacturer, supplier, retailer, wholesaler and exporter of varied types of machine lamps and other industrial products. Equipped with advanced machines and tools, the company's manufacturing unit has capacity to meet the bulk requirements of customers.

Contact:

Continental Commercial Co, Mumbai
Tel: 022-23433808, 23400875 Mobile: 09820232852
Email: conticomco@vsnl.net

BURNER SEQUENCE CONTROLLER

Linear Systems offers a wide range of burner sequence controllers.

Features:

- The burner sequence controller is an automatic electronic controller used for oil-fired boilers/burners; the sequence controller is designed to ensure safe start up and operation of oil fired burners.
- This controller finds ready application in oil-fired boilers/furnaces and also offered are sequence controllers for gas-fired burners.
- Controller is manufactured with microprocessor-based technology, ensuring quality and reliability.
- The performance is time proven and has satisfied OEM customers; this controller can be used as replacement for imported controllers.
- It has the capability of supplying sequence controllers to suit the specific requirement of the OEM.

About the company: Established in 1986, Linear Systems is a manufacturer of oil burner controllers, gas burner controllers, burner sequence controllers, LDR flame sensor, LDR flame amplifier, UV flame sensor, UV flame amplifier, etc.

Contact:

Linear Systems, Mumbai
Tel: 022-25512534 Telefax: 022-25576002
Email: info@linearsystems.in



SERVO STABILIZER & TRANSFORMERS

Servo Stabilizer, Isolation, Ultra Isolation & Controlled Transformer Line Choke and Line Filter for CNC Machinees.

Shri Guru Nanak Electricals Pvt. Ltd.
Office and Factory: 17-DLF, Industrial Area, GF., Moti Nagar, Near Moti Nagar Metro Station Opp. Metro Pillar No. 311, New Delhi - 110015, India
Phone: 011-45656381, 25413041
Key Person: Mr. Rajinder Singh Rooprai (Director), Mobile: +91-9810076381
E-mail: newgoldgurunanak@gmail.com, Web: www.newgold.co, www.newgold.in

KLEEN & HYGIENE PRODUCTS

Industrial Hand Cleaners

Nalkalikkal P.O. Aranmula Pin. 689533, Kerala State
Mob : 9847080149
Email : kleenhp@hotmail.com, kleenandhygiene@gmail.com, kleenhp149@gmail.com

HAND CLEANER SOAP BAR

PASTE HAND CLEANER

LIQUID HAND CLEANER

POWDERED HAND CLEANER

Advantages

Super Tough Quality, Unique Products
Removes Heavy Industrial Soils, Paint, Tar
Adhesives, Carbon Black, Dirt, Grime, Oil
Grease, Printers Ink, Anti Microbial, Antibacterial, Skin Friendly
Enriched with Eucalyptus and Lemogress essential oil

THREE PHASE SSR



THREE PHASE SSR

- Input Control: DC/AC/Universal
- Zero/Random Switching
- Load current: 3X2/10/16/25/40/50/60/75/90/125 Amps
- Reverse Polarity Protection for DC Input Control
- Panel/DIN Mount

MOTOR REVERSAL SSR

- Motor Reversal SSR Rated upto 60 Amps
- Built-in Interlock (Positive/Negative)
- Available with Independent Switches
- DC/AC Control
- Built in Snubber Circuit



SOLID STATE RELAYS
SWITCH FOR THE BETTER

ELECTRONIC RELAYS (INDIA) PVT. LTD.

P.B. No 124, #64, Palace Road, Vasanth Nagar, Bangalore - 560 052, India

Tel: +91-80-2235 4189/2235 4190, Fax: +91-80- 2235 7760

E-mail: mktg@eri.co.in, sales@eri.co.in



www.electronicrelaysindia.com

- Single Phase SSR • **3 Phase SSR** • Short Circuit Protected SSR • Motor control • Dual Output DC SSR and Power Proportional Controller • DC/DC SSR • ECO Series SSR • DIN Ready SSR • Input / Output Modules and Cards
- Phase Angle Control SSR/Speed control /Temperature control

BARREL PUMPS

C Bole & Co offers a wide range of barrel pumps.

Features:

- These are available in various types like, hand operated, motorised, air operated, flameproof, etc.; available in different materials of construction such as Stainless Steel 316, polypropylene, MS and aluminium.
- It requires a smaller footprint and is suitable for installation where the ground surface area is limited.
- Used for handling a variety of viscous and non-viscous liquids like solvents, alkalies, pesticides, gasoline, fuel oil, inflammable corrosive liquids, varnishes, petroleum products, drugs and pharmaceuticals and degreasing agents, glucose, honey, glycerine, shampoo, paints and other highly viscous liquids.

About the company: C Bole & Co offers wide range of seal-less magnetic drive monoblock, chemical process pumps which ensures 100 per cent leak proof operation. They are ideal for transfer of corrosive chemicals, acids, dyes, solvents, toxic and fuming liquids, petrol, kerosene, water etc.

Contact:

C Bole & Co, Mumbai

Tel: 022-23424350, 23429641

Fax: 022-23424040

Email: cboleco@yahoo.com, cboleco@hotmail.com



GEARS, GEAR COMPONENTS & ASSEMBLIES

Eppinger Tooling Asia Pvt Ltd offers a wide range of gears, gear components and gear assemblies manufactured in standard and custom built ranges.

Features:

- State-of-the-art manufacturing and quality control facilities ensure top quality makes.
- The product range includes spiral bevel gear sets of 10 to 1 ratio and 457 mm in diameter, 2 to 1 ratio, and 406 mm in diameter and module up to 12.7, and 1 to 1 ratio with 323 mm diameter. The hobbled gear has a diameter of 500 mm x 8 m and the hardened and profile ground spur and helical gears have a diameter of 330 mm x 5 m.
- Custom built/non-standard gears and gear assemblies are available.
- The products are well received in domestic for critical applications like machine tools, railways, textiles, automation, automotives, engineering, pumps, compressors and exported to Europe, Korea, etc.

About the company: Eppinger Tooling Asia Pvt Ltd is a subsidiary of EGT Eppinger Getriebe Technologie GmbH, established in 1925 in Denkendorf, Germany. Attention to details, superior engineering practices, ultra modern manufacturing facilities, very high degree of process discipline and cutting edge quality control techniques helps Eppinger Gears roll out products which are unmatched in quality and performance.

Contact:

Eppinger Tooling Asia Pvt Ltd, Coimbatore

Tel: 04259-304032-34 Mobile: 08870013053

Fax: 04259-304018

Email: marketing@eta-tools.com, eppinger@dataone.in



LEVEL INDICATORS, GLIDOMAT

R K Dutt Concerns offers Glidomat range of float and counter weight level indicators.

Features:

- It is ideal for tall overground and overhead storage tanks. Magnetic vapour seal and standard open to atmosphere versions.
- Its special is low corrosion – epoxy painted scale boards; lifetime lubricated – nylon roller pointer; no guide wires – self-centring float; highly viscous LSHS, sugar syrup, etc., no problem; non stretching multi strand SS/PP rope; dust free die cast pulley housings; easy to install – modular design; vapour tight version for HCl and petrochemicals.
- Its applications include: L-16 Glidomat – water, veg/fuel/lub oil, LSHS, Dil H₂SO₄, Dil HNO₃, brines, caustic, silicates, molasses, etc; and L-16S Magnaseal – solvents – methanol, IPA, toluene, hexane, benzene, HCl, NH₄OH, etc.

About the company: R K Dutt is an ISO 9001 certificated company, manufacturing liquid level indicating, measuring and controlling instruments since 1974.

Contact:

R K Dutt Concerns, Thane

Tel: 022-67248787, 25822541 Fax: 022-67248777

Email: pisales@rkdutt.com



PLAIN PLUG GAUGES – TIECO BRAND

Jayesh Enterprises is a manufacturer of high quality TIECO brand plug gauges.

Features:

- These plain plug gauges are used to check small and big bores. They are available from 0.3 mm to 460mm as per I.S. 3455:1971, BS: 969:1963 and J.S. standards.
- These gauges are calibrated in our ISO/IEC19025:2005 certified by NABL laboratory at 20°C. using the latest TRIMOS length measuring instruments and QMSOFT® software.
- Also other products include thread gauges, taper gauges, ring gauges, snap gauges and special gauges.

About the company: Jayesh Enterprises specialise in the manufacture of jaws as per customer drawings / requirements – in special as well as standard.

Contact:

Jayesh Enterprises, Pune

Tel: 020-26877842/43 Email: jaws@jawsindia.com





**37 Years
& COUNTING**
75% EXPORTS
ISO 9001:2015
CERTIFIED



LET OUR AUTOMATED MACHINES DO THE WORK!

WITH OUR FULLY AUTOMATED
FOUNDRY AND FORGING PRODUCTS

- ~ Multi Fuel (Gas+Diesel/ Electrical) Automated Heat Treatment Furnaces,
- ~ Automated Ladle Preheaters,
- ~ Automated Mould and Core Ovens,
- ~ Submersible Agitators,
- ~ COVID19 Essential Biomedical Waste Incinerators,
- ~ Retrofication/automation of your existing furnaces.

CONTACT US

+91 997 537 7377
dhana@dhanaprakash.com
L1-L2, GM Industrial Estate
Miraj - 416410,
Maharashtra (IN).

www.dhanaprakash.com
www.dhanaprakash.in

Awarded
**5th IPF Industrial
Excellence Award
2021 for
Fastest Growing
Companies
Engineering - SMEs**



Dhanaprakash
Industrial Corporation

STAINLESS STEEL MATERIALS, GRADE 321

Pooja Steel & Alloys is offering stainless steel materials, 321 grade, in various shapes such as strips, sheets, pipes, tubes, etc.

**Features:**

- Type 321 is similar to SS 304, however, it contains a Titanium addition of at least five times the carbon content, this addition is made to reduce or eliminate chromium carbide precipitation – resulting from welding or exposure to high temperatures.
- Maximum stabilisation is accomplished by annealing between 1750°C and 1850°C; mainly used in aircraft exhaust stacks and manifolds, chemical processing equipment, welded equipment, jet engine parts, petrochemical and other fertilizer industries.
- Can be used for exhaust systems where operating temperatures are higher than 800°F and where corrosive conditions are not too severe, also because of its resistance to scaling and vibration fatigue.

About the company: Pooja Steel & Alloys is a dealer and importer of industrial raw materials, with an understanding through various mass media of regular requirements in different specifications and sizes.

Contact:

Pooja Steel & Alloys, Mumbai

Tel: 022-23872562

Email: psec93@gmail.com, poojasteel@vsnl.net

VACUUM COMPONENTS AND SOLUTIONS

AC Automation represents Vuototecnica, a provider of vacuum components and solutions.

Features:

- The company provides suction cups in various type with ranges between 4 and 360mm.
- Their vacuum generator comes with a single stage and multi-stage range of 3 -900 m3/h.
- The mechanical vacuum pump can be availed in dry or oil bath rotary vane.
- Their suction filters are in-line filters, filter with paper cartridge and stainless steel mesh filtering vacuum valve- check valve, solenoid valve.
- Besides, their solutions comprises octopus vacuum gripping system, integrated system to install direct on robots, pneumatic vacuum and blowing pump for graphic arts industry vacuum switches- digital and analogue and vacuum regulator.

About the company: AC Automation, an official partner of Vuototecnica (Italy). The Italian company, founded in 1975, has always been to combine specialised experience with the constant desire for innovation. The company is committed towards best services to its customers with competitive price, timely delivery and provides maximum possible support.

Contact:

A C Automation, New Delhi

Tel: 011-41472715 Email: sales@acautomation.in

TECHTROL MAGNETIC LEVEL GAUGE IBR – MLGB

Pune Techtrol Pvt Ltd offers a wide range of techtrol magnetic level gauge IBR – MLGB.

Features:

- Its offered a reliable gauge for safe & positive indication of water level under high temperature & pressure conditions in boilers and similar applications like HP / LP condensate, hot water tank, flash drum, feed water and blow down tank. Better alternative to the conventional glass level gauge and float switch.
- Its glandless construction provides non-invasive level indication in bright red colored column formed by the flappers, visible from a distance. CC distance from 400 to 2000 mm.
- Magnetic gauge can be equipped with max 4 control switches and transmitting facility. Available in SS316 material and designed for max test pressure of 50 kg/cm² & temperature upto 300°C.
- Fulfills the stringent operational requirements, specified by the boiler inspectorate.

About the company: Pune Techtrol Pvt Ltd is a provider of optimal products and solutions in level measurement and process automation systems for liquids and solids. It also offers several types of miniature switches for level detection of liquids for small tanks and equipment.

Contact:

Pune Techtrol Pvt Ltd, Pune

Tel: 020-66342900

Email: ho@punetechtrol.com

**LEVEL ADJUSTING CASTER WHEELS**

Jyoti Architectural Products Pvt Ltd offers a wide range of level adjusting caster wheels.

Features:

- These level adjusting caster wheels are now available from ready stock with load capacity 50kg/250/500 /750 & 1000kg/ wheel unique design allows to move the equipment on wheels whenever required.
- After positioning at desired place it will rest on rubber pad.
- This will eliminate movement & vibrations of equipment.

About the company: Established in the year 1992, "Jyoti Architectural Products Pvt Ltd", are counted amongst the prominent manufacturers, suppliers, importers, traders and exporters of caster wheels & furniture components. Their products are highly demanded in residential as well as commercial application by interior designers & architects.

Contact:

Jyoti Architectural Products Pvt Ltd, Mumbai

Tel: 022-42421000

Mobile: 09320892981

Email: sales@jyotiarch.in



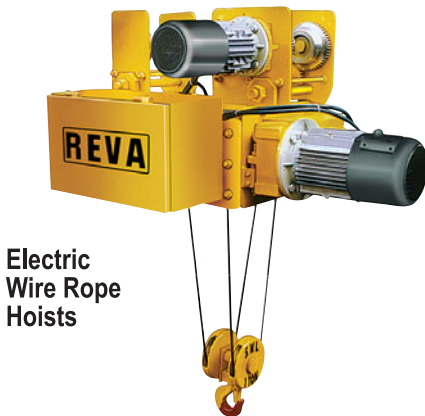
REVA FOR MATERIAL HANDLING EXCELLENCE



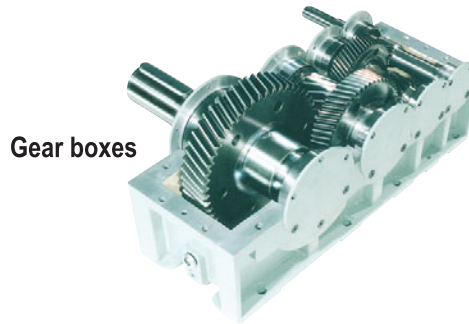
E.O.T.Cranes
Manufacturing
capacity-
upto 250 tonnes
50m span

Double Girder, Single Girder, Goliath, Semi-Goliath Cranes for any use such as Steel Mill Duty Cranes, Power Plant Cranes, Paper Mill Cranes, General purpose Cranes etc.

Our cranes and hoists are the closest to European Cranes in terms of features, specifications, manufacturing technology & inspection techniques.



**Electric
Wire Rope
Hoists**



Gear boxes



**Travelling
Machinery**

- We opt for a 100% - in - house Production of all key components.
- Energy efficient for least electricity consumption.(You SAVE on electricity every time you use it.)
- All alloy steel Helical, Case Hardened Gears & Pinions designed with the help of KISSOFT softwares.
- Very high gearing life-silent running with all BENEFITS of HELICAL GEARING.
- Perfect BALANCING leads to equal load on both beam flanges.
- UNMATCHED PRICE-PERFORMANCE RATIO.-
- Our customer profile spans prestigious private corporates and government undertakings through the country. They include **INDIAN RAILWAYS, NTPC, BHEL, EIL, MECON, SAIL etc.**



REVA INDUSTRIES INDIA PVT. LIMITED

Unit I : Plot No.28, Sector-25, Faridabad - 121004, Haryana

Unit II : Plot No.164, Sector-24, Faridabad - 121005, Haryana

Unit III : Plot No. 799, Sector 69, IMT Faridabad-121004, Haryana

Phone: 0129 4185401 • Fax: 0129 4185414

E-mail: reva@revacranes.com • Web: www.revacranes.com



An
ISO 9001-2015
Company

OUR NAME CARRIES WEIGHT

CE Certified Products

CANTILEVER LOAD CELL

EPOCH Instruments & Controls Pvt Ltd offers a wide range of cantilever load cell.

**Features:**

- The cantilever load cell is a strain gauge based low profile bending beam load cell and is for precision single point load applications.
- It is designed for eccentric load sensitivity. Its alloy steel construction is very rugged to withstand shock load.
- EPOCH supplied cantilever Load cell 500 gm for water force measurement, weigh bridge load cell, tank weighing load cell, tank weighing load cell with mounting assembly, hopper, weighing applications, platform weighing.

About the company: EPOCH Instruments & Controls Pvt Ltd was established in 1985 by a team of professionals to manufacture load cells, dynamometer, pressure transducer, process controller & various kinds of custom built industrial weighing systems to meet the various requirements of process industries, cement industries, general weighing application etc. The company has got several satisfied customers all over India.

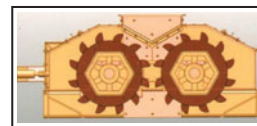
Contact:

EPOCH Instruments & Controls Pvt Ltd, Bangalore

Tel: 080-23481364, 23283728

Mobile: 09035697225

Email sales@epochloadcell.com

TOOTHED DOUBLE ROLL CRUSHER

Masyc Projects offers toothed double roll crusher, which is used for size reduction/crushing by crushing material with high pressure between two rolls.

Features:

- High pressure on the circulating crushing tooth segment reduces the material into considerable sizes.
- Toothed double roll crusher produces more uniform produce, than any other type of crusher; the crusher having separate drives has wide range of adjustment which makes possible to conform to tough specifications regarding sieve analysis of the product.
- These roll crushers are used for crushing the hard coal, lignite, limestone, gypsum and other soft and medium hard material.
- Masyc can offer toothed double roll crusher up to a capacity of around 800 TPH and having roller dia 1400mm.

About the company: Masyc Projects Pvt Ltd an ISO 9001:2008 certified company, is active in bulk material handling systems and equipment segment. They have a dedicated team of highly qualified and experienced professionals.

Contact:

Masyc Projects Pvt Ltd, New Delhi

Tel: 011-28115745, 28113383

Email: masyc@masycproject.com

MICRO EXCAVATOR

Armatic launches India first micro excavator "Digmann - 3".

Features:

- It is used for small excavation jobs very useful at space constrain areas.
- Its is based on make in india concept "Digmann-3" is built by indigenous materials with a 10 hp diesel engine which can excavate upto 2000mm deep with bucket attachment.
- This "Digmann-3" has been tested in various soil conditions for more than 600 hours.
- This "Digmann-3" can be fixed with various other utility attachments like auger, trench bucket, load hook & pit bucket.
- This "Digmann-3" can be transport from site to site in a small vehicle or by towing behind a vehicle.
- The weight of the excavator is approx. 850 kgs.

About the company: Armatic Engineering Pvt Ltd is ISO certified leading designers of custom-built material handling equipment in India having expertise in design and innovation of new products. The company's major focus has been custom engineering products to meet the specific and unique requirements of our customers.

Contact:

Armatic Engineering Pvt Ltd, Bangalore

Tel: 080-26717078, 26711733

Email: arjunmanay@armaticengineering.com

**RESISTANCE BOXES**

Crane Control Equipments offers a wide range of resistance boxes.

Features:

- These resistance boxes are used to add resistance in an electric motor circuit for modifying the performance characteristic of slip ring electric motors of EOT cranes, rubber mills, steel rolling mills, cement plants, power plants, conveyors, etc for speed control and developing starting torque with low starting currents.
- These are also used as dynamic braking resistors for VVVF AC drives. Resistors are designed to meet requirements of both AC & DC applications. Type of resistors:
- The basic types of resistors are: stainless steel punched grid resistors and fechr punched grid resistors.

About the company: Crane Control Equipments is a leading ISO 9001-2015 & CE certified company established in 1988 and manufactures complete range of control gear equipment used in EOT cranes, crane unloaders as well as grabbing cranes etc.

Contact:

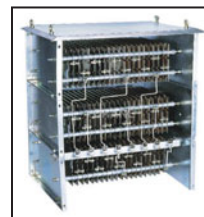
Crane Control Equipments, New Delhi

Tel: 011-41016403-405

Mobile: 09810009466, 09310009466, 09212000565

Email: info@cranecontrolequipments.com

sales@cranecontrolequipments.com



We make Stamping Processes
More Efficient

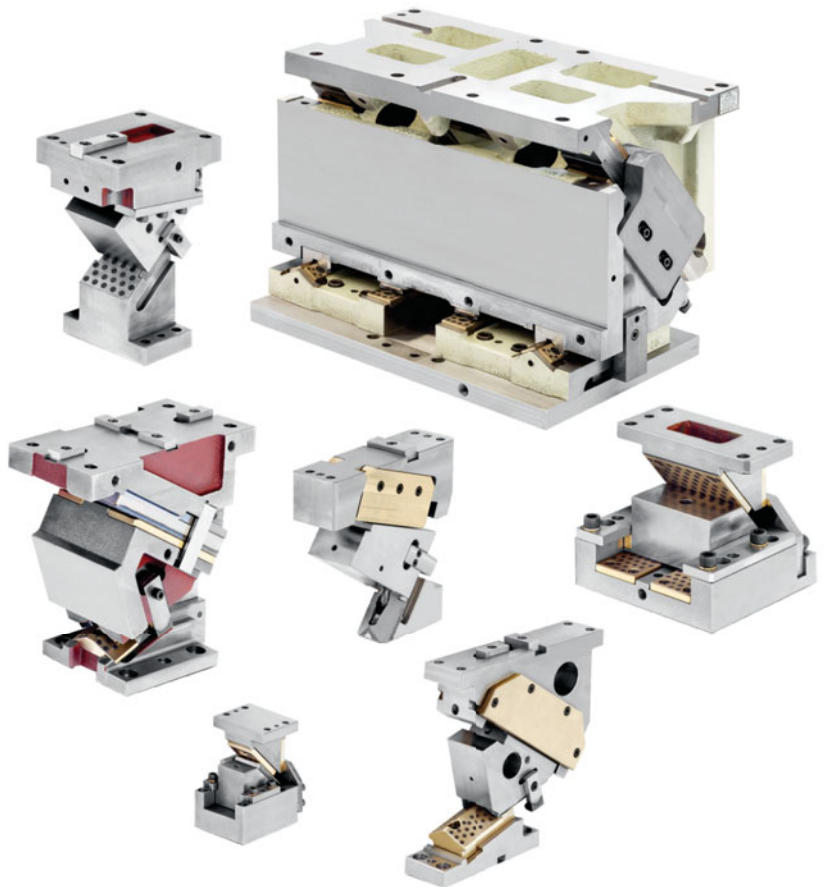
Making In India



Cam Slide Units

Expanded range offers

- ▶ Working surface width upto 1050 mm
- ▶ Working force upto 2000 KN / above 200 tons &
- ▶ Working angle upto 70°



FIBRO INDIA PRECISION PRODUCTS PRIVATE LIMITED

Head Office & Works: Plot no: A-55, M.I.D.C, Phase II, Chakan, Pune - 410 501

D +91 2135 670 900 **E** info@fibro-india.com **W** www.fibro.com

PRECISION MOULDED AND EXTRUDED RUBBER PRODUCTS

Moulik Rubber Industries manufactures precision moulded and extruded rubber products for industrial applications.

Features:

- They manufacture high precision sealing products like o-rings, v-seals, u-seals, gaskets, diaphragms, bellows, extruded profiles and others made in various sizes and designs.
- They also manufacture from best quality synthetic raw materials like nitrile, silicone, viton, polyurethane, EPDM etc. with good tensile/abrasion properties.
- They provide effective sealing from dust, water, oils and other high/low pressure fluids along with good temperature and chemical resistance.
- Customization to desired designs and sizes in required material and hardness.

About the company: Moulik Rubber Industries, established in 1990, are one of the leading manufacturers of high quality moulded and extruded rubber products. Being an ISO 9001:2015 certified company, they maintain strict quality control throughout the manufacturing process and provide excellent service for complete customer satisfaction.

Contact:

Moulik Rubber Industries, Mumbai
Tel: 022-40037863 Mobile: 09820444582
Email: moulikrubber@gmail.com

**METAL DETECTOR-SUBSCAN**

Subtronics (India) Pvt Ltd has innovated its strong and sensitive battery operated metal detector "Subscan".

Features:

- This metal detector-subscan developed especially for security at entry places and high level security areas.
- Sensitivity and range increases for larger objects and is adjustable. Subscan gives a unique "beep" tone to indicate the existence of both - ferrous and non ferrous objects.
- This light weight instrument (370gm) is supplied with a belt strap making it extremely easy to carry. Subscan is housed in an extremely robust ABS plastic body making it ideal for use in harsh industrial environments.
- The in-built rechargeable battery will work up to 18 hours on a charge of 3 hours with adapter supplied along with the instrument.
- Various fields of applications include security check points, shopping malls, event security, airports, jewellery, hospitals, schools & institutes, etc.

About the company: Subtronics (India) Pvt Ltd an ISO certified has been manufacturing safety devices for over 46 years with 4500 clients to its credit and has also bagged 35 awards for its contribution to the field of safety.

Contact:

Subtronics (India) Pvt Ltd, Mumbai
Tel: 022-24224461, 24303047
Mobile: 09920821346
Email: service@subtronicsindia.com

**SIMPLEX BAG/STRAINER FILTRATION SYSTEMS**

S&C Invotek manufactures a simplex filtration system which is user-friendly.

Features:

- These systems are designed for use with high performance bags filters and strainer filter.
- These filters are used for filtration of coolants, alkaline, paints and varnishes, inks, solvents, process water, etc.
- These bag filters are available for high viscous liquid filtration. Polishing of wine, herbal extracts, juices are the major applications.

About the company: S&C Invotek is engaged in designing and manufacturing filtration products for engineering and process industries. This includes bag filters, membrane cartridge filters, vent filters, steam filters, etc.

Contact:

S&C Invotek, Bangalore,
Tel: 080-26665676, 26697112, 26797001
Mobile: 09844035677, 09980775677
Email: info@invotekfilters.com, sales@invotekfilters.com, marketing@invotekfilters.com

**SIGHT FLOW INDICATOR**

R K Dutt Concerns offers a wide range of sight flow indicator.

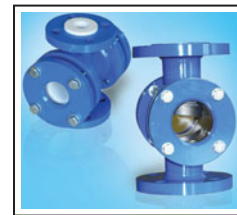
Features:

- The product offered is a sight flow indicator with larger view area, drip lip - standard for all metallic body.
- Its features are: indicator - flapper or rotary for invisible liquids or gases; size - wide range of sizes from 15 NB to 250 NB; choice of glass - Indian - sodium silicate for 50°C to 120°C; imported - borosilicate DIN 7080 std for - 50°C to 300°C; choice of material - SS, CS, A105, A182 F, semi welded, seamless, PP, PTFE.

About the company: R K Dutt is an ISO 9001 certificated company, manufacturing liquid level indicating, measuring and controlling instruments since 1974. It is also an authorised Siemens channel partner and provide and support their products.

Contact:

R K Dutt Concerns, Thane
Tel: 022-67248787, 25822541 Fax: 022-67248777
Email pisaless@rkdutt.com



**THE
one**
ANSWER TO
ALL YOUR
POWER NEEDS



- ONLINE UPS SYSTEMS
1KVA TO 800KVA
- MODULAR UPS SYSTEMS
40KVA TO 1200KVA
- SERVO CONTROLLED VOLTAGE STABILIZERS
1KVA TO 1250KVA
- ULTRA ISOLATION TRANSFORMERS
1KVA TO 1250KVA
- SOLAR GRID-TIE INVERTERS
1KW TO 80KW
- SOLAR HYBRID GRID-TIE INVERTERS
1KW TO 60KW
- ACTIVE HARMONIC FILTERS
- INDUSTRIAL DC INVERTERS
1KVA TO 10KVA
- E V CHARGERS
DC-001, AC-001, DC-120KW AND AC-22KW
WITH 3GUNS FOR CHAdeMO, CCS2

Applications

- Data centers
- Medical Equipments
- Factory Automation
- Computers
- Laser CNC Machines
- Solar power Plants



CERTIFIED ISO 9001 : 2015
CERTIFIED ISO 140001 : 2015
CERTIFIED ISO 50001 : 2011
CERTIFIED OHSAS 180001 : 2019

New Delhi: +91- 8527298881, +91- 8527298890 | Chandigarh: +91- 8527298891 | Patna: +91- 9835152630 | Ranchi: +91- 9835152630 | Kolkata: +91-9830116680 |
Ahmedabad: +91- 9426516831 | Pune: +91- 9980557667 | Nagpur: +91- 9108283149 | Bhubaneswar: +91- 9611907481 | Hyderabad: +91- 9849638833 | Vijayawada:
+91- 9848134706 | Visakhapatnam: +91- 7348939605 | Chennai: +91- 9840275766 | Hubli: +91- 9980566117 | Cochin: +91- 9446021399 | Trivandrum: +91- 9745888724 |
Jaipur: +91-9426516831 | Lucknow: +91- 9108283149 | Guwahati: +91- 9854052746 | Bhopal: +91-9108283149 | Coimbatore: +91-7899903500 |
Raipur: +91-9108283149 | Mumbai: +91- 9148598673 | Calicut: +91-9447744724 |

Power-One Micro Systems Pvt. Ltd.

Head Office & Factory: Power-One Micro Systems Pvt. Ltd. GF-3&12, KSSIDC Building, 5th Cross, 1st Stage, Peenya, Bangalore - 560058

marketingho@poweroneups.com

www.poweroneups.com

+91-9035010265
+91-8028397832

FEATURED PRODUCT

HARDNESS TESTERS REPAIRING & SERVICING CENTRE

Heat Treatment Sales & Services offers complete repairing, servicing and calibration of leading make of Portable Hardness Testers such as Time, Equotip, Kroust Kramer, GE, Samsonic & Yamyo Bliss among others



The company has factory trained engineers who can handle all types of repairing, servicing and calibration of major brands of portable hardness testers. They have capabilities of repairing and calibrating of portable hardness testers of many manufacturers and a wide variety of portable hardness testers. The company offers the services of refurbished and reconditioned of hardness testers with six months warranty, which includes parts and labour charges also. However the dispatching/ transportation cost and related expenses such as packing charges are not included in the warranty. One can dispatch portable hardness tester/s properly packed/crated and they will provide a free written estimate upon thorough examination of the hardness tester/s. They also maintain complete stock of spares and accessories like impact devices, impact bodies, standard test blocks, support rings, etc. According to the company, when a complete service with spares is conveniently available why do users think of buying a new hardness tester? It is much economical to get the existing hardness tester/s repaired, reconditioned, and refurbished or rebuilt at a fraction of the cost.

Contact:

Heat Treatment Sales & Services
Contact Person: Mr. Bharat Shah
L/119 GIDC Industrial Estate, Odhav
Ahmedabad 382 415
Tel: 079-22870144 Mobile: 08980718181
Email: info@enmatest.com
URL: www.enmatest.com / www.enmatest.co.in

CECO-PRESSCON FOR AUTOMATIC WINDERS



Control Engineering Co offers a wide range of CECO-presscon for automatic winders.

Features:

- This CECO-Presscon regulates pneumafil motor speed automatically in accordance with the actual suction pressure requirement, which varies with the type of yarn being coned, no of end breaks, environmental condition etc.
- The actual suction pressure is monitored by a vacuum pressure sensor, compared with a set reference point and an electrical control signal is generated in proportion with the difference in set point and actual pressure.
- This signal is transmitted to the PI control of inverter drive for varying the motor speed in such a fashion that the difference is minimized.
- This CECO-Presscon maintains a constant suction pressure with the close loop feedback system at a reduced RPM when the actual suction demand is low, the optimum energy is consumed.

About the company: M/s Control Engineering Co was promoted in 1973 by a young electrical engineering graduate, Sri D K Dugar in Kolkata. The purpose of the company was to bring new technology in the field of electrical & electronics for the benefit of the industry. The company has been doing business in the field of manufacturing, assembling and trading of electrical and electronics controls of all types and description viz.

Contact:

CECO Electronics Pvt Ltd/Control Engineering Company,
Kolkata
Tel: 033-22480192, 22108785
Fax: 033-22489721 Email: ceco@cecoelectronics.in
cecokolkata@gmail.com

MOBILE FILTRATION SYSTEMS

S & C Invotek manufactures mobile filtration systems.



Features:

- It is user-friendly for the shop floor requirements and it is easy to move from around different places on the shopfloor wherever batch filtration is required as there is no need for permanent installation.
- These systems are designed for use with high performance filter bags, strainers or cartridge filter.

About the company: S & C Invotek is engaged in designing and manufacturing filtration products for engineering and process industries. This includes bag filters, membrane cartridge filters, vent filters, steam filters, etc.

Contact:

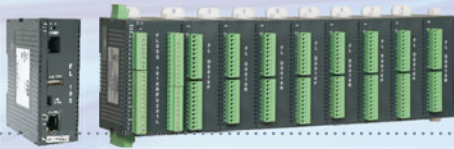
S&C Invotek, Bangalore
Tel: 080-26697112, 26797001
Mobile: 09844035677, 09980775677
Fax: 080-26793748 Email info@invotekfilters.com;
sales@invotekfilters.com; marketing@invotekfilters.com



FlexiPanels®
 HMI - Keypad & Touchscreen based



FlexiPanels®
 HMI with Integrated or Pluggable I/O



FlexiLogics®
 Micro PLC Series



Communication Gateways
 CAN, Ethernet, HART, LonWorks, Profibus-DP, Serial



Field I/O
 Analog & Digital



Signal Converter
 RS232/CMOS to RS422/RS485



RTP-LCD
 Flow Rate Indicator / Totalizer

New



Panel PC
 With Intel® Atom™ E3845 Processor

Renu Electronics, a well Trusted and Respected name in the industry, offers solutions for all Factory Automation applications. We are one of the pioneers in designing & manufacturing of Factory Automation products like wide range of Text and Touch Screen based HMI, HMI with built-in PLC, Technologies based Protocol Converters, Analog and Digital Field I/O, Signal converters and Repeaters, Port Multiplexers, Flow products and many more. We are proud to be one of the few RoHs compliant manufacturing organizations in India. For most of the products we have CE, UL listing. Our nation wide Sales and Support network, helps us to provide promote & valuable support to our esteem business associates.

Renu Electronics Pvt. Ltd.

Survey No. 2/6 Baner Road, Pune - 411045, India
 +91 20 2729 2840-45 | Info@renuelectronics.com
www.renuelectronics.com



An ISO 9001 : 2008 and ISO 14001 : 2004 certified company

METHYL METHACRYLATE ADHESIVES, PARTITE

Parson Adhesives India Pvt Ltd offers methyl methacrylate adhesives, partite for structural bonding.

**Features:**

- In order to provide single source solutions for the need of structural adhesives in industrial assembly applications, Parson Adhesives has developed and offered a line of PARTITE methyl methacrylate adhesives (MMA).
- Partite MMA fills in the gap, where two part epoxy adhesives and two part polyurethane adhesives lack the performance required by the assembly industry. Partite MMAs provides 'cure on demand', excellent balance of adhesion and toughness, chemical resistance, long-term durability and they need minimal surface preparation.
- This wide range of Partite MMA adhesives to suit their needs. If they require fast assembly, they can pick Partite 7300 which gives almost a full cure within 10 to 15 minutes after application Or if they need to bond larger parts, they can use Partite 7390 to get a full, strong cure in 150 minutes. Unlike epoxies and polyurethanes, Partite MMAs are most suitable for bonding dissimilar substrates: metal-to-plastic, composites to plastic etc.
- As aforementioned unique properties, PARTITE methacrylate adhesives(MMA), help industrial assembly-lines save lot of time, labor, and capital cost by eliminating long fixture and surface preparation time while providing better ultimate performance to the finished products. It has been used widely in transportation, electronics, appliance and recreational industries. Also offers 'No mix', 1:1 and 10:1 PARTITE methacrylate adhesives (MMA). Besides carrying standard product line, Parson USA has unique ability to provide tailored solutions to individual customer's need.
- It also supplies conventional two part epoxy and polyurethane based structural adhesives.

About the company: Parson Adhesives India Pvt. Ltd, is a subsidiary of Parson Adhesives, Inc. USA. Parson Adhesives is a leading manufacturer of wide range of other industrial adhesives such as anaerobic adhesives, cyanoacrylate adhesives, epoxy & polyurethane adhesives, uv curable adhesives and specialties silicone sealants, etc. Parson products are well established in more than 54 countries since more than three decades around the world backed by highly accredited certifications such as SGS, DVGW, WRAS, ABS, ISO, SKZ, UL, etc.

Contact:

Parson Adhesives India Pvt Ltd, Vadodara
Tel: 0265-2972191
Mobile: 094285-11765, 094083-54185
Email: sales@parsonadhesives.in

BAG HOUSE DUST COLLECTORS

Masyc Projects offers bag house dust collectors.

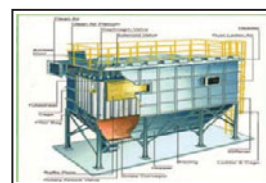
Features:

- The collectors are used for various applications in the process plants such as cement, coal, chemicals, thermal power plant, paper and pulp, mining and minerals, steel, sugar and food industries, etc.
- Masyc bag filters (dust collector) work on the principle of pulse jet technology. A powerful shockwave passes through the filter cartridge during cleaning, the dust is discharged from the filter surface and the downwards flowing air allows it to fall in to the container.
- The pulse from the valve is distributed into the cartridge via a unique laser cut zigzag slot along the length of the blow pipe. The effect of the cleaning is further enhanced by the venturi shaped outlet of the cartridge.

About the company: Masyc Projects Pvt Ltd an ISO 9001:2008 certified company, is active in bulk material handling systems and equipment segment. They have a dedicated team of highly qualified and experienced professionals. Their product range of various conveying systems and equipments suit and match all the requirements in different processing industries like cement, steel, glass, fertilisers, mining, power, etc.

Contact:

Masyc Projects Pvt Ltd, New Delhi
Tel: 011-28115745, 28113383
Email: masyc@masycproject.com

**UV SENSOR FOR OIL/GAS FLAMES**

Linear Systems provides a range of flame sensors for detecting oil and gas flames.

Features:

- Available with various viewing and mounting arrangements – Models UV-01, UV-71-AJ, UV-71-SC, etc.; designed to detect UV radiations emitted by a naked flame.
- These are immune to visible light and refractory glow from furnace walls; the company's designs include protective quartz glass cover, 3/4" NPT and BSW mounting with optional air cooling.
- Also available a NW model self-checking UV sensor (UV-71-SC).

About the company: Established in 1986, Linear Systems is a manufacturer of oil burner controllers, gas burner controllers, burner sequence controllers, LDR flame sensor, LDR flame amplifier, UV flame sensor, UV flame amplifier, etc.

Contact:

Linear Systems, Mumbai
Tel: 022-25512534 Telefax: 022-25576002
Email: info@linearsystems.in



OVERVIEW

PRODUCT LINES



AUTOMATION & CONTROL
MOTION
SWITCHES & POSITION SENSORS

ABOUT CROUZET

Since 1921, Crouzet has been committed to designing, manufacturing and supplying efficient components for automated systems to serve a wide range of application in the Aerospace & Defense market; in many industrial equipment markets, with a specific focus on applications such as Access control, Railway, Nuclear and Industrial valves.

Crouzet's product lines include Automation and control devices, Motion products, Switches and Position Sensors, Cockpit Controls and Electrical Protection products.

Crouzet has a heritage of close collaboration with customers in the development of adapted products of fully customized solutions.

Driven by innovation and customer satisfaction, our teams are focused on delivering the right products and services for the right application, always meeting, and often exceeding customers expectations.

Crouzet is your trusted partner of choice to face the challenges of today and tomorrow.

Crouzet is a company of **innovista Sensors™**.

INNOVISTA

SENSORS

Innovista Sensors™ is a worldwide industrial specialist of sensors, controllers and actuators for automated systems.

Through its company Crouzet, Innovista Sensors™ Offers a wide range of reliable, efficient dedicated to the Aerospace & Defense, Transportation and industrial markets and segments.

Thanks to the recognized expertise of its teams and a strong innovation policy, Innovista Sensors brings performance enhancing solutions to its customers worldwide.

TM Innovista Sensors : your trusted partner of choice to face industrial challenges to today and tomorrow.

Designs & Manufactures



Sensors



Controls



Actuators

For



Aerospace
& Defense



Transportation



Industry

BRUSHLESS DC MOTOR WITH BUILT-IN DRIVE

All-in-one solution Ready-to-use brushless motor with integrated controller

40WATTS DIRECT DRIVE BRUSHLESS DC MOTOR WITH BUILT-IN ELECTRONIC CONTROL				
57MM SQUARE MOTOR		80140032	Connection	
	Supply voltage (V)	24VDC	Power earth	Black
	No-load speed (rpm)	2900	24V power supply	Brown
 Built - In Holding Brake - 4096PPR Encoder / PLC Optional	No-load current (A)	0.2	Signal earth	Black
	Nominal speed (rpm)	2230	On/off input	Green
	Nominal current (A)	2.15	Direction input	Yellow
	Nominal Torque (Nm) Note: 1Nm = 10Kgcm 0.16	Speed setpoint	Orange	
	Speed control	0-10V (Optional PWM)	12points/rev encoder output	Brown
	Input impedance (K)	-		
	Frequency range (Hz)	150 to 1000	Encoder direction output	Red
	Weight (g)	800	Torque limiting setpoint	Blue
	Dimension (mm) Motor Length and Shaft dia X L	98 L Shaft : 8 X 25	Torque saturation output	Purple
	Type of output	PNP		

40WATTS BRUSHLESS DC GEARED MOTOR WITH BUILT-IN ELECTRONIC CONTROL						
Ø 62MM PLANETARY GEARED MOTOR	Ratios(I)	Speed (rpm)	Torque (N.m)	1 Stage	2 Stages	3 Stages
	7	311	0.9	80149616		
	46	48	5.4		X0230206	
	308	7	32			X0229816
 Built - In Holding Brake - 4096PPR Encoder / PLC Optional						
	Supply voltage (V)			24 VDC	24 VDC	24 VDC
	Speed control			0-10V	0-10V	0-10V
	Efficiency (%)			90	80	70
	Weight (g)			1750	2150	2550
	Dimension (mm) Motor+gearbox length and Shaft dia X Length			144and 16 X 30	160 and 16 X 30	175 and 16 X 30

80watts Brushless DC geared motor with built-in electronic control						
Ø 81MM PLANETARY GEARED MOTOR	Ratios(I)	Speed (rpm)	Torque (N.m)	1 Stage	2 Stages	3 Stages
	5	627	1.1	80189704		
	27	120	5.2		80189705	
	139	23	23			80189706
 Built - In Holding Brake - 4096PPR Encoder / PLC Optional						
	Supply voltage (V)			24 VDC	24 VDC	24 VDC
	Speed control			0-10V	0-10V	0-10V
	Efficiency (%)			80	70	60
	Weight (g)			3200	3900	4600
	Dimension (mm) Motor+gearbox length and Shaft dia X Length			182 and 19 X 40	203.9 and 19 X 40	226 and 19 X 40

AUTOMATION & CONTROL

Type	Part no	Inputs	Power supply	Out put
With Display CD 12 	88970041	8 Digital(of Which 4 are analouge)	24 V DC	4*8 A relays
	88970042	8 Digital(of Which 4 are analouge)	24 V DC	4 Solid state 0.5A (of high 1i is PWM)
	88974043	8 Digital	100 V - 240 VAC	4*8 A relays
	88974044	8 Digital	24 VAC	4*8 A relays
	88970045	8 Digital(of Which 4 are analouge)	12 V DC	4*8 A relays

SIGNAL CONVERTER - AC				
em4 	Part no	Description	Inputs	Output
	88981123	First all-in-one nano -PLC with GSM Communication for control & Alert functions with mobile phoned Get alerted, receive data logs or Control your application by SMS	12 Configurable Digital , Analog inputs (inc.4-20mA, NTC 4 configurable digital input for encoder (20KHZ - 60KHZ)	10 Configurable PWM and relay Out Put

CONTROL RELAYS						
Regeneration	Type	Part No	Meas. Range	Sequence/Asymmetry	Output (S)	Casing width (mm)
With 70% Regeneration 	MWG	84873022	208-480V~-50/60HZ	Yes/No	1*5 A change over	17.5
	MWU	84873023		Yes/5-15%		
	MWA	84873024				
	MWUA	84873025				

SAFETY RELAY					
Image 	Safety category	Safety contacts	Supply	Part number	Type
	3	3 NO + 1NC	24 V DC	85102031	KNA3-YS

MICROSWITCHES AND LIMIT SWITCHES

	MICROSWITCHES												LIMIT SWITCHES											
	Miniature						Subminiature				Sub-Subminiature		Heavy Duty			Miniature								
Series	PBX 8324	83139	83123	V/S 83169	83106 83154	V3/V3D 83160/260 83161/261	V/S 8318	83133	V4/V4D 83170/270	V/S 8320	83141	83228 83229	83151	8384	SP4522	SP3941 SP3969	8387 8388	83589	8380	83731	SP4863 SP4816	SP4813		
Max Rating @ 250 Vac (A)		10A		10A																				
Low Level version																								
Sealing level																								
Double break																								
Bi-stable (maintained action)																								
High temperature (> 125°C / 257°F)																								
Low temperature (< -40°C / -40°F)																								
Direct Opening Action																								

A COMPANY OF
INNOVISTA
SENSORS

InnoVista Sensors India Pvt Ltd
1234, Survey No. 47/1, VRR Arcade, 1st Floor, Hosa Road,
Naganathapura, Electronic City post, Bengaluru- 560100.
Mob: 9739001340, E-mail: india@crouzet.com



www.crouzet.com



www.innovistasensors.com

Simplified but not simple

Agile, stable and compact

Smart Counterbalance truck

EFG B Series



High throughput

Compact design

Great Curve control

High performance AC motors and latest Can-bus technology

Outstanding mast quality and high residual capacity

 **JUNGHEINRICH**

www.jungheinrich.in

MECHANICAL POWER TRANSMISSION PRODUCTS

Albro Trading Co offers a wide range of mechanical power transmission products.

Features:

- It is reputed and established name in mechanical power transmission products, specialises in superior quality products, available off the shelf as well as made to order according to customers' specifications and individual requirements as per sample in mild steel, cast iron and carbon steel, etc.
- It is besides their usual range of chains & sprockets in simplex, duplex and triplex, conveyor chains with attachments, elevator buckets & chains, piv chains, leaf chains, extended pitch chains, silent chains and stainless steel industrial chains and their spares.
- Albro is also reputed for its excellent range of couplings which include jaw & chain types, universal joints, gear, tyre & pin bush type. our pulleys range also include timing belt pulleys, flat pulleys, v-belt pulleys and variable speed pulleys like diaphragm type and junior type pulleys with fabricated sliding base.

About the company: Albro are authorised main dealers for "Diamond" super chains and their genuine spares, connecting lock and half link, made by TIDC India, an ISO 9001 & ISO 14001 company.

Contact:

Albro Trading Co, Mumbai

Tel: 022-23424336, 022-23441194

Email: sales@albrotradingco.com, albrotradingco@gmail.com

**BRAKE MOTORS**

Eltek Motor (India) Pvt Ltd is a manufacturer of brake motors.

Features:

- The brake motor is similar to a standard motor, except that brake unit is placed on the dace of non-drive endshield.
- These motors arrest the moving parts quickly and safely, and ensures the safety of equipment and persons.
- This motor also helps to improve process efficiency by reducing unproductive stopping times.
- Moreover, the company can even custom build motors to suit customer's specific application.

About the company: Eltek Motor manufactures electric motors such as AC induction motors, AC worm geared motors, AC helical geared motors, AC inline spur geared motors, high torque variable speed DC motors, variable speed DC geared motors etc.

Contact:

Eltek Motor (India) Pvt Ltd, Palghar

Mobile: 07410041044, 07410041045, 08976642480

Email: info@eltekmotor.com, sales@eltekmotor.com

**GAS DETECTOR(DUAL) FOR OXYGEN & COMBUSTIBLE GASES**

Abhitron India manufacturers its state of the art gas detector dual portable model Digi - 69 for no. of combustible or toxic gases as well as for oxygen.

Features:

- This detector, the user will come to know the accurate level of any two desired gases at a time on the display. This instrument has digital LCD display for clear and accurate reading in percentage or PPM.
- It has got low & high alarm and calibration is possible at any concentration level, with built in good audibility buzzer and it is user friendly, cost saving & light weight.
- This instrument has facility of span & zero; user can adjust his own alarm for any alarm level as per his requirement. It indicates low battery indicator which shows 'low batt'.
- This instrument works on chargeable batteries, life of the sensor & chargeable batteries is excellent & hence no need of replacing the sensor.
- Customer can select their own gas level on the detector. They can give hand aspirator only on request. Suitable for ambient atmosphere as well as for sampling purpose or in vessel for gas level checking.
- This aazardous Gases such as NH3, CO, HCN, CNG, EO, H2, NO, SO2, F2, H2S, CL2, HCL, hexane, isopropyl alcohol, butane, methane, toluene, lpg and other 200 combustible, toxic hazardous gases can be detected.
- This instrument finds usage in industrial sectors like food processing industries where SO2 measurement in PPM level essential usage area for this instrument will be where continuous monitoring is not possible. Operating temperature range is 20C to 50C. And also available single gas detectors.

About the company: Established in 1985, Abhitron India is in the process of manufacturing electronic gas detection systems for the last 20 years. This company has been awarded with ISO 9001: 2008 certification. This company has been awarded with many other awards. Other products like multi gas detectors, domestic gas detector, breath alcohol analyzer, metal detector, flue gas analyzer, halogen detectors, SF6 & Freon Detectors are also in the manufacturing range. . The company had more than 1500 clients such as Govt., Semi Govt., chemical plants, pharma hotels, and railways etc.

Contact:

Abhitron India, Mumbai

Tel: 022-26361469

Mobile: 09323469568

Email: abhitronindia@gmail.com





Weidmüller 

The easy way to Industrial IoT

IIoT components and solutions from data to value

The way to the Industrial IoT does not have to be complicated. Whether access to valuable data is required or new, data-driven services are to be generated, Weidmüller makes the easy access to Industrial IoT possible.

With the comprehensive and future-oriented IIoT portfolio, the way to Industrial IoT is successful - "from data to value". Whether greenfield or brownfield, Weidmüller offers components and solutions for data acquisition, data pre-processing, data communication and also data analysis.

www.weidmueller.com/iiot

Weidmüller Electronics India Pvt. Ltd.
A Block, 3rd Floor, Malik's Embassy
No. 9, Union Street, Off. Infantry Road,
Bangalore - 560 001.
Phone: +91-80- 41154202
Email: wmi@weidmueller.com - Web: www.weidmuller.in

GAS/SMOKE DETECTOR SYSTEM

Abhitron India manufactures low-medium-high type gas/smoke detector system.

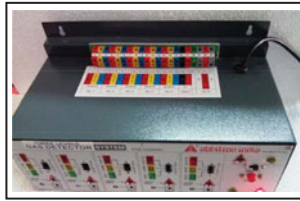
Features:

- This gas smoke detector system is for around 250 hazardous gases with 55 LED bargraph which reads three colour zones, i.e., Green (15 LEDs, 0-100 PPM), yellow (15 LEDs, 100-500 PPM) and Red (20 LEDs, 500-1000 PPM), and also as per customers requirement with calibration certificate, along with Five Leaks registered LEDs for thorough reading.
- This detector operates on 230 V/AC or 6 V/DC with a selectable slide switch for audio-visual built-in solid state buzzer with Green (Low), Yellow (Medium) and Red (High) LED indicators to detect leakage of gas/fume/vapour. Calibration setting is given on the front panel with a reset push switch.
- This instrument is absolutely in kit-form and does need any kind of installation training as the users can do the installation on their own with the help of the instruction manual. The instrument has facility to function Five Gas Detector remotely with independent Register Alarm LED – latching.
- The instrument is provided with 6 V battery back-up and a remote alarm/mute with 50 seconds timer and has the facility of switching on/off any kind of process like valve shutting, switching on the fan, etc. with the help of NO/NC contact box. Visual bargraph indication shows increase and decrease in concentration without using the audio alarm. It detects more than 300 hazardous gases such as LPG, smoke hydrocarbons, ammonia, hexane, hydrogen, sulphur dioxide, acetone, benzene, alcohols, esters and around 100 inorganic gases and many more.
- It can be used for the detection of smoke, also as an environment detector, air pollution monitor application usage areas such as hotels, computer rooms, hospitals, solvent/chemical and fertilizer plants, nuclear plants, etc.
- The only gas detector with Bargraph facility in India which has its specialty & one can read its concentration from a far distance to take immediate action.

About the company: Established in 1985, Abhitron India is in the process of manufacturing electronic gas detection systems for the last 20 years. This company has been awarded with ISO 9001: 2008 certification. This company has been awarded with many other awards. Other products like multi gas detectors, domestic gas detector, breath alcohol analyzer, metal detector, flue gas analyzer, halogen detectors, sf6 & Freon Detectors are also in the manufacturing range.

Contact:

Abhitron India, Mumbai
Tel: 022-26361469 Mobile: 09323469568
Email: abhitronindia@gmail.com

**AC/DC TRMS DIGITAL CLAMPMETER – MODEL - KM 2777**

Kusam-Meco has introduced a new AC/DC TRMS digital clampmeter - model KM 2777.

Features:

- It meets the requirements for CAT IV 1000V AC & DC & is UL approved. It has features, functions & ranges never seen before in one digital clamp-on multimeter.
- It has 3-5/6 digits 6,000 + 3-1/2 digits 1,999 counts dual LCD display with 5/sec update rate; its jaw size is 55mm.
- It measures AC & DC Current upto 2000 Amps. It can measure fundamental Voltage & frequency of most Variable Frequency Drives (VFD). An additional feature is Non-Contact- EF Detection. For precise indication of live circuits it has probe contact EF detection function also.
- It has transient protection upto 12 KV (1.2/50 μ s) providing excellent protections for those who are safety conscious. It has CAT IV 1 KV high safety over voltage category.
- The digital clampmeter has unbeatable 400 KHz DC+AC performance & VFD features. It has high basic accuracy of 0.5% (DCV) and resolution 1mV DC.
- The voltage measurement is upto 1000 V AC/DC with high impedance, also it can measure noisy high voltage AC frequencies upto 1999Hz in dual display.
- It has Capacitance measurement function upto 2000 μ F. It can do continuity tests at very fast speed. It has PC interface capability with optional purchase of USB cable software.
- It has AC/DC voltage, AC+DC voltage, AC/DC current (clamp on), autocheck DCV, autocheck ACV, VFD ACV, OHM & autocheck OHM, capacitance, temperature, DC + ACA current (clamp on), HZ line level frequency, non-contact EF-detection measurement. It has diode test, continuity test, peak hold, display hold, relative-zero mode, range-lock & function-lock function.
- This meter operates on standard 1.5V AA Size battery x 2. Its dimension is 264(L) x 97(W) x 43(H) mm & weight about 608g. It is supplied with carrying Case, Test leads(pair), Operating manual & Bkp60 banana plug K-type thermocouple x 1. USB interface kit BRUA-19X, BKB32 banana plug to type-K socket plug adaptor is Optional Accessory.

About the company: Established in 1983, Kusam-Meco, an ISO 9001:2008 certified company, introduced and pioneered the use of digital multimeters and clamp meters in Indian industry.

Contact:

Kusam Electrical Industries Ltd, Mumbai
Tel: 022- 24156638, 27754546, 27750662
Email: sales@kusam-meco.co.in



THE RIGHT TOOL MAKES ALL THE DIFFERENCE

Enerpac tools are put to work under the most intense and demanding conditions. That's why we never compromise!

So you can rely on quality and precision every time, giving you the safest and most efficient path to increase productivity. In all industries as, aerospace, infrastructure, manufacturing, mining, oil & gas and power generation you can rely on Enerpac.



WWW.ENERPAC.COM

THE RIGHT TOOL MAKES ALL THE DIFFERENCE

Enerpac India Private Limited
No.10, Bellary Road, Sadashivanagar,
Bengaluru - 560 080, India. Tel. +91 80 3928 9000,
Email : info@enerpac.co.in

ENERPAC 

SPLIT TYPE GROUND RESISTANCE ON-LINE DETECTOR – MODEL 2800 KC

Kusam Mecco a pioneer in the field of test & measuring instruments since last four decades has introduced top of the line split type ground resistance on-line detector model 2800 KC which is explosion proof mark Exia II BT3Ga.

**Features:**

- It can be applied to the corresponding flammable and explosive environment.
- The model 2800 KC has a 4 digit LCD direct indication. Resistance range is 0.01Ω-200Ω with Resolution 0.001 Ω. Accuracy is $\pm 2\%R_{dg} \pm 3dgt$ ($20^{\circ}C \pm 5^{\circ}C$, Below 70% RH), this device withstand for IP56 waterproof level. Power consumption is only 50mA Max.
- This model 2800 KC has many excellent features such as split type no need to disconnect the grounding down conductor, easy to install, non contact measurement technology, safe and reliable with RS 485 interface, network system can be set up to monitor remote real time monitoring.

About the company: Established in 1983, Kusam-Mecco, an ISO 9001:2008 certified company, introduced and pioneered the use of digital multimeters and clamp meters in Indian industry. **Contact:** Kusam Electrical Industries Ltd, Navi Mumbai
Tel: 022- 24156638, 27754546, 27750662, 24181649
Email: sales@kusam-mecco.co.in

ELECTRICAL RESET AUXILIARY RELAY, TYPE JRV 192

JVS Electronics Pvt Ltd offers an electrical reset auxiliary relay, type JRV 192.

**Features:**

- The relay is intended for use in the applications requiring increased current carrying or interrupting capability in a contact (low current contact energises the coil to close the high current contact); circuit isolation; and contact conversion (for example, from a normally open to normally closed condition), or contact multiplication (from one contact input to two contact output).
- Its principle of operation: the applied input voltage creates the magnetic field on the armature and intend to operate or reset the relay.

About the company: JVS Electronics Pvt Ltd is an exporter, manufacturer and supplier of audio indicating instruments, visual indicating instruments, electrical indicating instruments, etc.

Contact:

JVS Electronics Pvt Ltd, Ramanagara
Tel: 080-27204211/12/13 Fax: 080-28361335
Email: bangalore@jvselectronics.in

WELDING FUME EXTRACTOR

Powertech Pollution Controls Pvt Ltd offers a wide range of welding fume extractor.

Features:

- The wide range of welding fume extractor, which we are offering is manufactured using quality raw material. Welding fumes can be captured and controlled using specialized welding fume extractor marketed under the brand name Fumekiller™.
- These fume extractor are available in a wide range of suction capacities starting from 1000 cu mtrs per hour (CMH) to 6000 cu meters per hour (CMH) as standard, fitted with our self balanced fume extractor arm.
- This welding fume extractor are can also be customized according to the clients satisfaction. The welding fume extractor work on the principle of electrostatic filtration and can control all types of welding fumes. One large capacity Fumekiller™ equipment may be used for multiple welding stations for the capture and control of fumes. The welding fume extractor is extensively used for removal of fumes from specific generating sources such as: TIG/MIG welding; arc welding; plasma welding; soldering; dip tinning.
- These fume extractor are fitted with self-balanced extractor arms of various lengths for added flexibility in capture of welding fumes from generating sources. Centralised fume extractors can be supplied upto 1,00,000 CMH suction capacity in modular form.
- This range of welding fume extractor with suction arm to collect dust particles and fumes.
- Also manufacture welding fume extractor as per the accepted quality standards. Extraction done by using suction arm assures good health and safety of human resources by removing welding smoke. Additionally, welding fume extractor keeps product and production machines contaminant free.



About the company: Powertech Pollution Controls Pvt Ltd was established in the year 1996, for the design and manufacture, supply and export of a wide range of fume extractor, fume extractor arm, dust filtration system, dust killer and electrostatic filter module, etc. The company already has in place a team of dedicated representatives throughout India, who will provide excellent application study and service backup, to solve most of your problems concerning airborne pollutants.

Contact:

Powertech Pollution Controls Pvt Ltd, Bengaluru
Tel: 080-23452156
Email: philipthomas@powertechindia.com

ISO 9001 certified
33 Awards winner
Over 4500 clients

Industrial Gas Leak Detection Systems



- Available for more than 300 gases
- Robust, sensitive & accurate
- Significant approvals
- SMS mobile alerts
- Data recording
- PLC, SCADA, DCS interface
- Free site consultation
- AMC & prompt service

Sense safety with new vision

Ensure maximum performance and minimum cost of ownership. Contact us for a comprehensive & evolving solution as we share our huge experience of over 46 years on our time tested reliable systems. SUB-GUARD your plant. Call us today.



service@subtronicsindia.com

(022) 2422 4461 or 2430 3047



46 Years
experience

Gas | Breath Alcohol | Metal Detection

www.subtronicsindia.com

subtronics
(INDIA) PVT. LTD.

researched detection

147, Kalandas Udyog Bhavan, Near Century Bazar, Prabhadevi, Mumbai - 400 025. INDIA.

FUME EXTRACTOR

Powertech Pollution Controls Pvt Ltd offers a wide range of fume extractor.

Features:

- This fume extractor marketed under the Fumekiller™ brand name are available in a wide range of suction capacities starting from 250 cu mtrs per hour (CMH) to 8000 cu mtrs per hour (CMH) as standard.
- These work on the principle of electrostatic filtration and can control fumes, smoke and microscopic dust. One large capacity equipment may be used for multiple machines for the capture and control of fumes, dust and smoke.
- This product is extensively used for removal of fumes, mist, smoke, fine powder, etc, from specific generating sources such as: CNC and non-CNC m/cs; electro-discharge m/cs; induction hardening; TIG/ MIG welding; soldering; dip tinning; diesel genset exhaust; furnace exhaust; spark erosion m/cs; die-casting fumes centralised fume extractors can be supplied upto 1,00,000 CMH suction capacity in modular form.
- These fume extractor can be fitted with self-balanced extractor arms of various lengths for added flexibility in capture of fumes from generating sources.

About the company: Powertech Pollution Controls Pvt Ltd was established in the year 1996, for the design and manufacture, supply and export of a wide range of fume extractor, fume extractor arm, dust filtration system, dust killer and electrostatic filter module, etc.

Contact:

Powertech Pollution Controls Pvt Ltd, Bengaluru
Tel: 080-23452156
Email: philipthomas@powertechindia.com



HIGH SPEED TRIPPING RELAY, JRV 171/18

JVS Electronics Pvt Ltd offers high speed tripping relay, Type JRV 171/181.

Features:

- It is electromechanical design; plug-in modules; screw terminals; self or hand reset contacts; protective transparent cover for the element; and compact flush mounting case.
- Its applications include: high speed tripping functions requiring a number of simultaneous switching operations, interlocks in control and closing circuits.
- This high speed tripping relays are electromechanical, attracted armature type, used in control and alarm circuits. These relays are designed as plug-in elements with the plug-in base having 20 terminals per element. Each element is enclosed in a dust proof moulded, transparent, polycarbonate cover.
- There is no hard wiring between the relay element and the rear terminals on the base.
- The contacts are made from phosphor bronze and are nickel plated. The contact tips are of pure silver. The use of these materials ensures very good contact performance. Each element can be offered as – 4 NO + 1 NC or 3 NO + 2 NC or 2 NO + 3 NC or 5 NO (to be specified while ordering).

About the company: JVS Electronics Pvt Ltd is an exporter, manufacturer and supplier of audio indicating instruments, visual indicating instruments, electrical indicating instruments, etc.

Contact:

JVS Electronics Pvt Ltd, Ramanagara
Tel: 080-27204211/12/13 Fax: 080-28361335
Email: bangalore@jvselectronics.in



STRIP HEATERS

Kantilal Chunilal & Sons Appliances offers strip heaters.

Features:

- They come with mica or ceramic insulation and are sheathed in rust-resisting or stainless steel sheaths.
- Applications of these heaters are such as heating of flat walled metal parts; dies and moulds; food warming; freeze and moisture protection; packaging equipment; glue melting; ovens and furnaces; crucibles; air and gas duct heaters; hot plates, etc.

About the company: Kantilal Chunilal & Sons is the manufacturer of "Spherehot" brand instant and storage electrical and water heaters, instant and storage gas water heaters, cartridge heaters, canteen equipments, thermostats, stainless steel tubes.

Contact:

Kantilal Chunilal & Sons Appl Pvt Ltd, Surat
Tel: 0261-2277555 Email: info@spherehotkcsa.com



COPPER BUSBARS IN STRIPS

Nath Pvt Ltd offers a range of copper busbars in strips.

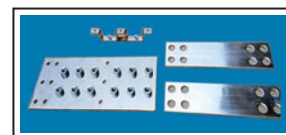
Features:

- These are available in standard sizes or can be manufactured as per customers' drawing.
- These busbars are used in UPS systems and inverters (60, 120, 150, 200 and 250 kVA) with nickel plating.
- It manufactures copper and aluminium busbars from 1 kVA to 800 kVA for solar energy system, inverters, and rectifiers and UPS systems as per customer requirements or drawings and also capacitor mounting aluminium plates.

About the company: Nath Pvt Ltd has been manufacturing busbars and other products for many years. Most customers are referrals and second time clients.

Contact:

Nath Pvt Ltd, Pune
Tel: 020-26820905 Mobile: 09881202165
Email: nitinshingade12345@gmail.com





An ISO 9001:2015 Certified Company

Sudhir Automotive Industries Pvt. Ltd.

www.saifasteners.com

**Your Search for
Stainless Steel Fasteners
ends here !!**



Kharawar Bye-Pass V. Po. Kharawar Delhi Road, N.H-10, Rohtak-124001 (Haryana) India

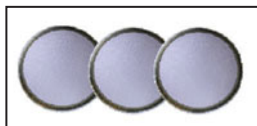
Mr. Sudhir Jain, E mail: ss316@saifasteners.com, Ph.: +91 98120 34145

Sales: OEM: Mr. I. Raja, E mail: iraja@saifasteners.com, Ph: +91 92159 11240

Dealer: Mr. Manoj Gupta, E mail: mgupta@saifasteners.com, Ph: +91 99109 01128 | Website: www.saifasteners.co.in

IMASIEVES

Ami Polymer Pvt Ltd engages to manufacture and supply imasieves.



Features:

- Imasieves or sifters is a device for separating wanted elements or for characterising the particle size distribution of a sample, typically using a woven screen such as a mesh.
- Sifting is mainly used in two areas, check screening of raw material to remove extraneous material and sizing, to sort segregate or control the particle size distribution of powders and granules. Sifting is mainly achieved by used of vibratory, rotary & centrifugal screeners.
- Sieves have to be specially designed to resist the high tensile stress generated.
- Since particle size distributions plays a vital part in drug dissolutions, maintaining the accuracy of the sieves apertures in an essential part of sieves manufacturing.
- Proper thickness of wire, accurate nominal apertures sizes, high tensile strength and tautness of the sieves are essential part of sieve for high sifting performance.
- Material of construction Stainless Steel – 316 and 316L.
- Aperture sizes – 4075 to 70 microns or mesh sizes 4# to 200# with ASTM standard being certified 90X microscope.
- Sieves are available in various sizes from 4 to 30 inches diameter. The most common size used 20" (550mm) & 30" (750mm) diameter.
- The silicone is food grade material, transparent in appearance.
- Nontoxic & moulded on the stainless steel ring.

About the company: Established in 1986, Ami Polymer Pvt Ltd is an ISO 9001:2015 and ISO 14001:2015 and OHSAS 18001:2007 certified company. It is involved as a manufacturer and supplier of products like biopharmaceutical grade elastomer tubing, reinforced hoses, inflatable gaskets and all kinds of extruded and moulded components. Some key product applications are such as pharmaceutical Industries, food Industries, vibro-shifter machine, chemical industries. The company is headed by qulified rubber technoligist from premier institutes from India, coupled with the rich experience in R&D and reinforced with management capabilities. Besides the silicone rubber products the company also manufactures a wdie range of products FKM, EPDM, Nitrle, Neoprene, TPE and PTFE products.

Contact

Ami Polymer Pvt Ltd

Mira Road (E), Thane, Maharashtra

Tel: 022-28555107/631/914

Mobile: 08691013935

Email: mktg@amipolymer.com

HAMMERTONE FINISH ENAMEL PAINT

Surfa Coats India Private Limited offers a wide range of hammertone finish enamel paint is a special formulation of high-grade pigments and special synthetic resins that are highly durable in nature.



Features:

- This is modern hammertone finish enamel recommended for exterior and interior use.
- It has an extremely tough and durable film which withstands severe weather conditions.
- This hammertone finish is ideal for protection and decoration of metal and wood surfaces. It dries within 4-5 hours by giving an extremely rich attractive satin finish.
- This hammertone finish is a special formulation of high grade pigments and special synthetic resins that are highly durable in nature.

About the company: Came into being in 1979, Surfa Coats is an eco-friendly paint company. Surfa Coats is known for their unbeatable quality, the intricate depth, and sophisticated flourish in each color have made it a much-admired paint company.

Contact:

Surfa Coats India Private Limited, Bengaluru

Mobile: 08045350066 Email: surfa@vsnl.com

SOLAR BATTERY -150AH

Solofy Solar offers a wide range of solar battery -150AH.



Features:

- This batteries is made of time tested exide torr tubular positive plate.
- It is superior performance, high reliability & guaranteed service life.
- It is specially designed for arduous SPV application - available in 12V, 6V & 2V ranges.
- Intrinsically suited for regular deep cyclic duty - superior cycle life and suit the rigors of partial state of charge operation.
- It has ultra-low maintenance, factory filled and charged 2V modular cells, easy handling, ready to install.
- Solatubular 12V LMS ranges meet IS13369 & IEC 61427 specification; Solatubular 2V LMXT ranges meet IS1651 & IEC 61427 specification.

About the company: Established in 2018, Solofy Solar is one of the notable companies immersed in wholesaling and trading of a wide range of solar power plant, solar street light, solar water heater, solar inverter etc.

Contact:

Solofy Solar, Delhi

Mobile: 08048994318

Email: info@solofysolar.com



Cup Filling Machine/ ICE Cream Filling Machine

ROTARY CUP FILLING MACHINE.
(1200/2000/3000 Cups per hour)

Cup filling machine suitable for filling liquids like Dahi/Lassi/Milk/Juice/ Yogurt/Shrikhand and Non Carbonated Beverage.

Functioning-Manual, Semi-Automatic, Fully Automatic.

ROTARY ICE CREAM CUPS/CONE FILLING MACHINE
(UP TO 2400 CONES PER HOUR)

Functioning-Semi-Automatic, Fully Automatic



Bottle/Matka Filling Machine

Customized jar and cup filling machine for (200-1000 ml) Automatic and semi automatic machines with washing and scrubbing of bottles and jars for curd and ghee. Matka filling machine for 1 Kg to 15 Kg variants with filling and sealing.



Pasteurization System

Pasteurization system ranging 300 LPH to 20,000 LPH Suitable for Milk, cream, dahi, paneer, juice & beverage. This system is offered with tubular holding ranging from 20 sec to 10 min depends on application. It is also provided precise output temp. control of the product

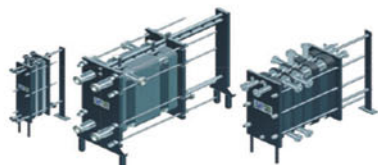


Plate heat exchanger

PHE used for heating/cooling of milk, cream, ice cream mix, sugar syrup, juice mix, beverages, soda water, pharma chemicals & food products



Clean-in Place

Clean-in Place (CIP) system used to clean the pipelines & equipment using circulation of hot water, lye & acid after every shift of processing products.



Hot water genration system

For Supply hot water at precise temp. Used for heating of pharma solution, milk, cream, juice, sugar syrup, beverage, chemical solution, swimming pool & hot water supply to hotel & hospital.



Dimple Jacketed tank & Hemispherical Kettle's

Used for heating/cooling of dairy, beverage, food, pharma products with regular agitation with optional process automation for maintaining the temp of fluid

Dairy Plant



Juice & Beverages Machinery



Pharmaceuticals Processing Plant



Our Clients



B-38, Sector - 60, Noida (U.P.) - 201301, India

Ph.: +91-120-2580507 / 2584659 | Mobile: +91-93505 45986 / 99719 34240

E-mail: info@vedengineering.com / sagar@vedengineering.com

Web: www.vedengineering.com

UNIVERSAL PROCESS CONTROLLER-MODEL CT-SV8

Countronics manufactures a wide range of universal process controller - model CT-SV8.

Features:

- The product has large 4 Digit 0.8" 7 segment leds for process value. It comes with a separate 0.36" green display for set value.
- The product has PT100 (RTD) sensor & 5 types of common thermocouples with auto cold junction compensation.
- These controllers can handle inputs such as 4-20mA / 0-20mA / 1-5V / 0-5V/ 0-10V from Tx for pressure, humidity, pH, temperature etc.
- For better functional use, its display is user programmable from 1999 to 9999 and can also be set in decimals.
- Heater logic relay and Cooler Logic SSR outputs can be generated.
- 4-20mA isolated re-transmission output is achieved.
- Hysterisis for set limits can be set by user.
- These controllers have offset separately programmed from front.
- Excitation voltage for loop Tx. Sourced
- Specifications: Display: 4 digit 0.8" red 7 segment LED display for process value, 4 digit 0.36" green 7 segment LED display for set value; Inputs: linear (universal from Tx), 0-20mA, 4-20mA, 0-5V, 1-5V & 0-10V, non-linear (temperature sensors), T/C – R,T,J,K,N and 3 Wire PT100; Output: Isolated 4-20mA re-transmission output for all inputs; Accuracy: $\pm 0.25\%$ of Span ± 1 count; Resolution: settable 0.001 to 9999 for linear inputs; 1°C for thermocouples, 0.1°C for PT100; Control: 2 set of control limits, set-1 heater logic & set-2 cooler logic, 5 Amps/220V AC relay output for set 1. SSR 12V DC output for set 2 hysteresis settable; Exciter Voltage: 24V@30mA for loop Tx; Power: 220V AC $\pm 15\%$ @ 50/60 Hz; Ambient: $0-55^\circ\text{C}$; Humidity: Up to 90% (non-condensing); Power consumption: 10VA; Case: 48 x 96 x 85 mm plastic ABS; Front fascia: 48 x 96 mm; Panel cutout: 43 x 91 mm.

About the company: Established in 1978, Countronics specialises in manufacturing electronic control instruments for industries. Countronics is dedicated to providing electronic process control instruments for industrial use. It has been their continuous endeavor to provide innovative, simple to use and cost effective products.

Contact:

Countronics, Ghaziabad
Mobile: 09818350088
Email: countronindia@gmail.com



AVRON PLATINUM PLYWOOD

Avron Ply manufactures a wide range of avron platinum plywood.

Features:

- Avron platinum ply is a BWP/ marine grade ply made from Gurjan hardwood timber veneers.
- Each and every panel is made with pre-press technology and is bonded at high pressure and temperature with undiluted phenol formaldehyde resin.
- It can withstand rigorous climatic conditions, alternate dry and wet weather in the exchangers deep sea.
- Its features include: lifetime guarantee; termite and borer proof; resists marine organisms; thicker face for durability; bend & warp proof; decay resistant pressure treatment for lower maintenance & performance.

About the company: Avron Ply, part of SJE Group, founded two decades ago, SJE Group is on a fast growth trajectory. SJE Group manufactures plywood & doors from its two production facilities based out of Kanpur & Yamuna Nagar.

Contact:

Avron Ply (A unit of SJE Exim Private Limited), Mumbai
Mobile: 08045358838, 09967740999
Email: info@avronply.com



BARCODE SCANNER - HAVSOL SC-830W

Infoaccords Technologies offers a wide range of barcode scanner - Havsol SC-830W.

Features:

- Havsol SC-830W barcode scanner is one of our wireless scanners with 433MHz long-distance transmission, which provide industrial use and charge point, high reliability and durability which make it ideal choice for warehouse and logistics for harsh environments.
- Its features include: high transmission ability and high performance under the wireless interference conditions; provide different channels for choice; high durability with large battery capacity; large memory makes it possible in storing more barcodes in inventory mode; provide industrial use and charge point with high reliability.

About the company: Established in 2013 as a partnership firm, Infoaccords Technologies engages as a wholesaler and trader of an excellent quality range of barcode printers, barcode scanner, pos touch screen, thermal printer, biometric system, android pos terminal, door controller, billing machine, billing software etc. .

Contact:

Infoaccords Technologies, Chandigarh
Mobile: 07307104477, 09988312111, 09988990002
Email: contact@iaccords.com

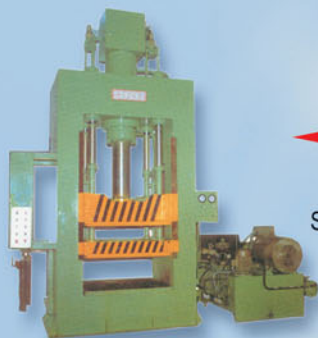


Innovative Technology of High Precision **REDSON** Rotary Shears & Online Rotary Shearing Systems, Hydraulic Presses, Spinning Machines



◀ ROTARY SHEARS

For perfect Blanking/Rotary Shearing of ferrous/
 non-ferrous metal sheets, Packing Sheets,
 Press Boards, Motor Stampings.
 Capacity: Thickness upto 6 mm in steel,
 Diameter 300 to 2000 mm.
 Circular Accuracy upto: ± 0.05 mm

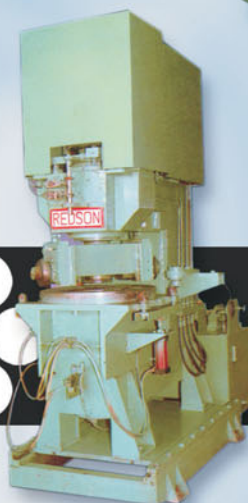


◀ HIGH SPEED OIL HYDRAULIC PRESSES

Capacity up to 2000 tonnes
 Single / Double / Triple Action Presses
 Powder compacting Presses
 Up stroking Presses
 Platen Presses

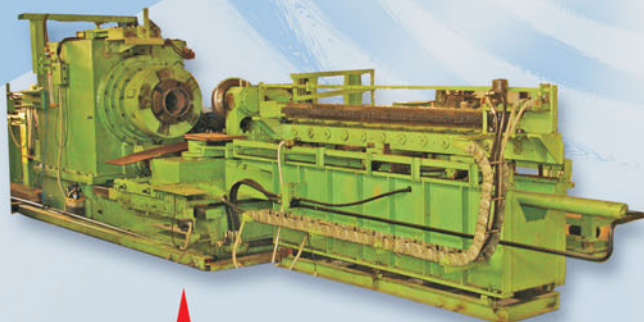
UNIVERSAL AUTO TRIMMER ▶

For trimming and joggling, Beeding of
 drawn components capacity thickness
 upto 5 mm, Diameter/Shape unlimited.



ONLINE ROTARY SHEARING SYSTEMS 3 ROW MODEL ▶

- Max. Thickness: 4mm in MS • Max. Width of Coil: 1700 mm
- Weight of Coil: 25 Tonnes • No. of Circles: upto 6 per minute
- Material saving of 10% because of Zig-Zag Shearing



▶ CNC CONTROLLED HOT SPINNING MACHINES

for High Pressure cylinders and other applications

PNEUMATIC MACHINES:

- Pneumatic Blast Rooms
- Pneumatic Blast Cabinets



SHOT BLASTING PLANTS

Airless Roto Blast Machines Pneumatic Blast Rooms & Cabinets

COMPLETE RANGE OF MACHINERY FOR

- CNG & High Pressure Cylinder Plants
- LPG & Auto Gas Cylinder Plants
- Hydraulics Presses
- Shot Blasting Machines

REDSON ENGINEERS PRIVATE LIMITED

F-9/B, Phase-1, IDA, Jeedimetla, Hyderabad - 500 055. Telangana.

Ph.: Admn. Office & Works: 040 - 40275298, 23091171, 23095523 Mobile: 98480-50948 Fax: 040 - 23096236, 23713585

E-mail: redsonengineers@gmail.com, redson.pgreddy@gmail.com Website: www.redson.org



HUMIDITY CUM TEMPERATURE DATA LOGGER

Charun Instruments offers a wide range of humidity cum temperature data logger.

Features:

- Available collective and premium quality humidity cum temperature data logger which are exclusively used to measure various physical parameter like temperature, voltage and flow.
- These are required and used for applications where recording is not required.
- Made from fine grade basic component, this product have durable finish standards, which is according to industry norms.

About the company: Established in 1997, based at Ahmedabad, Gujarat, India, Charun instruments are engaged in manufacturing, wholesaling and exporting a wide range of electromagnetic flow meter, data loggers, level controller and many more. They are also known to offer the automation solutions, control panels, flow, humidity, level, temperature, pressure solutions.

Contact:

Charun Instruments, Ahmedabad
Mobile: 08048763119, 09727750100
Email: sales@charuninstruments.com

**RADIO REMOTE CONTROL PENDENT STATION**

Sibass Electric Private Limited is a manufacturer and supplier of radio remote control pendent station.

Features:

- Provided remote control is vastly admired in different industry for providing safe and secure communication.
- Offered remote control is manufactured using optimum grade raw material and latest technology under the supervision of our adroit professionals.
- Its features include: advance program design, quick & good performance on movements; PA transmitter housing, water/shock/dust proof; single-row button transmitter, compact and lighter design, ensure safe & convenient operation; random security code up to 4.2 billions sets. .

About the company: Sibass Electric Pvt Ltd, are engages to provide a comprehensive range of electrical components like control gear, automation products, industrial sockets, cable drum, crimping tools, industrial connectors.

Contact:

Sibass Electric Private Limited, Chennai
Mobile: 08048762274, 09841025144
Email: info@sibasselectric.com

**DRUM UNLOADING SYSTEM**

HIS Pumps And Systems Private Limited offers a wide range of drum unloading system.

Features:

- Offering high-quality drum unloading system for high viscous fluids to the customers.
- It is high flexibility due to mobility of the system; customized performance due to individually selectable three-phase or compressed air motor.
- It has low disposal costs; user-friendly handling due to easy operation of the control unit; low initial purchase costs; process safety; fast cleaning; easy system extension due to extensive range of accessories; excellent employee protection.

About the company: They introduce as one of the most prominent distributors and service provider of industrial pumping technology. Their product mix includes seal-less centrifugal pumps, dry screw vacuum pumps, liquid ring vacuum pumps, oil sealed and oil lubricated vacuum pumps, dosing/metering pump, high capacity industrial blowers and specialized pumps for scrubbers.

Contact:

HIS Pumps And Systems Private Limited, Vadodara
Mobile: 08048762408, 09825059629
Email: vijay@harshindustrial.com

**HIGH PRESSURE CHEMICAL REACTOR**

Karadani Engineering Pvt Ltd offers a wide range of high pressure chemical reactor.

Features:

- These products ensures hassle free performance and available in the market at various specifications.
- In their manufacturing procedure, they utilize quality approved raw material and technically advanced technologies in order to adjust with the challenging business work environment.
- Keeping in mind the diverse requirements of the clients, they manufacture and supply an extensive range of high pressure reactors.
- Its features include: affordable rates; perfect finish; innovative designs; operated via electricity. It is used in chemical process.

About the company: Karadani Engineering Pvt Ltd is engaged in manufacturing, supplying and exporting a wide array of reactor, pressure vessel, storage tank, belt conveyor, hydraulic power press machine and many more with an aim to ensure the same, we manufacture these by making use of the high grade raw material.

Contact:

Karadani Engineering Pvt Ltd, Ahmedabad
Mobile: 08048784525, 09723900877, 07624036587
Email: sales@karadanieng.com



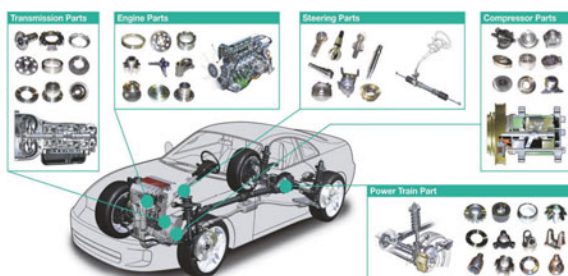
MURATEC Automated Turning Solutions

To meet the expanding global supply market requirements, Muratec has been a global leader in supply of Turning machines with advanced automation solutions. It is fully prepared to provide the most appropriate level of automation solution to meet the growing demand in India for medium to high volume global supply market combined with high-precision Standards. It also caters to the rapidly increasing volume requirements of the domestic Indian automobile industry.

Our MW/MS Series Twin and Single spindle automated turning machines and MD series turning centers have more than 10,000 installations worldwide. We are proud to say that, "MURATEC MOVES YOUR CAR".

MURATEC machines are available in a wide range of chuck sizes: capacities ranging from 6" to 15" chuck size. These advanced, precision turning machines come with highly reliable, integrated, intelligent CNC 3 axis servo controlled gantry loader for smart, fully automated, flexible workpiece load/unload operations. Complete solution includes machine plus peripherals and options to achieve full automation for unmanned operations on 24 x 7 basis, standardized and customized units to JUST-FIT the customer's productivity needs.

Globally Proven Solutions, Abundant Experience in Automotive Parts Production



MW120 + MD120
Turning and Turn-Mill Center : 4-Spindle line

MURATEC Solutions for Sheet Metal Punching

Muratec, world's first manufacturer of servo driven ram turret punch press introduces leading innovation in sheet metal industry MOTORUM 3048TG. MOTORUM series does more than to achieve high reliability and high speed processing. This machine enhances overall productivity through process integration of bending, forming, tapping and other processes, together with reduction of time needed to set-up and program.

MOTORUM

MOTORUM series punch presses are available in various models to meet diversified needs of sheet metal industry. These machines are worldwide popular for its design features, rigidity, high speed productivity, environment friendly design features of minimum power consumption, low noise and high profitability to customers. Motorum series machines have more than 1,350 installations worldwide. MURATEC the leading name in automation is fully prepared to offer sheet metal automation solutions to meet the growing production demands in India.

Muratec Ball Screw Press Brake BB4013
is driven by AC servo motor & ball screw mechanism.



The New 300kN Solution Latest Technology from
the Inventor of the Electric Turret Punch Press

CNC Servo Motor Driven Ram Turret Punch Press
M3048TG with Cell Loader FS2512



IDLER ROLLERS

Jekmin Industries are manufacturer of high end Idler Rollers.

Features:

- These high-end idler rollers return idler roller and conveyor rollers that are available in various dimensions and thickness, which suit numerous industrial applications.
- These rollers are manufactured using quality inputs and they offer them to their customers in various configurations.
- Produced in bulk quantities, these rollers are delivered to their clients within the assured time of delivery.

About the company: Established in 2009, Ahmedabad, Jekmin Industries is engaged in manufacturing and service providing a wide range of conveyor roller, roller side guide, silicone rubber roller, textile rollers, chain sprocket and fastener bolt etc. These products are designed and manufactured in our highly developed manufacturing unit using superior quality raw material and sophisticated technology. Further, these products are manufactured in tandem with the international quality standards under the supervision of our quality experts.

Contact:

Jekmin Industries, Ahmedabad
Mobile: 08048408926, 09824524464, 07777981601
Email: jekmin.industries@gmail.com

**EXCEL HYDRAULIC OILS - MOBIL DTE 10**

Mahavir Oil Corporation recognized as a successful manufacturers, suppliers, traders and wholesalers of Mobil DTE 10 - excel hydraulic oil (32/46/68/100/120/150).

Features:

- It provides exceptional cleaning power, wear protection and overall performance. This oil from our end keeps the engine running like new in all driving conditions.
- This one is made available to their customers at industry leading rates and is of super fine quality.
- This product from our side is engineered for the latest gasoline and diesel engine technology delivering excellent all-round performance.
- Its features include: does not thicken unduly; low volatility; exceptional cleaning power.

About the company: Founded in 1992, Mahavir Oil Corporation is involved in wholesaling and trading a vast range of lubricants.

Contact:

Mahavir Oil Corporation, Mumbai
Mobile: 08048700112
Email: mahavirshell@yahoo.com

**WIRE ROPE HOISTS**

Mega Cranes India Pvt Ltd offers a wide range of wire rope hoists.

Features:

- Offered rope hoists are developed at their manufacturing unit by utilizing progressive techniques and top notch material keeping in mind the set norms of industry.
- Along with that, their rope hoists are demanded in automobile, food processing, packaging and mining & cement industries. Customers can avail these rope hoists from us at industry leading rates in a stipulated time period.
- Its features include: elevated quality; precisely designed; low coefficient of friction.

About the company: Mega Cranes India Pvt Ltd is engaged in manufacturing, trading and supplying material handling equipment. The company is a government-recognised Micro Small Scale Enterprise (MSE).

Contact:

Mega Cranes India Pvt Ltd, Coimbatore
Tel: 0422-2331033
Mobile: 09994963033, 09791902323
Email: gripcranes@yahoo.co.in, info@megacranesindia.com

**HEAVY DUTY PALLET RACKING**

Spanco Storage Systems offers a wide range of heavy duty pallet racking.

Features:

- A conventional pallet racking warehouse is generally laid out with single-entry wall racks on the perimeter sides and double-entry racks in the middle. The working aisle measurement between each rack and the rack height depends upon the characteristics of the fork-lift trucks or lifting devices, pallet size and the height of the warehouse itself.
- Narrow aisle pallet racking is used for the storage of pallets with narrow aisles for specialized materials handling equipment to operate in.
- Narrow aisle pallet racking requires special materials handling equipment operating in aisles with guide rails.

About the company: Spanco Storage Systems is a distinguished manufacturer and supplier of industrial storage racking systems. These are appreciated for features such as durability, high performance and rigid construction.

Contact:

Spanco Storage Systems, New Delhi
Tel: 011-64636465
Mobile: 09811015963, 09315123235
Email: info@spancostorage.com



Maximum Performance. Simply Delivered.

When it comes to performance, get the best from Veedol. Specially engineered lubricants to keep you on the move, Veedol High Performance Hydraulic oils ensures you go further and longer than ever before.

Trust the best. Trust Veedol.

www.veedolindia.com



Premium quality heavy duty hydraulic oil blended from premium base oils and fortified with anti-wear, anti-oxidant, anti-rust and anti-foam additives.

Ensures long life for hydraulic fluid, hydraulic pump and valves.

Recommended for automotive and industrial hydraulic equipment, rotary screw compressors and other oil circulating systems.

Available grades: Avalon 32, 46, 68, 100, 150, 220, 320, 460, Avalon HLP 32, 46, 68, Atransol 46, 68, 100 and Avalon EM 46, 68



Veedol

Lubricants

PRESSURE REDUCING STATION

Boilerhouse corporation is a solution provider offering pressure reducing stations.



Features:

- It has assured, accurate, consistent downstream reduced pressure irrespective of fluctuations at inlet. Gives more latent heat, which is heat used in industrial equipment resulting in lower fuel consumption.
- The products are designed as per best steam engineering practices. Safety valve sized for full discharge capacity of the PRS; specially designed flow divider to ensure low noise levels; rugged in design; can be used in hazardous area without any certification; operates even on low flow conditions; fast response to pressure changes.
- The product has benefits of being ready to install i.e. reduces installation time and field engineering; maintenance free and user friendly; both IBR certified & non IBR PRS are available.

About the company: Boilerhouse corporation, founded in 2010, Boilerhouse corporation has been providing professional services for boiler and heaters in terms of erections, spares, technical services and steam line accessories.

Contact:

Boilerhouse Corporation, Adipur
Tel: 0265-2350210
Mobile: 09825610428
Email: harshad.darji@bhcggroup.in

DUST COLLECTION BAG

ABR Enviro Systems offers a wide range of dust collection bag.

Features:

- Supplied all types dust collection bags of standard & customized sizes bags. Their experienced engineers add value by selecting right kind of filter media for any given application.
- Also offer fabric filter bags in various media such as acrylic, polyester, nomex, glass fiber, homo-polymer, co polymer, polypropylene, ryton, teflon, p-84 polyamide etc.
- This filter bags has high quality, high value filter bag for any requirement.
- Correct bag fabric and design is an important aspect to achieve for maximum filtration efficiency, cake release and durability.

About the company: ABR Enviro Systems is a consulting company for all types of air pollution controlling equipments and is a manufacturer and supplier of filter bags, cages and whole spares of bag filter and ESP.

Contact:

ABR Enviro Systems, Indore
Tel: 0731-2591229, 6525038
Mobile: 09302133960, 09993177755
Email: abr.systems@gmail.com



TATA BEARINGS

Tata Steel Limited offers a wide range of tata bearings.

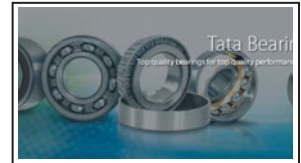
Features:

- The brand has introduced 1st generation hub bearing for four-wheeler application using state-of-the-art IZUMI technology.
- A widespread network of authorised stockists, retailers and consignment agents are spread all over the country to help reach tata bearings to individual end users and OEMs.
- The product range includes: ball bearings; taper roller bearings; hub unit bearings; double row angular contact bearings; clutch release bearings; magneto bearings; double row self aligning ball bearings; centre bearings; cylindrical roller bearings; spherical roller bearings.
- A state-of-art bearings testing and validation centre is dedicated for testing life and endurance by simulating actual operating conditions.

About the company: Tata Tiscon 500 grade was developed for heavy-duty structures. These rebars provide superior strength even as they reduce the quantum of steel required. Tata Tiscon 500D is retailed through its extensive distribution network of dealers across India, through an established network of nearly 6500 dealers across India.

Contact:

Tata Steel Limited, Kolkata
Mobile: 08048007713
Email: ibmd.marketingcomm@tatasteel.com



FLAT MOUNTED TABLE BEARING GS

HVD Distributors Pvt Ltd imports and exports flat mounted table bearings.

Features:

- Bearing being the link between mobile element, an alternate base must have a capacity to transmit the stresses of a mobile towards a base.
- It is necessary to accurately define all the actual stresses applied so that a bearing can be selected.
- SJS Bearings are currently available in sizes upto 300mm OD SJS Bearings – accuracy in smaller simpler package.

About the company: Established in 2010, HVD Distributors Pvt Ltd (earlier known as Harsh Agencies) is an importer and exporter of various types of bearings and components for various industries like steel mills, automobiles, power plants, engineering, FMCG, government institutions, etc.

Contact:

HVD Distributors Pvt Ltd, Mumbai
Tel: 022-66655000
Mobile: 09820044234
Email: sales@hvdmails.com





- **Modular Walls (Progressive & Non Progressive)**
- **Modular Ceilings (Walkable & Non walkable)**
- **Modular Clean room Doors**
- **Modular Soft wall Clean rooms**
- **Filter Ceiling System**
- **Metal doors for conventional clean rooms**
- **Contamination control equipment**



SR PREFABS MODULAR CLEANROOM PVT. LTD.

Plot No.102, S.V.Co-Operative Industrial Estate, Jeedimetla,

Hyderabad - 500 055. Telangana. India.

Phone: 040-2309 3933 Telefax: 91 40 2309 2922

E-mail: info@srprefabs.com, srprefabs@rediffmail.com Visit Us At : www.srprefabs.com

ISOLATION TRANSFORMER

MR Electricals is providing isolation transformer.

Features:

- The transformer which has no direct current path between its primary winding & secondary winding is called an isolation transformer. It gets 3-phase+neutral supply from MSEB.
- Normally, the neutral which they get from MSEB is very poor and neutral to earth voltage gets increased as load increases.
- Some of the product advantages are such as compact size and reduced weight; increased thermal stability and higher short-term over load capacity; higher surge withstanding capability; enhanced ability to withstand short circuit currents; reduced impact of harmonics and high frequency on the design of transformers; greater insulation reliability; lower cost; neutral failure problem eliminated; high insulation resistance; reduction of noise.

About the company: MR Electricals is a partnership firm, engages as the foremost manufacturer of voltage stabiliser, industrial transformer, AMP meter, etc.

Contact:

M R Electricals, Nashik

Mobile: 09422245023

Email: sales@niyantran.com, sales@niyantranindia.com

**HEAVY DUTY INDUSTRIAL CONNECTOR**

Indo Electricals is a manufacturer of a wide range of heavy duty industrial connector.

Features:

- The heavy duty industrial connector meets the exacting standards in industrial environment.
- There is a wide range of applications for this industrial connector in mechanical and plant engineering industries.
- This is also used in the design and construction of equipment, in medical technology and construction machines.
- The range available form 3 pin to 128 pin screw type and in crimp type with different working current 10A to 80A.
- The industrial connectors are important for rail, vehicles and ships as well as for power generation and distribution, where they have become an integral component in electrical equipment.

About the company: Indo Electricals manufactures products used for interconnection techniques for electrical & electronic markets.

Contact:

Indo Electricals, Vadodara

Tel: 0265-6672123, 2642123 Mobile: 9825339669

Email: info@indoelectricals.com

**GALVO SCANNER CONTROLLER**

Aerotech has introduced galvo scanner controller with 192 kHz servo rate and position-based laser control.

Features:

- This GL4 scanner controller is optimised for Aerotech's family of AGV scanners to provide industry leading settling times, long-term thermal stability, and micron-level tracking accuracy due to advanced features such as full state feed-forward, 192 kHz servo rates and look-ahead-based velocity control.
- The GL4 uses advanced interpolation electronics to provide up to 26-bits of effective resolution while onboard real-time 2D calibration ensures accurate beam placement over the entire field of view.
- These power devices inject thermal energy into the scanner head causing drift in the feedback positions and changing offsets between the mirrors, which reduce marking accuracy.

About the company: Started in 1970, Aerotech India designs and manufactures highest performance motion control, positioning tables/stages, and positioning systems for customers in industry, government, science and research institutions around the world.

Contact:

Aerotech India, Bengaluru

Tel: 080-42091836 Mobile: 09008307575

Email: jbala@aerotech.com

**LIFTING & CLAMPING DEVICES**

Fibro India Precision Products Pvt Ltd is a manufacturer of a range of lifting and clamping devices.

Features:

- These are manufactured using high quality materials so that the range is in tandem with international quality standards.
- These clamping devices are available in varied customised specifications at nominal rates.
- The product range comprises of die sets, lifting and clamping devices and milling guides.
- These devices have high strength and are rust-proof & easy to fit. The range of standard parts accessories includes clamping devices, clamping and lifting journals as well as hoisting gear.
- The company stocks support and mounting elements, which are intended for the safe transport of tools that weigh up to 63,000 kg.

About the company: Established in 2008, Fibro India Precision Products Pvt Ltd is a business organisation engaged in manufacturing and supply of an excellent assortment of a wide array of rotary tables and die sets.

Contact:

Fibro India Precision Products Pvt Ltd, Pune

Tel: 02135-670910/904

Mobile: 08380003171

Email: anuradha@fibro-india.com



DERATECH NOW IN INDIA

DERATECH



- CNC Hydraulic Shears
- CNC Press Breakes
- CNC Turret Punching
- CNC Fiber Laser



Deratech Machines India Pvt Ltd

264/75, 36th Cross, 2nd Main, Jayanagar 8Th Block, Bangalore-560070

Tel: +91 80 26584443 | Mobile. +91 9916534110

www.deratechindia.com

HYDRAULIC PRESSES

Hydro-Technik Industries manufactures a range of hydraulic presses.

Features:

- These presses are best in performance through quality and innovation, and available in H-frame, C-frame and ring frame in pillar and column type construction. This product range is from 3 to 500 tonne capacity in all frames except C-frame, where these are available in capacity up to 200 tonne.
- The product applications include blanking, punching, stamping coining, etc; deep drawing; powder compacting; and rubber moulding presses with heated platens also available.
- Their range of products comprises hydraulic CNC pipe bending machines, hydraulic presses, hydraulic power packs, hydraulic cylinders, intensifiers, telescopic cylinders and jacks, rotary actuators, pick & place units and automation systems.

About the company: Hydro-Technik Industries is one of the leading manufacturers of precision engineered hydraulic products, established in 1995 by promoters with years of experience in various fields like machine design, assembly, servicing and hydraulic applications.

Contact:

Hydro-Technik Industries, Thane
Tel: 0250-6554906 Mobile: 08079464759
Email: a.d0192745@gmail.com

**RAILWAY EARTHING SWITCH**

Dynamic Enterprises has designed and manufactured a railway earthing switch.

Features:

- The firm has designed and developed DC contactors for a wide range of applications; a lot of power is saved as the contactor coil does not need continuous power.
- Solutions can be provided for clients' electrical engineering requirements for contactors, solenoids, HT switches and insulators.
- These solutions are provided with innovative design, quality consciousness, reliable services and professional integrity.
- It has rating of four pole 400 A @ 3 kV DC peak, with application in metro trains. These products are known for its vacuum epoxy moulded insulator, operating mechanism of hard anodised aluminium, stainless steel housing and high conductivity copper contacts.

About the company: Established in 1988, Dynamic Enterprises are leading manufacturers and suppliers of European/American standard process machinery.

Contact:

Dynamic Enterprises, Pune
Tel: 020-66113183, 27130338 Mobile: 09822046422
Email: dynamiclaxman@gmail.com

**PAD PRINTERS, 5 COLOUR**

Converge Transprint Systems Pvt Ltd manufactures and exports a wide range of 5-colour pad printers.

Features:

- These printers are manufactured using utmost quality components and latest technology in sync with industry standards and checked against different quality parameters to ensure quality.
- These pad printers are available in various specifications and designs.
- Their products are known for long functional life, sturdy construction, resistance against rust and abrasion and dimensional accuracy, and are widely used by different industries, and exported to central American and Gulf countries.
- Key benefits of the products are such as smooth functioning, versatile features and robust construction.

About the company: Established in 2004, Converge Transprint Systems Pvt Ltd is engaged in manufacturing and export of a wide range of printing machines, indexing tables and printing inks.

Contact:

Converge Transprint Systems Pvt Ltd, Mumbai
Tel: 022-25660252 Mobile: 09320823985, 09321521198
Email: info@convergetransprint.com

**IMMERSION HEATERS**

Magma Technologies is a supplier and wholesaler of immersion heaters.

Features:

- The company has extensive experience with custom designed immersion heaters for tanks, reservoirs and circulation flow applications.
- They are constructed of one or more heater elements such as varied length, dimension, diameter of tubes, which are brazed or welded into numerous different types of mounting fittings as per requirements.
- Standard or custom engineered designs are available for tailored solutions to application requirements. These heaters are primarily designed to generate all heat within the liquid or process.
- For a better performance, an immersed tubular heating element is the most efficient, inexpensive and robust solution.

About the company: Magma Technologies manufactures, supplies, wholesales, trades, imports and exports high quality industrial heaters. Their products are known for technologically accurate industrial heaters such as space heaters, immersion heaters, cast-in heaters, custom build heaters, hot plates etc

Contact:

Magma Technologies, Thane
Tel: 022-28044082, 65003719 Mobile: 09769769901
Email: magma@magmatechindia.com



Excellence in Linear Actuation Technology, Precise Positioning, Smooth Motion and Intelligent Drives

HITORK® Innovation, Customisation, End to End solution, Reliability

We Welcome
Representatives
&
Distributors

Jacks with Safety Nuts



Jacks with Guides



Sluice Gate-Screw Jack
specially designed
for or Water DAM Project



Gear Drive
Mast Assembly



Ball Screw Linear Actuator
with built-in Hand cranking drive



Antenna Actuators



Side Mounting
Jacks



Hardness Testing
Jacks



Manual Rotator +
Tilter gearbox



Cubical Ball Screw Jacks

Motion Drive Control Products



Screw Jacks and
Lifting Systems

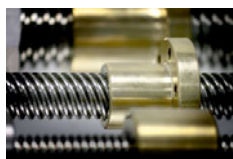


Power Transmission Products

Spiral Bevel Gearboxes
and Spiral Bevel Gears

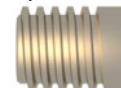


Screw Shafts and Nuts



Buttress Profile

Trapezoidal Profile



Square Profile



Application centric products

Solar Actuators



Electric
Cylinders



Gears and Gear Drives (India) Pvt Ltd

An ISO 9001-2015 Certified Company and CE certified



No.21, Orrkay Industrial Area, Bhattarahalli, Old Madras Road, Bangalore-560049, Karantaka, India

@ www.ggdipl.com

+91-8088931951 / 58

+91-9980044422

sales@ggdipl.com

PLASTIC BEARINGS

MM Huzeifa & Co supplies a range of plastic bearings.

Features:

- While addressing an engineering design problem, design team can consider plastic ball bearing as a solution, to approach the hurdle in an innovative and cost effective manner.
- Plastic bearings can ensure that products run smoother, quieter, more efficiently and with less maintenance than conventional steel bearings.
- Size, shape and environment are no longer limitations. Their range comprises plastic ball bearings, plastic bearings, thermoplastic ball bearings and corrosion resistant bearings.
- Plastic bearings are available in standard inch and metric sizes. Plastic race bearings can be made in special sizes and types in small and large quantities.

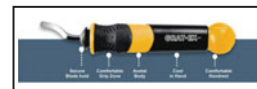
About the company: Established in 1973, MM Huzeifa & Co is among the top suppliers of ball & roller bearings/bushes, rubber transmission belts in India. The company is located in Mumbai and is one of the leading suppliers.

Contact:

MM Huzeifa & Co, Mumbai

Tel: 022-23432372, 23401096, 23461095

Email: sales@mmhuzeifa.com

**DEBURRING TOOLS, MULTI-COMPONENT HANDLE BASED**

CP Grat-Ex Manufacturing Company, is a solution provider of deburring tools with unique blade and handle design concept.

Features:

- The range of tools for hand-deburring of edges are such as straight, inner and curved, and both sides of slot, key-ways, ribs, ridge, sheets; scraper for corner and surface finishing work; and hole front and back side deburring.
- These tools are either hand held for effective manual use or for machine use for holes.
- The large range of products which they manufacture cover host of deburring applications.

About the company: CP Grat-Ex Manufacturing Company engages to provide solutions for edge-cutting/deburring of variety of component materials. It has a well spread network of dealers across India and is also a leading exporter of quality deburring tools to Europe, USA and other Asian countries for years, with proven credentials.

Contact:

CP Grat-Ex Manufacturing Company, Mumbai

Tel: 022-49231200, 26874769

Mobile: 09820070696

Email: cpe@deburringtools.com

ULTRASONIC RAT REPELLENT FOR CARS

Custom Logics Pvt Ltd offers CarCat, an ultrasonic rat repellent for cars.

Features:

- Ultrasound is a spectrum of sound, which starts just above human hearing range. Rats/bats/dolphins have the ability to detect ultrasound with varying frequency ranges.
- Rats use ultrasound for communication and to a certain extent echo location.
- Some of the advantages are such as harmless and inaudible, within prescribed safety limit or TLVs less battery consumption – less than 0.7 watts which is much less power than the other gadgets like security system, etc.
- Humane, green – does not kill or harm the rat/rodent, just makes the car less favourable for the rat/rodent to reside or visit.
- CarCat bombards ultrasound waves with unique patterns, which disturb and disorient the rat.

About the company: Custom Logics Pvt Ltd, established in 2004, with the basic aim to explore opportunities in electronics hardware research and development, in a software centric Indian information technology industry.

Contact:

Custom Logics Pvt Ltd, Mumbai

Tel: 022-25084040

Email: sadashvmirgule@gmail.com, sales@carcat.in

**PULL WIRE SWITCH**

Schmersal India is a known producer of wire switch, series Z/TQ 900/700. ZQ 900.

Features:

- The products' features include external watertight collar; wire pull and breakage function; protection class - IP 67 to EN 418 / IEC 60947-5-5; metal enclosure; 4 contacts; integrated emergency-stop push button (optional); 3 cable entries M20 x 1.5; one tension force for wire lengths from 5 to 50 m; reset push button; thermoplastic enclosure.
- The most varied mechanical and electro sensitive switching devices, the largest range in the world of safety switching devices and safety switching systems for the protection of man and machine has come into being.
- The firm is continuously producing new devices and systems for all sorts of applications, with focus on three lines of business: lift technology, automation technology and safety technology.

About the company: Schmersal group has been involved in manufacturing products for safety at the workplace.

Contact:

Schmersal India Pvt Ltd, Pune

Tel: 02138-614700 Mobile: 09766189274, 09607800255

Email: pagarwal@schmersal.com



LEADER in Industrial Switchgear & Controlgear Products *Available Worldwide*



Intelligent Digital Motor
Protection Relay [0.5~65A]

The Product Range has...

International Approvals From
CE, UL, cUL, CCC, KEMA
TUV, BV, ABS, Lloyd
Register, KS etc.

INTELLIGENT DIGITAL MOTOR PROTECTION RELAY PRODUCT FEATURES

- Protection for O/L, Undercurrent, Stall, Locked Rotor, Phase Failure, Reverse Phase, Asymmetry, Ground Fault or Short Circuit or Bolt.
- Display of current rating, fault current and fault causes.
- Selectable Thermal Inverse/Inverse/Definite Time Characteristics at site.
- Unit type or detachable monitoring unit by cable.
- High performance under harmonic noise.
- Can be used in the Inverter Control Unit (0~200Hz.)
- Can be operated for Control Voltage AC/DC 85 - 260v (50Hz/60Hz)

INDUSTRY USAGE

Steel Plants | Power Plants | Cement Plants
Refineries | Coal Handling Plants | Sugar & Paper Plants
Water Treatment Plant | Plastic Extrusion Machine
Special Purpose Machine | Textile Spinning & Weaving Machine
EOT Crane / Elevators etc.



MV Vacuum
Contactor 3.6kV / 7.2kV
[Upto 400A]



MV VCB
[630A/1250A/2000A/
3150A/4000A [Upto 50kA]



Air Circuit Breaker
630 ~ 6300A
[Upto 150kA]



MPCB 0.1 ~ 100A
15 ~ 100kA



MCCB [100~1600A
Frame size], 18kA~150 kA



Miniature Circuit Breaker [1~100A]
1P, 1P+N, 2P, 3P, 3P+N, 4P [6kA & 10kA]



Contactor 3 & 4 Pole
6A ~ 800A at Ac3



Capacitor Contactor
9.7 ~ 60 kVAR



Overload Relay
0.12A ~ 800A



Mini Contactor & Mini O/L
Relay 9A ~ 16A



Electronic Motor Protection
Relay [0.5~80A]



Intelligent Motor Protection
Relay [0.125~100A]



Intelligent Motor Controller
[0.125~60A]

Authorised Sales & Service Partner of **LS** in India

CECO Electronics Pvt. Ltd. | **Control** ENGINEERING COMPANY

HEAD OFFICE : 18, R. N. Mukherjee Road, 9th Floor, Kolkata - 700 001

Ph. No.: 033 2248 0192, 22108785 | Toll Free: 1800 3458785 | Fax No.: 033 2248 9721

E-Mail : ceco@cecoelectronics.in | Visit us : www.cecoelectronics.com

OUR NATIONAL NETWORK:

Ahmedabad, Bangalore, Chennai, Hyderabad, Mumbai, New Delhi, Pune, Surat.



EXPERIENCED & FINANCIALLY SOUND DEALERS' ENQUIRY SOLICITED

HEAVY DUTY AIR MOTORS

Amro Airtech is a manufacturer of heavy-duty vane type air motors, model DAM-6AM-1.

Features:

- These motors are available in 4 HP rating and free speed of 3000 rpm, with 10 nm torque.
- These heavy-duty air motors are useful for stirring and mixing of highly viscous liquids.
- With suitable combination of stirrer rods and impellers, these can mix a variety of fluids in small, medium and big capacity tanks.
- Some key product benefits are such as reversible, noise is reduced by exhaust silencer, gives trouble free operation on a 24x7 service duty, can be supplied as non lubricated air motor for special applications in pharma industries, can be coupled to gearboxes of various gear ratios and can give very low speed at a very high torque.

About the company: Amro Airtech, established in 2013, is a highly prominent company betrothed in manufacturing of pneumatic radial piston stirrers, pneumatic vane motor stirrers, pneumatic hand held stirrers, electric stirrer and many more.

Contact:

Amro Airtech, Pune

Mobile: 09890135193 Email: amroairtech@gmail.com

**FAN FILTER UNITS**

Sam Products Pvt Ltd is a manufacturer of a wide range of fan filter units.

Features:

- These are ergonomically designed and developed to ensure optimally filtered and clean air into the work area. These units are fitted with advanced blower and filtration systems with a single low profile casing, which ensure user-friendly applications and consistent performance.
- These devices ensure long functional life and consistent performance.
- The product features include: available in mild steel sheets, galvanised sheets, stainless steel sheets; also fabricated in commercial block board with laminates; standard models – 500 cfm, 1000 cfm; and available in sizes suitable for specific requirement of clients.

About the company: Established in 1992, Sam Products Pvt Ltd, is engaged in manufacturing a wide variety of air cooling and cleaning equipment in order to provide pure and fresh environment to clients. fabrication process.

Contact:

Sam Products Pvt Ltd, Noida

Mobile: 07259465035

Email: samproducts1992@gmail.com

**WORM SHAFTS & GEARS, HARDENED & GROUND**

Malkar Industries is engaged in manufactures and exports hardened and ground worms (single or multi start) on thread grinding machines.

Features:

- It has strength of five grinding machines as part of its manufacturing facilities. It has set a bench mark on cost effectiveness for ground worms in quantity, and has all the facilities to produce worm and worm gears in quantity.
- It has in-house facilities for thread milling, hobbing, precision components turning, drilling, etc.
- It has in-house test and inspection facilities like lead and profile tester, optical profile projector, gear roll tester, tool makers microscope, 3-wire measuring unit, gear PCD runout tester and various other regular instruments.

About the company: Malkar Industries, established in 1972, engages in manufacturing and exporting of precision gears and allied items, have achieved name for quality essential in precision gearing for gear boxes, actuators, wiper motor fans, instruments etc.

Contact:

Malkar Industries, Navi Mumbai

Tel: 022-25581710, 25580727 Mobile: 09322274241

Email: samir.juthani@gmail.com

sam_juthani@hotmail.com

**DOUBLE ENDED SHEAR BEAM LOAD CELL**

Sensotech is a wide range of double ended shear beam load cell, Model DESB.

Features:

- These products are manufactured in India in a state-of-the-art plant. All the products meet stringent international standards in terms of quality, consistency and delivery.
- All the products undergo accelerated fatigue testing to meet the specifications, for prolonged period. It can also design and develop transducers with unique geometry and configuration to meet special and high temperature application.
- Its feature includes: In-built lightning protection; low profile design; low deflection and creep; excellent overload capability; standardised output for multi-transducer application; explosion proof version suitable for group I, IIA, IIB, IIC; meet temperature class T4.

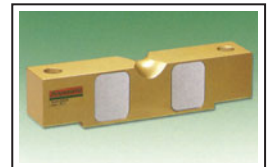
About the company: Sensotech is a provider of a wide range of load cells for various industry specific application with unique geometry & configuration. system.

Contact:

Sensotech, Chennai

Tel: 044-2449 4305 Mobile: 07305716667

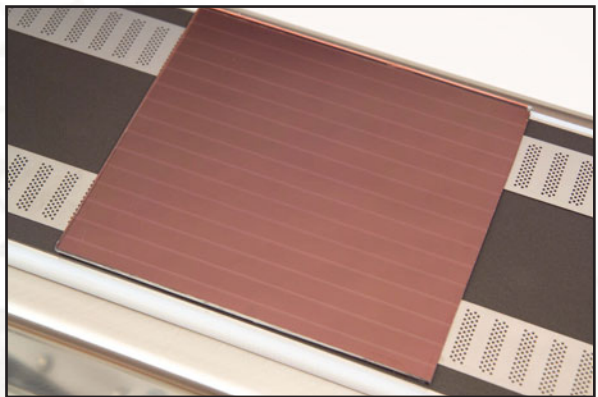
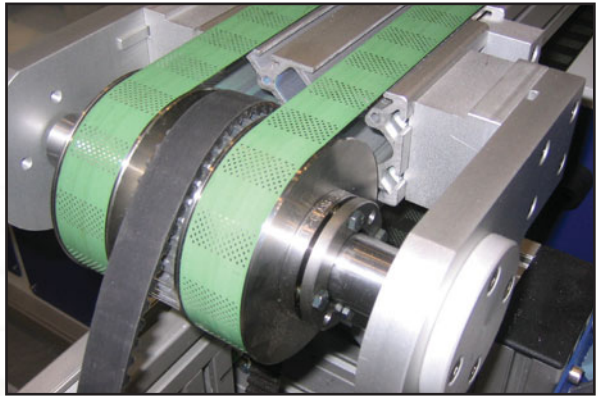
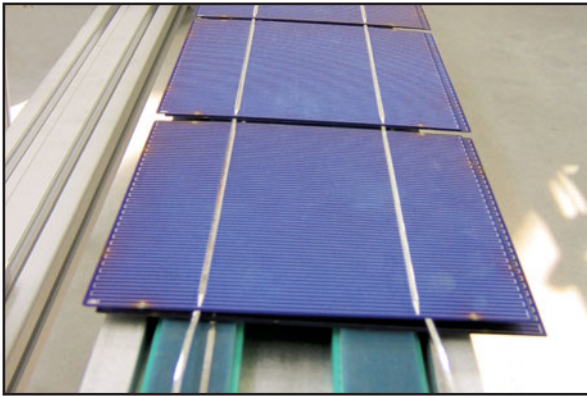
Email: sensotechindia@gmail.com





TECHNOLOGIES EUROPE

stainless steel belts for use in solar cell production



Stainless Steel belts are routinely used in Tabber and Stringer machines for the production of Solar modules. Steel belt technology offers many advantages to the machine builder and operator.

- Robust • Strong • Non-stretch • Clean •
- Resistant to heat • Coatings possible •
 - Vacuum conveying • Precise •
 - Resistant to solder fluxes •
- Perforation according to customer choice •
 - Belts made to customer order •



THE PROLIFIC

A 84 Stephen House, 4 B B D Bag (East) Kolkata - 700001 West Bengal , India
P: (033) 2231 1075 M: +91 98303 48650 E: sales@prolificbelting.in W: www.prolificbelting.in

Steel Belts That Drive Productivity

TRANSFORMER WITH HT AUTOMATIC VOLTAGE REGULATOR

Icon Engineers is a manufacturer of transformers with HT automatic voltage regulator.

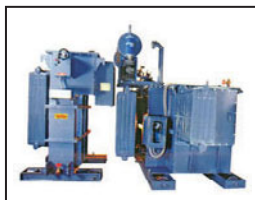
Features:

- The incoming supply from the grid sometimes fluctuates widely and after the installation of standard distribution transformer the customer faces low/high voltage problem on the LT side affecting the rated voltage of the machines, thereby damaging motors and other sophisticated equipment.
- The standard off-circuit tapping of the transformers can correct limited voltage variations but cannot regulate the voltage while in 'on load' condition.
- These transformers with built-in HT automatic voltage regulators operate on load steplessly and can also be installed either indoors or outdoors.

About the company: Icon Engineers Private Limited is one of the leading manufacturers of HT automatic voltage regulator, transformer with built-in H.T, AVR, distribution & power transformer & automatic voltage regulator and dry type transformer.

Contact:

Icon Engineers Pvt Ltd, Kolkata
Tel: 033-24548160 Mobile: 09831016416
Email: icon@cal2.vsnl.net.in



PHOTOELECTRIC SENSORS

Technic Electronic Corporation is a manufacturer of a range of photoelectric sensors, which use light sensitive elements to detect objects.



Features:

- The sensor is made of an emitter and receiver. Technic photoelectric sensors are classified into diffuse reflective sensors, retro reflective sensors and through beam sensors.
- Diffuse reflective sensors: Here the emitter and receiver are housed together in a unit and use the light reflected directly off the object for detection.
- The emitter continuously emits invisible modulate infrared beam which is detected by the receiver when the beam is obstructed by any opaque object.

About the company: Founded in 1984, Technic Electronic Corporation is one of the leading manufacturers and suppliers of electronic products. The company deals in elevator products, SMPS, power management products, LED products, PCB making, sensors and controllers.

Contact:

Technic Electronic Corporation, Mumbai
Tel: 022-67415685-93
Email: contact@technicindia.com, info@technicindia.com, technic.india@gmail.com

INDUSTRIAL AUTOMATION SOLUTIONS

Rechner Automation Systems Pvt Ltd is a one stop provider of industrial automation solutions.

Features:

- That are comprehensive, timely, elegant, cost optimal, scalable and future-proof.
- The system architecture and configuration are customised to be user friendly, cost effective and with high availability.
- The company is a provider of a complete bouquet of services such as industrial automation solutions, consisting of consultancy, design, development, engineering, fabrication, procurement, system integration, testing and inspection, installation and commissioning, quality assurance, project management, maintenance and documentation support.

About the company: Rechner Automation Systems Pvt Ltd is an organisation engaged in providing control and instrumentation solutions, established in 1990. It has implemented a number of projects in fields such as steel making processes; bulk material handling; furnace automation; plant utilities and energy conservation.

Contact:

Rechner Automation Systems Pvt Ltd, Mumbai
Tel: 022-24057880, 24054012 Email: rechner@vsnl.in



AUTOMOTIVE BEARINGS

ARB Bearings is a manufacturer of a wide variety of bearings.

Features:

- These bearings are made at the company's well equipped manufacturing infrastructure.
- The company lays high emphasis on quality. Right from the sourcing of material to design and manufacture.
- The highly capable R&D enables the company to cater to the needs of customised bearings. The product range of the company comprises taper roller bearings, deep groove ball bearings, cylindrical roller bearings, spherical roller bearings, spherical thrust bearings, needle cage bearings, self-aligning ball bearings, angular contact and double row bearings, universal bearings, double row taper roller bearings, single direction thrust bearings and customised bearings.

About the company: Founded in 1990, ARB Bearings Pvt Ltd in New Delhi and started production of taper roller bearings. ARB's success as a bearing manufacturer is largely due to its passionate pursuit of quality of lower cost.

Contact:

ARB Bearings Ltd, New Delhi
Tel: 011-25471255, 25471274
Mobile: 09968373086
Email: info@arb-bearings.com, sales@arb-bearings.com





SPARR Electronics Limited

Everything Embedded

An Embedded Systems, Networking &
Communication Products Company

The Spirit of SPARR



Our Vision

To be a trusted innovation partner in providing cost effective technology solutions with world-class quality and best-in-industry turnaround time.



Our Mission

To contribute to your business success with our design-to-delivery solutions, utilizing 30+ years of industry experience.



Our Purpose

At SPARR, all our actions are motivated by our intent to create customer delight.

Sparr Core Competencies

- Controller Boards
- Protocol and Interface Converters
- Wired & Wireless Connectivity Solutions
- Remote Monitoring Solutions
- IT Security and Messaging Solutions



Domains of Expertise



Access Control



Food Processing



Parking Management



Automotive



Avionics



Medical Diagnostics



Healthcare



Solar & Energy Management



ATM & Mobile Tower Management



Industrial Automation



Building Automation



Smart Homes

Why Choose SPARR Electronics?



30+ years
of operational excellence



In-house
manufacturing facility



ISO 9001: 2015
Quality Certified for
over 15 years



Capability
to design and develop
innovative solutions



High-quality
reliable products



Entrusted by customers
for more than three decades to
address their critical solutions needs

**SPARR
ELECTRONICS
LIMITED**

Sparr Electronics Ltd.

414A, 7th Main Rd, 1st Block, HRBR Layout, Banaswadi, Bengaluru, Karnataka 560043, INDIA
Phone: +91-80-41278033, Email: sales@sparrl.com, Website: www.sparrl.com

LT SWITCHES AND SWITCHGEAR

Garg Distributors is a provider of a wide range of Siemens LT switches and switchgear.

Features:

- Siemens has always endeavoured to introduce innovative products worldwide.
- MCBs available in current rating up to 63 A in B & C characteristics and delta vega modular switches – switch to elegance, answers to infrastructure; an elegant range of modular switches and sockets from the house of Siemens which is a winner of world famous Red Dot award for product design.
- Together these products stand for design in its purest form and helps enhance the decor with style and finesse.

About the company: Garg Distributors Pvt Ltd is a progressive electrical & electronic distribution house. The company also offers power capacitors, AC capacitors, residual current circuit breakers, power capacitors, etc.

Contact:

Garg Distributors Pvt Ltd, Hyderabad
Tel: 040-23074040, 23074050
Mobile: 09848099950, 09948123466
Email: garg@gdpl.org

**WELDING TRANSFORMERS**

Hi-tech Industrial Implements is a supplier and distributor of a wide range of welding transformers.

Features:

- The basic construction of transformer is 100 per cent copper wound with CRGO lamination and H class insulation.
- CRGO lamination is preferred because of its high efficiency, i.e., it consumes less power compared to CRNGO or black sheet lamination.
- Their range of products comprises thyristorised, CC/CV, MMA/TIG/MIG, MAG, SAW welding, TIG 320 AC-DC column and boom, welding rotators, positioners, diesel driven welding sets and plasma/flame/pipe cutting machines, etc.
- Specially suited for heavy duty; as per IPSS coated rutile electrodes, extra length of weld per electrode; starting search current; high open circuit voltage; ideally suited for smooth and aluminium TIG welding.

About the company: Established in 1987, Hi-Tech Industrial Implements, is a wholesaler, supplier and distributor of the wide range of welding machine tools.

Contact:

Hi-tech Industrial Implements, Secunderabad
Tel: 040-27717017, 27717018, 27705637
Mobile: 09848020414
Email: hyweldskumar@yahoo.com

**SPOT WELDING MACHINES**

Kriton Weld Equipments Pvt Ltd manufactures a range of spot welding machines (1-300 kVA).

Features:

- These are available in various types, such as press type, suspension type/portable, table mounted – pedal/pneumatic and multi spot/special purpose.
- The company manufactures nearly a hundred types of arc welding and resistance welding machine models in various capacities.
- Some of the features of these machines are as follows: Ratings – 1, 3, 5, 10, 15, 20 and 30 kVA; Supply input – 230/415 V, single phase, 50 Hz (3 phase DC models also available); Custom-built electrodes/fixtures as per job; 'F' class insulated epoxy coils.

About the company: Kriton Weld Equipments Pvt Ltd manufactures nearly a hundred types of models in various capacities in arc welding and resistance welding equipments since 1973. These machines are manufactured strictly as per ISS/RWMA (USA) standards, incorporating latest technological developments and controls with highest order of quality and performance.

Contact:

Kriton Weld Equipments Pvt Ltd, Vadodara
Tel: 0265-2642809, 2645070, 2651718
Email: purohit@kritonwelders.com

**ENERGY REGULATORS**

Sai Egothrm (India) involves as a manufacturer of Saiego range of energy regulators.

Features:

- These are designed to control the heat from zero to full by simply turning the knob.
- These are used in thermoplastic and thermosetting moulding machines, OTG, drying cabinets, wash boilers, boiling rings, hot plates, grills, boilers, oil baths, switchgear and panel board, popcorn machines, scientific equipment and other domestic, commercial and industrial heating equipment.
- These regulators also known as simmerstats, have snap action switch, which opens and closes the load circuit at precise time intervals.
- A thread bush with registering lugs is provided for fixing. It can be fitted in any convenient position on the control panel, as there is no thermal contact. These are available in three different models, i.e., Sumo, Sunsim and Suntek depending on the economy and application of the user.

About the company: Saiego is a manufacturer of a wide range of energy regulators & capillary thermostats since 1990.

Contact:

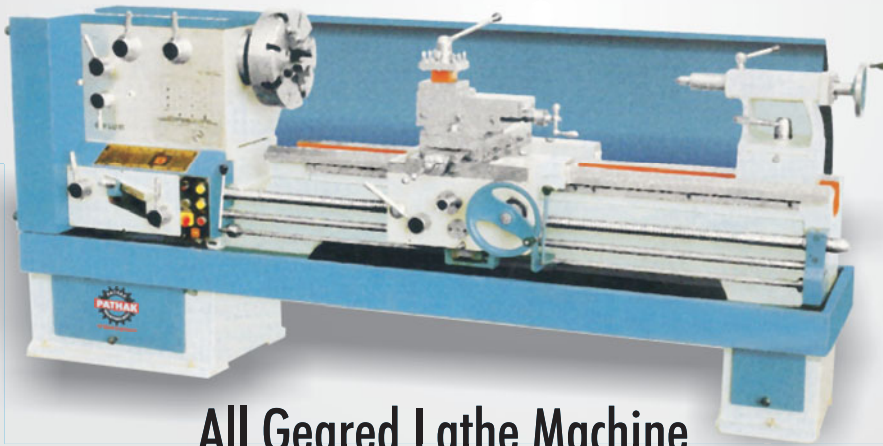
Sai Egothrm (India), Mumbai
Tel: 022-22068032, 22083857
Email: info@saiego.com, sales@saiego.com



Meet



for Machinery A House for Heavy Machinery & Precision Machine Tools



All Geared Lathe Machine



Hydraulic Press Brake Machine



Shearing Machine

Power Press

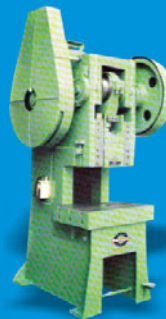
From 5 Tons to 500 Tons Capacity



Radial Drilling Machine



Milling Machines



'C' Type

Powering the Educational World

CNC Lathe Trainer



- PC controlled 2 Axis CNC Lathe
- Slant Bed Design
- Windows based software with Graphics
- Fanuc compatible programming codes



CONTACT

PATHAK INDUSTRIES (KOL.)

116, 117, G.T. Road, Salkia, Howrah - 711 106.

Tel: 2665-9247/48/49 Fax: 91-33-2665 9250

Mobile: 9831029247 / 9477100001

Showroom: NH-6(Bombay Road). PO- Argori. Howrah - 711 302 Tel: 033-26692220/26470474

E-mail: sales@pathakind.com

www.pathak.in / www.pathakind.com

ORBITAL PIPE WELDING CARRIAGE – PIPE KAT

Gullco International is a globally renowned manufacturer of a wide range of orbital pipe welding carriage – pipe kat.

Features:

- It produces X-ray quality welds with robotic consistency and precision, making it ideal for pipeline on-site work.
- The pipe kat versatility allows it to work with various power sources, keeping overall costs low while still providing welds that meet code requirements.
- The unit is mounted on pipe by means of quick mount pipe band, which is available for all standard and custom pipe diameters.
- With a wire feed speed of 36-633 IPM, the pipe kat is one of the most efficient ways to weld depositing 6 lbs (2.7 kg) of weld per hour.
- Welding torch uses standard consumables, Bernard, Tregaskiss or Binzel, air-cooled or water cooled.

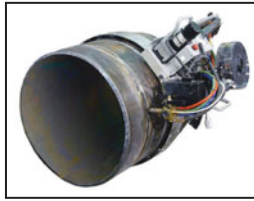
About the company: Gullco International is a world renowned manufacturer of automated welding carriages, welding tractors, cutting carriages, welding automation and accessories.

Contact:

Gullco International India Pvt Ltd, Pune

Mobile: 09920414253

Email: india.lo@gullco.com indsales@gullco.com

**PLASMA PLANTS & VACUUM FURNACES**

Simplicity Engineers offers the latest plasma plants and vacuum furnaces from Rubig Co & KG, Wels, Austria.

Features:

- These equipments are designed for achieving the highest quality and reproducibility. Rubig has advanced and perfected plasma nitriding equipment for variety of parts and for the gear industry.
- Benefits of this product are such as high tooth bearing capacity; good wear resistance; improved corrosion resistance; low scuffing; components applicable for higher working temperatures – high heat resistance; weight reduction and miniaturisation of components; applied optimisation of layer composition; lower noise level of gears; optimally applicable for composite design and particularly for welding design; no constraint regarding nitriding of steel; and improvement of surface characteristics of powder-metallurgical components.
- The products has cost advantage by shortening production chains – elimination of hard machining. Integration into mechanical production process chain optimises logistics. In house production increases added value, enabling additional technological internal know-how build-up. It offers turnkey installation solution, ie machinery, technology and process engineering from one source.
- It is highly environment-friendly and clean process in comparison to standard processes; low media consumption.
- Some primary advantages such as excellent reproducibility (high process reliability); high occupational safety and user friendliness; process combination within one machine (heat treatment and coating); and plasma technology has high developing potential (surface optimisation).

About the company: Simplicity has over 35 years expertise in manufacturing of these equipment for industries like bearings, fasteners, forgings, automotives, steel, defence, etc. Simplicity offers latest technology in furnaces and kilns based on their wide experience and technical associations with leading European and American manufacturers. Some products are also exported to Kenya, Thailand, Egypt, Vietnam, Kuwait, Iran, Bangladesh, Myanmar, Nepal, Dubai, Ethiopia etc.

Contact:

Simplicity Engineers Pvt Ltd, New Delhi

Tel: 011-28116979, 28113048

Email: simplicity@simplicityfurnaces.net, simplicityengineers@airtelmail.in

**GEARED DRILLING MACHINE**

Tapping Machine Tools (TMT) manufactures and exports geared drilling machine.

Features:

- The company offers a wide range of 12 mm-25 mm geared drilling machine regular and heavy duty model. This geared drilling machine is incorporated with adjustable depth gauge.
- The company manufacturers and trades universal tapping machine, pitch control tapping machine single spindle, high speed tapping machine with 5mm capacity.
- Its capacity available is 12 mm, 20 mm & 25 mm in various models. With the support of well-equipped manufacturing unit.

About the company: Established in 1992, Tapping Machine Tools is a part of a diversified and professionally managed group of people involved in manufacturing, exporting and supplying of high-tech and high precision machine tools like universal tapping machine, industrial drilling machines, precision pitch control tapping machines and double Spindle tapping machines.

Contact:

Tapping Machine Tools, Gurugram

Mobile: 09871488551

Email: tappingtool@yahoo.co.in





BEKO TECHNOLOGIES OFFERS COMPRESSED AIR END TO END SOLUTIONS



BEKO TECHNOLOGIES develops, manufactures and sells components and systems worldwide for an optimized compressed air quality & Instrumentation & Process Solutions.

Do you have oil or dirt in your compressed air? Or is the compressed air too humid? Do you have any other questions for compressed air processing? Your requirement of ISO 8573-1 i.e. 1.1.1 is easily provided by Beko Products

Do you want to find potential for energy savings and need verifiable data? We can measure and analyse your compressed air system

We will support you to fulfil the requirements for your application and thereby maximize their individual potential for energy savings, as well as guaranteeing operational safety. BEKO TECHNOLOGIES always focuses on the customer and on his unique demands.



CONDENSATE DRAINS



CONDENSATE PROCESSING



CLEARPOINT FILTRATION



ADSORPTION DRYER



REFRIGERATION, MEMBRANE DRYERS



EVERDRY DRYERS – Zero Purge loss FRx, HOC, COMBITROC



OIL FREE AIR



MEASUREMENT



SERVICE & AIR AUDIT

BEKO TECHNOLOGIES INDIA PVT LTD (A Subsidiary of BEKO TECHNOLOGIES GMBH, GERMANY)

Plot No. 43, CIEEP, Gandhinagar, Balanagar, Hyderabad,
Hyderabad, Telangana, India, 500037,
Ph: 09100906339/40/41/42,
Email Id: info@bekoindia.com,
Website: www.beko-technologies.com

An ISO 9001:2015 , CE, Certified Company
Patented Products – HOC
Registered with Indian Navy for High Pressure Systems

Contact Details:

Managing Director: Mr. Madhusudan M.J.

South & East: 9347706914, 9182561983, 9182561985
North: 9182561981, 9704300909
West & Gujarat: 9371584996, 9182561982
Key Accounts: 9100086724

Industries We Serve:

- Automotive
- Food & Beverages
- Chemical Industry
- Pharmaceutical Industry
- Engineering
- Medical Technology
- Electronics
- Metalworking Industry
- PET Bottling
- OEM Solutions

MAGNETIC LEVEL SWITCH, INSERSTAT

RK Dutt Concerns manufactures a wide range of Inserstat magnetic level switches.

Features:

- This is stopper free float operated liquid level switch for liquid level control.
- It is used for applications like liquefied gases (Cl₂, LPG, NH₃, etc), liquids (AHF, ethylene, EO, acids, alkalies, oil, water, etc), chemical, fertiliser, petrochemical, pharma, and other industries.
- Some key features of products are such as stopper free, single float operated multiple switches (at most 4) that are static self-latching switches with no moving parts and set point adjustment and process isolation.
- The product is corrosion free, versatile and available in top, side-top mounting, and hermetically sealed contacts which are in an enclosure of IP 65 flame proof IS2148 Gr IIa, IIb, and MOC – SS, PP, PVDF.

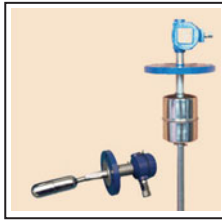
About the company: RK Dutt, an ISO 9001 certificated company, manufacturers liquid level indicating, measuring and controlling instruments. It is an authorised Siemens channel partner and provides as well as supports their products.

Contact:

R K Dutt Concerns, Thane

Tel: 022-67248787, 25822541

Email: marketing@rkdutt.com, pisales@rkdutt.com

**DRILLING TAPPING MACHINE, DOUBLE SPINDLE**

Modern Tools Mfrs offers a double spindle drilling tapping machine.

Features:

- This vertical double spindle drilling tapping dual purpose machine tool is a solution for the problem posed to finish drilling and tapping at one time.
- After workpiece fixed, it can be processed drilling, reaming, chamfering and tapping quickly, it is high efficiency and energy saving.
- The machine is easy to operate and does not need special skills.
- It is suitable for mass production – high efficiency drilling and tapping at the same time. Spindles, made from quality steel, are hardened for high precise grinding and offer excellent abrasion resistance.
- Pull down the feed handle of the left spindle for tapping. When tapping to the required position, the motor reverses direction and the spindle returns to its original position, the table moves leftward and positions pneumatically, making ready for tapping.

About the company: Established in 1958, Modern Tools Manufacturers is one of the leading manufacturer, supplier and exporter of simple drilling machines, geared drilling machines, etc.

Contact:

Modern Tools Mfrs, New Delhi

Tel: 011-28115243

Email: karan_mtm@yahoo.com

**FINGER SLEEVE ROLLERS**

Fitwell Engineers is a leading manufacturer and supplier of finger sleeve rollers.

Features:

- These products are widely used across industries for exerting high clamping force around an object that is being worked upon by machines.
- The products are designed using modernised techniques and methodology that allow these to hold a workpiece or a tool tightly.
- The company provides these finger sleeve sets in different standard sizes and as per the specifications detailed by the clients.
- These products are widely acknowledged by clients because of their durability, smooth inner edges, and easy-to-use features.

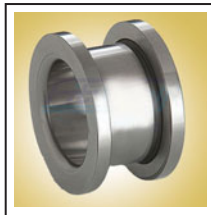
About the company: Established in 2002, Fitwell Engineers is a reputed organisation engaged in manufacturing and supplying a gamut of industrial collets which includes button collets, drill collets, spindle collets, diamond collets, traub collets, turb machine collets, access button collet, dead length type collet, etc.

Contact:

Fit Well Engineers, Rajkot

Tel: 0281-2367412 Mobile: 09427206889

Email: info@fitwellcollets.com

**PLASTIC COOLANT PIPES**

Praj Industries is a provider of plastic coolant pipe.

Features:

- Unique ball and socket design gives full hand adjustability for any position and length, adjustable to 360 degree.
- This flexible pipe retains the desired position on its own avoiding adjustments and readjustments.
- This coolant pipe does not damage tools and cutters if any contact occurs. Bending does not decrease the internal diameter, as it does in copper or steel tubing.
- This pipe is resistant to alkalies, acids and common chemicals, and available in various standard sizes.

About the company: Praj and Pawel is the renowned brand name in the field of plastic flexible coolant pipe and its accessories, hand tools and pneumatic tools. They are the manufacturer of plastic flexible coolant pipe & accessories, hand tools, pneumatic tools, PU tube, etc.

Contact:

Praj Industries, Rajkot

Tel: 0281-2373399

Mobile: 09377735643, 9824800257

Email: info@prajindustries.com

HOW MUCH CAN YOU SAVE WITH VERICUT FORCE OPTIMIZATION?

FORCE OPTIMIZATION - MACHINE SAVINGS CALCULATOR

Hourly Machine Cost \$
(total burden)



Number of Machine Tools

5

Weekly Machining Hours

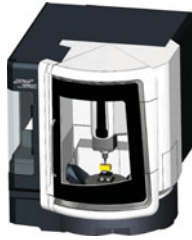
80

Estimated Reduction in Machining Time
Reduce machining time by as much as 15-25% or more

25% (typical reported savings)

ANNUAL MACHINE SAVINGS

\$520,000



FORCE OPTIMIZATION - CUTTER SAVINGS CALCULATOR

Hourly Cutter Cost \$
(average cutter cost/cutter life hours
e.g. \$100/1 hour)



Number of Machine Tools

5

Weekly Machining Hours

80

Estimated Increase in Cutter Life
Extend the life of your cutters up to 100% or more

+50% increase

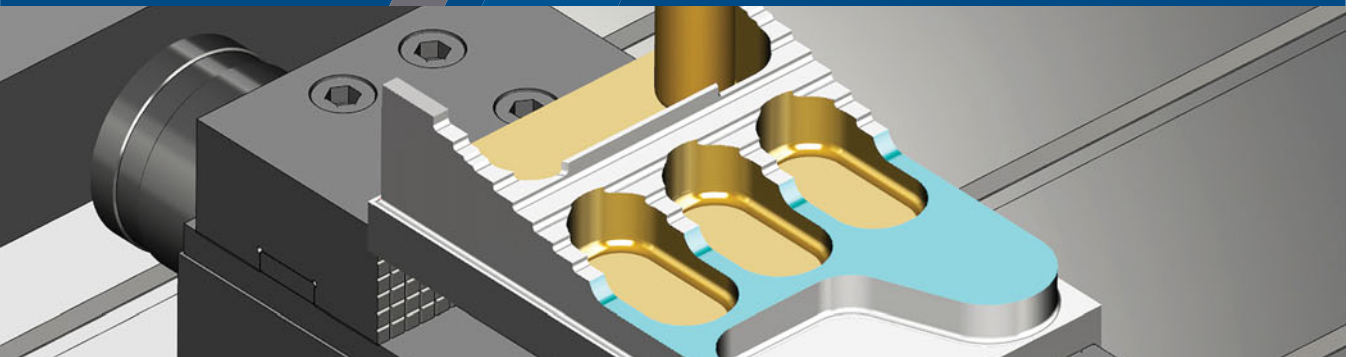
ANNUAL CUTTER SAVINGS

\$692,640



Calculate your own savings at: cgtech.com/force-calculator

- Reduce machining time by 15-25% or more -
- Increase cutter life and improve surface finish -
- Optimize ANY CAM or manually generated tool path -



Right the first time. Every time.

CGTech India Software Solutions Pvt. Ltd.,
#38, 1st Main, 3rd Cross, Malagala
New Outer Ring Road
Bangalore 560 091
Office: 080 2318 6981; info.india@cgtech.com

CGTECH_{co.in}

PHASE SSR / SEMICONDUCTOR MOTOR STARTER

Insys Electrical and Controls LLP engages to trade a wide range of 3 phase SSR / semiconductor motor starter.

**Features:**

- These are 3 Phase forward reverse DC to AC SSR.
- The product, semiconductor motor starter, comes with benefits like overload/single phase protection, current and voltage detection, 3PH forward reverse SSR with inbuilt OLR.
- O/P will be turned OFF when overload, single phasing etc.
- Over load current setting is managed by starting delay by POT.
- The product comes with fault Red LED indication with the mechanical relay NO/NC.
- All these 3Phase controls are suitable upto 7.5HP.

About the company: Established in 2016, Insys Electrical & Controls LLP is an industrial automation company located in Bangalore. The company essentially strives to provide industrial solutions to manufacturing industries through automations & programming, innovation and development. The company involves as a trader of products like safety switch, safety light curtain, safety plc, solid state relay, relay boards, SMPS, PLC, HMI and ethernet industrial applications and many more.

Contact:

Insys Electrical and Controls LLP, Bengaluru
Mobile: 09900519085
Email: sales@insyselectrical.in

SKATE CARGO TROLLEY FOR HEAVY MACHINES

Jyoti Architectural Products Pvt Ltd offers a wide range of skate cargo trolley for heavy machines.

**Features:**

- This heavy duty M skate trolley for machinery movement is available in capacity 6T/12T/18T & 20T.
- These heavy machines can be moved / transported with ease with these trolley.

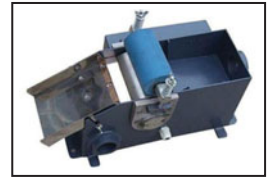
About the company: Established in the year 1992, "Jyoti Architectural Products Pvt Ltd", are counted amongst the prominent manufacturers, suppliers, importers, traders and exporters of caster wheels & furniture components. Being appreciated for their optimum quality, perfect finish & dimensional accuracy, their products are highly demanded in residential as well as commercial application by interior designers & architects.

Contact:

Jyoti Architectural Products Pvt Ltd, Mumbai
Tel: 022-42421000
Mobile: 09320892981
Email: sales@jyotiarch.in

INDUSTRIAL COOLANT SEPARATOR

Champion Industries supplier of industrial coolant separator.

**Features:**

- The coolant separator is of high quality made by using finest raw materials. The mechanism of coolant separator is that the coolant fluid with iron dust particles falling by gravity to the inlet of the separator from the precision machine tools like the grinders, milling machines, automates etc.
- The coolant with iron impurities come in to contact with magnetic drum and removes all iron particles.
- The magnetic drum is kept clean by a scrapper blade along the circumference. A rubber roller squeezes the sludge collect to ensure that no coolant is wasted.
- Their products are known for a sturdy welded MS frame; the magnets enclosed in stainless steel drum having powerful an - isotropic ferrite magnets with uniform magnetic field all along the circumference. A neoprene rubber roller with covered bearings.

About the company: Champion Industries are suppliers of electro magnets, magnets & magnetic devices in India.

Contact:

Champion Industries, Surendranagar
Tel: 02752-231741 Mobile: 09898671029
Email: champion_ind@yahoo.com

MOULD DESIGN SERVICES

Akuva Infotech Pvt Ltd is a provider of a range of mould design services.

**Features:**

- The company provides cost effective and quality services for design and development of injection moulds, compression moulds, blow moulds and pressure die casting dies for small to medium sized components.
- It has auxiliary services including mechanical testing, laser scanning, inspection and prototyping and production facilities.
- As one of the leaders in engineering service providers for design and engineering by effective research and development, the company aims to diversify into industries encompassing aerospace, automotive, medical, electrical, electronics and consumer products.

About the company: Akuva Infotech Pvt Ltd is known for a range of engineering services including CAD/CAM/CAE services, 3D scanning, reverse engineering services, product design, press tool design, injection mould design, moldflow analysis, jigs and fixtures design, finite element analysis, structural design and analysis of components.

Contact:

Akuva Infotech Pvt Ltd, Bengaluru
Tel: 080-26670416 Mobile: 09986508140
Email: info@akuva.com, vijayasimha.sk@akuva.com



OUR EXPERIENCE YOUR SOLUTION

High accuracy
Pressure
transducers

4000 Series

4700 Series

Ex CE ABS

3200 Series

Desktop DT04-4P

DIN 9.4 mm

M12 x 1P

Packard
MiniPack

Amp
Superseal 1.5

Cable

Conduit

Large DIN

Pressure
Switches

CE RoHS

High Accuracy Pressure transmitters /
Transducers, Pressure switches,
Flow switches, Level switches

Shinko



Digital Indicating Controllers



Programmable
Controller - PCA1



DIN Rail Mounted Type
Indicating Controller



Programmable
Controller - PCB1

BrainChild
BRAINCHILD ELECTRONIC CO., LTD

Paperless Recorders
Upto 48 Channel



Low cost PID controllers

PID controllers



abi
JUST CONTROL



- Up to 1000KW
- Selectable firing mode
- RS 485 Modbus communication



Digital
mA Setter



Digital
Thermostat



Digital
Transmitter

Wahl® PALMER WAHL, USA



Portable Calibrator



Heat Spy Monitor
fixed Infrared Sensors



Thermal
Imager



PRO-MED INSTRUMENTS (P) LTD.

#9/1, 18th Avenue, Ashok Nagar, Chennai - 600 083.

Ph: 91 44 4213 2295 / 4214 2295 | Fax: 91 44 4201 0488 | Mobile: 98408 32296

E-mail: sales@promedindia.com | Website: www.promedindia.com

PULL BACK CLAMPS

Chamunda Equipments engages to manufacture a wide range of pull back clamps.

Features:

- These clamps are unique in having an action similar to a wide-opening locking pliers, but have flange body that can be fastened to the fixture or mould against which the work-piece or mould half is to be clamped.
- They are designed for attachment by welding or bolting in to front or top of base to be container or cover.
- The jaw opens 90° to clear it completely. Cushioned PVC handle grip provides easy operation and good-looking appearance.
- They are used for workshop applications.

About the company: Chamunda Equipments is a pioneer in the development of toggle clamps in India for over 20 years and engages as a manufacturer of the country's widest and most recognised line of these useful and adaptable tools. Chamunda Equipments is committed to meeting the changing needs of its customers through continuous improvements and development of its clamping products and services.

Contact:

Chamunda Equipments, Ahmedabad
Tel: 079-27522437, 65252278 Mobile: 09724402626
Email: clamp@chamundaequip.com

**TOOL TROLLEYS & TOOL CABINETS**

Vertex Engineering Works manufacturer and exporter a range of tool trolleys and tool cabinets.

Features:

- The company has designed very innovative and unique storage systems, which offer an instant solution to various difficulties in retrieving tools, preventing damage and saving valuable time while enhancing productivity, etc.
- These products also provide an ideal substitute to the old and outdated method of storage of precious tool, jigs and other sensitive electronic products and measuring devices.
- The range of storage systems includes tool trolleys, tool transporters, tool cabinets, display panels, etc.
- The company has developed many products, which are catered to a wide market segment including automobile, auto components, auto electrical, electronics and other industrial sectors.

About the company: Vertex Engineering Works, a leading manufacturer and exporter of industrial storage systems, manufactures pinch valves, piston valves & industrial storage systems.

Contact:

Vertex Engineering Works, Ahmedabad
Tel: 079-25622027 Mobile: 09825796626
Email: vertexengw@yahoo.co.in

**VERTICAL MILLING MACHINE**

Precitec is a manufacturer of vertical bed type milling machines, VBM series.

Features:

- These machines are developed using principles of modular unit construction for milling the top and side surfaces of castings and other large housings/plates widely used in automobile and other industries.
- The system provides a wide choice of options in respect of table size, power, metal removal rate, cycle time, to the customer depending on the job to be machine.
- It has rigidly fabricated steel base with fabricated steel column mounted on it.
- Manual vertical movement of spindle carriage is possible with the help of feed screw and nut. Accurate depth adjustment can be done through dial gauge.

About the company: Precitec, established in 1978, is currently manufacturing CNC machines for metal cutting to automobile, mass manufacturing, heavy engineering industries. Precitec has specialised in design manufacture of embedded type of finning machine which caters to heat exchanger manufacturing industries.

Contact:

Precitec Precision Machineries Pvt Ltd, Bengaluru
Tel: 080-28368067, 28368068, 28368069
Email: info@precitec.co.in

**TAPER LOCK PULLEY**

Hasmukhlal & Brothers offers a wide range of taper lock pulley.

Features:

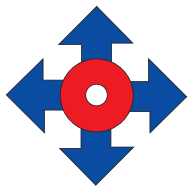
- These are available in standard sizes, these pulleys are extensively used for higher power transmission, owing to which demanded across the market.
- Post-production, these pulleys are checked rigorously on various parameters to ensure flawlessness.
- Its features include: sturdy construction; resistance against corrosion; super performance; lightweight.

About the company: Established in 1985, Hasmukhlal & Brothers, an ISO 9001:2000 certified company is engaged in manufacturing, supplying and exporting power transmission equipment, oil seals, threads and various industrial components.

Contact:

Hasmukhlal & Brothers, Rajkot
Tel: 0281-2360761, 6591097
Mobile: 09825340600, 09879760004
Email: bonnaflex@gmail.com





FaBi Holding AG



SWIL
SWISSCUT
 www.sw-wil.com

SWIL
SwissCut INDIA PVT LTD.
 www.swisscut-india.com

KAMPMANN
 SAW - TECHNOLOGY
 www.kampmann-gmbh.de

The FaBi Holding AG is an international industrial enterprise in 1999 founded by dipl. Ing. Johann Bisig and his family. Through start-ups and selective acquisitions, a leading European enterprise has developed based on innovation, production and sales of metal saw blades and special tailor made cutting tools and inserts.



The owner family: J. + C. Bisig with her 7 children



Mr. Murali A. N., CEO with his wife and staff

To the FaBi Holding AG include:

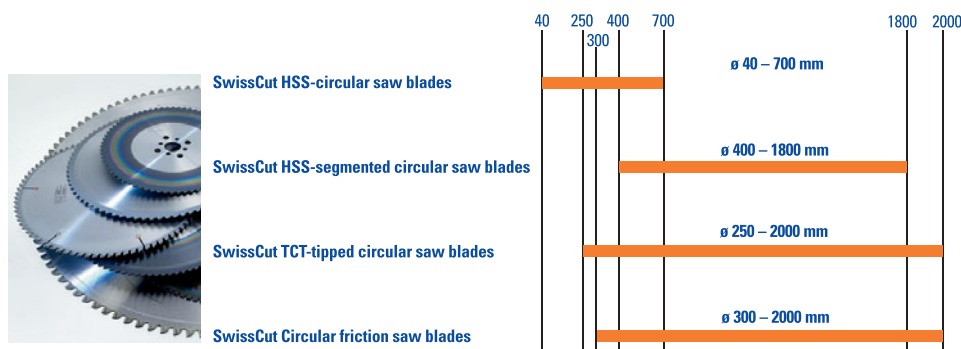
Switzerland: SW Wil AG / Bronschhofen
Germany: Kampmann GmbH / Hamm
Austria: URBAN-Sägen GmbH / Weyer

Macedonia: SW Wil-Gent / Tetovo
India: SwissCut India Pvt / Bangalore

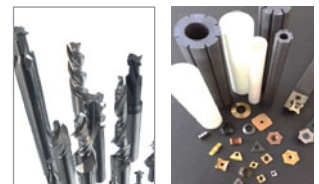
On more than 5000 m2 production area, the most advanced, most powerful HSS, TCT, segmented and friction saw blades cutting tools and inserts are produced. In our group we have more than 15 Vollmer TCT grinding centre with a yearly capacity over 50 000 new blades! Thanks to our own R&D department with several mechanical engineers and a well-trained staff with overall 70 employees, the FaBi Holding group is well prepared to meet future market needs at the forefront!

Use our experience to optimize your production!

Our production range for HSS-, TCT-, Segmented- and Friction saw



Tylor made cutting tools



Our new developed outstanding TCT saw blades!



SwissCut Rails

Outstanding performance!

SW Wil Engineers developed a new TCT saw blade to cut any type of rails in large numbers.

Please call.



Any size
 less than
 4 weeks!

Werkzeug- und Maschinenhandel AG · CH-9552 Bronschhofen, Switzerland
 T +41 71 911 12 22 · F +41 71 911 49 32 · swwil@sw-wil.com · www.sw-wil.com



FaBi Holding Member

Orbital Cut OFF



Easycut TO
 worldwide the
 most powerful
 TCT orbital saw!

Linsinger, Oto Mills, ADDA,
 FER, Seuthi, SMS MEER,
 MTM, Sytko, Kusakabe,
 Elmaksan, ZT ZG Zhongtai, ...



Kampmann GmbH
 Oberallener Weg 30
 59659 Hamm / Germany
 info@kampmann-gmbh.de
 www.kampmann-gmbh.de

SW-WIL SWISS CUT INDIA PVT LTD,

#51, Police Layout Road, Kachanayakanahalli, Bommasandra Industrial Area, Bangalore - 560 099.

Mob: +919060858717. | e-mail: swisscut@sw-wil.com | web: www.swisscut-india.com

HORIZONTAL HONING MACHINE

Manisha Machinery Pvt Ltd offers a wide range of horizontal honing machine.

Features:

- The horizontal honing machine, M-3-63 is available in single and multi speed type with capacity of 3 mm to 63 mm. It is suitable for batch quantity as well as production. The tool changing time is very less hence no down time.
- The abrasives in any section and size from coarser to fine grit are available. The other models of horizontal honing machine available include: M-4-80 variable speed type of capacity 4 mm to 80 mm manual model; Auto stoking machine of capacity 5 mm to 63 mm, automatic; Auto stocking auto-gauging machine of capacity 10 mm to 60 mm. Also offered are centreless OD lapping machine to lap OD from 3 mm to 150 mm diameters.
- It is maintenance-free, easy to operate and is economical.

About the company: Manisha Machinery Pvt Ltd is a provider of a wide range of honing, lapping and super finishing machine.

Contact:

Manisha Machinery Pvt Ltd, Palghar
Tel: 0250-2392777 Mobile: 09322331092
Email: honingmachinery@gmail.com

**POSITION CONTROLLER**

Givi Misure Pvt Ltd is a provider of a wide range of position controller.

Features:

- It is a compact, state-of-the-art, micro controller based, single/two axes positioning system. The system is simple to use, which can be operated manually, or in semi automatic mode through keyboard or automatically through pre-programs stored in memory.
- The system has opto-isolated inputs for start, stop, increase cycle, and deviation preset.
- The operating mains input AC supply from 90 to 250 V. The display for communication is 7-segment display. The system can be programmed from 1 micron resolution to 200 micron based upon the requirement.
- THESI 310/320 is low cost controller useful for press brakes, shearing machines, drilling, milling, boring and spot welding machines.

About the company: Givi Misure provides low cost automation solutions to machine tools and other machines. There are more than 15000 satisfied customers who are using Givi Misure products.

Contact:

Givi Misure Pvt Ltd, Bengaluru
Tel: 080-41272559 Mobile: 09900028661
Email: info@givimisureindia.com

**CIRCULAR COLD SAWING MACHINE**

Ravik Engineers supplies, manufactures and trades vertical sliding head circular cold sawing machines, Model HVS-375AC/HVS-400AC.

Features:

- It is best for cutting heavy wall tubes, solid bars, or any special shapes of material of carbon steel or stainless steel. It is able to perform precision angle cutting - 90~30 degree cutting on the left and 90~45 degree cutting on the right. It is able to perform 180 degree slotting with an optional clamping vise.
- Its auto lubricating system maintains good work condition and circulating cooling system produces smooth cutting surface.
- It comes with saw blade protection device for safe cutting and build-in chip tray for convenient cleaning.
- The machine comes with standard accessories such as basic machine body, hydraulic system, one set of adjustable simple length gauge and stopper, one set of clamping jaw, hand tools and a toolbox.

About the company: Established in 1989, Ravik Engineers Pvt Ltd is a manufacturer, supplier, trader and importer of a premium range of industrial machinery and equipment.

Contact:

Ravik Engineers Pvt Ltd, New Delhi
Tel: 011-26136185 Mobile: 09310272240
Email: rksingal@vsnl.in

**OPTICAL SYSTEM**

Photon Controls offers a wide range of optical system.

Features:

- It is used for atomisation of process. The unit consists of transmitter, receiver and control unit. The range can be up to 5 to 10 metres. Any object passing through transmitter and receiver arrangement can be detected.
- The control unit has facility of sensitivity adjustment with which the sensitivity for transparent or opaque object can be set.
- The relay's T1 and T2 are also provided on control unit eliminating requirement of external timers. The unit is available in supply 24 V DC/ 110 V AC/ 230 V AC, and output is relay change over with contacts rated for 5 A at 230 V AC. The sensors can be housed in the required size and shape as required.

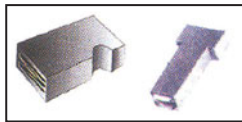
About the company: Photon Controls (India) Pvt Ltd is engaged in manufacturing of photoelectric switches and sensors from past seven years.

Contact:

Photon Controls (India) Pvt Ltd, Nashik
Tel: 0253-2355498
Mobile: 09373907348
Email: photoncontrol@gmail.com



METALLIC STEREOS FOR PHARMA PACKAGING MACHINERY



Compete Tools Pvt Ltd offers metallic stereos for pharma packaging machinery.

Features:

- The company offers all standard types (straight shank, round shank, T shape, I shape, brass punches). Special type materials/shanks/calligraphy for specific applications can be done. Hot types for high temperature application marking.
- Types made of high quality improved tool steel, controlled shank dimensions with very close tolerance.
- They are scientifically heat treated for long life, plated for rust preservation and long time storage.
- They are also available in reverse types readable from PVC side and standard readable from ALU side. Pin types are also available for cartooning machines.

About the company: Compete Tools Pvt Ltd is a multi-product marketing organisation catering to industrial requirements in the field of pneumatics, electric tools, material handling spray painting, metal marking, etc.

Contact:

Compete Tools Pvt Ltd, Thane

Tel: 022-25346203/8708

Email: response@competetools.com

Photo Electric Sensor, Mark Sensor, Safety Guard, Inductive/Capacitive Sensor, Solid State Relays, Rotary Encoder

Photo Electric Sensor

ORTEX JAPAN

Digital Power Regulator

FY400 FY700 FY800 FY900

KA 301 Universal Converter USB to RS-232/422/485/TTL

Temperature Transmitter
DR212 TR213
VOLTAGE: 12-40 VDC
INPUT: UNIVERSAL/RTD/TC
OUTPUT: 4-20mA

HANYOUNG NUX
Sign Tower / Signal Light

MW MEAN WELL
SMPS TAIWAN

Electronic Counters Tally Counters Encoder Tachometer

Shivam Electronics
204, Triveni Complex, 2, Veer Savarkar Block, Shakarpur, Delhi 110092
Ph.: 91-11-22454242/43 Fax: 91-11-22439248, Mob.: +91 98100 22969, 99995 39957
E-mail: sales@shivamelectronics.com, gaurav@shivamelectronics.com
Web: www.shivamelectronics.com

Parson Adhesives India Private Limited, is a subsidiary of Parson Adhesives, Inc. USA. Parson Adhesives is one of the leading manufacturers of wide range of high performance engineering and structural adhesives & sealants. PARSON range of adhesives are currently used by many of the large companies in USA, Germany, France, Italy, UK, Turkey, Brazil, Mexico, China, Taiwan and India.

These high performance adhesives are being used various industries such as Automotive, Railway, Marine, Electronics, Sporting Goods, Oil & Gas, Signs & Display, Medical Devices, Printing & Graphics, Furniture, Construction, Plastic Fabrication, Metal Fabrication and General Assembly.

Parson products are well established in more than 54 countries since three decades around the world.

Bonding India..... Strengthening India.... Bonding Globe.....



Parson Adhesives India Private Ltd.

(Subsidiary of Parson Adhesives Inc. USA.)

SF-04, Tower -A, Signet Plaza, Kunal Cross Road, B/H ISCON Height, Gotri, Vadodara 390 021. (Gujarat). India

Email: sales@parsonadhesives.in | Website: www.parsonadhesives.in

Phone: +91-265-2972191 | Mobile: +91-9408354185

DEALERSHIP ENQUIRY SOLICITED

WIRE NAIL MAKING MACHINE

Indian Machine Mart offers a wide range of wire nail making machine.

Features:

- This wire nail making machines are equipped with a new feeding system.
- All lubrication parts are served by centralized automated cyclic lubrication system.
- The machine produces very low vibration because of its balance critical parts and thus enhance life.
- The machines come with new advanced feeding system thus the use of large wire bundle and its maintenance process can be easily done.
- The machine has hardened die box for longer life and easy low-cost refurbishing.
- The machine is applicable for the wire having the max diameter range from 1.20mm-2.65mm.

About the company: Established in 2016, Indian Machine Mart, is a manufacturer and trader of a wide range of machines and equipment that are specifically made in India.

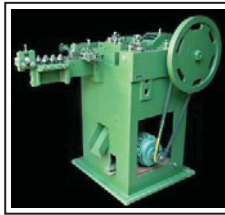
Contact:

Indian Machine Mart, New Delhi

Tel: 011-42610097, 28037573

Mobile: 09717476054, 08588867028

Email: info@indianmachinemart.com

**DOWNLIGHTS**

Unitop Power Electronics Private Ltd offers a wide range of downlights.

Features:

- This metal halide based light sources are a very appropriate solution for the lighting of accent/display applications since it offers the best colour rendition along with high lumen packages and possibilities of sharp directional beam control for creating the right accents.
- This hi-stream DL is a family of recessed mounting downlights employing metal halide lamps of 70-150W in both regular double ended and ceramic burner single ended lamp types, offering improved colour rendering properties.
- The family consists of two circular designs and one of square geometry.

About the company: Incorporated in 1998, Unitop Power Electronics Pvt Ltd manufactures and exports a range of power protection and power backup systems. The company offers products such as servo voltage stabiliser, smart UPS systems, power protection systems, isolation transformers, etc.

Contact:

Unitop Power Electronics Private Ltd, New Delhi

Tel: 011-26311484, 26311485 Mobile: 09971714511

Email: ujjwal@unitoppower.in, sales.unitop@gmail.com

info@unitoppower.in

**DIAMOND DISC FOR GRINDING & HACKING, CHATUR**

Wendt (India) Ltd offers a wide range of deamond disc for grinding & hacking chatur.

Features:

- The difference between the Chatur range of discs and the commonly used metal bonded diamond cup wheels is in the construction of the wheel and the grinding or cutting action.
- Chatur diamond discs use a process where diamond abrasives are chemically fused on top of a metal base.
- This construction provides highly exposed, ready to cut diamond edges at the contact surface to either grind or hack.
- These discs are available in 100 mm (4") dia with 20 mm bore, 115 mm (4½") and 125 mm (5") with 22.3 mm bore.
- The same discs can be used for both, grinding and hacking applications.

About the company: Wendt India Ltd (WIL), incorporated in 1980 is a joint venture between Wendt GmbH and The House of Khataus. Some key products of the company are super abrasives, non-super abrasives, surface finishing solutions, and Floking etc.

Contact:

Wendt (India) Limited, Hosur

Mobile: 09108987007 Email: wil@wendtindia.com

**CYLINDER HONING MACHINE**

Master Industries is a provider of a wide range of cylinder honing machine.

Features:

- The cabinet of the machine is constructed out of 10 S W gauge sheet.
- The conventional vitrified or abrasive-metal bonded diamond hone heads of this model are easily interchangeable.
- The linear movement from end-to-end is on linear bearings and the stroke speeds are variable and controllable.
- Cradle of this machine can be indexed for precise alignment of inline and 60° or 90° V/S. Its standard accessories include: friction feed hone adjustment in running position; heavy duty 2 HP 3-phase electric motor; hold-down fixture for honing; with main caps on or off; high output pump and good quality filters; and good quality flexible coolant pipe.

About the company: Master Industries manufactures and supplies a bouquet of vertical fine boring machines, industrial vertical fine boring machines, cylinder honing machines, etc.

Contact:

Master Industries, New Delhi

Tel: 011-25447093 Mobile: 09873651313

Email: masterint2000@rediffmail.com

bkmasterind021@gmail.com



ID GRINDING DRUMS

Win Win Diamond Products manufactures ID grinding drums.

Features:

- It offers brake lining internal grinding drums and rollers of various sizes ranging from 150 mm to 600 dia and length from 50mm to 300mm with parallelogram segments on surface.
- Electroplated with 30/40 grit natural diamond powder is used approximately at 3000 RPM for internal grinding of brake pads can be supplied.
- Its specification includes 406 mm and 410 mm Dia drums with segment are normally used by customers.
- Smaller Dia drums with 300 mm Dia are also used depending upon the curvature of the brake linings.



About the company: Win Win Diamond Products manufactures a wide range of electroplated diamond products like diamond files with seven shapes, electroplated diamond or CBN internal grinding wheels used for jigs and internal grinding and precision grinding of small holes in tungsten carbides, ceramic sapphire, glass stones and other non-metallic substrates.

Contact:

Win Win Diamond Products, Chennai

Tel: 044-43132248

Mobile: 09940667675, 09840317793

Email: windiamonds@gmail.com

MONEX

CHEMICAL PUMPS

M.O.C.
SS 316 / PP



HYD. TEST PUMPS-HAND/MOTORISED
/GAS CYLINDER STRETCH TEST PUMP



BARREL PUMPS

MOC: C.I./PP/SS
Type : Hand Operated
Motorised
Air Operated (Flameproof)



GEAR PUMPS



For Oil & Chemical
M.O.C.: CI/SS

C. BOLE & CO. (Estd: 1944)

61, Narayan Dhuru Street, Mumbai - 400 003.
Tel: {Off.} 2342 4350 / 2342 9641 | Fax: 2342 4040
Works: 2578 3400 | Email: cboleco@yahoo.com

Website: www.cbolepumps.com



Excellence Through Engineering

+91-22-6724 87 87
+91 (0) 7400233545
marketing@rkdutt.com

50 Years

of dedicated service

Manufacturers of Process Instrumentation for Chemical Industry



Level

Flow

Pressure

Temperature

Liquid Level Gauges, Switches, Transmitters; Magnetic Indicators, Sight Glasses, Rotameters, Flow Meters, Manometers



88A, Rd. no. 18, Wagle Estate, Thane 400604

@rkdinstrumentation www.rkdutt.com

(Mumbai & Konkan Region)
AUTHORISED CHANNEL PARTNERS

SIEMENS

SIEMENS PROCESS INSTRUMENTS

SOLENOID VALVE, GAS VEHICLES

Aircon Pneumatics manufactures solenoid valves, cylinders and systems.

Features:

- It has developed special models of miniature solenoid valves for gas vehicles.
- These are made in brass body for long life, in 1/8" BSP connection with 12 V DC epoxy moulded coil.
- These valves are suitable for LPG pressure 0-10 kg/cm². Also separate valve is developed for petrol service, in brass body with in-built hose nipples at inlet and outlet, suitable for petrol pressure 0-10 kg/cm².
- It is a special miniature valve developed for water application in plastic body with special corrosion resistant treatment for hard water application.
- This also has epoxy moulded coil with class F insulation and Teflon wires.



About the company: Established in 2000, Aircon Pneumatics has made a name for itself in the list of top suppliers of pneumatic products & tools, hydraulic press in India.

Contact:

Aircon Pneumatics, Dombivli

Tel: 0251-2870024, 6570919

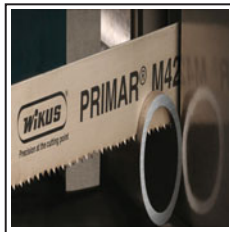
Email: airconpneumatics@gmail.com

BIMETAL BAND SAW BLADES

Winwall Technology India Pvt Ltd offers a wide range of bimetal band saw blades.

Features:

- The innovative production process of the company ensures that their products have good properties and a good blade-life with a versatile range of applications.
- Thanks to the high degree of process reliability that the cost per cut can be reduced.
- As a result of the superfinish, the optimised contours on the tooth cutting edges, produces improved cutting surfaces.
- Some key features of these blades are M42 tooth edge with customised rake angle, optimised variable tooth pitch and standard tooth setting.



About the company: Winwall Technology India Pvt Ltd (WTIPL) is a state-of-the-art façade testing facility that conducts tests and certifies facades, doors, windows and skylight for design verification and performance requirement to meet ASTM & AS/NZS and /or any international standards.

Contact:

Winwall Technology India Pvt Ltd, Chennai

Tel: 044-24355940

Mobile: 09841020620

Email: jothi.r@winwallindia.com

ARC WELDING MACHINE

Mansoori Weldarc India Pvt Ltd is an exporter an arc welding machine, inverter series, and model ARC 200.

Features:

- These products have been installed in large number of industries and factories in India. They offer cost effective solutions for manufacturing wide range of automotive, electrical and other general engineering products.
- All products are designed for heavy-duty performance and most suitable output at lowest possible level of energy consumption.
- The range includes electric welding transformers; TIG welding machines; MIG/MAG welding machines; ARC welding machines; SCR welding machines; plasma cutting machines; CNC plasma cutting machines; portable NC cutting machines and many more.
- Its reliable quality with small size and light weight; efficient and energy saving: because inverter welder reduces wasted power by using less copper and steel; step less adjustment for welding current and voltage; digital display for accurate parameter preset; designed for demanding industrial environment; suitable for all kind of acid and basic electrodes.



About the company: Founded in 2006, Mansoori Weldarc India Pvt Ltd is a manufacturer, exporter and trader firm of high performing welding machines.

Contact:

Mansoori Weldarc India Pvt Ltd, Faridabad

Mobile: 09313103366, 09811100410

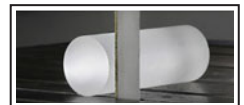
Email: sales@weldarcindia.com, afzal@weldarcindia.com

DIAMOND COATED BAND SAW BLADES

Wikus India Pvt Ltd is offering diamond coated band saw blades.

Features:

- The unique properties of the backing materials developed at Wikus are perfectly suited for withstanding stress at extremely-high cutting speeds.
- This hardest material diamonds are capable of cutting any material, as well as alloys.
- These blades have unique applications of Diagrit, where these are recommended for works on combinations of grain-size, to suit your application.
- The backing material of our complete Diagrit® program will be adapted to stainless steel.



About the company: Wikus India Pvt Ltd stands for maximum precision, quality and performance. Their products and technologies are developed and manufactured in Germany adhering to the highest standards for quality.

Contact:

Wikus India Pvt Ltd, Pune

Tel: 02135-623500 Email: sales@wikus-india.in

PORTABLE BURNISHING MACHINE

Bright Burnishing Tools Pvt Ltd manufactures and supplies a wide array of portable burnishing machine.

Features:

- The minimum and maximum burnishing diameters differ for other models PT-V-0225 and PT-V-HST. It offers separate designs for burnishing plain shafts and shafts with shoulders or stepped shafts.
- The structure of the machine is robust and the main motor is accommodated in the sliding base of the machine.
- Step less variation of the rpm is attained in the spindle with this mechanism.
- Automatic part loading attachments can be attached to this machine, if required, as an optional unit.

About the company: Bright Burnishing Tools Pvt Ltd, incorporated in 1994 with intent to carve a niche in the new arena of 'Burnishing Tools' and has achieved it over the period through the intensive concept selling and aggressive sales promotional measures.

Contact:

Bright Burnishing Tools Pvt Ltd, Coimbatore

Tel: 0422-2240122, 4387340

Email: marketing@brightburnishingmail.com

brightoffice@airtelmail.in



MILLING LINE

Duracarb Cutting Tools supplier of a wide range of innovative milling tools for all application types in the metal working industry.

Features:

- It has highly engineered products that are designed to increase productivity and profitability in all milling operations.
- Its milling solutions are suitable for machining many workpiece materials ranging from soft steel to hard super alloys.
- The cutters and inserts provide high productivity milling assuring cost effective solutions.

About the company: Duracarb Cutting Tools is a supplier of fine, precision metal working tools, covering most applications, including cut-off, face grooving and other turning applications, and in addition milling, drilling, hole making, threading and operations requiring solid carbide tools. The company's business philosophy is to assist customers to reduce their manufacturing costs through cost-effective, high-quality production and bottleneck solutions.

Contact:

Duracarb Cutting Tools, Chennai

Tel: 044-24313371, 24313381

Email: sales@duracarb-india.com



Pressure Transmitters

Our wide range of pressure transducers, pressure transmitters and pressure sensors incorporate the superior Silicon-on-Sapphire sensor technology to make one of the most advanced ranges available in the market. Vacuum to 5000 Bar

MADE IN UK



APPLICATIONS

- Aerospace, automotive, cleanroom, differential digital USB
- Marine
- Hazardous area
- Oil, gas, and sub sea
- High temperature
- Submersible, depth, and level
- Low pressure
- Test and calibration
- Wireless transmitters.



Pressure Switches and Transmitters



FEATURES

- Made in Germany
- Compact in size
- Life is 1 million cycles
- Highly Reliable
- Excellent Repeatability
- Available in INDIA
- Distributor from 1998

ADROIT TECHNOLOGIES

Email: sales@theadroittechnologies.com

Contact: 9663395186, 8012313677

DRUM HEATING PADS

Nicropad Industries offers drum heating pads.

Features:

- Nicropads offers flexible electric surface heating pads which can be wrapped on drums to melt the material in the drums.
- These heating pads are made with Nichrome wire and fiberglass cloth or Teflon coated fiberglass cloth.
- Nicropad's heating pads are highly flexible and will have a proper contact with the surface of the drum allowing no air gap.
- The element in the heater is insulated with fiberglass yarn and the heater is backed with 40mm thick insulation to avoid the heat losses to atmosphere.
- These products are highly flexible, and can be installed on surface of the equipments where the material needs to be heated or temperature to be maintained.

About the company: Nicropad Industries has a qualified engineering team that understands the actual requirement of the customers and accordingly designs the system with a high quality.

Contact:

Nicropad Industries, New Delhi

Tel: 011-46151831, 41551885

Mobile: 09810749997 Email: info@nicropads.com

**BALL NOSE CUTTER**

Micro Tools Ltd is a one of the leading manufacturers and suppliers of ball nose cutter.

Features:

- The company's product range is a wide assortment of ball nose end mill.
- These product is manufactured with the help of quality approved raw material and cutting-edge technology under the supervision of skilled professionals.
- Their entire range is rigorously tested on various parameters of quality to ensure their zero-defect policy at clients' end. Besides these, clients can avail it from them at affordable prices.

About the company: Micro Tools Ltd, is a manufacturer, trader and supplier of cutting tools like solid carbide cutter, solid carbide end mill cutter and many more. Backing of its rich industry experience and thorough product knowledge that has pushed them to produce quality products such as solid carbide cutter, solid carbide end mill cutter, solid carbide jobber drill, brezed t-slot cutter and carbide tipped cutter.

Contact:

Micro Tools Ltd, Pune

Mobile: 09850030546, 08888848406

Email: microtools.mfg@gmail.com,

microtools1@yahoo.com

**WIRE SCREENS, HEAVY-DUTY**

Mesh Tech Engineering Pvt Ltd is one of the leading manufacturers & suppliers of heavy-duty wire screens (woven wire cloth) specially designed for use in steel plants/iron ore mines.

Features:

- These screens in spring steel, mild steel, GI wires and stainless steel to suit particular applications. Screens are woven accurately to any mesh size and of any diameter wire or rod to meet specific user requirements.
- It supplies screen mats to most leading mines and construction entities in India from long.
- It also supplies conveyor systems to various industries such as food processing, pharmaceuticals, glass and ceramics, metal working (sintering, hardening, quenching), general conveying, and many more.

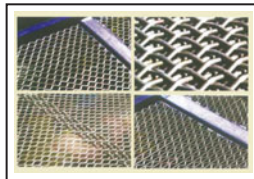
About the company: Mesh Tech Engineering Pvt Ltd, incorporated in 2007, is providing heavy-duty wire screens specially designed for extremely rugged operating conditions in scalping, sizing or processing heavy abrasive materials such as ores, crushed stones, sand, gravel, metallic and non-metallic minerals, coal slag, etc.

Contact:

Mesh Tech Engineering Pvt Ltd, Ambarnath

Tel: 0251-2620298 Mobile: 09920563805, 9820045553

Email: meshtech@rediffmail.com, info@meshtech.net

**HYDRAULIC MANUAL STACKERS**

Amit Engineering is engages to manufacture and supply hydraulic manual stackers.

Features:

- These stackers offer dimensional stability, corrosion resistance, ease of operation and maintenance; these stackers are widely used in industries and shops.
- Each batch is checked for its quality and flawlessness before handing over to the customers.
- The product list comprises of battery-operated trucks, electrical tow trucks and four-wheel industrial platform trucks that are in great demand for their robustness, ease of operation, longer functional life and noiseless performance.
- Its lays huge emphasis on the quality of products and this is the reason that it is the preferred choice of customers. In addition, it provides customised solutions to meet the diverse requirements of customers.

About the company: Amit Engineering is a manufacturer & supplier of material handling equipment such as battery-operated trucks, dock levelers & electrical stackers.

Contact:

Amit Engineering, Pune

Tel: 020-27491070 Mobile: 09422506872

Email: amitengineering@gmail.com



MANUAL STACKER, SDJ

Macro Tech Equipment Pvt Ltd is engaged in manufacturing manual stacker, model SDJ.

Features:

- It has made a total commitment to excellence in providing cost-effective superior-class equipments and the spares.
- It uses many imported sub assemblies in its equipment for extended product life and increased efficiency.
- Apart from the wide range of manufactured products and spares, the plant is designed to cater to specific customer requirements.
- Some key characteristics of the product are such as heavy-duty, designed with quality mast construction; drop forged forks straddle leg designed suitable for double side pallet; light and easy manual steering system; economic but reliable; capacity-1000 kg; lift height - 2500 mm.

About the company: Macro Tech Equipment Pvt Ltd engages in manufacturing of material handling equipment like battery-operated fork lift truck, pallet stacker, power pallet truck and others, promoted by a group of young & technically sound entrepreneurs.

Contact:

Macro Tech Equipment Pvt Ltd, Kolkata
Tel: 033-24666261 Mobile: 09831083880
Email: info@macrotechcal.com






HI-TECH CASTER WHEELS




LOAD CAPACITY
10Kg to 4000Kg
Per Wheel






PLATFORM TROLLEY
300Kg

Jyoti Architectural Products Pvt. Ltd.
A-111 Sagar Tech Plaza, Sakinaka Junction, Andheri (E)
Mumbai-72, Tel:- 022-42421000, Cell: 9320892981
Email:- sales@jyotiarch.in | Web:- www.jyotiarch.in



Twin/Tri Lobe Roots Blowers & Systems

Applications

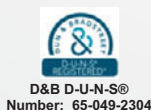
- Pneumatic Conveying
- Central Vacuum Cleaning
- Cement and Steel Plants
- Aeration in Effluent/Water/ Sewage Treatment Plants
- Aeration in Storage silos
- Blending
- Air Drying
- Aquaculture
- Dewatering
- Vacuum Distillation
- Catalyst Unloading
- Dust Collection

Features

- Capacities from 20 CMH to 20000 CMH
- Pressures up to 1000 mbar
- Positive displacement type
- Designed for continuous duty
- Vibration free running
- Accurate torque transmission

Other Products

- Oil Sealed Vacuum Pumps
- Liquid Ring Vacuum Pumps



Plot No. 57/3, 4, 5, 'B'-Road, Phase-1, G.I.D.C,
Vatva, Ahmedabad-382445 Gujarat, India
Phone : +91-79-25831985, 25835995, 40265999
E-mail: info@airequipments.com Web.: www.airequipments.com



BELT CONVEYORS

Digidale Conveyors Pvt Ltd manufactures a range of belt conveyors.

Features:

- These belt conveyors are most economical solution of transporting bulk materials at high rates over great distances. Belt conveyors are used for horizontal, inclined and declined movement of loads.
- In the modern material handling systems, the most popular belt conveyor systems are flat belt conveyors, troughed belt conveyors, cleated belt conveyors and side walled belt conveyors.
- Their range of products comprises conveyors, screw conveyors, belt conveyors, rotary airlock valves, volumetric screw feeders, bucket elevators, en-mass conveyors, roller or slat conveyors, slide gates, horizontal ribbon blenders, pollution control units, and other material handling equipment,.

About the company: The company's Digidale Telescopic belt conveyors are dedicated for high-volume loading and unloading of containers, trailers, and boxed vehicles with parcels, cartons sacks, bags, tyres, and other loose items.

Contact:

Digidale Conveyors Pvt Ltd, Thane
Tel: 022-25821417, 25440958
Email: digidale@gmail.com

**COPPER TAPE**

Jans Copper Pvt Ltd manufactures and exports copper tapes.

Features:

- These copper tapes are available as per international standards that include constitution strength of tapes including that of 99.99 per cent.
- With available industrial standards including DIN, ASTM, JIS, BS EN and IS, these tapes comprise of dead soft copper with conductive acrylic adhesive, which is supplied on removable liner so as to ensure easy handling and cutting.
- Some key benefits of the tape are ID 300 mm. minimum OD 1,000 mm; thickness - 2 mm to 6 mm, width: up to 75 mm for earthing purpose, weight-weight per feet in kg, standard & material - JIS, BS EN, DIN, ASTM and IS.
- These precision engineered products are widely used in several industrial and commercial projects.

About the company: Jans Copper Pvt Ltd engages in manufacturing and exporting of a comprehensive range of electrolytic & copper in the form of strips, wires, flats, rods, section, pipes & tubes.

Contact:

Jans Copper Pvt Ltd, Mumbai
Tel: 022-40044800 Mobile: 07738500002
Email: info@janscopper.com, suniljain@janscopper.net

**TENSION SPRINGS**

Reliable Spring Industry is offering tension springs.

Features:

- These tension springs, known for its capacity to pull against a load that stretches it longer are used in various industrial applications like electric switches & electronic components, automobile components, weighing scales, mechanical and oil seals.
- The company offers a range of tension springs used in garage door assemblies, carburetors, washing devices, toys and trampolines.
- The company offers a separate range of tension springs creates a resistance against the pulling force or tensional force and is able to function under any temperature and pressure as well.
- These springs are available in various sizes, specifications and attachment at both the ends.

About the company: Reliable Spring Industry is engaged in production and supply of precision engineered springs for various industrial requirements.

Contact:

Reliable Spring Industry, Hyderabad
Tel: 040-23090408
Mobile: 09291203210
Email: reliablesprings@gmail.com

**PLANETARY GEARBOXES**

Sri Venkateswara Gear Wheels Pvt Ltd offers planetary gearboxes.

Features:

- These gearboxes are available in free input type, hollow input type (suitable for standard B5 flange electric motor), with flange and foot mounting.
- The planetary gearboxes consist of input shaft assembly, sun gear, planet carrier assembly (consists of planets, planet pins and rollers), ring gear, output shaft, casing (foot/flange).
- The input comes from sun gear and drives motion through the coaxial planet carrier assembly and ring gear. The rolling contact of the planets with the stationary ring gear provides the reduction ratio.
- Hence, high transmission is possible in small size and result is less weight and less cost.

About the company: Sri Venkateswara Gear Wheels Pvt Ltd, is a fast growing company manufacturing a variety of gears, gear boxes and precision components that are considered the most important to keep machines on a continuous run. They are a group of companies and its sister concern SV Gears, founded in 1985 based at Kukatpally in Hyderabad.

Contact:

Sri Venkateswara Gear Wheels Pvt Ltd, Hyderabad
Tel: 040-23078385/0910 Mobile: 09866552070
Email: mote.sriramulu@gmail.com



HYDRAULICS FLANGES & COMPONENTS

Nisha Hydraulics engages as manufacturer, exporter, supplier and trader hydraulics flanges & components.

Features:

- These are available in square flanges, socket weld, butt weld, and straight pipe and tube 3000 & 6000 series and other configuration.
- These SAE flanges are manufactured to confirm code 61 or 62 and they are of socketed of socket weld, NPTF or straight threaded in straight flanges tees and reducers.
- The SAE flanges are also available in different size in 3000 and 6000 PSI pressure ratings. Some of the other products they offer includes twin ferrule compression fittings; inline non return valves; hose fittings; weld nipple type flanges; pipe clamps/tube clamps; hydraulics tube fittings.

About the company: Nisha Hydraulics is an emerging name in the hydraulic products industry. They are a reckoned manufacturer, exporter, supplier and trader of hydraulic fittings, flanges, hose fittings, pipe clamps, valves, and quick release couplings.

Contact:

Nisha Hydraulics, Mumbai

Tel: 022-65140375 Mobile: 09222210333

Email: ftendd@yahoo.com, nishahyd7@yahoo.com



HYDRAULIC IRONWORKER & PUNCHING MACHINE

Sanmac Machines offers hydraulic ironworker and punching machine, models IW-45K and IW-85KD.

Features:

- These are manufactured by Sunrise Fluid Power Inc, Taiwan, which is one of the world's largest manufacturers of hydraulic ironworkers, punching stations and CNC controlled positioning tables.
- The Sunrise hydraulic ironworkers are designed with multi-functions to save labour, time, energy and cost.
- The all new K-series models are specially designed compact ironworkers with vertical movements at all stations.
- The entire main slide moves in a straight up and down motion to provide optimum results for punching, shearing, notching, and bending; optional hydraulic hold-down and urethane spring stripper are also available.
- The very fast cylinder stroke greatly improves efficiency.

About the company: Sanmac Machines, established in 1984 with a view to provide good engineering products and practice in the southern districts of Tamil Nadu.

Contact:

Sanmac Machines, Madurai

Tel: 0452-2621070 Mobile: 09443050170

Email: admin@sanmacmachines.com



ULTRAFILTRATION PRODUCTS FROM

S & C INVOTEK

FILTRATION PRODUCTS: LIQUID, AIR & GAS

YOUR CHALLENGE IN LIQUID FILTRATION



Cartridge Filters



Surface Filter Bags

Liquid Bag, Strainer Filters

No matter what your filtration requirements, we have the solution. Food, Pharma, Bio, Cosmetics, Water Treatment, Paint, Varnishes, Beverages, Ink, Coolant, SPM's Pre R.O. Washing Machines, Hydoil, Edible Oil, Coconut Oil

Talk to Dr. Filter on

09844035677, 09980775677 (24 Hrs.)

Hi Technology Filter Bags for various High & Low Viscous Liquids



Stitched with Metal Ring Neck, Welded Bags with PP Neck in all Micron Rating



Mesh Type Strainers



S & C INVOTEK

**TOWARDS PROGRESSIVE ENGINEERING
FILTRATION PRODUCTS: LIQUID, AIR & GAS**

#3776, 13th Cross, 30th Main, BSK 2nd Stage, Bangalore 560 070. Karnataka. India.

Ph: 080-26697112, 080-26797001, 26690191

Fax: 080-26793748

Email: info@invotekfilters.com / sales@invotekfilters.com

marketing@invotekfilters.com

Visit: www.invotekfilters.com

www.invotekfilters.com

ICE CREAM CONE BAKING MACHINE

R&D Engineers offers ovens for baking ice cream cones - ZA series.

Features:

- These are efficient ovens for large scale production of all kinds of ice cream cones, moulded sugar cones, cups and hollow wafers.
- According to the output required these machines are supplied with 12, 18, 24 30 and 36 baking moulds or higher.
- These ovens can be heated by liquid petroleum gas (LPG) or electricity. An automatic stacking device can be supplied as an extra. The machine is driven by motor with a variable speed attachment.
- The baking moulds are mounted on carriages fitted on to an endless chain. These moulds pass under an automatic batter depositor at a selected speed between 90 sec to 3 minutes.
- The batter pump is synchronised with the movement of the moulds to ensure accurate injection of the batter into the centre of the mould. On emerging from the oven an automatic stripping device, removes the waste batter.
- These moulds automatically open and the baked cones are ejected onto the stacking conveyor and are subsequently packed. The baking moulds are manufactured from special quality cast alloy to ensure dimensional stability, homogenous and dense surface, to enable thermal stability and heat accumulation and excellent thermal conductivity.
- The diameter of cones decides the number of cavities in the moulds. The mould carriage is so designed to give a quick changeover from one set of moulds to another for the production of a different size of cone.

About the company: Established in 1991, R&D Engineers is India's foremost manufacturer of baking machines for wafer biscuits, ice cream cones and rolled sugar cones. Its clientele are market leaders from food, bakery, chocolates, and confectionery to hotel and restaurant industry. With state-of-the-art infrastructure and highly advanced manufacturing facilities, our focus has always been on continuous product development. They work towards continuous improvements in our products and the innovative use of latest technology. This helps us in developing products that meet the complete requirements of our customers.

Contact:

R&D Engineers, Hyderabad
Tel: 040-23402682
Mobile: 09959000380
Email: info@rndwafers.com

**DIGITAL PANEL METER, FLAIR SERIES**

Secure Meters Ltd is a manufacturer of digital panel meter, flair series.

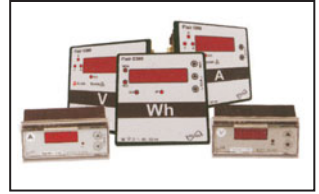
Features:

- This is a range of accurate and reliable digital panel meters for measurement of basic AC/DC electrical parameters.
- The series offers various models of voltmeter, ammeter, frequency meter, power meter, energy meter.
- Some key applications of the product are such as accuracy class 0.5FSV and 1.0; wide range of auxiliary supply (80-300 V AC and 24 V DC); long measurement range (amps to K amps and volts to K volts); auto scaling of measured parameters; onsite CT/PT commissioning of both primary and secondary values through push buttons; onsite configuration of 3P3W and 3P4W through push buttons; full four digit display for voltmeter/ammeter/frequency/power/pf meter; and energy meter has six-digit display resolution.

About the company: Secure Meters Ltd manufacturers of meter test equipment, grid and bulk power & CT/VT operated meter in Udaipur (Rajasthan).

Contact:

Secure Meters Limited, Udaipur
Tel: 0124-4670200/201
Email: sunil.kumar3@securemeters.com

**MOULDS & DIES**

Pre-Mould Engineers manufactures perfect moulds and dies.

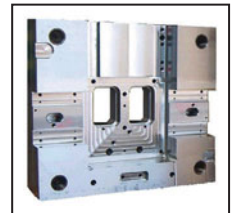
Features:

- The perfect moulds are a direct result of excellence in mould bases.
- It has put its top-of-the-line expertise and razor edge technologies to constant work to render mould bases that are par excellence. Probably that is the reason behind its ever expanding clientele and trust base. Started as a one-room production centre, today, the company is a front-runner in the segment.
- It is planning expansion to 50 mould bases (size up to 2000 x 1600 mm) per month from existing 30 mould bases per month. While continuing to go ahead as a technically strong manufacturer of mould bases.

About the company: Established in 1994, Pre-Mould Engineers has earned a reputation for meeting the most challenging mould requirements.

Contact:

Pre-Mould Engineers, Hyderabad
Tel: 040-23720309
Mobile: 09848099963
Email: premould@gmail.com



TILTING FURNACE

Shikovi Heatgen Technologies Pvt Ltd offers a wide range of tilting furnace.

Features:

- A technology driven engineering company with a core team of chartered engineers and technocrats committed to meet technical excellence, ethics and customer expectations.
- Rotary retort models are custom built and equipped with rotating retort for insuring uniformity of temperature with hydraulic/mechanical tilting arrangement.
- These are robust in construction and suitable for variety of applications.
- Its features include: smooth rotary motion; high temperature resistant retort; high uniformity of temperature; electric and LPG/LNG fired; and rotating mechanism for easy unloading of materials.

About the company: Shikovi Heatgen Technologies Pvt Ltd offers industrial furnaces, kilns, lehrs, ovens, driers & custom built allied heating systems. It manufactures & exports industrial electric & gas fired products.

Contact:

Shikovi Heatgen Technologies Pvt Ltd, Navi Mumbai
Tel: 022-27607758, 27607759
Email: enquiry@shikovi.com



STENCIL CUTTING MACHINE

GGR Enterprises manufactures a wide range of stencil cutting machines.

Features:

- This is rugged, hand operated equipment designed to cut stencils with equal spacing and parallel lines, of any length, on paper board for marking on outer transport packages such as cases, cartons, and crates with changing information. .
- This machine increases the efficiency of finishing/dispatch/packing/stores departments of any industry; it takes just three minutes to cut a four/six line stencil efficiently and effortlessly.
- This machine is used for making repetitive markings on outgoing packages for marking batch numbers, date of manufacture, expiry dates, name of manufacturer/customer, and product name/codes.

About the company: GGR Enterprises started operations in 1956. The company had small beginnings with servicing, buying and selling old stencil cutting machines.

Contact:

GGR Enterprises, Kolkata
Mobile: 09830048688
Email: ggrenter@gmail.com



AMADA WELD TECH

BATTERY TAB WELDING EQUIPMENT

Battery packs are powering a growing range of portable electronic devices, cordless power tools, energy storage, and hybrid and electric vehicles. Tab to terminal connection welding is one of the key battery pack manufacturing applications. We make equipment, systems, and automated lines that meet quality and production requirements for these products. Both resistance and laser products are well suited to integration into production lines that may be either standalone or automated operation.



FEATURES

1. High speed Positioning and Welding.
2. Joining Dissimilar Metals.
3. Controlled depth of Penetration.
4. Controlled heat.
5. Optional built-in fire suppression.

ADROIT TECHNOLOGIES

sales@theadroittechnologies.com | Mob: +91- 9901272188

DIESEL ENGINE CONTROLLER & PROTECTION

Protech Engineering & Controls offers a wide range of diesel engine controller and protection, Fire-Futuro.

Features:

- The Fire-Futuro is a range of diesel engine controller and protection devices.
- It manufactures almost all major relays required for AMF panels; the product range includes DC earth leakage relays, AC/DC under over voltage relays, AC/DC under/over current relays, IDMT earth fault/over current relays, range of timers, diesel engine controllers for AMF and fire hydrants systems, range of power protection relays, and battery status indicator.
- Existing conventional panels can be easily converted in to automatic panels using Fire-Futuro; potential free contacts for all faults for external integration (optional); programmable fault inputs.

About the company: Protech Engineering & Controls Pvt Ltd is about 25 years old. It manufactures timers and protection relays under the name of Protech Engineering since 1995. It converted to Protech Engineering & Controls Pvt Ltd in 2001.

Contact:

Protech Engineering & Controls Pvt Ltd, Mumbai

Tel: 022-28513328

Email: future@protechengg.com

**LOBE PUMP**

Master Seals Engineering is a provider of a wide range of lobe pump.

Features:

- The lobe pump body is made of solid stainless steel, AISI 316 quality; it has accurate dimensions in drive shafts, bearing and timing gears to ensure smooth operation even under continuous full load.
- The pump is manufactured for high mechanical efficiency for less energy consumption, resulting in reduced operational costs.
- The easy to clean pump head is ideal for in-place cleaning or can be quickly stripped for manual cleaning without disconnecting the pipe work.
- Food quality rubber covers and plastic rotors are also available; the company further offers twin lobe, bump, centrifugal, alfa laval lobe and centrifugal monoblock pumps and mechanical seals.

About the company: Master Seals Engineering has built a strong customer base through its specialisation in design and manufacture of a wide variety of industrial pumps. Master Seals pumps are manufactured precisely to satisfy customers' varied requirements.

Contact:

Master Seals Engineering, Mumbai

Tel: 022-25960173 Email: msepumps@gmail.com

**HIGH SPEED HOMOGENISER**

Cyclone brand high speed homogenizer/disperser developed by Sahyog Enterprise can be used for high speed dispersion and homogenisation of high viscous liquid or pasty material.

Features:

- The mixing shaft is supported by heavy-duty bearing housing and Teflon bush at bottom for vibration free performance; tie bars are also provided for extra rigidity and trouble free performance.
- The homogeniser is complete with standard electric motor – 3-phase 220 V, 380 V – and flame proof construction is available as per requirement.
- High speed homogenisers can be manufactured as per GMP norms for pharmaceuticals or bio applications; two speeds are available – 2,800 and 1,400 RPM – for various applications and volume.
- Cyclone high speed homogenisers find applications in a wide range of industries; datasheets for specific applications are available on request.

About the company: Sahyog Enterprise is a manufacturer of geared drive liquid mixers, direct drive liquid mixers and high speed disperser and homogeniser.

Contact:

Sahyog Enterprise, Mumbai

Tel: 022-26833189 Mobile: 08048087972

Email: flextool@gmail.com

**VERTICAL HONING MACHINES**

D-Honer Engineers exports a wide range of vertical honing machines.

Features:

- A range of vertical honing machines/ super finishing machines/ throughfeed superfinishing machines/ horizontal honing machines/ horizontal lapping machines/ valve body lapping machine and vertical honing tools is available as per requirements.
- The product range comprises low cost super finishing lathe machine attachment; vertical honing machine for 3 mm dia to 1,000 mm dia and up to 1,500 mm length; horizontal honing machine up to 1,000 mm dia and 8,000 mm length; vertical honing tool from 3 mm dia to 1,000 mm dia suitable for Indian and imported machines; multi spindle fully automatic valve body lapping machines; multi-ledge honing tools, large area honing tools; and diamond and CBN honing ledges, honing tools with diamond cutting layers as well as precidor honing tools.

About the company: D-Honer Engineers (India) Pvt Ltd is a manufacturing and export company offering a wide range of hydraulic equipment and honing machines.

Contact:

D-Honer Engineers (India) Pvt Ltd, Thane

Tel: 0250-2430805 Mobile: 09890686088

Email: dhonerengineers@gmail.com



HYDROPNEUMATIC BLADDER ACCUMULATORS

GS Hydraulics offers a wide range of hydropneumatic bladder accumulators manufactured by EPE Process Filters & Accumulators.

Features:

- The hydropneumatic accumulator is a device designed specifically for the storage of liquid under pressure; as liquids are, for all practical purposes, incompressible, the objective is achieved by utilising the compressibility of gases.
- The bladder construction, which is unique to EPE, is moulded in a single piece, thus obviating problems associated with seamed construction.
- Bladders are normally manufactured from nitrile, but for special applications butyl, neoprene, natural rubber, ethylene-propylene etc.
- The bladder, complete with the gas valve, is attached to the accumulator shell by a lock nut, and a cover protects the assembly.

About the company: A dynamic and quality conscious organization, GS Hydraulics is the preferred supplier and distributor of all types of hydraulic components and spares for injection molded machines.

Contact:

GS Hydraulics, Mumbai

Tel: 022-25670236 Mobile: 09339766024

Email: gs@gshydraulics.in

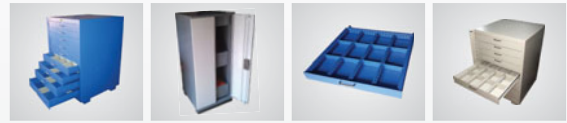


*Utilizing the Finest...
Achieving the Highest...*

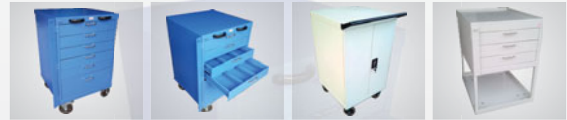
VERTEX[®]

CREATING SPACE ERGONOMICALLY

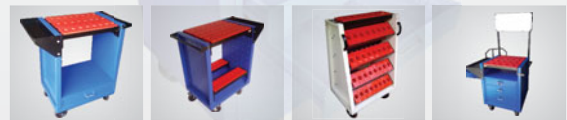
TOOL CABINET



TOOL TROLLEY



VMC TOOL TROLLEY



WORK BENCH, RACK & HYDRAULIC TROLLEY



Vertex Engineering Works

Works : 13, Ajmeri Estate, Dudheshwar Road, Shahpur Dhobighat, Ahmedabad-380 004.

Mobile : +91-9825796626, 9727762728, Fax : +91-79-25622027

E-mail : vertexengw@yahoo.co.in, info@vertexengineeringworks.com

www.vertexengineeringworks.com

Parts Before Cleaning



Parts after Cleaning

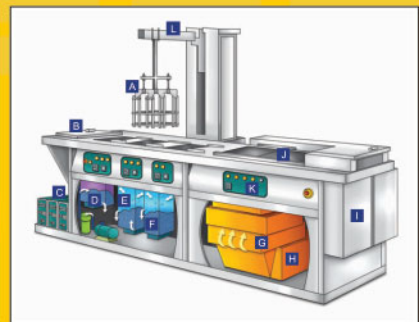


Crest Ultrasonics Group of Companies

The Largest Ultrasonics Manufacturer with
Several Innovative & Patented Cleaning Solution

**"CLEANLINESS TO MEET YOUR MILLIPORE
& PARTICLE SIZE REQUIREMENT"**

ULTRASONIC CLEANING FOR METAL PARTS WASHING



CREST ULTRASONICS INDIA PVT. LTD.

Plot No. 185, Ground Floor, Functional Industrial Estate, Patparganj, Delhi - 110092.

Cell: 09810033631 | Ph: 011-40546323, 22164532 | E-mail: Info@crestultrasonicsindia.com

web: www.crestultrasonicsindia.com | www.crestultrasonicsindia.co.in

TRAVERSE UNITS & ASSEMBLIES

Rollring Industries provider of a wide range of traverse units and assemblies in various models.

**Features:**

- These traverse units are linear drives, which is a unique method of converting constant speed rotation of a plain round shaft into variable speed, variable stroke, and automatic reciprocating motion without changing the direction rotation of shaft.
- These units are used in any application where a constant speed rotation of a shaft needs to be converted to automatic reciprocating motion with instantaneous reversal, infinitely variable linear speed and variable stroke length.
- The assembly performs similar to lead screw but with the added advantage of a very finely variable pitch and infinitely variable setting of traverse length; automatic and instantaneous reversal; and side thrust up to 280 kg.
- As many as 17 models are available for use in wire and cable industries, textile industries, plastic industries, rubber industries, etc.

About the company: Established in 1988, Rollring Industries is equipped with most modern CNC machines and testing facilities, and is supported by a team of well experienced engineers and technicians to ensure quality at all stage.

Contact:

Rollring Industries, Calicut

Tel: 0495-2481295 Mobile: 09846090164 Email:

rollringindustry@gmail.com, rollringindustries@gmail.com

PROXIMITY SENSOR

Excella Electronics is a manufacturer of a wide range of proximity sensor.

Features:

- The proximity sensor adapts to all surroundings and can change the sensing distance, operating model and take no notice of side sensing.
- It can be easily accommodated and can meet a wide scope of challenges; it is the only solution for each and every inductive sensor need.
- It is the best solution when one requires adaptability, flexibility and unmatched sensing capability. It replaces numerous sensors to avoid any complications.
- It can be programmed in a minute from a PC with a few mouse clicks; it's easy to understand the steps to achieve the programme as per unique specifications.



About the company: Excella Electronics, established in 1966, the only Indian company specialising in manufacturing motion control devices for more than four decades.

Contact:

Excella Electronics, Mumbai

Tel: 022-21029911

Email: kedar@excellaelectronics.com ,

joshi@excellaelectronics.com

HARD CHROME PLATED BARS

Electrocoats engages to manufacture a wide range of hard chrome plated steel bars.

**Features:**

- These bars are designed to meet specific needs for piston rod material in hydraulic and pneumatic cylinders and other applications.
- Most advanced techniques of surface removal, polishing and hard chrome plating are used in manufacturing these bars.
- They find applications in construction machinery, material-handling equipment, farm equipment, industrial machinery, paper manufacturing mills and almost anywhere where precision rods are required.
- In-house facilities for peeling, grinding and hard chrome plating of bars ensure that these bars are processed under strict quality control and geometrical parameters such as roundness, chrome thickness and surface finish.

About the company: Aditya Industries is a multi-plant spring manufacturer with a full range of products and services for springs and stampings manufacturing nationwide.

Contact:

Aditya Industries, Thane

Tel: 0251-2620027 Mobile: 07447679239

Email: aditya_springs1@rediffmail.com

HAMMER HANDLES AND BRASS COPPER HAMMER

Manomay & Co carries a complete line of customs made hammer handles for all types of striking tools and also manufactures brass/copper hammers.

**Features:**

- These brass/copper hammers are available from 400 gm to 10 kg. Some brass hammers are extruded and the extruded heads are typically a bit harder since the process compacts and aligns the metal grain.
- Their dimensions are more precise and brass & copper hammers are made using mostly yellow brass.
- Brass hammers have imported ash/beech wood quality handles and are with cylindrical, hexagonal and square-shaped head.
- Request for special handle lengths on most hammers can be accommodated.

About the company: Manomay & Co., a sister concern of A Mansukhlal & Co. and a leading timber merchant since 1960, and now is one of the leading manufacturers and exporter of all types of hammers and wooden handles for tools.

Contact:

Manomay and Co, Jamnagar

Mobile: 09898015043

Email: amncojam@gmail.com, manomayjam@gmail.com

PITCH CONVEYOR CHAIN, 135 MM

Tripcon Engineering Pvt Ltd offers a wide range of pitch conveyor chain, 135 MM.

Features:

- This chain is the type of chain drive most commonly used for transmission of mechanical power on many kinds of domestic, industrial and agricultural machinery, including conveyors, wire- and tube-drawing machines, printing presses, cars, motorcycles, and bicycles.
- It consists of a series of short cylindrical rollers held together by side links. It is driven by a toothed wheel called a sprocket.
- It is a simple, reliable, and efficient means of power transmission.

About the company: Established in 1991, Tripcon Engineering Pvt Ltd, an ISO 9001:2008 certified company, engages in manufacturing, supplying and exporting a wide range of industrial chains. The products comply with standard bodies which include BSS, ASA and Russian quality standards.

Contact:

Tripcon Engineering Pvt Ltd, Anand

Tel: 02692-236031

Mobile: 09825089070, 08347556104

Fax: 02692-236380 Email: response@elevatorchains.com



Quality Experience

wide Range for all Needs & Applications

INDUSTRIAL / AGRICULTURAL / DOMESTIC

Steel Strong

THE STRENGTH OF PUMPING

SINCE 1970

PUMP ENGINEERING CO. PVT. LTD.

C-39, Odhav GIDC, Ahmedabad 382415

TELE : +91-8980116666 | +91-9727000039

E-mail : sales@pecindia.in | info@pecindia.in

Website: www.pecindia.in | www.pecmistcooling.com

watch our videos on

[/pecpumpsindia](https://www.facebook.com/pecpumpsindia)
[@pecpumpsindia](https://www.instagram.com/pecpumpsindia)
[/pump-engg-co-pvt-ltd](https://www.linkedin.com/company/pump-engg-co-pvt-ltd)



SMART CUSTOMERS BUY GREAT MACHINERY

Smart customers know that there is more to purchasing machinery than price. They know that there is long term value in machine reliability, high productivity, less wastage and reduced set up time.

At **Sodaltech** we are fully committed to provide outstanding value to our customers with our time-tested paper conversion machinery to produce paper cones, tubes, cores, square drums, fibre drums, composite cans, edge protectors and pulp moulded products (Apple trays, Egg trays, Tableware etc) which are easily recyclable and hence eco-friendly.

Engineering successful relationships Since 1970



SODALTECH®



K.U. SODALAMUTHU AND CO. PVT. LTD.

428, Mettupalayam Road, Coimbatore - 641 043, India. Ph : +91 422 4242100 / 2441223 • Fax : +91 422 2431279
e-mail : sales@sodaltech.net • www.sodaltech.net • +91-8754987519 • [sodaltech.marketing](https://www.facebook.com/sodaltechmarketing)



[/sodaltechcb](https://www.facebook.com/sodaltechcb)

SHRINK MACHINE

Monarch Appliances is a pioneer in packaging machines and offers a wide range of shrink machines, Mega.

Features:

- This machine is of incomparable quality, using high quality of materials and components.
- It has fast, smooth user friendly operation with easy maintenance and low power consumption; major electrical and electronics components are ISO/ISI standard quality; high-temperature silicon sleeves filled heavy conveyor; digital deviation display; thermostatic heat control.
- Their product range comprises hand sealer, foot sealer, continuous bag sealer, liquid sealer, cap sealer, shrink wrapping machine, stretch wrapper, vacuum packing machine, sleeve wrapping machine, etc.

About the company: A pioneer in packaging machinery, Monarch is the leading brand since 1990. The company manufactures a wide range of packaging machines like hand sealers, cap sealers, continuous bag sealer, shrink machines, gas wrapper and many more.

Contact:

Monarch Appliances, Rajkot

Tel: 0281-2461826

Mobile: 09033015733

Email: info@monarchappliances.com

**DIGITAL INCLINOMETER**

Sudershan Measuring & Engineering is providing a digital inclinometer.

Features:

- The digital protector is a revolutionary measuring tool with accuracy 0.1 at vertical and horizontal planes and 0.2 at rest angle.
- It performs the conversion between absolute measurement and relative measurement by simply pressing the 'Zero' button.
- The advanced sensors technology and microprocessor circuit provide unsurpassed accuracy.
- The unit is easily calibrated at any available flat surface.
- These are used for drive shaft alignment and wheel alignment; aircraft flat calibration; setup of precision machines; road or rail track layout; satellite or aerial alignment.

About the company: Sudershan Measuring & Engineering Pvt Ltd specialises in non-destructive testing instruments such as digital portable metal hardness testers, coating thickness gauges, ultrasonic thickness gauges, surface roughness testers, milling machine tools and accessories, threading tools and gauges, etc.

Contact:

Sudershan Measuring and Engineering Pvt Ltd, New Delhi

Tel: 011-23215822 Mobile: 09310030686

Email: precise.measure@gmail.com

**VERTICAL WORM REDUCTION GEARBOX**

Micro Precision Works offers a wide range of vertical worm reduction gearbox.

Features:

- These vertical worm reduction gearbox are developed utilizing premium raw material in different sizes with different ratios in adoptable types as well as fix foot mounted type.
- Used in diverse industries for severe operating conditions, our products are known for their robust construction, increased efficiency, flexibility, interchangeability, compactness, durability and reliability.
- Further, their products are compact and totally enclosed & metric in design that allow convenient and fixed location of the motor and mounted with bottom base foundation.
- Their products also fulfill a wide range of output RPM and horse power requirements. Moreover, their worm reduction units are developed for heavy load works and power transmission with latest technology.
- These are also able to tackle many troubles like leakage, heating, worm damage, shaft bending and low efficiency.
- Its features include: designed in various adoptable models according to applications; quick & easy installation and adjustment of gearbox; various ranges of output RPM and power requirements with durability; low power consumption and provide high range of torque; flexible motor mounted in a convenient position; high efficiency and low maintenance; extra cooling fans and heat transfer for improved efficiency.

About the company: Established in 1989, Micro Precision Works, engages as a manufacturer, supplier and exporter of a comprehensive collection of all types of gearboxes and conveyor accessories. Their range encompasses SMSR gearbox, worm reduction gearbox, helical gearbox, crane duty gearbox, bevel gearbox, custom made gearbox, all type of gearbox spares, multi speed gearbox, spiral bevel gearbox, idler roller, jacketed bitumen pump, woven wire mesh and road construction machinery and spares.

Contact:

Micro Precision Works, Ahmedabad

Tel: 079-25893824

Mobile: 09924304636, 09824001570

Fax: 079-25893824

Email: microgearbox@gmail.com,

info@microprecisionworks.com



CAPACITIVE LEVEL SENSOR

Process Control Devices supplies and manufactures a wide range of capacitive level sensor.

Features:

- The company provides a series of liquids level transmitters designed for immersion in open tanks, wells, groundwater reservoirs and tanks.
- The capacitive level sensor, switch, and transmitter are suitable for level measurement and control of liquids, chemicals, and some slurry.
- The performance of these instruments is not affected by the physical properties of the liquid such as density, conductivity, corrosive nature and viscosity.
- It can be applied to anything including powder, granules, and liquid; not affected by dust.
- Safely measure a wide span with a probe design that is strong enough; intrinsically safe design; flame-proof enclosure.

About the company: Established in 2014, the firm's process control devices are popular in the process industry. The firm is involved in manufacturing and supplying a broad assortment of quality measuring instruments.

Contact:

Process Control Devices, Thane

Mobile: 08655587403

Email: sales@pcd-flowmeter.com sales.pcdpl@gmail.com



Micro Fasteners



*Precision
Strength &
much more...*

To cater needs of precision, profile wire engineering components in various Industries like Automobiles, Aviation, Defense, Railways, Textiles, etc.

leading manufacturer:

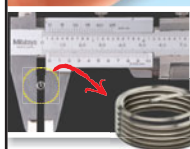
• Inserts

Free Running & Screw Locking

• Retainer Rings - Double Coil

Designed for the toughest retaining jobs. Uniform cross-section and free of burrs.

• PROFILE / Shaped wire



+ 91 98212 58342.

microfasteners@gmail.com

022 - 2814 3816.

www.microfasteners.in

Micro
Fasteners

F/12, Swastik Industrial Estate, Chod-deo Rd.,
Bhayander (East), Pin Code - 401 105.



LIBRATHERM™

We are one of the experienced manufacturers and exporters of wide range of Electronic Process Control Instruments.



With
Industries
Since 1991

Tel. : +91-22-42555333 • Cell no. : +91 98700 11544

sales@libratherm.com | www.libratherm.com | MADE IN INDIA



PLUNGER PUMPS

Cendrop Multilub System offers a range of plunger pumps.

Features:

- These are compact pumps that give metered amount of lubricant in every stroke; the discharge can be adjusted by an adjusting screw.
- Its output can vary from 0.05 cc to 0.25 cc/stroke and delivery pressure 200 kg/cm² max; the stroke of the plunger remains always same.
- The mounting threads of the plunger are M 22x1.5; these pumps are also available in 0.50 cc/stroke, 0.70 cc/stroke and 1.6 cc/stroke (non adjustable).
- It offers various products under centralised lubrication systems, including hand operated piston pumps, automatic lubrication systems, electronic timer and controllers, pneumatic operated pumps, multiline radial lubricators, dual line lubrication systems and oil circulating systems.

About the company: Cendrop Multilub System Pvt Ltd, established in 2002, is counted as one of the leading players in the field of manufacturing, supplying and exporting a wide range of centralised lubrication systems for facilitating the flow of oil or grease of the exact amount to the lubrication point.

Contact:

Cendrop Multilub System Pvt Ltd, Faridabad
Tel: 0129-4080158 Mobile: 09810068574
Email: cendrop@gmail.com, cendropmultilub@yahoo.co.in

**TRIPLEX PLUNGER PUMPS**

UT Pumps & Systems offers a wide range of high pressure triplex plunger pumps, UTPS-8000 and UTPS-11000 series.

Features:

- Complete pump unit with local control panel, instrumentation and safety controls is mounted on a vibration free fixed base frame or towable trolley with solid/pneumatic wheels; overhead water tank can also be fixed on frame.
- Crankshaft supported by heavy cylindrical roller bearings and driven by means of built-in helical gears and pinion drive with herringbone gear arrangement.
- Variations in flow and pressure possible by simple change of conversion kits; safety valve is driven by electric motor or diesel engine and assembled with centrifugal pump filter to ensure supply of pressurised clean water at pump inlet.

About the company: UT Pumps & Systems Pvt Ltd is a professionally managed fast-growing company that has a manufacturing base with state-of-the-art manufacturing facilities. The company has been accredited with ISO 9001-2000 certificate for design and manufacturing of pumps and systems.

Contact:

UT Pumps & Systems Pvt Ltd, Faridabad
Tel: 0129-2274861 Mobile: 0313784055
Email: sales@utpsl.in, info@utpsl.in, utpsl@eth.net

**FIBRE PRODUCTS**

Creative Carbon is a manufacturer of moulded products from raw materials like carbon, phenolic fibres and rubbers, etc.

Features:

- It produces some of the mechanical equipment and spare parts, etc. It manufactures fibre products (phenolic – fabric base) moulded parts.
- It has the capability to undertake any type of compression moulding from 17 to 20 kg weight single piece. It manufactures fibre products like fibre bearings, trolley wheels, fibre brackets, pulleys bearing housings and customised products.
- Its applications includes in a diverse array of industries: fertilisers, petrochemicals, steel, textile, pulp and paper and aerospace technology. Other products include fibre bearings and slipper pads, moulded blocks for shuttles for textile machinery, phenolic laminated sheets, mechanical seals, rotary joint, carbon brushes, trolley wheels, etc.

About the company: Creative Carbon Pvt Ltd is a manufacturer of moulded products from raw materials like carbon, phenolic fibers and rubbers, etc. Their network is spread pan India, East Africa, and the Gulf countries.

Contact:

Creative Carbon Pvt Ltd, Ahmedabad
Tel: 079-26585065 Mobile: 09825012148
Email: info@fibrebearing.com, creativecarbon@gmail.com

**CABLE GLANDS**

Sigma Industries is engaged in manufacturing of precision components and offers a wide range of cable glands.

Features:

- The company specialises in advanced cable accessories.
- Their cable glands confirms to IP 68 standards, available with unique characteristics of protection against liquid, dust, strain, twist and vibration.
- Useful in electrical panel and junction boxes; could be used in measuring and controlling instruments, machinery and equipment.
- Clamping range is available from 2 to 75 mm with required thread diameter; special requirement can be accepted; available with PG, metric and NPT threads.

About the company: Sigma Industries is a manufacturer of cable glands, related accessories, SS cable ties and precision components. It is engaged in manufacturing of precision components for last 10 years with specialisation in advanced cable accessories. The company not only deals in standard products, but also welcomes customised requirements even in small quantities.

Contact:

Sigma Industries, Jamnagar
Tel: 0288-2562567 Mobile: 09375391408
Email: sigmacgs@yahoo.com, info@cgscableglands.com

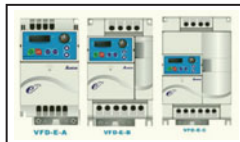


DELTA VFD-E SERIES DRIVE

Delta Power Solutions is offering a wide range of VFD-E Series drive.

Features:

- These have built-in PLC function and can be connected in parallel to share the regenerative braking energy (DC BUS sharing).
- It can be installed side-by-side and is modular and compact in design and complies with RoHS.
- The drive has built-in EMI filter and RFI-switch for IT mains and is fully equipped with various protection functions.
- There is removable cooling fan for easy maintenance and optional keypad.
- Major applications are conveyor and transportation machinery, food processing, machine tool/metal processing machinery, wood working machinery, fan/pump equipment, paper/textile machines and many more.



About the company: Delta Power Solutions India Pvt Ltd, founded in 1971, is a global leader in power and thermal management solutions. The company focuses on addressing key environmental issues such as climate change.

Contact:

Delta Power Solutions India Private Limited, Gurugram
Tel: 0124-4874900

Email: deeksha.kewlani@delta.co.in

AUSTENITIC STAINLESS STEEL

Shalco Industries Pvt Ltd is a manufacturer of austenitic stainless steel.



Features:

- It is most widely used alloys in industrial as well as commercial space. Its an austenitic grain structure and remain stable under a wide range of conditions.
- They are generally non-magnetic in nature. Their composition constitutes chromium, nickel and sometimes molybdenum along with nitrogen and other alloying elements.
- Nickel-based austenitic stainless steels are generally classified as 300 series alloys, among which grade 316 and 304 are extensively used.
- Their common applications include industrial equipment, automotive components, chemical industries, food equipment, etc.

About the company: Shalco Industries Pvt Ltd is a manufacturing division carved out of its parent company Shah Hastimal Laxmichand & Company in 2000. It started with the stainless steel sheet matt finishing division and, now in a very short time span, the company has grown and entered into the manufacturing of stainless steel seamless and welded pipes & tubes.

Contact:

Shalco Industries Pvt Ltd, Mumbai

Tel: 022-62498200, 62498214

Email: info@shalco.in, ramesh@shalco.in



NEOTECH EQUIPMENTS PVT. LTD.

Moving Ahead with New Technologies

Sales, Service and Technical Consultancy

Hydraulic Tools and Accessories



Hydraulic Jacks



Mechanical & Hydraulic Pullers



Posti-Lock Pullers



Hydraulic Hand Pump



Hydraulic Electric Pump



Hydraulic Bolting Tools

Manual and Powered Hand-tools and Tool storage.



Access Control Tools Storage



Manual Torque Wrench



Torque Multiplier



Pliers



Heavy duty impact



Inspection and measurement devices

Industrial Pumps



Centrifugal Pumps



CombiNorm



Gear Pumps



KGEN Series Pumps



LOBE Pumps



DC Pumps

Hydraulic Accumulators, Bladder and Accessories



Bladder Accumulator



Diaphragm Accumulator



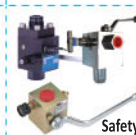
Piston Accumulator



Spare Bladder Kits



Nitrogen Charging Kits



Safety Blocks

Authorised Distributor for



Delhi Office: 401, Gagandeep - 12, Rajendra Place, New Delhi 110008.
Tel: 011-41537923, 25740364 Mobile: +91 9540062568

Vadodara Office: Ananda 10, Ahsray, Geri Road, Gotri, Vadodara 390021.
Tel: 0265-2370201 +91 74050 06382, Mobile: +91 92277 66422
Email: mail@neotechworld.com

www.neotechworld.com

LOCAL SCARE ALARM

C Systems Pvt Ltd manufactures a wide range of local scare alarm.

Features:

- A smart key switch provided in the panel enables the user to arm / disarm the local scare alarm system.
- One Volt free relay output is provided in the LSA to monitor/integrate the status of the system from remote location.
- Its additional output can be provided to monitor the status of key.
- Some key benefits of these products are such as one zone local scare alarm; magnetic reed switch sensor; Built in 120 db hooter; 230V AC operated; On/Off key for ARM/DISARM mode & reset; blinking green LED for healthy & armed; Red LED for Alarm; Volt free status output for integration.

About the company: C Systems, incorporated in 2002, has become synonymous in the field of embedded electronics and automation products manufacturer in India. The company is well known for its high quality products, solutions and customer services.

Contact:

C Systems Pvt Ltd, Chennai

Tel: 044 32922777

Mobile: 09841157607, 09941006680

Email: sales@cssystemssindia.com

**RR BUSBARS AND TAPES**

Ram Ratna Wires Ltd offers RR busbars and tapes.

Features:

- These products are made from registered cathodes of grade "A" type LME having copper purity of 99.99 per cent. This high purity input give RR products high electrical conductivity of 100 per cent IACS (International annealed copper standard).
- This level of high conductivity is desirable for accurately designing electrical instruments. They use smart process controls which impart fine grain structure to the final product.
- This fine grain structure gives good formability to bus bars, shows no cracks on bending and is suitable for making intricate parts of electrical machines. Products have glittering surface finish, a twist & bend free flatness.
- The extrusion drawing dyes angle design, drawing machine and high quality dyes gives their products a flawless shiny surface finish, matching all international standards and the right flatness for jointing purpose making it a perfect for connection application.

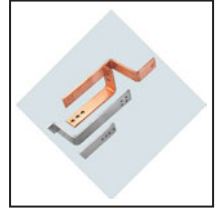
About the company: Ram Ratna Wires Ltd is a UL certified ISO -9001:2000 company. These products are manufactured at India's first dust-free winding wire manufacturing facilities, Salasar Copper, situated at Silvassa. All products are manufactured using 99.97 per cent oxygen free copper.

Contact:

Ram Ratna Wires Limited, Mumbai

Tel: 022-24924144

Email: mumbai.rrkabel@rrglobal.com

**INVERTER CABINETS, 3 CFL**

Shrey Plastic Moulders is a supplier and manufacturer of 3 CFL inverter cabinets, Model SPM P2T.

Features:

- These cabinets are designed in accordance with the technical specifications desired by clients.
- These can be availed in various sizes and shapes to suit the demands of home UPS systems.
- Their range of products are acknowledged for sturdy construction and long service life.
- The range encompasses home UPS plastic panels and cabinets, stabiliser plastic panels and cabinets, inverter front panels 600-800 VA, plastic moulded cabinets, CFL inverter cabinets and inverter front panels 800 to 1400 VA.
- These are widely appreciated for high resilience, optimum strength, heat resistance and durability.

About the company: Established in 1995, Shrey Plastic Moulder is one of the well-known manufacturers, exporters and suppliers of plastic panels and cabinets for various electronic goods.

Contact:

Shrey Plastic Moulders, New Delhi

Tel: 011 22136820, 22131693

Mobile: 09810057385, 09953531350

Email: sales@shreyplasticmoulders.com
shrey@shreyplasticmoulders.com

**CASTORS & WHEELS**

H M Gulamali is a distributor of a wide range of castors and wheels manufactured by Blickle, Germany.

Features:

- These castors and wheels are reputed for their high technical standard and excellent quality.
- The Blickle product range comprises more than 20,000 different wheel and castors, with load bearing capacities ranging from 15 to 20,000 kg.
- Apart from the standard product range, Blickle can manufacture castors and wheels according to specific customer requirements.

About the company: In India, HM Gulamali is the exclusive distributor for Blickle - the leading manufacturers of castors and wheels in the world with state-of-the-art factories in Germany and France.

Contact:

H M Gulamali, Chennai

Tel: 044 42161010, 42162020

Email: farook@hmg.co.in, info@hmg.co.in



PNEUMATIC LUBRICATORS

Lubrite Industries offers a wide range of pneumatic lubricators.

Features:

- These pumps are similar to hand pumps except that the handle is submitted with pneumatic cylinder. Air pressure is fed at the input port of the pump which actuates built in cylinder and piston of the pump.
- Lubricating oil with fixed quantity & pressure of 15kg/cm² is discharged from the outlet whenever air pressure of 5-7kg/cm² is maintained in the pneumatic line.
- For recharging of the pump for next impulse, pressure in pneumatic line must be dropped down to zero. These pumps can be successfully used as automatic lubrication system with the help of direction control valve and electronic timer.

About the company: Lubrite Industries is one of the major Indian manufacturers of Centralised Lubrication Systems. Over the last three decades, it has been endeavour to produce quality products for the end users.

Contact:

Lubrite Industries, Phagwara

Tel: 01824-503488 Mobile: 09855382288

Email: info@lubriteindustries.com



MICROSWITCHES AND LIMIT SWITCHES

Crouzet a leading manufacturer of automation control components, is the specialist in low-voltage snap-action electrical switching, with its ranges of microswitches and limit switches.

Features:

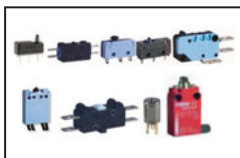
- Whether as a one-off or in large volumes, standard or bespoke, Crouzet can adapt its products, from cable to connector, to specific components depending on your specifications.
- Numerous industrial and onboard applications incorporate these components, in all types of environment, including those with serious technical constraints and/or stringent quality requirements.
- These products are used in electrical switchgear, simple or nuclear valve controls, special civil engineering machinery, agricultural machinery, handling and lifting, medical equipment, wind turbines, etc.

About the company: Crouzet an operation of custom sensors & technologies & global expert in microswitches offers wide range of microswitches like sub-sub miniature, subminiature, miniature, protected, waterproof & explosion proof, etc.

Contact:

InnoVista Sensors India Pvt Ltd, Bengaluru

Mobile: 09739001340 Email: india@crouzet.com



Gas Springs, Tension Springs, Stainless Gas Springs, Force 5-15000N



Rodless Cylinders
Pneumatic-Electric-Manual



Industrial Shock Absorbers and Crane Buffers



Vacuum Components and Solutions



Represented in India by: **a.c.automation**
301, Mukund House, Commercial Complex, Azadpur, Delhi - 110 033.

Ph: 011 - 41472715

E-mail: sales@acaautomation.in | Website: www.acaautomation.in

MAGIC FRESH - HAND SANITIZER (LIQUID/GEL)

Innovative Hygiene Products engages as manufacturer and distributor of a wide range of magic fresh - hand sanitizer (liquid/gel).

Features:

- The magic fresh hand sanitizers contain 70 per cent ethyl alcohol and is 99.9 per cent effective in killing germs to help protect your hands.
- They are gels that contain alcohol in order to kill the germs present on the skin.
- The alcohol works immediately and effectively in order to kill bacteria and most viruses.
- Its features include: safe on hands; kills 99.9 per cent of fungi, viruses, and bacteria; kills cold & flu viruses.

About the company: Innovative Hygiene Product is one of the leading manufacturers and distributors of high quality commercial, residential and industrial cleaning liquid products. They are based in Coimbatore and are recognised as one of the best smart cleaning and house keeping materials providers for home and commercial usage.

Contact:

Innovative Hygiene Products, Coimbatore

Tel: 09843214332, 090422 66668

Email: innohypro@gmail.com,

sales@innovativehygieneproducts.com



AUTOMATIC SANITIZER & SOAP DISPENSER

AV&T Solutions Pvt Ltd is a supplier of a wide range of automatic sanitizer & soap dispenser.

Features:

- It has built-in infrared smart sensor.
- Fully automatic and touch-free operation, to avoid the second cross-infection.
- It has innovative non-drip design eliminates waste and countertop mess, which can help parents to confirm their motivates kids hand-washing.
- Some benefits of these products are such as durable finish standard; rustproof; unique wall design; high strength; perfect hand sanitizer dispenser.

About the company: Incorporated in 2011, is a supplier of medical products for COVID-19 including test kits, face masks, infrared thermometers, disposable, automatic sensor faucets, fogger machine, automatic sanitizer dispenser, soap & liquid dispenser, hand dryer etc. Their range of products is widely appreciated amongst their customers owing to their high performance, hassle-free performance, longer service life, compact design, optimum efficiency and superb quality.

Contact:

AV&T Solutions Private Limited, Mumbai

Mobile: 08048763273

Email: info@avnt.co.in



ALPHAREX MULTIPURPOSE DISINFECTANT CONCENTRATE

Alpha Products manufactures and supplies a wide range of Alpharex multipurpose disinfectant concentrate.

Features:

- It is dual action, cleaning and disinfection deodorizer.
- Water soluble; bio-degradable and eco-friendly, aldehyde free.
- It has effective on all porous and non-porous surfaces; non-hazardous, non-staining, non-toxic, non-corrosive.
- The product is known for one step disinfectant cleaner; can be used to disinfect all objects, surfaces in the health care, food and dairy, malls, airports, washrooms, sinks, bathrooms, spraying in air removes odour, disinfects environment.

About the company: Originated in 2002, Alpha Products, an ISO 9001:2008 certified company, is a manufacturer and supplier a wide range of housekeeping, kitchen and laundry products. Our product range comprises of bathroom cleaners, hard surface cleaners, glass cleaners, furniture maintainer and polish room freshener liquids, hand cleansers, sanitizer tabs etc.

Contact:

Alpha Products, Vasai (E)

Tel: 022-2644564 Mobile: 09921700210, 09821172335

Email: info@alphaproducts.net.in



FOREHEAD THERMOMETERS

Hardware & Pneumatics trades a wide range of forehead thermometers.

Features:

- These forehead thermometers meant specifically for measuring human temperatures and keep the best in class brand Uni-T.
- UT30R has advantages of simple and sanitary operation, quick and accurate measurement.
- It can measure temperature accurately within 1s by aiming the detector at target object.
- Its operational specifications are such as temperature range of 32 ~45°C (89.6~113°F); accuracy: ±0.3° (0.6); response time: 500ms; test distance: 5~10cm; high temperature screen flashing alarm; data hold; LCD backlight; auto shutdown; °C/°F option; power: 1.5V; battery (LR03)×2; product net weight: 148g; product size: 135mm×94mm×36mm; disclaimer: original color may vary; model: UT30R.

About the company: Hardware & Pneumatics is engaged in trading, wholesaling and exporting of a wide assortment of industrial pneumatic and hydraulic products, procured from registered and reliable vendors.

Contact:

Hardware & Pneumatics, Kolkata

Tel: 033-22484842 Mobile: 09831063719, 09874044351

Email: sales@hardwarepneumatics.in



PBX – POSITIVE BREAK SWITCHES

Crouzet offers a wide range of PBX – positive break switches.

Features:

- The PBX is the latest newcomer to Crouzet's range of microswitches for industrial and railway equipment.
- The electrical configuration of this switch is based on a double insulated failsafe circuit (1 NO 1 NC) with two types of contact (silver or gold-plated silver) available, based on the voltages and switching loads involved.
- The PBX switch has a mechanical service life of 10 million cycles and features a long pushbutton travel range after reaching the electrical switching point, which helps to absorb any deviations from mechanical tolerances during equipment wear over time.
- The modularity of the range means that there is a vast range of readily available configurations to choose from: screw or tag terminals; standard or low level; version; mounting plates, protective cover; dummy roller lever.

About the company: Crouzet an operation of custom sensors & technologies & global expert in microswitches offers wide range of microswitches like sub-sub miniature, subminiature, miniature, protected, waterproof & explosion proof, etc.

Contact:

InnoVista Sensors India Pvt Ltd, Bengaluru
Mobile: 09739001340 Email: india@crouzet.com



Place For Industrial Automations



AMBIKA TRADING COMPANY

(Serving Industry Since 1967)

100, Annex to 'AMBIKA' Shankar Mutt Parallel Road
Shankar Park, Bangalore - 560 004.

Tel/Fax: 26602160/26613337, e-mail: ambikaramesh@hotmail.com

FUMES & DUST CONTROL



We manufacture and export a wide range of Fume Extractors, Mist Collectors, Dust Collectors, Self-balanced Extractor Arms, Electrostatic Filters, Ventilation Systems, Clean Room Systems working on the Electrostatic principle under the brand name of Fumekiller™, Dustkiller™ and DustBag™.

These Electrostatic Filters use about 40% less Electrical Power, are many times washable and re-usable, can capture fine pollutants such as mist, fumes and smoke, work at about 3 mm WG pressure drop, are modular and are stackable upto 1,00,000 CMH.

Typical applications in industry are:

- Engineering** : Removal of oil mist or coolant mist for CNC grinders, lathes and machining centres. Capture of fine powders from graphite, cast iron, bakelite grinding operations. Elimination of smoke and fumes from welding, annealing, forging etc.
- Electronics** : Capture of fumes from soldering, cleaning and for clean rooms.
- Pharmaceuticals** : Capture of fumes from tableting, capsuling, filling and for clean rooms.
- Textiles** : Capture of particulates in ventilation and humidification systems.
- Hospitals** : Capture of dust, bacteria in operation theatres and for clean rooms.
- General** : For clean rooms upto class 1,00,000 without changing existing blower capacity of air-conditioning system.

Powertech Pollution Controls Pvt. Ltd.

22/3, Rajanna Building, Munikrishnappa Road, Ramachandrapura, Jalahalli Post, Bangalore - 560 013, Karnataka, India.

Tel: 080-23452156, 23452256, Fax: 080-23452445.

E-mail: philiphthomas@powertechindia.com | Website: www.powertechindia.com

FLOOR CLEANER, PINE ALL JASMINE

Crozier Hygiene Company is a supplier and trader of a wide range of floor cleaner, pine all jasmine.

Features:

- Pure natural oils proportionately blended with fine deo pine perfume to give that extra eco-friendly charm to your home.
- General purpose disinfectant with pine oil. Provide a clean fragrance to help overcome unpleasant odor. Also remove various stains from the floor.
- The product is known for perfect for damp mopping; suitable for cleaning kitchen floors and walls, bathrooms, drains etc.
- The product disinfects and prevents the growth of fungus.
- Its application areas are such as germs free floor cleaning; sparkling clean of basin and toilet; natural fresh fragrance; keeps insects & flies away.



About the company: Crozier Hygiene Company, started in 2016 with a strong commitment towards attaining complete customer satisfaction. Based on the concept to create a dynamic organization, where hard-work, honesty, integrity & improvisation would be the guiding principles.

Contact:

Crozier Hygiene Company, Udaipur

Mobile: 09782200789

Email: id-crozierhygiene@gmail.com, info@crozier.co.in

LATEX SURGICAL STERILE GLOVES

Rising Sun Enterprises is a manufacturer and wholesaler of a wide range of latex surgical sterile gloves.

Features:

- Backed by the team of expert professionals and immense knowledge in the domain, our firm is actively engaged in providing a wide assortment of latex surgical sterile gloves.
- The provided gloves are sterile and prevent contamination by spreading of germs.
- These are quality tested on various parameters before delivery to ensure their quality and sterility. Moreover, clients can get these at affordable rates.
- Some key benefits of the product are such as non sterile and ambidextrous; beaded cuff.



About the company: Established in 2012, Rising Sun Enterprises is one of the leading manufacturers and wholesalers of laboratory equipment and scientific instruments.

Contact:

Rising Sun Enterprises, Gurugram

Tel: 0124-4388685

Mobile: 08130740809

Email: risingsunenterprises1978@gmail.com

PPE KIT

Plasti Surge Industries Pvt Ltd engages as a manufacturer and an exporter of a wide range of PPE kit.

Features:

- The company is leading manufacturers of disposable medical PPE kits in India.
- This Covid-19 PPE kit is for disease prevention.
- This is highly used by hospitals, clinics, assisted living, doctor, dentist, visiting nurse, EMS, first responders, military.



About the company: Plasti Surge Industries Pvt Ltd, established in 1987, has acclaimed its position amidst the reliable manufacturers, suppliers and exporters of medical disposables. The company also specialises in healthcare kits, both standards as well as customised. They are one of the leading suppliers of health kits designed as per UN/WHO guidelines for rural markets & developing countries. These kits have customised contents as per regional needs and can be made as per order.

Contact:

Plasti Surge Industries Pvt Ltd, Amravati

Tel: 0721-2521295, 2521296, 3332321

Fax: 0721-2670403

Email: sales@psidispo.com, aditya@plastisurge.com

PEN SPRAY HAND SANITIZER

Kavit Polybind Pvt Ltd trades and exports a wide range of pen spray hand sanitizer.

Features:

- This hand sanitizer contains 70 per cent alcohol with a special blend of vitamin-E moisturizers which not only kills all the germs but also moisturizes for hands and makes the skin soft.
- The added chlorhexidine di gluconate kills all harmful germs which can cause illness.
- A light layer of moisturizers with a touch of perfume remains to condition the hands which rejuvenates us.
- They also customize hand sanitizer on client's request. They give significance to customer satisfaction.



About the company: Established in 1996, Kavit Polybind Pvt Ltd, is a reputed manufacturer, importer, exporter and trader of optimum quality detergent polymer, chemical supplies and hand cleanser with sanitizer. These products are precisely processed using higher quality basic ingredients, chemical compounds and advance technology. These products have achieved huge accolades all across the market for their features such as longer shelf life, high purity, effectiveness and precise composition.

Contact:

Kavit Polybind Private Limited, Ahmedabad

Mobile: 08046040742 Email: tapanshah69@gmail.com

TRANSMISSION MEASURING SET (TYPE 368-C)



Anuvidyut Private Limited offers a wide range of transmission measuring set (type 368-C).

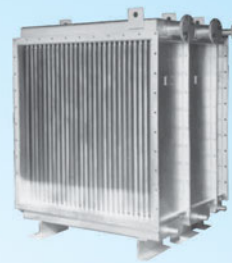
Features:

- This type 368-C transmission measuring set is designed to fulfil all types of requirement for determination of signal level, insertion loss, transmission loss and return loss in cable circuits used in line telephony.
- The instrument operates through a rechargeable battery and is provided with a battery charger.
- The instrument is housed in sturdy aluminium case ideal for field use.
- Its features include: built-in level oscillator and level meter; pre-calibrated 12 spot frequencies; digital display with 0.1 dB resolution; portable and light weight.

About the company: Established in the year 1964, our company is engaged in manufacturing railway signaling equipment as per the latest industry standards. With the assistance of our experienced professionals, they design our range in accordance to the client specific requirements.

Contact:

Anuvidyut Private Limited, Roorkee
Tel: 01332-262545 Mobile: 08126892545
Email: info@anuvidyut.com, anuvidyut@gmail.com



AIR HEATER

Made suitable for high pressure Steam / Thermic Fluid capacity upto 10,000,00 kcal/hr.



CONTINUOUS SPIRALLY WOUND CRIMPED & 'G' TYPE FINNED TUBES.

Made on Automatic Fin Tube Making Machine

HEATING COILS: For standard Tray Drying Ovens
Model: 012, 024, 048, 96, 192 Tray Dryers

Finned tubes and heat exchangers made in all material combination



HEAT RECOVERY UNIT

Suitable for Air / Gas Cooling application



Thermotech INDUSTRIES (INDIA) PVT. LTD.

Designers & Manufacturers of:

Crimped & 'G' Type Finned-tubes, Fin type heat Exchangers with Latest Heat Transfer Technology, Steam / Thermic Fluid, Radiators & Finned Tube Equipments.

Work: Plot No. R-71, T.T.C. Industrial Area, M.I.D.C. Rabale, Navi Mumbai - 400 701, INDIA. Tel.: 022-2760 3136
Mobile: 98218 76052 Telefax: 022-2760 3893
Email: thermotech.ind@gmail.com, info@thermotechind.com
Website: www.thermotech-finnedtubes.com

KUSAM-MECO®

An ISO 9001:2015 Company

OUTSTANDING QUALITY ! TERRIFIC FEATURES

DIGITAL INSULATION RESISTANCE TESTER MODELS KM 887 / KM 878 / KM 877

UNIQUE FEATURES

- RUGGED FIRE RETARDING CASING
- STURDY DROP PROOF HOLSTER
- SAFETY COMPLIANCE:
IEC/EN61557-1 Ed.2.0, IEC/
EN61557-2Ed.2.0 & IEC/EN61557-10 Ed.2.0
E.M.C. : Meets EN61326-1:2013
- WRONG INPUT WARNING
- DOUBLE INSULATION
- CAT III 1000V & CAT IV 600V AC & DC



INSULATION TESTER & FULL MULTIMETER FUNCTION

- 8KV TRANSIENT PROTECTION
- 3-5/6 DIGIT 6000 COUNTS
- BACKLIGHT DUAL DISPLAY
- 61 SEGMENTS ANALOG BAR GRAPH
- RECORDS MAX/MIN VALUES
- LOCK TEST MODE FOR INSULATION TESTING
- WITH DAR & P/I FUNCTION
- EARTH CONTINUITY TEST
- PASS / FAIL FUNCTION

It is the most versatile hand held I.R.T. available in the market. It is packed with features and function not available in any other similar instrument. It has Insulation Resistance Measurement at 50/100/250/500/1000V & Resistance range upto 25.0GΩ. It also has Pass/Fail Insulation Resistance compare functions. It has full DMM function of DC/AC Voltage, VFD AC Voltage, AC/DC Current, Resistance, Line Level Frequency, Capacitance, Earth Continuity Test, Temperature etc.

AND MANY MORE FEATURES !

FOR MORE DETAILS VISIT OUR WEBSITE : www.kusamelectrical.com

KUSAM-MECO®
An ISO 9001:2015 Company

G-17, Bharat Industrial Estate, T. J. Road, Sewree (W), Mumbai - 400 015, INDIA.
Sales Direct.: 022-24156638, 27754546 Tel. :24124540, 24181649, 27750662, 27750292
Email : sales@kusam-meco.co.in

METRIC HEX NUTS

Austenite Fasteners Pvt Ltd engages to manufacture metric hex nuts.

Features:

- A six-sided internally threaded fastener with metric thread pitch. 16 millimeter nuts and smaller are chamfered on the top and the bearing surface.
- Larger nuts may be double chamfered, or have a washer face on one side and a chamfered surface on the opposite side.
- Generally manufactured in accordance with DIN Standard 934 or ISO Standard 4032.
- These all nuts are available in 304, 304L, 316, 316L, H.T Gr. 8, 10, etc.

About the company: Austenite Fasteners Pvt Ltd, established in 1999, has come long way on acquiring Krishna Engineering Company. Today the company manufactures fasteners for general industrial purpose, automobiles, railways, wind mills, infrastructural, wind, power, engineering, valve, aeronautics, railway, ship building, mining and special fasteners as per customer's requirement, etc.

Contact:

Austenite Fasteners Pvt Ltd, Vadodara

Tel: 0265-2635396, 2635397

Mobile: 09099094481

Email: info@ausenitefasteners.com

**CONICAL SPRINGS**

Micro Spring Products offering conical springs.

Features:

- The different types of conical springs are conical compression and extension Springs.
- Conical Springs are used in push buttons, battery conductors, electrical and electronics products.
- Conical compression springs: Conical compression springs are springs that have large diameters that cone down to smaller diameters.
- Also known as tapered compression springs, these springs provide a near constant rate and, because of their ability to telescope, can provide a lower solid height than a normal compression springs.
- Conical extension springs: Conical extension springs are designed and manufactured by coning down the last few coils then forming the hooks on these reduced ends.

About the company: Micro Spring Products, started in March 2008 in Chennai, manufactures and supplies quality springs and pressed components to various industries that use these parts in their core products.

Contact:

Micro Spring Products, Chennai

Tel: 044-24765567 Mobile: 09003062996

Email: info@microsprings.com

**HOSE COUPLINGS**

Patel Brass Turnomatics Pvt Ltd is manufacturing hose couplings.

Features:

- A hose coupling is a connector on the end of a hose to connect (or couple) it with another hose or with a tap or a hose appliance, such as an irrigation sprinkler.
- Hose couplings have a variety of uses in any industry where the connection of a hosepipe to a tap, pump or other machinery needs to be secure and reliable.
- With a variety of thread sizes and pressure resistance available, the pbi Range of hose couplings presents solutions for water lines, ink transfer and vacuum line applications.
- The PBI range of hose couplings includes hose inserts, hose elbow, hose nut & nipple, quick release coupling, crimping nut & nipple set and valves.

About the company: Established in 1971, it manufactures components in agriculture sector and gas application. Today the company caters to various industries and covers all major cities in India. They now have 1200+ standard products in stock, ready for dispatch upon order.

Contact:

Patel Brass Turnomatics Pvt Ltd, Jamnagar

Tel: 0288-2730877/78

Email: info@patelbrass.com

**CARBON STEEL FASTENERS**

Katariya Steel Distributors engages as a manufacturer and supplier of a wide range of carbon steel fasteners.

Features:

- The use of optimum quality raw materials in the manufacturing of the carbon steel fastener ensures high durability, tensile strength and resistivity to adverse conditions.
- Moreover, they provide low carbon steel fastener as well as high carbon steel fastener in varied sizes, dimensions and coatings like bare condition, galvanised, phosphetised, cadmium plated, hot deep galvanised, bloodied, nickel chrome plated, etc.
- Some distinctive features include those of robust construction; high tensile strength; anti abrasive; strong & tough construction; durable; dimensionally accurate; complies to international quality standards.

About the company: Katariya Steel Distributors is manufacturing, exporting, supplying, distributing, importing, servicing and trading a wide range of pipes, fittings, flanges, sheets and plates, fasteners, and other industrial steel products.

Contact:

Katariya Steel Distributors, Mumbai

Tel: 022-22423168, 66363168

Mobile: 09833405433, 09823458877

Email: sales@katariyasteel.com



DIGITAL TIME INTERVAL METER TYPE-1425 MA

Anuvidyut Private Limited offers a wide range of digital time interval meter type-1425 MA.



Features:

- This type 1425 series micro controller based digital time interval meters are used for the measurement of time interval from 100μ sec. to 9999 secs.
- This is ideally suited for measuring switching time of relays, trip time & on time of circuit breakers, fusing time of fuse elements, travel time of switches and contactors etc.
- This type 1425 series can also be used as an accurate stop watch by stop watch switches.
- These series 1425 can be used for measuring the time interval by voltage applied/removal or by connecting/opening potential-free contacts.
- Its range 1ms to 9999 seconds; can be used as a stopwatch; four operating modes -start/stop; VA-voltage applied VR-voltage removed; NO-normally open NC-normally close; 2 Line backlit LCD display.

About the company: Established in the year 1964, our company is engaged in manufacturing railway signaling equipment as per the latest industry standards.

Contact:

Anuvidyut Private Limited, Roorkee
Tel: 01332-262545 Mobile: 08126892545
Email: info@anuvidyut.com, anuvidyut@gmail.com



Best self drilling screws with 8mm drill capacity

Choose MCF self drilling screws for your next construction project and be assured that they will last a lifetime.

- ▶ Made of highest quality grade of AISI 1022 steel
- ▶ Perfect watertight seal with EPDM rubber washer
- ▶ Sharp drill tip with 8mm capacity for fast installation
- ▶ UV resistant and additional corrosion resistant





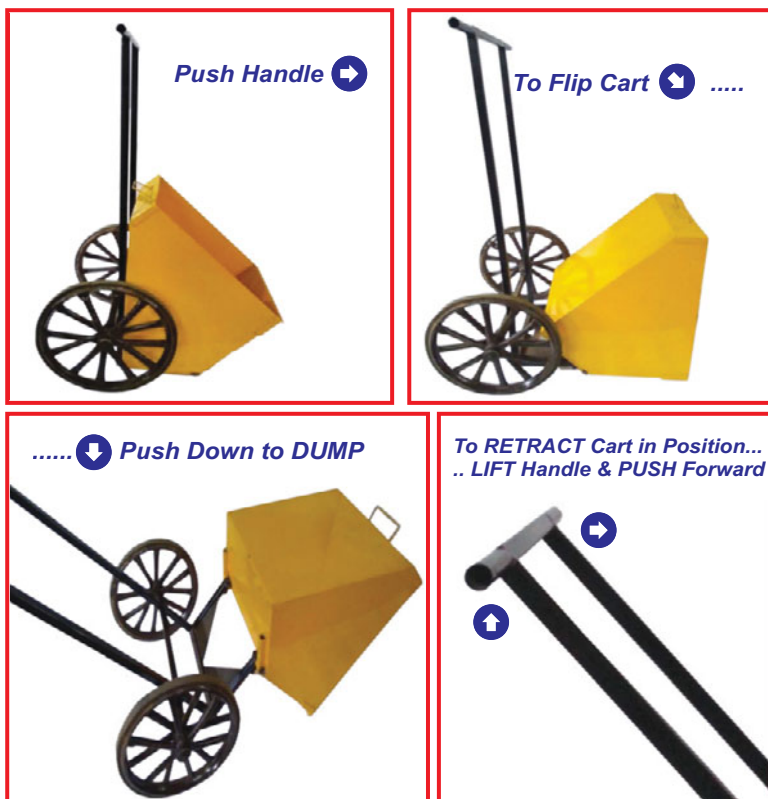
Sourced and made in India



AN ISO 9001:2015 certified company

Get in touch today to get an obligation free quote and samples.
Visit microcoldforge.co.in
Email microcoldforge@gmail.com
Call 63610 68235

TUMBLE KART - Automatic Dump & Retract



The Kart's unique and **First of its Kind DUMP & RETRACT** mechanism makes it convenient and comfortable for use.

Max Load bearing capacity of the Kart box is 100 kilograms and its volume is 90 litres. 450*560*500mm (W*L*H)

For easy & quick Loading or Shovelling the Kart Box can be positioned in two ways as shown in picture 1 & 2.

Two 16" Hard Rubber wheels with steel rims are fitted with two 'ZZ' bearings on **each wheel** for all terrain use.

Tumble Kart's heavy duty fabrication makes it Rigid & Durable.

Click on the link below for **YouTube** Video:
<https://www.youtube.com/watch?v=uEbj6x8X1Ds>

Customer specific sizes undertaken.

Contact :

Sterling Tools

D-190, Industrial Estate, Gokul Road, HUBLI - 580 030 Karnataka INDIA.

E-mail : sterling_tool@yahoo.co.in

Website : <https://sterlingtool.co.in>

Tel Ph : +91 836 233 2756, +91 836 233 4191



Message "Tumble Kart" to
+91 98866 76618 for video clip.

KAT®WELDING AND CUTTING AUTOMATION CARRIAGE

Gullco International India Pvt Ltd offers a wide range of KAT® welding and cutting automation carriage.

Features:

- The Gullco KAT® which has been used throughout the world for decades has been re-engineered to be smaller and lighter than previous models, yet robust and feature rich.
- These engineered features include: tool-less setup, adjustment & operation; self-aligning wheels (easy installation); dynamic dovetail racking for versatile torch positioning; quick clutch mechanism; OSHA safety orange; ingress protection; (sealed unit) including conformal coated circuit boards; energy.

About the company: Gullco International is a globally renowned manufacturer of automated welding carriages, welding tractors, cutting carriages, welding automation and accessories.

Contact:

Gullco International India Pvt Ltd, Pune

Tel: 07276060382

Mobile: 09920414253

Email: india.lo@gullco.com, indsales@gullco.com

**SPOT WELDING MACHINE**

Parmo Welding Machines (P) Limited offers a wide range of spot welding machine.

Features:

- Its features include: Transformer: low leakage (high linkage) design, proper cooling and insulation including winding impregnation to enhance reliability and service life.
- Current control: current setting from min. to max. value can be done by a 8 position, off load tap switch.
- Time control: Solid state electronic timer to control weld time from 5 to 50 cycles and 1 to 10 seconds to achieve accurate and repeatable spots.
- Weld pressure: Adjustable max. pressure levels are derived from a heavy duty compression spring mounted on a pressure rod with calibrated nut.
- Cooling: Electrodes, holders and arms are provided with water cooling arrangement with host connections. (water supply to be arranged by the user).
- Electrodes: One pair of morse taper 2 straight electrodes made from hardened copper-alloy is supplied with the equipment. Other types of spare electrodes can be supplied on specific orders.

About the company: Parmo Electro Products is engaged in manufacturing a range of welding machine, gathering machines, solder machine, welding plants, etc.

Contact:

Parmo Welding Machines (P) Limited, Rajkot

Mobile: 09898770717

Email: paras@parmoelectro.com

**FLASH BUTT WELDING MACHINES**

Kriton Weld Equipments Pvt Ltd offers a wide range of flash butt welding machines.

Features:

- These butt welding is a most modern resistance welding process which ensures joint strength even 25% higher than parent metal.
- These machines are specially designed for ferrous and non-ferrous wire processing industries in the manufacture of wires, cables, conductors, wire ropes, transformers, cycle tyre bead wires.
- Also include wire-products manufacturers, metal working industries, spun-pipe manufacturers, automobile industries etc.
- These butt welders are product of many years of research and development in the field of resistance welding technology.
- The automatic welding process guarantees high tensile and uniform welds withstanding subsequent drawing.

About the company: Since 1973, Kriton Weld Equipments Pvt Ltd is engaged in manufacturing about a hundred types of models in various capacities in arc welding and resistance welding equipments.

Contact:

Kriton Weld Equipments Pvt Ltd, Vadodara

Tel: 0265-2642809, 2645070, 2651718

Email: purohit@kritonwelders.com, sales@kwep.in

**MILD STEEL SPECIAL ELECTRODES - TENALLOY S PLUS**

Ador Welding Ltd offers a wide range of mild steel special electrodes- tenalloy S plus.

Features:

- It has basic coated iron powder type; excellent toughness down to -60°C.
- It is radiographic weld deposit.
- It is suitable for pipe welding in 5G and 6G positions.
- Its applications include: storage tanks, pipes, boilers; bridges & heavy structures subject to dynamic loading; joining ASTM SA 414/414M Gr.C/D, SA 516/516M Gr.55/60/65/70, IS 2002, IS 2062 steels.

About the company: Ador Welding Ltd (AWL) established in 1951, a pioneer of welding products serves Indian industry and the global market with the finest range of welding consumables and equipment. AWL has also made large investments in project engineering business.

Contact:

Ador Welding Ltd, Pune

Tel: 020-40706000

Email: cmo@adorians.com



SPHERICAL PLAIN BEARING, SB

Apex Precision Agencies manufactures spherical plain bearing, SB.

Features:

- The spherical bearing is a heavy-duty self-aligning sliding bearing.
- Highly resistant to impact loads, this product is most fitted to the oscillating section under slow, heavy loads.
- The most widely used series. Used for heavy loads since the spherical contact area has a large width.
- The outer ring is split at two points, enabling the inner ring to be accommodated.

About the company: Apex Precision Agencies, established in 1990, involves in distribution of the motion control technology products for industrial automation. Their product range comprises linear motion guides, balls crews, roller screws and lead screws, linear guides, linear electro-mechanical actuators and screw jacks, curvic couplings, racks-pinions, aluminium profiles used in various industries for automation.

Contact:

Apex Precision Agencies, Mumbai

Tel: 022-6146444, 25550900

Mobile: 09820040939

Fax: 022-25564987

Email: sales@apexprecision.co.in



CUTTING EDGE SOLUTIONS FOR SURFACE PROTECTION AGAINST CORROSION AND WEAR



SMT is a leading surface engineering company provides surface enhancement solutions through high performance Physical Vapor Deposition (PVD) coating technologies. The company has been involved in this market for over 12 years offering standard as well as tailor-made coating solutions to enhance the performance of engineering tools, components as well as various decorative articles. Whenever our customer wanted, we have created solutions to meet our customer's expectations that has led us to the growth path. SMT delivers surface enhancement technology in the form of tailored solutions to maximize your benefits. Dedicated coating centers located in Mumbai and Bangalore are catering to west and south India offering wide range of state-of-the-art coating services. Through unmatched knowledge of process and technology, SMT is emerging as one of the potential player in Indian surface engineering industry. SMT's dedicated in-house Research and Development center always passionate to take challenges and meet the specific requirements of upcoming markets.

So the next time you need to give lease of life to your tools and components, or give a lasting aesthetic look to your decorative products, the name to be remember is "SMT". We are only phone call away.

Surface Modification Technologies Pvt. Ltd.

Mumbai: 9,10,11 Emerald Premises, Behind Modi Hyundai, Waliv Phata, Sativali Road, Vasai East.
Dist. Palghar 401 208
Ph: (0250) 60603111

Bangalore: No. 1352/642, Sy. No. 32/1, 1st floor, Halagevaderahalli, Near Gopalan Arcade, Ideal Homes Township, Rajarajeshwari Nagar, Bangalore 560 098.
Ph: 9819781842, 9820611771



SIGMA INDUSTRIES

CABLE GLANDS, ACCESSORIES, CONDUITS & FITTINGS, COMPONENTS...

LARGEST RANGE IN THIS SEGMENT WITH SUPERIOR QUALITY



IP-68 CABLE GLANDS



D.C., Ex-d / Ex-e / IIA-IIB, IIC CABLE GLANDS



S.C., SIB & FLANGE CABLE GLANDS



STAINLESS STEEL CABLE GLANDS



DOUBLE COMPRESSION CABLE GLANDS (FOR UN-ARMOURED CABLES)



BLANK PLUGS



ADAPTERS, ENLARGERS & REDUCERS



LOCK NUTS



EARTH TAGS & SHROUDS



S.S. CABLE TIES, TOOLS, STRAP & BUCKLES



LUGS & TERMINALS



OTHER CABLE GLANDS



CONDUIT & FITTINGS



NYLON CABLE GLANDS



PRECISION COMPONENTS

SPECIAL SHED No. 416/1, G.I.D.C. - 1, SHANKER TEKRI, UDYOG NAGAR, JAMNAGAR - 361 004. (INDIA)

91 288 2562567 / 91 288 2561965

sigmacgs@yahoo.com / info@cgscableglands.com

www.cgscableglands.com

SOME OF OUR PRESTIGIOUS CUSTOMERS / END-USERS



ISO:9001



ISO:14001



CM/L-2897992



P372327



85-967-1651

SOLAR WATER HEATERS

Freesun Energy offers a wide range of solar water heaters.

Features:

- These solar water heating is now a mature technology. The two different solar technologies common for water heating are flat plate collector (FPC) and Evacuated Tube Collector (ETC).
- The ETC based systems have become popular during the last few years. It is necessary to have solar water heating system with the right technology, features and capacity to ensure a long term reliable and smooth operation of the system as per the guideline of the ministry of new and renewable energy, New Delhi.
- Wide spread utilization of solar water heaters can reduce a significant portion of the conventional energy being used for heating water in homes, factories and other commercial and institutional establishments.

About the company: Freesun Energy was founded in 2011 to promote solar energy and help reduce the carbon footprint. Over the years it has have provided ideal solar solutions for remote villages, farmers and people without access to electricity.

Contact:

Freesun Energy, Coimbatore

Tel: 0801-5227688 Mobile: 07845671838

Email: info@freesun.in

**SOLAR LED STREET LIGHT**

Deccan Energy Solutions Pvt Ltd offers a wide range of solar led street light system.

Features:

- They are a renowned organization, engaged in trading and supplying a comprehensive range of quality-tested solar LED street lights.
- These solar street lights are widely acclaimed among our clients for their durability, excellent performance, environment-friendliness and easy installation.
- Its features include: stand alone; independent; maintenance free; sensor based system; highly economical and reliable; 100% short circuit; surge and lightning protection; automatic dawn to dusk operation; very useful in lighting remote locations where is o electricity; perfect design with very low power consumption.
- Its specification include: modules - 100W; make:(ultra/vikram);battery - 12V / 100 AH / make: (amaron/exide/rocket); luminary- 24W LED/make: (ultra), M S Pole-dia 75mm, Height - 6m.

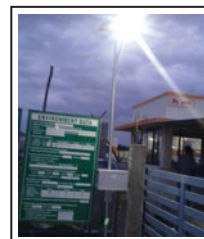
About the company: Established in 2012, Deccan Energy Solutions Pvt Ltd is engaged in supplying and system-integrating a wide range of solar home and street lights, lanterns, water heaters and panels.

Contact:

Deccan Energy Solutions Pvt Ltd, Chennai

Tel: 044-43546810 Mobile: 09840666245

Email: admin@deccanenergy.co.in

**SOLAR CONTAINERIZED SOLUTION**

Powermax Energies Pvt Ltd offers solar containerized solution.

Features:

- It's a fully integrated solar solution designed, developed and manufactured to be independent of the electric grid.
- Install the solar containerized solution to get more power and clean water.
- It's designed to resolve power supply and service delivery related challenges. This is useful for businesses or homes located in a remote area facing electricity supply challenges.
- They have successfully deployed Solar Containerized Solutions across remote areas in the U S and Africa through strong partnerships.
- These are available in various sizes: 10 Feet/20 Feet/40 Feet.

About the company: Founded in 1978, Powermax Inverters & UPS Systems is an ISO certified organisation engaged in manufacturing, exporting and trading of wide assortment of home UPS systems and batteries.

Contact:

Powermax Energies Pvt Ltd, Mumbai

Tel: 0251-2446592

Mobile: 09322282181, 09769319621

Email: sales@powermax.co.in

**SOLAR TUNNEL DRIER**

Focusun Energy Systems offers a wide range of solar tunnel drier.

Features:

- Sunlit solar tunnel drier is an enclosed chamber which is used for drying of various crops using green house effect.
- It helps to preserve the food and also increase the shelf life of the product.
- It is covered with multi wall Polycarbonate sheet which traps solar energy and has an insulation effect, thereby maintaining high temperature for a longer period of time.
- Further solar tunnel drier filters out the UV radiations which help products to retain the nutrients, hygiene and colour.

About the company: Established in 2000, Focusun Energy Systems is a manufacturer and supplier of high quality solar products including solar water heaters, solar heaters and solar power plants.

Contact:

Focusun Energy Systems, Coimbatore

Tel: 0422-2628979, 2591069

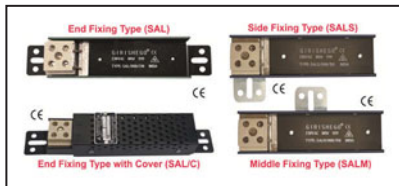
Mobile: 09842291069, 09842216190

Email: info@focusunsolar.com



ALUMINIUM SPACE HEATERS FOR PANEL BOARDS

Girish Ego Controls offers a wide range of aluminium space heaters for panel boards.



Features:

- 'Girish Ego' aluminium space heaters are ideal for prevention of condensation, corrosion, leakage currents in LT & HT switchgears, panel boards / electronic instruments & panels etc.
- These heaters are designed for: quick and uniform heating; fast dissipation of heat into air; withstands mechanical shock and vibration; very good insulation resistance; elevated body for easy passage of heat.
- Its features include: Body is made of anodized heat sink grade extruded aluminium for Fast dissipation of heat into air. High quality resistance heating element is insulated with mica for optimum insulation even in extreme humid conditions. Resistance element and insulation are held tight in between aluminium parts and squeezed for quick and uniform heating. Heater can withstand much higher degree of mechanical shock and vibration. Elevated body provides for easy passage of heat directly to air, without heating panel body. An optional perforated cover made of Powder coated M S sheet can be provided for extra safety.
- Intended use: Prevention of condensation, corrosion, Leakage currents in L.T. & H.T. Switchgear panel boards, enclosures, switch boards, & electronic instruments etc.
- Installation: In End fixing type model one fixing oval holes of 6.5mmX22.5mm and two 6.5mm Holes are provided at each end. In side & middle fixing type models one fixing oval hole of 6.5mmX22.5mm and two 6.5mm holes are provided in a bracket at side / middle of the heater. Installation can be done in vertical or horizontal position although horizontal mounting is preferred. Distance from surface of panel should be at least 10mm. and distance from plastic parts should be at least 50mm. Connection wire must be on the side or below to avoid warming up of the wire.

About the company: Girish Ego is one of the pioneers & leading manufacturer & exporters of stem type thermostats & space heaters since 1981. Their products are "ISI" & "CE" marked. Girish Ego is a name synonymous with quality work & has been able to make a mark as an organisation committed to timely delivery of quality products.

Contact:

M/s. Girish Ego Controls, Mumbai
Tel: 022-22068032 Mobile: -09769281724
Email: sales@girishego.com

ajooni®

STORAGE SYSTEMS

✉ info@ajooni.co.in 🌐 www.ajooni.co.in

CALL US: +91-11- 4545 3626 | +91 8285 700 600

From simple good quality shelving, through efficient office storage and filing, to professional archive systems; from small parts storage to pallet racking & mezzanine storage areas.



TALK TO THE EXPERTS OF RACKING & STORAGE

- Maximize your floor area
- Create more flexible storage space
- Improve business efficiency
- Allows exceptional stock holding



PRODUCTS

- Storage Racks
- Warehouse Racks
- Mobile Compactors
- Industrial Racks
- Supermarket Racks
- Plastic Pallets
- Stackers
- Heavy Duty Pallet Racks
- Long Span Shelving Racks
- Slotted Angle Steel Racks
- Pipe Joint Systems
- Modular Mezzanine Floor
- Hand Pallet Trucks
- Industrial Vending Machines



Sales Off: 1153, Ground Floor, Akshardham, Pocket-3, Sec-19, Dwarka, Delhi-110075



CALL US: +91-8285 700 600

TRANSFORMER CORE FRAME PARTS

Nakoda Steel offers a wide range of transformer core frame parts.

Features:

- Offering an exciting range of transformer core frame parts at affordable prices. Using modern technology and anti-abrasive spares,
- It is able to carve niche in the market. Fabricated using high-grade metallic alloys, this range of parts are corrosion and abrasion resistant.
- The offered parts are widely used in the assembling of transformers as a component.
- This skilled technocrats only use premium quality raw material and pioneered technology, while manufacturing the offered frame parts.
- Its features include: dimensional accuracy; corrosion-resistance; durability: precise engineering; robust construction; easy installation; longer functional life.

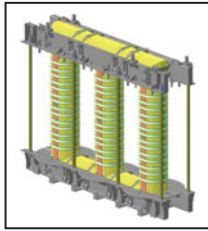
About the company: Nakoda Steel, an ISO 9001:2008, ISO 14001:2015, OHSAS 18001:2007 certified company, engages in manufacturing of a wide range of transformers.

Contact:

Nakoda Steel, Vadodara

Tel: 0265-2580663

Email: info@nakodaproducts.com

**ELECTRICAL PANEL**

Bajaj Steel Industries Ltd offers a wide range of electrical panel.

Features:

- These electrical panel keeping in mind the diverse requirements of their clients they are involved in manufacturing, supplying and exporting a wide array of industrial electrical panels.
- These panels are complete with required wiring and harnessing that minimizes the site installation time.
- Its features include: easy to install; best quality material used; available in various specifications.

About the company: Bajaj Steel Industries Ltd is involved as a manufacturer of cotton ginning machinery. Their range of technologies are such as double roller, saw gin and rotobar. In all pressing technologies they have down, up and horizontal packing, as well as seed cleaning, delinting and decorticating, apart from general engineering fabrication, machining, intelligent electrical panel manufacturing and various other engineering activities.

Contact:

Bajaj Steel Industries Ltd, Nagpur

Tel: 07104-238101, 238120

Mobile: 09325132311, 09325132306

Email: bsi@bajajngp.com, mks@bajajngp.com

**WATER COOLED DIESEL GENERATOR**

Lucsam Services Pvt Ltd offers a wide range of water cooled diesel generators.

Features:

- These water cooled diesel generator are exceptionally well suited to large power station applications where output requirements exceed the cooling capabilities of air-cooled or conventional hydrogen-cooled designs.
- They are manufactured on international standard in focus for overseas operations too.
- This reliable generator incorporates the most advanced technology and robust construction, for enhanced operability and ease of maintenance.
- Its features include: highly effective radiators; ideal for large power requirements; easy operation.

About the company: Lucsam Services Pvt Ltd, is a trader, manufacturer, exporter, supplier, wholesaler and service provider of control panels, industrial generators, diesel generators, diesel generators Kirloskar, diesel generators Cummins, for turnkey projects and the oil and gas industry. The range of products offers low maintenance cost, high performance and is user friendly.

Contact:

Lucsam Services Pvt Ltd, Mumbai

Mobile: 09930963317, 09167497940

Email: contact@lucsam.net

**CURRENT TRANSFORMER - OUTDOOR TYPE**

Ereva Transformers & Switchgear offers current transformer - outdoor type.

Features:

- They are recognized as a successful manufacturers, exporters and traders of current transformers - CT.
- It is a static machine used for transforming power from one circuit to another without changing frequency.
- It is generally used in transmission network which is normally known as power transformer, distribution transformer is used in distribution network and this is lower rating transformer and current transformer & potential transformer, we use for relay and protection purpose in electrical power system and in different instruments in industries are called instrument transformer.
- Its features include: changing magnetic flux; varying electromotive force; multiple size and capacity.

About the company: Ereva Transformers & Switchgear is involved in manufacturing and trading of transformers and switchgears. They incorporate the latest machineries to enhance the quality of their products.

Contact:

Ereva Transformers & Switchgear, Ghaziabad

Mobile: 09718370172, 09457269418

Email: ets.ctpt@gmail.com



CYLINDRICAL GRINDING MANDRELS/ARBORS

Concept Engineers offers a wide range of cylindrical grinding mandrels/arbors.

Features:

- The best cylindrical grinding mandrels that are used between centers, spindle mounting etc.
- Its ensures improved surface finish; attains an unmatched concentricity; increases productivity and tool life; reduces cost in every aspect; no requirement of additional skill; low maintenance.

About the company: Concept Engineers, the pioneer in precision engineering designs and tools was established in 1984 by a team of young, dynamic and professional engineers to manufacture a range of precision concept hydraulic chuck and mandrels/arbors, taper collets and hydraulic fixtures for the first time in the country. At concept engineers, they blend technology, creativity, quality, professionalism and industry experience with right skills, methods and processes to create products that are extremely precise and suit client's engineering product requirements and specifications.

Contact:

Concept Engineers, Bangalore

Tel: 080-25258885

Mobile: 09845017701 Fax: 080-25257650

Email: design@conceptarbors.net



Moulik Rubber Industries

An ISO 9001:2015 certified company

E-mail us at: moulikrubber@gmail.com



O-RINGS



BELLOW, BUSHES & GROMMET



EXTRUDED GASKETS & PROFILES

Trusted Name for RUBBER PARTS MANUFACTURING since 1990



GASKETS



DIAPHRAGMS



SEALS

We can custom design products as per your Drawings / Samples / Specifications

Industries we serve	Pumps, Valves and Motors	Electrical Switchgear and Light fittings	Mechanical and Chemical Seals	CNG Kits & Gas regulators
	Pharma & Filtration Equipments	Petro-chemical and Fertilizers	Textile, Rayon & Dyeing	Ropeway Tyres & Liners



Factory 1: 14/15 Ruby Inds Estate, Chincholi Bunder, Off Link Rd, Malad (W), Mumbai- 400064

Factory 2: 204/1 Pratham Inds Estate, Tungarphata, Satali, Vasai (E), Thane-401208

Tel: (022) 40037863 / 28727863

Mobile: 9820444582 / 9820019838

E-mail: moulikrubber@gmail.com

Website: www.moulikrubberindustries.com

SPHOORTI

Precision Assured

TOOL DISCS AND TOOL HOLDERS

FOR CNC TURNING CENTERS & TURN MILL CENTERS



SPHOORTI
Precision Assured

Sphoorti Machine Tools Pvt. Ltd.
18, Plot No. 467 - 469, 12th Cross, IV Phase
Peenya Industrial Area, Bangalore - 560 058. INDIA.
T: +91 80 4127 2768 E: info@sphoorti.com
www.sphoorti.com



GERMANY OFFICE

Micromatic

Füssner Straße 16-18 / Dornier Pfronten Weißbach 87459 Pfronten, Germany
Contact no: +49 15237939254 / +49 1722316688

DIESEL ELECTRIC GENSETS – EURO SERIES

Supernova Engineers Ltd offers Supernova diesel electric gensets - Euro Series.

Features:

- The complete range is CPCB II compliant and NAL approved.
- The unmatched fuel efficiency and ease of maintenance are the key factors which makes them preferred choice of customers.
- Its features include: Six cylinders in-line up to 650 KVA DG set; low operating cost & maintenance cost; compact size for easier transportation and installation; high block loading capability; excellent power to weight ratio; low vibrations & emissions; overhead camshaft: specially designed intake air filtration system for.

About the company: Supernova Engineers Ltd, provider of captive power solutions, manufactures high-tech high-quality diesel gensets that cater to a large and multi-sector market spectrum including multi-speciality hospitals, data centres, big brand hotels, etc. segments, space research organisations, thermal and hydro power stations.

Contact:

Supernova Engineers Ltd, Ahmedabad
Tel: 079-66111136 Email: inquiry@supernovagenset.com

**OVER LOAD RELAY - MAU SERIES**

Magnum Switchgear offers a wide range of over load relay - Mau Series.

Features:

- This magnum over load relay is an electrically operated switch which uses electromagnet which is used for switching purpose and protects the motor from any hazards.
- The relay will operate generally to close or open electrical contacts to initiate some further operation.
- MaU Relays - large sized and heavy duty overload relays. Best suitable for higher rating applications.
- Its features include: Bakelite molded enclosure, for higher heat resistance; precision assembled components; trip tested on each phase; heavier contacts.

About the company: Magnum Switchgear provides motor control panels and starters for domestic and agricultural use. Their product range is focused on direct online motor starters, submersible pump panels, and open well panels.

Contact:

Magnum Switchgear, Bengaluru
Tel: 080-23580952
Mobile: 08618241212
Email: sales@magnumswitchgear.com

**EARTHING TRANSFORMERS**

Urja Techniques India Pvt Ltd offers a wide range of earthing transformers.

Features:

- These earthing transformers are used to create a neutral point in a three-phase system, which provides possibility for neutral earthing.
- The earthing can be through an arc-suppression reactor, a neutral earthing reactor or resistor are directly in these earth transformers.
- In cases where a separate reactor is connected between the earth transformer neutral and earth, the reactor and the transformer can be incorporated in the same tank.
- Neutral earthing transformers are normally provided in 3-phase system, which is without neutral and earth fault protection.
- In addition an auxiliary winding can also be provided to meet the requirement of auxiliary power supply in these electrical earthing transformers.

About the company: Urja Techniques India Pvt Ltd, has a modern plant as per IS, IEC & ANSI standards, accredited to ISO-9001:2008 for design, manufacture, marketing and after-sales service. Their energy-efficient transformers range comprises distribution transformers, furnace transformers, single-phase transformers, earthing transformers, etc.

Contact:

Urja Techniques India Pvt Ltd, Mumbai
Tel: 022-40670500 Mobile: 09820401606, 09820081474
Email: urjatech@gmail.com

**ELECTRICAL SWITCHBOARDS**

Pai Kane Group offers a wide range of electrical switchboards.

Features:

- Pai Kane make of electrical switchboards carry a high level of quality, efficiency and reliability.
- Its applications include: Low Voltage – upto 415V, 6300A and Medium Voltage – upto 33 kV, 1250A; LV & MV panels – PCC, MCC, APFC drive panels; distribution boards; feeder pillars; control and relay panels etc.
- Its features include: compact design; panels approved by CPRI, Bengaluru, for: short circuit test for 6300A, 100 kA, for 1 sec.; temperature rise test at 4000A; ingress protection test for IP 55.

About the company: Pai Kane Group, incorporated in 1971, is engaged in manufacturing of comprehensive bespoke/turnkey solutions. It is a technology driven organisation with a mission to transform gensets into Class-A white goods.

Contact:

Pai Kane Group, Goa
Tel: 0832-7161000
Email: sales@paikane.com



JIB CRANES

Techno Industries offers a wide range of jib cranes.

Features:

- This jib cranes under the "Tacklers" are built consistently, confirming to the high specifications as per IS-807 and IS-3177.
- It involves usage of M S gusset plates / thick base plates that give added rigidity to the columns.
- The mast is fabricated from the pipe / rolled steel section, while the Jib arm is fabricated from the heavy section I-Beam or M S plate.
- The double roller self-aligned thrust bearing takes care of horizontal and vertical loadings as well as radial thrust.
- Swivelling is available manually through a chain at the end. The same can be done electrically through motor and gear box mechanism.



About the company: Incepted in 1979, Techno Industries - an ISO 9001:2015 certified company, is the manufacturer of leading industry brand called 'Tacklers'. The products are as per IS standards and are also capable of operating in hazardous (flame proof) area as per gas group IIA, IIB and IIC.

Contact:

Techno Industries, Ahmedabad
Mobile: 09377039904, 09328739901
Email: info@technoind.com

Mfrs.: Welding Electrode and MIG Wire Plants

OMEGA WELDROD SYSTEMS

1/455 G, Aachankulam Road, Neelambur, Coimbatore 641 062. India.
Phone: +91-9361122211, 09443151840
Email: weldomega@gmail.com, info@omegaweldrod.com
Website: www.omegaweldrod.com

HI-TECH
MARKING FOR DECADES

Hi-Tech Laser Technologies
AN ISO 9001:2015 Certified Company

Laser Marking Machine SAMPLE	Pad Printing Machine SAMPLE	Fiber Laser Cutting Machine SAMPLE	Co2 LASER MARKING SAMPLE
--	---	--	--

Hi-Tech Laser Technologies

Manufacturers of : Pad Printing, Laser Marking & Fiber Cutting Machines, Also deals in Consumables & Spares
Plot No. WZ-1108C Near Shiv Mandir, Basai Darapur, New Delhi-110015 | Mobile : 8447238826, 9953228878 | Tel: +9111-4263-1534 / 1634 / 1734 / 1834
E-mail : hitechlasertechnologies@gmail.com / info@hitechpmt.com • website : www.hitechpmt.com
Website : www.hitechpmt.com

VIBRATORY FINISHING MACHINES

Jeet Finishing Machines offers a wide range of vibratory finishing machines.

Features:

- These vibratory finishing machines are used for finishing need of parts as metal, stone, ceramic, plastic rubber nylon and wood products.
- These rotational vibratory motion created by the motor and eccentric weights at high frequency is transmitted to the processing bowl and its contents with the net effect of the media scrubbing the parts to deburr or polish, and finish or any desire process.
- Its features include: Jeet product's bowl vibrators are high-tech vibratory bowl machines for the surface finishing applications on different types of components/parts; bowl lining: available in hot PU cast lining and polyurethane linings; high frequency/high amplitude vibratory heavy-duty maintenance free motor; adjustable amplitude and lead angle; convenient discharge door; efficient removal of process fluid for best surface finish; all internal welds ground smooth; bowls are stress relieved.

About the company: Since its establishment, JEET has specialized in the field of vibratory surface finishing application with its experienced engineers and has aimed to develop and grow continuously in the sector.

Contact:

Jeet Finishing Machines, Ahmedabad
Mobile: 09825452340, 09825452340
Email: jeetfinishing@gmail.com

**EPOXY FLOORING - CLEAN TECH ESLS**

Clean Coats Pvt Ltd offers a wide range of epoxy flooring - clean tech ESLS.

Features:

- This is self-smoothing heavy duty epoxy screed. Clean tech ESLS is a solvent free, self-smoothing, epoxy screed flooring, which is laid at a thickness of minimum 2 mm.
- This clean tech ESLS is joint less, monolithic, smooth, non-porous, hygienic and chemically resistant flooring.
- It is the most ideal and economical for areas subjected to high impact, high abrasion, forklift truck movement and areas subjected to chemicals and oil spillages.

About the company: Clean Coats Pvt Ltd, an ISO 9001:2008 & ISO 14001:2004 certified company, is engaged in manufacturing a range of epoxy floorings, anti corrosion coatings, PU coatings and construction chemicals. Their product range confirms to the eco friendly LEED green building norms.

Contact:

Clean Coats Pvt Ltd, Mumbai
Tel: 022-26500846/0847/0848/5576/3468
Email: enquiry@cleancoats.com

**ATMOSPHERIC PLASMA TREATMENT SYSTEM**

Eltech Engineers Pvt Ltd offers a wide range of atmospheric plasma treatment system.

Features:

- Eltech's Plasma ION provides an economical solution for cleaning & activation of component surfaces before further processing.
- Plasma surface treatment improves wettability and adhesion of ink, glues and coatings on many different surfaces.
- Eltech's Plasma treater etches, cleans, activates, sterilizes & functionalizes a wide variety of difficult to treat conductive and non-conductive material surfaces.
- Plasma offered by Eltech permits east surface treatment of a large variety of parts.
- Compressed air presses the discharge outside the nozzle head.

About the company: Established in 1992, Eltech Engineers Pvt Ltd is one of the leading manufacturers and exporter of a wide range of corona treatment, plasma treatment, static eliminators, induction cap sealer, ozone generator and static chargers, static meters.

Contact:

Eltech Engineers Pvt Ltd, Mumbai
Tel: 022-28972424, 2626 Mobile: 09867222298
Email: rajesh@eltech.in

**VIBRO FINISHING ROTARY DRYERS**

Surface Technik offers a wide range of vibro finishing rotary dryers.

Features:

- Vibro finishing rotary dryers that are appreciated for sturdy construction and smooth finishing. They offer them in different technical specifications and are functionally advanced in nature. Owing to the dedicated efforts of our professionals, we are able to cater diverse requirements of the clients across the nation.
- This dryers are used to dry the wet finished components after vibratory finishing process to prevent corrosion on the surface.
- It contains an inner rotating drum fitted with electric heaters on the out side of the drum where the components get dried by suitable drying media.

About the company: Surface Technik takes pleasure to introduce itself as one of the well-known firms that is wholly and solely involved to make its valuable clients satisfied. They established as a partnership owned firm, in the year 2009 and engaged in manufacturing, trading and supplying a wide array of finishing media, vibratory machines, vibratory separators, vibratory dryers, etc.

Contact:

Surface Technik, Bengaluru
Tel: 080-28362412 Mobile: 09741541542
Email: surfacetechnik@gmail.com



CE TYPE-4 SAFETY LIGHT CURTAIN

D S Electronics offers a wide range of CE type-4 safety light curtain.

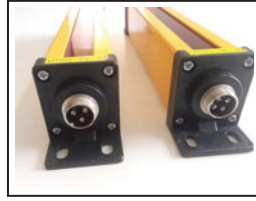
Features:

- Keeping in sync with the latest trends, they are engaged in providing a trendy array electronic safety guard.
- The offered safety guard is used to sense the person or object. This safety guard is manufactured under the strict guidance of adroit workforce using quality approved components with the help of ultra-modern techniques.
- As per the defined industry norms, this safety guard is duly checked on numerous parameters to avoid any kind of defect.
- Its features include: high operational fluency; sturdy construction; easy to operate; long service life.

About the company: DS Electronics is a manufacturer and trader of a range of safety light curtain and guard, proximity switch, electronic sensor, PIR switch, electrical controller, etc.

Contact:

D S Electronics, Nashik
Mobile: 09822076830
Email: dselect@sancharnet.in



SLEWING BEARINGS

Apex Precision Mechatronix Pvt Ltd (Apex Precision Agencies) offers Renogear – a new solution for middle size and heavy-duty slewing bearings.



Features:

- Its use of high tech machinery for turning, drilling, gear cutting, induction hardening and finishing guarantees the requested quality. Renogear is part of the Xubi Group of Spain, a worldwide leader and a reference in mechanical transmission components.
- It offers a complete range of slewing bearings customised and adapted to the demands of the customer: single row ball bearing; double row ball bearing; cross roller bearing, etc.
- The gear teeth can be external and internal, both helix and straight. Renogear offers slewing bearings for many applications such as wind generators, heavy-duty machinery, mining equipment, cranes or machine tools, among others.

About the company: Apex Precision Agencies, established in 1990, involves in distribution of the motion control technology products for industrial automation.

Contact:

Apex Precision Mechatronix Pvt Ltd
(Apex Precision Agencies), Mumbai
Tel: 022-61464444, 25550900
Email: sales@apexprecision.co.in

INSYS ELECTRICAL & CONTROLS LLP

A COMPLETE SOLUTION FOR INDUSTRIAL AUTOMATION



High Quality & Economic Range of Panel Accessories & Position Limit Switches



All about Monitor & Control. Time to Switch to GIC. Great In Control



We full fill your needs. All the Products In One Basket



Connect, Monitor & Control by using Industry 4.0 Products



Varying the Frequency Will Control the Speed of Motor. INVT, A High End Solution for Control.



Scan & Control the Outputs through Solid State Devices



Safety! It's on Next Level. Schmersal the DNA of Safety



Insys Electrical & Controls LLP, 53, 1st Main Rd, 6th Cross Road
ISRO Layout, Bengaluru, Karnataka 560078,
+918317461819, +918026660066
marketing@insyselectrical.in <http://www.insyselectrical.in/>

Locate US

Follow US ON



**OPTICAL COMPOSITE
IMAGE LEVEL /
MICRO LEVEL
-MODEL MICRO - 01**

India tools & Instruments Co offers a wide range of optical composite image level / micro level -model micro - 01.

Features:

- The optical composite image level /micro level is widely used in measuring the gradients of flat surface and cylindrical surface to horizontal direction.
- The plane ness and straightness of slideway or base of machine tool or optical mechanical instrument as well as the correctness of installing position of equipment.
- Optical composite image level, mainly consists of the micrometer measuring screw, lever systems, standards, optical prisms and a V-shaped base composition working plane and other components, as shown in Figure.
- Standards rack installed on the bottom plate of the lever. Its horizontal position is adjusted the micrometer screw and lever system, which is through the knob plate. The bubble arc inside the standards, use the three different location prism reflect to observation window. Divided into two half-images. Using the optical principle, make the bubble composite enlarge(zoom 5 times),to improve the reading accuracy, and through the lever mechanism improve the sensitivity and increase the measuring range.
- This precision bubble is intended for very precise angular measurements. It serves to tilt tests and is mainly used in precision machine when highest demands on straightness and angular accuracy. The coincidence-spirit level can also be used for testing of stop angles, protractors, levels, etc., and is also suitable for testing and measuring the flatness of surfaces with inclinations of up to ± 10 mm / m.
- The rugged housing protects the spirit level from damage and normally occurring temperature fluctuations. A prismatic groove in the bottom of the coincidence Spirit level allows the use of the device even with cylindrical surfaces.
- Its technical data include: dial plate value (graduation value) :0.01mm/m; measuring range/capacity:0-10mm/m; size:165×48mm approx.

About the company: India Tools & Instruments Co was established in 1975 under the command of Mr. Ojus Azad, with the aim to serve the market globally. Since then, they have expanded our networks through the globe and achieving success until now. His dedication and quality service have made us the leading infrared thermometer manufacturers. They are one of the reputed companies in the Indian market as well as have made a strong base in international markets.

Contact:

India tools & Instruments Co, Mumbai
Tel: 022-23428862 Mobile: 09819345050
Email: ojus_itico@hotmail.com

**CYLINDRICAL TAPER &
GROOVED PINS**

R K Engineering Company offers cylindrical, taper and grooved pins.

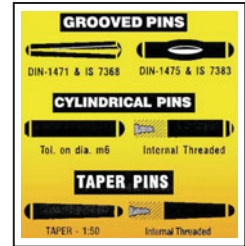
Features:

- Cylindrical (dowel) pins are used for retaining parts in a fixed position or for preserving their alignment.
- Cylindrical hardened pins are manufactured as per IS: 6689, unhardened pins as per IS: 2393 and taper, pins as per IS: 6698 standards.
- These are suitable for parts that have to be taken apart frequently, in which case cylindrical pins would tend to wear the holes.
- Grooved pins have parallel equidistant longitudinal grooves impressed on their exterior surface and are manufactured to IS: 7368 standards; also manufactured are non-standard pins.

About the company: R K Engineering Co commenced its business operation in the year 1976. It is engaged as a manufacturer, exporter, supplier for grooved pin, dowel pin, taper pin, spring dowel pin, circlip, parallel keys.

Contact:

R K Engineering Company, Mumbai
Tel: 022-22671141 Fax: 022-22655255
Email: rkengcomp@gmail.com

**COTTON HAND GLOVES**

Amit Safety Enterprises offers a wide range of cotton hand gloves.

Features:

- These are essentially worn by professionals who are required to carry out sensitive operations such as by surgeons.
- Its experts have used excellent grade of material for production of these products.
- These protect hands fully from bacteria and other infections. We have bulk stock of these.
- Its features include: excellent texture; complete safety; easy to wear.
- Its specifications include: size: 7"/ 8"/ 9"/ 10"/ 11"; material: flame retardant.

About the company: Amit Safety Enterprises, established in 1979, is a trader and supplier of fire safety equipment. The equipment is judged on total cost approach and must provide for long range improvements. Apart from this, company also offers fire protection services.

Contact:

Amit Safety Enterprises, Bengaluru
Tel: 080-41475948, 41536510
Mobile: 09590140773, 09886357987
Fax: 080-41536510
Email: info@amitsafety.com



TRAFFIC BARRIER, PAT 6N

Swaraj Secutech Pvt Ltd offers a wide range of traffic barrier, PAT 6N.

Features:

- This patriot series PAT 6 barrier is the ideal choice for heavy duty operation when the environment demands intense operation. With maintenance free operations, aesthetic looks & customizable RAL colour, Patriot barrier fits in perfectly any designer's choice.
- Its features include: maintenance-free gear motor ensures 100% duty cycle operation with 5 million MTBF.
- The heavy-duty gear drive motor is environment friendly, energy-saving, and maintenance-free. 60 Watts of motor power ensures no overheating while working continuously in intense conditions.
- If power is turned off while the barrier is in operation, the operator can manually open or close the barrier boom by using an easy to use manual handle.
- Barrier housing is manufactured from galvanized iron sheet duly epoxy powder coated thereby ensuring 100 % protection from rust and corrosive environments.
- The patent pending precise casting, interchangeable drive mechanism enables changing the direction of the boom barrier from left to right and vice versa on site itself.

About the company: Swaraj Secutech Private Ltd is provider of automatic road blocker, boom barriers, security turnstile, sliding gate motor, automatic sliding gate, etc.

Contact:

Swaraj Secutech Pvt Ltd, Ahmedabad
Tel: 079-26891019 Mobile: 09766692940
Email: info@swarajsecutech.com



HEAT DETECTOR

Safety instrumentation systems offers a wide range of heat detector.

Features:

- Its finding application in the detection of the heat at the industries, this heat detector is able to give outstanding performance and could be operated with ease.
- Another striking thing about this heat detector is that this consumes least amount of power and has good battery backup.
- Its features include: heat detection applications; user-friendly; easy to use.

About the company: Started in 2007, Safety Instrumentation Systems is engaged in supplying and retailing quality based detector system and electronic panels.

Contact:

Safety Instrumentation Systems, Chennai
Mobile: 09444355391
Email: safetyins@gmail.com



Customised Solutions **classic**

Well engineered components for :

- ✓ Better Productivity
- ✓ Increased Profitability
- ✓ Prompt Delivery
- ✓ Zero Wastage

PRODUCT PROFILE :

Cast / Extruded Nylon,
Polyacetal, PTFE,
UHMW-PE, Poly Propylene,
High Density Polyethylene,
Polycarbonate,
Cast Polyurethane

Components Produced from AARKAYMID®
World Class Engineering Plastics

Call now for your Engineering Plastics requirement!!

CLASSIC POLYMERS AND RESINS

4, Dev Darshan, 424, Mugal Lane, Mahim (W), Mumbai - 400 016. INDIA.
Phone : +91 22 24465251 / 2446 0090 **Fax** : +91 22 2445 4371
Email : classicpolymers@hotmail.com **Web** : www.classicpolymers.co.in

ISO 9001 - 2015 CERTIFIED COMPANY

HONEYWELL FF2100 FFP1S MASK

Shashi India Pvt Ltd offers a wide range of honeywell FF2100 FFP1S mask.

Features:

- It is flat fold design for easy storage and 80% filtering efficiency.
- It has grey color which does not get soiled quickly.
- Its ear-loop design for faster donning and doffing.
- It is fabric headband without staples which are comfortable to wear in hot and humid conditions.
- The best range of venus V-4420 face mask, honeywell FF2100 FFP1s mask, W 95 wildcraft hypa shield face mask, venus v-44 safety mask, ffp1s, venus 4200 n95 face mask and wildcraft face mask black trezi with effective & timely delivery.

About the company: Since 1997, Shashi India Pvt Ltd is a manufacturer, trader and exporter of an extensive array of knitted hand gloves, glove knitting machines, colored glitter and many more. These products are appreciated for their qualities like easy usability, soft material, high performance and longer service life.

Contact:

Shashi India Pvt Ltd, Delhi
Tel: 011-26845136
Mobile: 09810439000, 09871078899
Email: team.akjainco@gmail.com

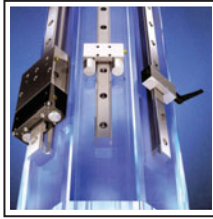


CLAMPING & BRAKING ELEMENTS FOR LINEAR GUIDES

Amcats offers Zimmer clamping & braking elements for linear guides.

Features:

- A new and innovative approach for stopping, holding and positioning applications using linear guide rail systems.
- Various actuation methods allow powering the braking system with pneumatic, hydraulic, electric or manual control.
- These clamps are manufactured to suit the guide rail system of all major manufacturers of linear guideways and rail systems including THK, ABBA, AMT, Bosch Rexroth, HEPCO, HIWIN, IKO, INA, NSK, Samick, SBC, Schneeberger, SKF, Star, Thomson, Tsubaki and other brands.
- Its features include relatively smaller size with high holding force; no relative movement from the workpiece; no active clamping of forces on the guide carriage; controllability and adjustability; high positioning accuracy; high rigidity and long cycle-life; ease of installation; possibility of customised design; and special friction coating for brake lining material.

**About the company:** Advanced Motion Control

Technologies (Amcats) is agent, distributor & stockist of THK linear motion guides, ballscrews, shafts, bushes, linear actuators, Zimmer clamps for linear guides, KHK stock gears, racks, pinions, winners speed guide, etc.

Contact:

Amcats Pvt Ltd, Navi Mumbai

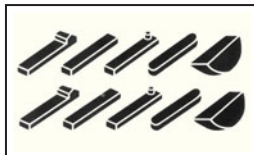
Tel: 022-27635005, 27635007

Mobile: 09967550131, 09819312226

Email: sales@amcats.com, mailbox@amcats.com

PARALLEL & WOODRUFF KEYS

R K Engineering Company manufactures a wide range of Parallel and Woodruff Keys.

**Features:**

- Parallel keys are manufactured as per IS: 2048/83 and woodruff keys as per IS: 2294. These are made from EN-8/9 material in soft condition.
- They can also be made from SS-410 and SS-316. The keys are used in automobile industries, textile industries, machine tool industries, motor and pump industries, cement industries, etc.
- Also offered are non-standard keys to suit customer's requirements.

About the company: R K Engineering Co commenced its business operation in the year 1976. It is engaged as a manufacturer, exporter, supplier for grooved pin, dowel pin, taper pin, spring dowel pin, circlip, parallel keys.

Contact:

R K Engineering Company, Mumbai

Tel: 022-22671141 Fax: 022-22655255

Email: rkengcomp@gmail.com

FIRE ALARM HOOTER

Safe Zone offers a wide range of fire alarm hooter.

Features:

- Quality is the hallmark of their industry, they trade and supply a quality assured range of fire alarm hooter.
- This product is suitable to detect smoke and generates high sound in order to create awareness before the fire spreads.
- The product offered by us is available in various specifications and sizes that suits the best to the needs of clients. Moreover, their products are available at market leading prices.
- Its features include: affordable; hi-intensive sound; highly efficient sensors.

About the company: Safe Zone, which started business operations in 2009, is a trader and supplier of extensive array of fire alarm systems, fire safety products and fire extinguishers. The product range includes fire hydrant, fire hose, fire alarm bell, fire hydrant valve, wireless fire alarm, mechanical foam fire extinguisher, domestic fire alarm, domestic fire extinguisher, etc.

Contact:

Safe Zone, Hyderabad

Tel: 040-65576670 Mobile: 09246866670

Email: info@safefire.com

**QUICK CHANGE SLEEVE**

Anar Rub Tech Pvt Ltd offers a wide range of quick change sleeve.

Features:

- The cover of these products is made up of rubber which makes them very protective in their nature.
- Such very kinds of products are available at affordable prices in the market as per the budget of their customer.
- One of the most important advantages of these products is that they have electro statically assisted printings.
- The quality material present in them is very superior that is why they are highly demanded in the market.
- Its features include: flexo graphic printing (steno sleeve); gravure printing; (impression sleeve); solvent less/solvent base lamination; ESA printing (electro statically assisted); adhesive coating,.

About the company: Anar Rub Tech Pvt Ltd, started in 1978, engages as a manufacturer, exporter, retailer and wholesaler of industrial rubber. Their product portfolio comprises industrial rubber roller, P U rollers, core holding devices, wrinkle removers, safety chuck, ink circulating system and quick change sleeve.

Contact:

Anar Rub Tech Pvt Ltd, Ahmedabad

Tel: 079-22743428, 22773428

Mobile: 09825405265, 09825047390

Email: sales@anarrubber.com



SPINDLES FOR SPECIAL PURPOSE MACHINE

Capital Engineering Corporation offers a wide range of spindles for special purpose machine.

Features:

- Some spindles are especially designed for rotating elements & machines. Rotating spindles are very special spindles applicable for specified work and jobs.
- These metal spindles are used for grinding, milling, boring and special purpose machines.
- These spindles are used for rotation to jobwork only. These metal spindles are applicable for vertical or horizontal dynamic balancing machines, Glass clamping and polishing machines.
- Designs Available: All these spindles are having special designs and made as per customers' requirement.
- Its features include: spindle size and RPM can be selected on the basis of job configuration.

About the company: Capital Engineering Corporation is a manufacturer and exporter of precision spindles from 25 to 350 mm diameter, speed up to 1,25,000 rpm and length up to 1.5 metres.

Contact:

Capital Engineering Corporation, New Delhi
Tel: 011-27831823, 27831611
Mobile: 09810056849 Fax: 011-27881823
Email: yogesh@capitalspindles.com, sehdevyogesh@gmail.com



STAINLESS STEEL BELLOW

RMS Corporation offers a wide range of stainless steel bellow.

Features:

- These stainless steel bellow offered for controlling the forces as well as stresses related to increasing as well as decreasing dimensional changes because of thermal expansion or contraction in structures involving ducting, vessels, piping and other end forms which are then transmitted to anchors and connected equipment.
- Needing less space in comparison to bends and loops, the superior flexible support provided by these bellows involves optimum absorption of movements in more than one direction.
- Its features include: economical end usage; providing for lower initial costs in piping & construction work.

About the company: Established in 1978, RMS Corporation engages as dealer, wholesaler, trader and distributor of anti-vibration mounting, pump anti-vibration mountings, rubber bellows and many more products which eliminate vibrations.

Contact:

RMS Corporation, Mumbai
Tel: 022-67377700, 67377701
Mobile: 09323804063, 09167245537
Email: rms_corp@vsnl.net, rms.corpn@gmail.com



LOCTITE®





Loctite 222 Low Strength Threadlocker	Loctite 243 Threadlocker	Loctite 270 High Strength Threadlocker
--	-----------------------------	---

- **MOLYGRAPH**
- Speciality Lubricants
- **CG-PPI**
- Industrial Adhesive Tapes
- **MOMENTIVE**
- Silicone Sealants
- **METRO POLYMERS**
- PU Compounds

Rust? problem !



**Zavenir Daubert
India & Kluthe,**
provides complete
corrosion preventive
solutions for a
wide spectrum of the
**metal working
industry**

DAUBERT

Kluthe

- ▶ Daubert VCI™ Papers & Films
- ▶ NOX RUST® Rust Preventive Oils,
Additives & Coatings
- ▶ Metal Working Fluids & Cleaners

Authorised Distributor:
HI-TECH ADHESIVES

303 & 304, Kubera Towers, Narayanguda,
Hyderabad 500 029. Telangana.
Tel.: 040-23226317, 23227964

Email: hitechadhesives@yahoo.com
Visit: www.hitechadhesives.com

WIRE MESH BELT

A G Belting Pvt Ltd offers a wide range of wire mesh belt.

Features:

- These wire mesh belts have extra large openings and are very well suited to coating processes such as chocolate covering, egg glazing, breadings and other applications in which the product should have as little contact with the conveyor belt as possible.
- It is especially suitable for light products.
- The small radius on the reverse means a good product transfer.
- These wire mesh belts are flexible in terms of use and specifications. Twentebelt also supplies 90° conveyor curves in various sizes as well as separate belts.
- Its versions: diverse combinations of pitch, wire diameter; mesh length and side finishing create a wide range of fit-for-purpose wire mesh belts.

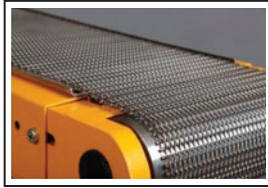
About the company: Established in 1988, AG Belting Pvt Ltd is a manufacturer, supplier, distributor, exporter and importer of conveyor belt and components. Its product range includes that of conveyor process belt, power transmission special flat belts and pulleys drive components.

Contact:

A G Belting Pvt Ltd, Ghaziabad

Tel: 0120-4159660 Mobile: 09810979977

Email: info@agengineers.net; mkt@agengineers.net

**AIRCRAFT CONTROL BEARINGS**

Mac Marketing offers aircraft control bearings manufactured in Europe.

Features:

- The civil and military aircraft manufacturers as well as missile and satellite manufacturers use these bearings which are supplied as per the aerospace/mill specifications.
- Mac also supplies special bearings for the aerospace industry including bearings for landing gears, leavers for gas turbine engines, along with the special material leavers made out of nickel base alloy.
- The bearings fitted in these levers are with MOS2 dry lubrication.
- Mac offers solutions for various Aerospace sectors, with some products as under: spherical plain bearings - specifically for critical application from various combinations of materials; rod ends - their rod ends sizes ranges from 4mm ID up to a maximum of 500mm OD; spherical bearings & linkages - they offer split balls metal to metal special spherical bearings for various applications; aerospace bushes - Mac supplies light weight aerospace bushes which can also be supplied as self-lubricating bushes.

About the company: MAC was established in the year 1987, engaged in the field of rolling bearings and allied products including water lubricated bearings, stainless steel bearings, self - lubricating bearings, slewing ring bearings, ceramic ball bearings, hydrostatic bearings, end bearings, wire race bearings, etc.

Contact:

Mac Marketing Corporation, Bengaluru

Tel: 080-23516096 Mobile: 09845018280

Email: info@macmktg.com

**LEAF CHAIN & HOLLOW PIN CHAIN**

National Engineering Works offers a wide range of leaf chain & hollow pin chain.

Features:

- These industrial leaf chains designed for high fatigue strength, long service life and maximum resistance to wear.
- These leaf chains are available in different pitches ranging 3/8" pitch to 2" pitch.
- Generally used in applications requiring flexible linkage for reciprocating motion or lift, these leaf chains are well suited for lift truck and counter weight.
- Designed for lifting goods and used in fork lift car, these leaf chains can be supplied with specific test certificates.
- Hollow pin conveying chains, constructed with special pin links which have hollow pin assembled in the pin plate, this unique design allows easy insertion of cross rods or attachments to pre assembled chain at desired spacing.

About the company: National Engineering Works is engaged in manufacturing precision engineering components and import substitute transmission chains.

Contact:

National Engineering Works, Kolkata

Tel: 033-22414414, 22573749

Mobile: 09231820839

Email: nationalengg@bsnl.in, nationalengg@execs.com

**POWER CORD**

M D Cable & Harness LLP offers a wide range of power cord.

Features:

- This plug is applicable in a number of computers as a connector.
- It is available in various specifications to meet diverse requirements of the clients.
- Its features include: seamless finish; highly durable; unmatched quality; optimum performance; heat resistance; less maintenance; longer service life.

About the company: MD Cable and Harness is an ISO-9001 certified company manufacturing and exporting wiring harness and moulding for a wide range of products like CNG harness, white goods harness, ups inverter harness, power cords, USB cable, RCA cable etc.

Contact:

M D Cable & Harness LLP, Greater Noida

Mobile: 09555870744, 09810708944

Email: sales@mdcablewire.com



LT PVC XLPE POWER CONTROL CABLE

K M Cables & Conductors offers a wide range of LT PVC XLPE power control cable.

Features:

- LT PVC / XLPE power cables are available in different combinations with us, such as aluminum, copper conductors, round solid conductor, stranded conductors, sector shaped conductors, taped inner sheath, extruded inner sheath, round steel and aluminum wire/flat galvanized steel strip armoured/ unarmoured, single/ double outer sheathed, etc. are available.
- Its features include: Its manufactures different types with combinations of specifications as mentioned above as per IS 1554 Part I for cables upto 1100V and IS 1554 Part II for 3300V.
- LT PVC /XLPE power cables are used under ground as well as overhead transmission of power in: power plants; industries; various other projects; all electrical installations.

About the company: Established in 1998, K M Cables & Conductors is pleased to introduce itself as one of the leading Cable in Bangalore.

Contact:

K M Cables & Conductors, Bangalore
Mobile: 09341285508 Email: info@kflexcables.com



FR/LS BUILDING CABLES AND WIRES

Q-FLX Wires & Cables offers a wide range of FR/LS building cables and wires.

Features:

- This Q-FLX brand PVC insulated single core unsheathed building cables for wiring of electrical installations are manufactured strictly in conformance to specification IS:694-1990, with bright annealed bare electrolytic copper conductor of sizes 1 sq.mm to 70 sq.mm conforming to IS:8130 - 1984 and Q-FLX brand dielectric grade PVC compound conforming to the requirements of IS:5831 - 1984 for working voltages up to and including 1100 volts with ISI mark.
- Q-FLX wires & cables are supplied in standard lengths of 90 mts in carton boxes. However customer specified lengths will also be supplied in longer lengths exclusively for projects.

About the company: Q-FLX wires & cables a division of Cybele Industries Ltd is engaged in the manufacture of wide range of quality wires & cables of high performance with the back up of excellent track record and team of technical experts.

Contact:

Q-FLX Wires & Cables, Chennai
Mobile: 09884522777, 07010753367
Email: enquiry@qflexcable.com



65 YEARS OF SERVICE GGR STENCIL CUTTING MACHINES



GGR MARKING SYSTEMS is a combination of four products. Stencil cutting machines, Stencil oil boards, Stencil inks and Stencil brushes of international quality.

GGR MARKING SYSTEMS will make positive – and lasting – impressions with our extensive selection of stenciling products on porous & non porous surfaces.

USED FOR MARKING ON OUTER CARTONS, WOODEN CASES, PALLETS, HDPE BAGS, STEEL DRUMS , PLASTIC CAR BUOYS, TUBES, PIPES, SAW PIPES, INCOMING RAW MATERIAL OR INVENTORY....

GGR STENCIL CUTTING MACHINES are used in every nook and corner of India and advanced countries world wide.

GGR ENTERPRISES has the widest range of size/s of manual stencil cutting machines with its own factory, with dedicated team and combination of traditional and CNC machines with cutting edge technology.

We have everything necessary to seamlessly match your applications and specifications on all types of surfaces.

GGR EQUIPMENT IS FULL VALUE FOR MONEY AND WE NEVER FORGET OUR CUSTOMERS ... AND THAT IS OUR PROMISE.

Manufactured, Marketed & Serviced by

GGR ENTERPRISES

142 Karnani Mansions, 25A Park Street
Kolkata 700 016, India

Phone: +91-33-82760-40660 / +91-33- 2227-6951

e-mail: ggrenter@gmail.com

Website : <http://www.ggrenterprises.co.in>
www.ggmarking.com

WORM SPEED REDUCER

MGM-Varvel Power Transmission Pvt Ltd offers a wide range of worm speed reducer.

Features:

- They are engaged in manufacturing, supplying and exporting these worm speed reducer in bulk as per the exact requirement of their esteemed clients.
- These worm speed reducer are very much reliable and provides long lasting performance.
- Additionally these worm speed reducers can be availed at affordable rates.
- Its features include: reliable; rust free; longer service life; leading applications: general purpose, medium and fractional power drives; dry friction and fully sealed enclosure allow reliable, service free and safe installations; design: 6 sizes, combination of independent drives variators VR with speed reducers.

About the company: MGM-Varvel Power Transmission Pvt Ltd, established in 2011, engages as a provider of three-phase asynchronous brake motor, one stage helical gearbox, bevel helical gearboxes, planetary speed reducer, worm speed reducer, etc.

Contact:

MGM-Varvel Power Transmission Pvt Ltd, Chennai
Tel: 044-65681815, 64627008
Mobile: 08754470747 Email: info@mgmvarvelindia.com

**INDUSTRIAL VALVES**

Global Sales & Engineering Services industrial valves.

Features:

- These industrial valves offered provide for reliable sealing support as well as are designed to deliver stable working support.
- These are easy to open and close as well as can be made available in diameter choices of DN50 to DN600 as well as in nominal pressure of PN10/PN16. Some of its features include suitable for working in temperatures of -40°C to 120°C; different surface treatment options; suitable for use in portable water, sewage disposal, irrigation, fire protection pipe system an others; option of OEM finish configurations.

About the company: Global Sales & Engineering Services, established in 2011, is involved in manufacturing, supplying and exporting of engineering products. Their product range comprises mechanical products, instrumentation products, electrical products, etc.

Contact:

Global Sales & Engineering Services, Nagpur
Tel: 0712-6050101
Mobile: 07767817732, 07767817731
Email: globalsalesengineering@gmail.com

**INDUSTRIAL SPROCKETS**

A M Jeewajee & Sons offers a wide range of industrial sprockets.

Features:

- These products are compact and sturdy. They manufacture these products as per clients demands and also these are highly appreciated by our valuable clients.
- The automotive sprockets find application in various machinery to disseminate rotary motion between two shafts or to transfer linear motion to a track.
- Further, the range is custom-made so can be availed in varied diameters and sizes. These sprockets are cost-effective and have a drive system that provides minimum torque load and utmost shock absorption.
- Its features include: smooth surface; good hardness; abrasion-resistant.

About the company: AM Jeewajee & Sons, founded in 1985, engages as a manufacturer and supplier of precisely engineered range of transmission chains and belts. The product portfolio includes range of transmission chain, link chain, and chain sprocket. They are consistently delivering a quality assured range of Industrial Chain Sprocket.

Contact:

A M Jeewajee & Sons, Kolkata
Tel: 033-22300957, 39855836
Mobile: 09830059710, 09830270753
Fax: 033-22204882
Email: amjs_52@hotmail.com, aliasgar@amjsco.co.in

**COMMERCIAL AIR CONDITIONER HARNESS**

Sparsh Electronics offers a wide commercial air conditioner harness.

Features:

- The wiring harness is manufacture as per their client's specifications and preferences.
- It will adhere to the highest quality of raw material and advanced techniques, as per with international standards.
- Apart from wiring harness they also make assemble connecting cords assemblies for air conditioners.
- Its features include: easy to install; long life; resistance against temperature.

About the company: Sparsh Electronics manufacturers of wiring harness & electrical connecting cord assembly. They have been in the field of wiring harness for the last 4 years in India and certified by ISO 9001:2015. Their cable harnesses give a compact, smart yet simple approach to obtain many similar wires and cables into a cable harness. Their cable wire harnesses not only offer a more systematic manner of handling the mess of wires but also ensure them great against the different forms like vibrations and moisture.

Contact:

Sparsh Electronics, Pune
Mobile: 08411022333, 07030955409
Email: sparshelectronics@yahoo.in, sales@sparshelectronics.com



AERIAL BUNCHED CABLES

Lumino Industries Ltd offers a wide range of aerial bunched cables.

Features:

- This aerial bundled cables (simply ABC) are overhead power lines using several insulated phase conductors bundled tightly together, usually with a bare neutral conductor.
- This variation of overhead power lines utilizes the same principles as bundled conductors, except that they are closer together to the point of touching but each conductor is surrounded by an insulating layer.
- Insulated conductors prevent accidental contact and supply can be maintained temporarily in the event of a suspension system collapse.



About the company: Established in 1989 Lumino Industries Limited is one of India's few integrated power infrastructure companies, broadly structured into two different business verticals that comprise the manufacturing division and the engineering procurement construction (EPC) division.

Contact:

Lumino Industries Ltd, Kolkata

Tel: 033-24412008-09

Fax: 033-2441 2010

Email: lumino@luminoindustries.com

ACCREDITED IMPORTERS & SUPPLIERS OF ORIGINAL BEARINGS

**IMAGINATIONS ARE ENDLESS
BUSINESS DEPENDS ON RIGHT DECISION**



**SPECIALIZING IN NON STANDARD / ODD SIZE AND SUPER
PRECISION BEARINGS TO OEM AND ACTUAL USERS**

**SKF/ FAG/ TIMKEN/ RHP/ GAMET/ THK/ IKO/ INA/ NTN/ NACHI/
NSK/ ZKL/ URB/ MCGILL/ GMN/ CHINESE & Many More**

PRECISION INDUSTRIAL CO.

Maskati House, 2nd Floor, 67, Nagdevi Street, Mumbai 400 003.

Mobile : 9892583513 / 9326027570 / 8291390336

Phone : 022-23451915 **Email :** precisionranjit@hotmail.com

MANUFACTURER OF FLEXIBLE SHAFT, SHAFT GRINDER & ACCESSORIES

SUITABLE FOR:



SUHRER-INDIA

VIJAY



ZGE

CONTI-FLEX

VENUS

GOOD EARTH

FORBESFLEX



FLEXIBLE SHAFT
GRINDER



CNC LED
MACHINE LAMP



SPOTLIGHT
MACHINE LAMP



FLEXIBLE SHAFT
ACCESSORIES



PLASTIC CHAIN



ONN - M2

Fixed by base, easy and fast,
Joints 270 adjustable, Joints provide
accuracy and flexible positioning.
IP65 waterproof rated,
resistant to any water,
coolants and lubricants.

Manufacturer / Stockist / Wholeseller



INDUSTRIAL
MACHINE LAMP



ARMLIGHT
LAMP



ONN-M1



TIER LAMP



COOLANT PIPE



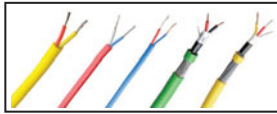
SPOUT ASSEMBLY



MOUNTED POINT

CONTINENTAL COMMERCIAL CO

1/C, 59, Bibijan Street, (Nagdevi), Mumbai - 400 003. Tel.: +91-22-2343 3808, Telefax: +91-22-2340 0875
Mob.: 093231 33808, E-mail: sales@contiflex.co.in, Website: www.contiflex.in

**THERMOCOUPLE
EXTENSION /
COMPENSATING CABLES**

Rashi Cables offers a wide range of thermocouple extension / compensating cables.

Features:

- These cables can also be termed as instrumentation cables, since they are used for process temperature measurement.
- The construction is similar to paired instrumentation cable but the conductor material is different thermocouples are used in processes to sense temperature and is connected to the pyrometers for indication and control the thermocouple and pyrometers are electrically conducted by thermocouple extension / compensating cables.
- The conductors used for these cables are required to have similar thermoelectric (EMF) properties as that of the thermocouple used for sensing the temperature.

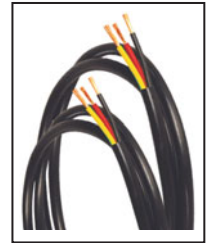
About the company: Rashi Cables has emerged as one of the leading, reputed & fast growing organization in the field of Signal, Control Cables & Communication Cables, Rashi Cables plant is accredited with ISO 9001:2015 Certification.

Contact:

Rashi Cables, New Delhi

Tel: 011-41707151 Fax: 011-41707352

Email: hgsrashicables@gmail.com, hgs@rashicables.in

**SINGLE CORE / MULTICORE
FLEXIBLE CABLES**

KEI Wires & Cables offers single core/ multicore flexible cables.

Features:

- KEI single & multicore flexible copper cable are used in low voltage signals, electrical motors, electrical appliances, control panels, DC power transformers, electrical boards, battery cables etc.
- These cables are highly flexible in construction & designed with high Di-electric strength.
- KEI single & multicore Flexible Copper Cables are having high degree of thermal stability, Oxygen & temperature index.
- Its features include: These wires are manufactured from bright-annealed 99.97% pure bare copper conductors and hence, offer low conductor resistance.

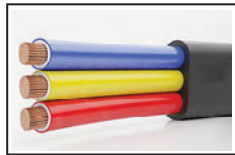
About the company: KEI Control cables encompass a large family of cables manufactured to various IS, BS, EN, VDE, and other international Standards. Our cables are designed for a wide range of application like industrial, signaling, transmission, measurement, control and regulation.

Contact:

KEI Wires & Cables, New Delhi

Tel: 011-26818840/8642/0242

Email: info@kei-ind.com, delhi@kei-ind.com

SUBMERSIBLE FLAT CABLES

Jainflex Cables Pvt Ltd offers a wide range of submersible flat cables.

Features:

- The conductors are drawn from bright electrolytic grade copper annealed and bunched together.
- Bunched conductors are insulated with specially formulated PVC compound having high insulation resistance values.
- 3 Core are in parallel position and sheathed with a special grade of PVC compound which has high resistivity water grease, oil etc.
- High quality standards in every product. Strict quality controls are carried out every stage from raw material to finished goods stage soto deliver the best product.

About the company: Jainflex Cables Pvt Ltd a name that is enjoying its stance of distinction in the field of wires and cables since past 20 years, is dedicated in improving the safety measures for our customers. The reason behind the remarkable success is the fusion of state-of-art facilities & extremely motivated workforce which brings forth its admirable presence among others.

Contact:

Jainflex Cables Pvt Ltd, Ahmedabad

Tel: 079-27701899, 27506896

Mobile: 09898533000, 09898401000

Email: sales@jainflex.com / mail@jainflex.com

UNARMORED COPPER CABLES

Sanatan Cable Industries offers a wide range of unarmored copper cables.

Features:

- Offered a wide range of Sanatan copper unarmored cable that is perfect for high power distribution.
- This offered cable is manufactured in line with industry quality standards using the finest quality raw material and progressive technology.
- The offered cable is available in diversified specifications to suit the requirements of clients. Owing to its various quality attributes, this cable is widely demanded in the market.
- Its features include: provide higher safety; low power losses; high capacitance and low inductance.

About the company: Sanatan Cable Industries is one of the Ahmedabad's leading cable manufacturers, based in Gujarat. They have been manufacturing cables since 1999 and throughout this time, they have continued to develop in to an internationally recognized brand throughout the cable industry. \Their product is certified by BIS (Bureau Of Indian Standards).

Contact:

Sanatan Cable Industries, Ahmedbad

Tel: 079-25832972

Mobile: 09825190972

Email: info@sanatancable.com, sales@sanatancable.com

PLASTIC BLOWING MACHINES

Ahamad Associates Plant and Projects offers a wide range of plastic blowing machines.



Features:

- This main use of these plastic blow molding machines is to make pet bottles like pharmaceutical and cosmetic bottles, containers for keeping paints, bottles for keeping milk, gum, ink, motor engine oil and other products.
- Ahamad Associates Plant and Projects is a reputed and well known plastic molding machine manufacturer which is highly successful in plastic.
- Their supplied molding machines are manufactured using good quality raw materials and components to make them capable in delivering good quality plastic molded items.
- These molding machines are efficient in production quantity and are also used to mold oil tanks, bellows, ducks, thermal flasks, water tanks and other toy items like children bicycle seat and tires.

About the company: Ahamad Associates Plant and Projects is a renowned manufacturer, supplier, and exporter of several types of processing machinery.

Contact:

Ahamad Associates Plant and Projects, Bareilly
Mobile: 08006037771

Email: watersystemsindia@gmail.com

SCREW CONVEYOR

Sree Valsa Engineering Company offers a wide range of screw conveyor.

Features:

- Screw Conveyor, also known auger conveyor is an equipment that is used for moving the liquid and granular materials.
- Their equipment is made of top-grade food-grade materials and components such as, rotating helical screw blade.
- Its features include: ensure good performance and strong heat resistance; simple to install, handle and clean; high-efficiency and low energy consumption; come in various technical specifications as per the clients' demands; abrasion resistant and rust resistant; used in several industries like metallurgy, chemical, mineral, coal mining, building materials, etc.



About the company: Sree Valsa Engineering Company is the pioneer in manufacturer & exporter of food processing equipment, food processing machinery in India. They manufacture high quality and high performance of pulveriser, agricultural & ayurveda machineries, bakery machineries, etc.

Contact:

Sree Valsa Engineering Company, Coimbatore
Mobile: 09843017172, 09787140064

Email: srvalsn@yahoo.com



Linear Systems

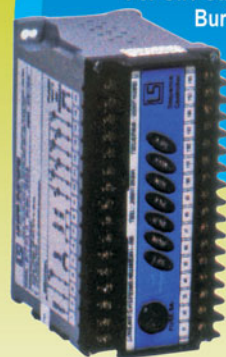
** We Serve, with Honours **

MANUFACTURERS OF :

- Burner Controller
 - Sequence Controller
 - UV Flame Sensor
 - UV Flame Relay / Amplifier
- For Oil / Gas Fired Boiler / Burner / Furnaces



700 Series Controllers



100 / 200 / 300 Series Controllers

Linear Systems

** We Serve, with Honours **

307, Vikrant Industrial Estate, Govandi Post Office Road,
Deonar, Mumbai - 400 088. Tel.: +91-22-2551 2534
Telefax: +91-22-2557 6002 • E-mail: info@linearsystems.in



Web: www.linearsystem.net • www.indiamart.com/linearsystems

Mfrs. of Metal Gaskets/Valve/Pump Components



Serrated Gaskets



Valve component



Yoke Bush



Retainer Rings



Pump Sleeves

Nickel Aluminium
Bronze parts



Ring Joint Gasket



Valve Stems

- Case Wear Ring
- Impeller Wear Ring
- Pump Sleeves
- Centrifugal Castings
- Machined Centrifugal Castings
- Ring Joint Gasket
- Serrated Gasket
- Plug Gasket
- Rolled / Forged Ring
- Machined Ring Forgings
- Valve Seat Ring
- Seat Retainer Ring
- Bonnet Ring / Seal Ring
- Valve Stems • Bush
- Yoke • Gland
- PTAW/GTAW Welded Components / Overlay Welding
- Stellite 6 / Stellite 21
- Valve Components
- CNC / VMC Machined components

Materials:

SS304/316, Duplex 2205/2507,
Inconel 625/825, Alloy 254
Hastelloy Aluminium Bronze,
Nickel Aluminium Bronze etc.

Packings & Jointings Gaskets Private Limited

Nos.347, North Phase, 3rd Street
SIDCO Industrial Estate, Ambattur
Chennai - 600098, Tamilnadu, India
Tel : +91-44-48627746 (M):+91-9840085201
Email:
General: pigpl.in@gmail.com
Web: www.ringgaskets.co.in
www.centrifugalcasting.co



PAINTS AND COATING ADDITIVES

K-Tech (India) Limited offers a wide range of paints and coating additives.

Features:

- This paint additives and coating additives include a wide range of materials added to polymer resins, paints and coatings and other substances to modify specific processing or end-use properties.
- They include insulating paint additives, powder coating additives, catalysts, wetting agents, levelers, clarifier, coupling agents, deflocculants, thinners, thickeners, anti-caking agents and other chemicals. Paint additives and coating Additives are available in many different forms.
- These products are effective in providing water resistance, corrosion resistance, heat resistance and abrasion resistance.

About the company: K-Tech (India) Limited are dynamic, focused and rapidly emerging company with core competencies in specialty chemicals, specialty coating additives, polymer additives, rubber additives, etc.

Contact:

K-Tech (India) Limited, Thane

Tel: 022-25476486, 25476496

Mobile: 08048704515 Email: response@ktechadditives.com

**AUTOMATIC FOUR HEAD VOLUMETRIC LIQUID FILLING MACHINE**

Brothers Pharmamach (India) Pvt Ltd offers a wide range of the automatic four head volumetric linear liquid bottle filling machine, Model Liqfill-80.

Features:

- It is suitable for bottles with maximum speed of 80 bottles per minute. The output of bottle filling machines depending on nature of liquids, bottle diameter, bottle height, bottle neck size and fill volume.
- Machine construction in fully stainless steel finish including machine frame structure. Machine with optional turn tables at in-feed and out-feed with individual drives to match the speed of incoming and outgoing bottles for smoother operation.

About the company: Brothers Pharmamach is a manufacturer and supplier of pharmaceutical and packaging machinery in India.

Contact:

Brothers Pharmamach (India) Pvt Ltd, Ahmedabad

Tel: 079-40213213, 25831346, 29708139

Mobile: 09825037971, 09825300706

Email: info@brothers.in

**AUTOMATIC ROTARY GLASS/ PET BOTTLE WASHING MACHINE**

Veena Pharma Machinery offers a wide range of automatic rotary glass/ pet bottle washing machine.

Features:

- This automatic bottle washing machine is rotary bottle washing machine is compact, highly efficient and elegant in look.
- It has many functional features as per GMP standard to wash containers of glass, plastic or other material.
- This automatic bottle washing machine operates on the rotary principle with GENEVA mechanism and requires manually loading and unloading of bottle.
- The bottles are loaded on rotating platform where bottle holders i.e. nylon cups are specially designed to accommodate bottle with varying neck diameter and bottle diameter. The bottle are placed in an inverted position in cups.

About the company: Veena Pharma Equipment, founded in 1994, designs and delivers innovative ideas and create affordable packaging machines and is now a trusted name in the small-scale industrial segment.

Contact:

Veena Pharma Machinery, Thane

Mobile: 09323958996, 09004563628, 09967707369

Email: sales@veenapharma.com

**FLUID BED DRYER (FBD)**

Bombay Pharma Equipments Pvt Ltd offers a wide range of Fluid bed dryer (FBD).

Features:

- This is very versatile process equipment for uniform and efficient drying of products.
- It is fully automatic operation based on PLC control/ without PLC control.
- It has minimum handling and more hygienic and lifting & tilting device of product container for easy handling.
- Its capacity available from 5 kgs to 500 kgs. FLP models available as option; moc S S 304/ 316/ 316L.
- Option - steam heated or electric heated blower; CGMP model with documentation (IQ, DQ, PQ, OQ) - as option.

About the company: Bombay Pharma Equipments manufactures range of machinery and equipment for pharmaceutical, food, cosmetics and chemical industries.

Contact:

Bombay Pharma Equipments Pvt Ltd, Mumbai

Tel: 022-28521608, 28594877, 28592878

Mobile: 09820124804, 09820120086

Telefax: 022-28521608

Email: bombaypharma@mtnl.net.in



MEDIUM DUTY RACKING

Spanco Storage Systems offers a wide range of medium duty racking.

Features:

- These medium duty racking is a strong, durable, versatile and economical shelving system that minimises lost space from uprights making it suitable for a wide variety of storage application in offices, archives, libraries and retail outlets.
- Its is strong, functional, high capacity storage, medium duty racking is suited to all applications where space is a premium and can be mounted for even higher density storage.
- It is fast and easy to assemble and uses a modular design that provides the maximum storage capacity, no matter what space is available.
- Its features include: fastening structure, easy to load and unload; can be tailor-made according to customized requirements; high strengthened closed steel panel with welded support bars; panel and side panel available for closed shape to ensure greater safety; modular configuration allows level adjustments vertically at a distance of 50mm.

About the company: Spanco Storage Systems is a distinguished manufacturer and supplier of industrial storage racking systems.

Contact:

Spanco Storage Systems, New Delhi
Tel: 011-64636465 Mobile: 09811015963, 09315123235
Email: info@spancostorage.com



SEMI ELECTRIC STACKER

Uplift Elevators And Equipments offers a wide range of semi electric stacker.

Features:

- They are amongst the leading names in the industry, offering an extensive range of semi electric stacker that is quality assured and durable in nature. Their entire product range is light in weight and is delivered in varied standard sizes and dimensions. Additionally, this stacker is reliable and performance based. Moreover they offer hydraulic pallet stacker in well-defined time.
- Its features include: highly durable; cost-effective; reliable.

About the company: Hydra Uplifts & Services, a sole proprietorship firm, came into being in 2012. The company is involved in manufacturing, supplying and exporting of pallet stackers, floor cranes, aerial platforms, hydraulic lifts, auto garage equipment and much more.

Contact:

Uplift Elevators And Equipments, Chennai
Mobile: 09003172237, 09094448835
Email: upl.info@hydrauplifts.com



AmmbavinTM

(Manufacturers of Metal Cutting Tools)

No. 8-A, Thiruvalluvar Street, T.M.P. Nagar, Padi,
Chennai 600 050. Off: 26256862 Telefax: 26245246
E-mail: lambo@ammbavin.com Web: www.ammbavin.com



- Solid Carbide Drills
- Solid Carbide Reamers
- Solid Carbide End Mills
- Solid Carbide Cutters
- Solid Carbide Boring Tools
- Solid Carbide Woodruff Key Slot Cutters
- Lugged & Brazed Tools
- Work Rest Blade
- Customized Tools as per Component Drawings



Equipped with 5 Axis CNC Tool & Cutter Grinder



Anu Vidyut



Manufacturers of Signaling & Telecom Equipment for Railways




- ☐ Earth Cable Pair Insulation Tester
- ☐ Earth Leakage Detector
- ☐ Fail Safe Flasher Relay
- ☐ Flasher Relay
- ☐ Fail Safe Electronic Timer
- ☐ Digital Transmission Measuring Set
- ☐ Digital Cross Talk Measuring Set
- ☐ Delay Timer
- ☐ 4W/2W DTMF Train Traffic Control Equipment
- ☐ 2W 12 Way DTMF Telephone
- ☐ Road Hooters for Level Crossing
- ☐ Digital Time Interval Meter
- ☐ Phase Angle Meter














Anuvidyut Pvt. Ltd.

C-1, Industrial Estate, Roorkee - 247 667 (U.K.)
Tel: +91-1332-262545, Ph. No. 8126892545
E-mail: info@anuvidyut.com/anuvidyut@gmail.com

We also undertake works contract of INDIAN RAILWAYS

DOUBLE CONE BLENDER

Chamunda Pharma Machinery Pvt Ltd offers a wide range of double cone blender.

Features:

- This double cone Blender is efficient and versatile equipment for mixing powder such as pharmaceutical excipients, various chemicals, food products homogeneously.
- Non-product parts and other surfaces made of Stainless Steel corresponding to AISI 304. A suitable diameter opening with cover & necessary seals with sealing clamps for loading of material is provided.
- Conical shape and elongated plane at both ends enables uniform mixing and easy discharge.
- Power is loaded into the cone through a wide opening and discharge through a butterfly or a Slide valve
- Depending upon the characteristic of the product, paddle type baffles can be provided on the shaft for better mixing, uniform blending and de-agglomeration.

About the company: Chamunda Pharma Machinery is known for having experience as a pharma machine manufacturer and is reputed to solve technical queries efficiently.

Contact:

Chamunda Pharma Machinery Pvt Ltd, Ahmedabad
Tel: 079-25840589, 25840591
Email: info@chamunda.in

BUTTERFLY VALVES

Zenith Trading Co provides offers a wide range of butterfly valves.

Features:

- They are engaged in offering their clients with first class of butterfly valves of brands like Kitz Japan, castle, advance, cri, audco and butterfly valve with top raw materials in full stainless body, gathered from our reliable vendors in the market.
- Its features include: good durability; designed for heavy duty; very long service life; handles extreme pressure and variable temperature; efficient; rigid and sturdy.
- They deliver their clients with not only their products but also their trust and expectation.

About the company: Zenith Trading Co is a dealer of a comprehensive range of valves, which are widely used in chemical industries, water treatment plants and fertiliser units. These products are known for their long functional life, precision engineering, dimensional accuracy and leak-proof nature.

Contact:

Zenith Trading Co, Chennai
Tel: 044-32957270, 25229760
Mobile: 09841130142
Email: kaizardhaman@vsnl.net

**WET SCRUBBERS**

Neos Air Filtration Private Limited offers a wide range of wet scrubbers.

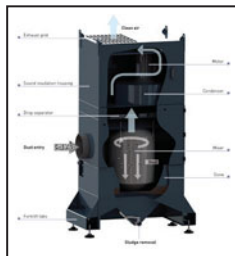
Features:

- It offers stationary wet scrubbers for highly explosive and high spark applications. The wet scrubber, NAS, is designed for such applications where a mechanical filter cannot be used; e.g. in the filtering of aluminum dust, organic dust, explosive fumes etc.
- The design enables separation through a multiphase filtration including a generated water vortex. The filtered air can be returned into the production area.
- Its features include: modular design; minimal footprint; low water consumption; all water contact parts are in SS304 to avoid corrosion; automatic water level control and filling.

About the company: Neos Air Filtration Pvt Ltd, established in 2014, is a manufacturer and supplier of mobile dust extractors, fume extractors, oil mist separators, downdraft tables, etc.

Contact:

Neos Air Filtration Private Limited, Chennai
Tel: 044-42104916
Mobile: 09176601255, 09790925588
Email: info@naf.co.in

**FUMEKILLER**

Powertech Pollution Controls Pvt Ltd offers a wide range of fumekiller.

Features:

- This fumekiller - electrostatic filtration system is a high-efficiency two-stage electrostatic precipitator.
- Its features include: high filter efficiency; low running cost; filter modules are washable, reusable; no replacement required; safety features incorporated for reliable and efficient working; a safer, healthier working environment where hazardous fumes and airborne contaminants are removed; complete factory support and product expertise based on years of industrial process emission control.

About the company: Powertech Pollution Controls Pvt Ltd, established in 1996, engages in design, manufacture, supply and export of a wide range of fume extractor, fume extractor arm, dust filtration system, dust killer and electrostatic filter module, etc.

Contact:

Powertech Pollution Controls Pvt Ltd, Bengaluru
Tel: 080-23452156, 23452256
Mobile: 09844132772, 09945088853
Fax: 080-23452445
Email: philipthomas@powertechindia.com



SMALL SITE OFFICE CONTAINER

SMS Marine Service offers a wide range of small site office container.

Features:

- Its marked a distinct and dynamic position in the market by providing a high quality array of small site office container that is suitable for various corporate houses.
- This provided container is manufactured using the best quality components and ultra-modern technology in accordance with the set industry standards.
- The provided container can be designed as per information laid down by our valuable clients. Moreover, we offer this container which is ready to install, at affordable price
- Its features include: stylish pattern; long lasting life; smooth finish.

About the company: SMS Marine Services is a leading manufacturer and supplier of this highly commendable range of portable containers and cabins. Their range is made up of the finest shipping containers and portable cabins and bunkhouses. The durability, sturdiness and finishing is owed to the utilization of high-grade raw materials and modern machines.

Contact:

SMS Marine Services, Chennai
Mobile: 09962058896, 07200058896
Email: vadivel1988m@gmail.com,
sales@smsmarineservices.co.in



INDUSTRIAL PERMANENT MAGNETIC LIFTER

Star Trace Pvt Ltd offers a wide range of industrial permanent magnetic lifter.

Features:

- They offer industrial permanent magnetic lifter, permanent magnetic lifter, lifting magnet, circular lifting magnet, automatic lifting magnet and electro permanent magnetic lifter, industrial permanent magnetic lifter is the result of our sound reputation as manufacturer, supplier, and exporter which encouraged us to design, manufacture and supply it to their patrons.
- Its features include: compact and lightweight design; versatile applications; safe and reliable.

About the company: Star Trace Pvt Ltd is an ISO 9001:2008 certified manufacturer, exporter and supplier of a large assemblage of industrial separators and magnetic equipment.

Contact:

Star Trace Pvt Ltd, Chennai
Tel: 044-26418456, 26419439
Mobile: 09380521576
Fax: 044-26419439
Email: sales@startrace.in





TRIDENT
engineering quality air and gas



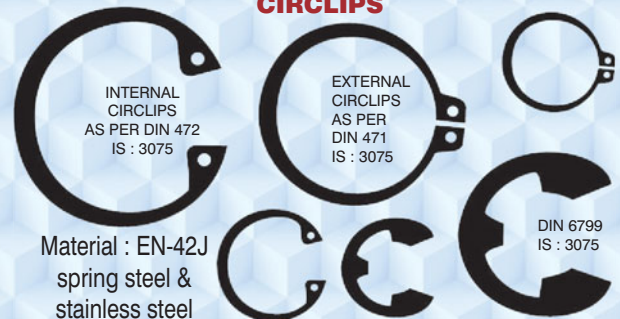
Complete Solution for Compressed Air Treatment

Trident Pneumatics Pvt. Ltd.
5/232, K.N.G. Pudur Road, Somayampalayam P.O., Coimbatore - 641 108, India.
Ph: +91-422-2400 492, Fax: +91-422-2401 379
E-mail: sales@tridentpneumatics.com, j_noelraj@tridentpneumatics.com

www.tridentpneumatics.com

For your requirements of SPRING DOWEL PINS, CIRCLIPS, BEARING WASHERS & DISC SPRING

CIRCLIPS



BEARING WASHERS

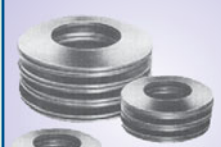


SPRING DOWEL PINS



DIN 1481 IS 5988

DISC SPRING



DIN - 2093



R.K. ENGINEERING CO.

12, Nanik Motwane Marg, Opp. HDFC Bank, Fort, Mumbai - 400 023.
Tel.: Off.: 022-2267 1141 / 6610 4058 Fax: 91-22-2265 5255
E-mail: rkenggcomp@gmail.com, Website: www.rkengineeringco.com
Works: Andheri (East), Mumbai - 400 059.

MANUAL STACKER

Mankalp Industries offers a wide range of manual stacker.

Features:

- These material handling equipments solutions provider offer unique range of hand stackers at competitive price range.
- Its features include: basic capacity from 500 kg – 1500 kg; lift heights: mono and telescopic masts from 1400 mm – 3000 mm; special fork length & width; robust construction; pump assembly includes neutral position for controlled handling of load; pistons and cylinder are hard chrome plated; double sealed high pressured polyurethane seals are used to prevent leakage; industry's best warranty - 1 year; lifting speed – 14 mm/stroke.
- These stackers are suitable, where lifting is primary and the transport distance is short.

About the company: Mankalp Industries is a well-known organization engaged in manufacturing and supplying of material handling products. Its wide gamut of products includes pallet trucks, stackers and hydraulic scissor platforms.

Contact:

Mankalp Industries, Ahmedabad
Mobile: 09210044555
Email: info@mankalp.in

**JIB CRANES**

HERC Material Handling LL offers a wide range of jib cranes.

Features:

- They are engaged in offering a wide range of jib cranes, which is an important part of any material handling system and can be easily rotated.
- It is specially designed to compensate for swing, under rated load and radial thrust load with utmost convenience.
- Its features include: mast fabricated from pipe/rolled steel sections; M S gusset plates/thick base plate giving added rigidity to the column; base plate readily drilled to take six/eight holding down bolts; iib arm fabricated from heavy section I-beam for LUJC-I and triangular truss constructions for LUJC-2 & LUJC-3 type of jib cranes reduce deflection to acceptable limits.

About the company: HERC Material Handling LLP is one of the leading manufacturers and suppliers of industrial cranes, hoists and lifts.

Contact:

HERC Material Handling LLP, Pune
Tel: 022-62364044, 62364045
Mobile: 08879489070, 09930360605
Email: hemanshuchawla@gmail.com

**TUNNEL EXCAVATOR- EX 200LC**

Tata Hitachi Construction Machinery Company Private Limited offers a wide range of tunnel excavator- EX 200LC.

Features:

- The EX 200LC tunnel excavator is a pioneering initiative from Tata Hitachi – the leader in hydraulic excavators in India – offering a customized solution for the tunnel excavation application.
- This versatile excavator comes with in built protective measures such as a cyclonic pre-cleaner and an aluminium ROC which are extremely useful in keeping the engine and hydraulics safe in the dusty and confined situations associated with tunneling.
- The absolute type hydraulic filters ensure the hydraulics is safe.

About the company: Tata Hitachi Construction Machinery Company Private Limited, the leader in construction equipment in India, enhances the operational performance of its customers, leading to improved profitability and competitiveness by offering constructive solutions.

Contact:

Tata Hitachi Construction Machinery Company Private Limited, Bangalore
Tel: 080-66953301-05 Email: info@tatahitachi.co.in

**NYLON WHEELS CABLE TROLLEY**

Liftboy Industries offers a wide range of nylon wheels cable trolley.

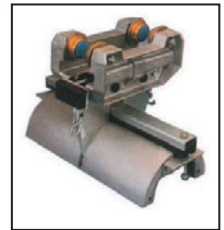
Features:

- They are engaged in manufacturing and supplying of a wide range of nylon wheels cable trolley. Available in varied specifications, these are readily accepted by our clients. Moreover, we also ensure that the offered products are manufactured using superior quality basic material which results in their optimum functionality and reliable performance.
- Its features include: optimum strength; elegant design; enhanced durability.

About the company: Liftboy Industries is one of fastest growing manufacturers, exporters and traders of material handling equipment in India, established in 2000. Their product range comprises industrial cranes, EOT cranes, electric hoists, goods lifts, lifting magnets, lifting slings, cable trolleys and many more. It also manufactures various other lifting equipments, with accessories and spares. In addition to these products, the company manufactures customised material handling equipment as per the specifications/drawings of the customers.

Contact:

Liftboy Industries, Ghaziabad
Mobile: 09811258518 Email: info@liftboyindustries.com



INLINE FEED BATCHING MACHINE

Creative Enterprises offers a wide range of inline feed batching machine.

Features:

- With rich knowledge in this industry, they are engaged in providing our clients a broad array of inline feed batching machine.
- The vendor use sophisticated technology while manufacturing of these machines.
- Offered machines are available in different models, capacity & dimensions as per specifications of our esteemed clients. Moreover, these machines are highly appreciated in the market for their durability and reliability
- Its features includes: reliable operation; easy installation; smooth finish.

About the company: Creative Enterprises is a wholesaler and supplier of construction machines, offering a wide gamut of high performing equipment such as backhoe loader, batching machines and concrete machines. The firm is associated with some reliable manufacturers.

Contact:

Creative Enterprises, Jaipur
Mobile: 09352174343, 09829601578
Email: construetbetter@yahoo.com



BATCHING PLANT DRUM MIXER

Esquire Machines Pvt Ltd offers a wide range of batching plant drum mixer.

Features:

- The product range encompasses reverse drum type electrical and diesel machine, concrete mixer (10/7 mechanical hopper and 10/7 hydraulic hopper) and concrete mixer (hand feed) as well as bar bending and bar cutting machine, industrial bar cutting machine, rack and pinion, works platform, tower and builder hoist, tilting bucket trolley, wheelbarrow and weigh batcher.
- Its features include: it is reversible drum mixer; compact design; can handle upto 40 mm down grade aggregates; easy maintenance; low maintenance cost; low operation cost; fully automatic PLC controlled HMI; separate weighing for aggregate, water & cement; option of stationary & mobile application; concrete foundation not required; can be shifted easily with tractor.

About the company: Esquire Machines Pvt Ltd is a manufacturer, exporter and supplier of a wide range of construction equipment.

Contact:

Esquire Machines Pvt Ltd, Vadodara
Tel: 0265-6451915
Mobile: 07069727357
Email: getintouch@esquiremachines.com





abhitron india
ISO 9001:2015 Certified Company

INDUSTRIAL GAS DETECTORS

Controls Pollution By Japanese Way

- The only company in India with 10 LIGHTS BAR GRAPH which increases accuracy
- AVAILABLE : 1, 2, 5 & 15 Channels Control Units
- APPROVED BY : CMRI, CCQE & BIS
- Detects Gases, Fumes, Vapours with Alarm
- Industrial Type SMOKE DETECTOR is also available

The Company Has Bagged Seven Awards As Rashtriya Udyog Ratna Award, Quality Brand, Udyogshree Award, Govt. Of Maharashtra Award, Arch Of Excellence Award, All India Achievers Award & The Most Prestigious Parkhe Award Which Is Awarded For The First Innovative Instrument.





Toxic Gas Detector



15 Channel Gas Detector



Domestic Gas Detector



Online Oxygen Analyzer



Digital Gas Detector



Oxygen Detector



Multi Gas Monitor



Semi Portable Gas Detector



Industrial Type Smoke Detector



Breath Analyzer



Digital Breath Analyzer



Metal Detector Handheld

ABHITRON INDIA
22, Aditya Industrial Estate, Chincholi - Link Road,
Malad (W), Mumbai- 400 064.
Tel: 91-22-2636 1469,
e-mail: abhitronindia@gmail.com • website: www.abhitronindia.net

NEEL'S FORGE PRODUCTS & ENGG. SERVICES

An ISO 9001:2015 Certified Organisation 
Unit run by a forge technologist



Specialists in Forgings of
• Steel • S.S. • Brass • Copper
• Aluminium

Service Offered:

- Ferrous & Non Ferrous Forgings of any complexity
- Shot Blasting of Ferrous & Non Ferrous Material
- toolroom services including EDM & wire cut EDM
- CNC Machining
- Band saw Cutting upto 200mm Dia. of any Material
- Heat Treatment of Ferrous Material

Regd Office: 18-75, Nagarampalem Road, Madhurawada, Visakhapatnam 530 041 (AP)
Works: Survey No. 300/7, Behind Andra Plywood Company, Lodagalavanipalem Industrial Area,
Anandapuram (M), Visakhapatnam - 530 052
Email: sujineel2002@yahoo.co.in Contact: 09885369989, 09440578335

BREATHER VALVES

Nutshell Engineers manufactures and supplies breather valves.

Features:

- This breather valve, also known as direct acting pressure/vacuum relief valves, are special types of relief valves which are specifically designed for tank protection.
- Pressure/vacuum relief valves are used extensively on bulk storage tanks, including fixed roof tanks with floating covers, to minimize evaporation loss.
- The valves prevent the build-up of excessive pressure or vacuum which can unbalance the system or damage the storage vessel.
- Pressure and vacuum protection levels are controlled with weighted pallets or springs and can be combined to provide the required pressure/vacuum settings.
- It is common to combine pallet and spring systems in one unit i.e. pressure settings require a spring section, whilst the vacuum settings use the pallet method.

About the company: Nutshell Engineers is a manufacturer and supplier of flexible connection, relief valve, safety valves, explosion vents, rupture discs, flame arrestors, etc.

Contact:

Nutshell Engineers, Pune

Mobile: 09422017122, 07774061105

Email: info@nutshellengg.in, pavan@nutshellengg.in

**BUTTERFLY VALVES**

Trisha Engineers offers a wide range of butterfly valves.

Features:

- It is compact and of lightweight design, these valves have excellent flow characteristics with very low flow loss.
- These are ideally suited for flow control in minimum piping space.
- With flat zone design at the top, these are suitable for mounting pneumatic or electrical actuators. Also available 'Sinking' PVC/PP ball valves, unions, and check valves.
- And also available from sizes 1 1/2" to 8" in flanged ends (ANSI, DIN, JIS) these valves have PVC or PP body and valve gate of PP, the stem is of SS410.
- Actuators can be double acting or fail-safe spring return single acting, can be supplied with limit switches also, and apart from the water these are particularly suitable for highly corrosive chemicals.

About the company: Trisha Engineers offers PVC/PP Butterfly Valves from 'Sinking' Taiwan, an ISO 9001 company with NSF certification for the products.

Contact:

Trisha Engineers, Bangalore

Tel: 080-26614315 Mobile: 09341270830

Fax: 080-26614316 Email: trishaengineers@yahoo.com

**STAINLESS STEEL GATE VALVES**

Y K Enterprises supplies a wide range of stainless steel gate valves.

Features:

- These gate valves are designed in accordance with international industrial standards. Manufactured from finest quality components and under the firm direction of experienced quality controllers.
- It can avail these in various dimensions, range, sizes and other specifications as per their precise demands and requirements. These are one of the most preferred selections of clients owing to its precise design, accurate dimensions and longer service life.
- Its features include: renewable seat rings & integral seat rings; burnish finish stem for low operating torque; pressure seal bonnet or welded bonnet on request for high pressure.

About the company: Y K Enterprises is a manufacturer, exporter and distributor of a wide range of valves and traps. It offers products such as KSB gate valves, KSB valves, pennant thermodynamic steam traps, inverted bucket steam traps, ball valves, L&T valves, Kirloskar valves, pennant valves, safety valves and sight glasses.

Contact:

Y K Enterprises, Mumbai

Tel: 022-66355900 Mobile: 09820991301

Email: ykenter@gmail.com, merchants_kr@vsnl.com

**PISTON VALVES**

Unitek Valves trades and wholesales a wide range of piston valves.

Features:

- Unitek Valve, being a topmost piston valve manufacturer in India involved in presenting a quality & durable collection of selected piston valves at pocket-friendly prices.
- Offered valves are highly used in a lot of application areas such as to control the flow of liquid & gases, fluid, chemicals & refrigerants and so on.
- Its features included: maintenance free; economic, easy to service; cost-effective; completely leak-tight across the ports & to the environment as well; resistance corrosion; saves energy and does not pollute the environment.

About the company: Unitek Valves Pvt Ltd, an ISO 9001:2008 certified organization, involved in trading, wholesaling, supplying and exporting a wide assortment of industrial valves, strainers and allied fittings. The products are known for their featured attributes like dimensional accuracy and corrosion and abrasion resistance.

Contact:

Unitek Valves Pvt Ltd, Thane

Mobile: 09821390936, 09167531261

Email: info@unitekvalves.com

sales@unitekvalves.com



PULSE JET DUST COLLECTOR - DEDUSTING SYSTEM

Prakar Industries offers a wide range of pulse jet dust collector - dedusting system.

Features:

- Cartridge dust collector are next generation bag filter type dust collector using pleated cartridge filters for effectively capturing finer dusts instead of filter bags.
- This cartridge type dust collectors have many advantages over traditional bag collectors, like large filter area packed in smaller overall sizes hence reduces overall size of dust collectors for same capacity, which saves a lot in structural casing cost and expensive factory floor space.
- The reverse pulse jet system prevents the choking of filters by purging compressed inside the filters in regular intervals which makes the dust particles to fall down from the outer surface of the cartridge filters.

About the company: Incorporated in 1985, Prakar Industries is a manufacturer and supplier of industrial blowers, dust collectors, heat exchangers, bio mass fuel fired steam boilers, coil type non IBR boilers, etc.

Contact:

Prakar Industries, Ahmedabad

Tel: 079-25840414 Mobile: 08000701260, 09978441167

Email: info@prakarindustries.com,

sales@prakarindustries.com



Hydraulic Expanding Mandrels & Chucks

A Revolution in Work Holding Devices



APPLICATIONS

- Gear grinding
- Gear honing
- Gear shaving
- Finish turning
- Gear cutting
- Fixture locating
- Dynamic balancing
- Inspection etc.
- Cylindrical grinding
- Surface grinding

Get a Grip on Your Production...

- Clamping pressure within the sleeves as high as 800 kg/cm.
- Absolute centering & pitch-line location
- Repeated accuracy below 0.005 mm.
- Clamping diameters 5 to 300 mm.
- Enhanced life & simple operation



Concept Engineering Works

- #27/1, 2nd Cross, Shankarappa Garden, Near Metro Station, Magadi Road, Bangalore - 560 023
Mobile: 09845017701 Ph.: 91 80 25258885 Fax: 91 80 25257650
E-mail: design@conceptarbors.net, concept@expandingmandrel.net
- #80, First Floor, BDA Commercial Complex, Indiranagar, Bangalore - 560038

Website: www.conceptarbors.net, www.conceptarbors.com

PLACKA[®] PLACKA INSTRUMENTS INDIA PVT. LTD. (Manufacturers Of Very Rugged And Accurate Instruments For Process Industries) SHREYAS INSTRUMENTS PVT. LTD.



(SS) AIR FILTER REGULATOR

PURGE ROTAMETER WITH DP-ALU/SS-REGULATOR

PURGE ROTAMETER WITH FLANGE

(DIE-CAST ALUMINIUM) AIRFILTER REGULATOR

PURGE ROTAMETER

P/TRANSDUCERS

PURGE SET COMBINATION OF AFR & ROTAMETER (CUSTOM MADE)

Lakhs of these instruments are functioning in various Chemical, Fertilizer, Nuclear Power Plants for the last 4 decades giving full satisfactory service.

#5, Ramamoorthy Street, Nehru Nagar, Chromepet, Chennai-600 044. INDIA.

Phone: 2223 1559, 2223 4562, 2223 0187 Fax: 91-44-22236984

www.plackainstruments.com/sales@plackainstruments.com

www.shreyasinstruments.com/shreyasinstruments@gmail.com



For
Details



VAG AW DISK CHECK VALVE

VAG-Valves (India) is an exporter of VAG AW disk check valves.

Features:

- Straight-seat check valve with internal shaft and optional lever and weight. Highly cost-efficient due to high opening degree. Available with stainless-steel wire guard and limit signal for the open position as options.
- Its premium-quality materials make the valve particularly resistant to the media conveyed. The large inspection cover allows for easy maintenance.
- These valves are suitable for use in wastewater applications, power plants and industry. Face-to-face length acc to EN 558-1, basic series 48 (DIN 3202, F6); with flange ends on both sides acc to EN 1092-2; with lever and weight.
- Lever and weight usable for position indicator; connection between shaft and disk by key; large access bonnet for easy maintenance.

About the company: VAG has stood for quality in Germany, Europe and worldwide. Today, the company, which exports products to more than 80 countries, is represented nearly all over the world.

Contact:

VAG-Valves (India) Private Limited, Sangareddy District
Mobile: 09100054249 Email: info.india@vag-group.com



GLOBE VALVES

Peco Valves is a premier manufacturer, supplier and exporter of superior quality industrial globe Valves.

Features:

- This valves are used where throttling or both throttling and shut-off are required.
- These are widely used in critical industrial applications like steam, utility, and process pipelines.
- Its features include: outside screw rising stem handwheel construction threads are away from fluids and easy to lubricate; body and bonnet made from high quality casting with liberal sections; seating screwed into the body are replaceable; back seating features facilitate repacking of the stuffing box on line with valve in fully open position; stellite seating and disc can also be offered on special request; the valves of higher pressure and bigger sizes are provided with thrust bearings and also with gear drive arrangements and flange also can be offered for different standards.

About the company: Peco Valves, established in 1987, is a leading player in a wide range of valves for applications in marine, oil and gas, chemical, petrochemical, fertilizers, etc.

Contact:

Peco Valves Pvt Ltd, Mumbai
Tel: 022-28903200, 28924111
Email: sales@pecovalves.com



LEVEL CONTROL VALVE

Darling Muesco (I) Pvt Ltd offers a wide range of level control valve.

Features:

- It provides automatic filling to elevated tanks or reservoirs. When the float reaches lower stopper (adjustable) in level below the predetermined set point the valve opens to fill tank and closes when the upper level (adjustable) reached by lifting the float.
- High and low both level are adjustable with the help of rod & stopper. Pilot assembly is to be installed at the tank.
- The valve can be installed at distance place by connecting tubing to the valve.

About the company: Darling Muesco (I) manufactures a wide range of diaphragm type digital control valve. Darling Muesco (I) Pvt Ltd, founded in 1987, as a joint venture and technical collaboration between the US-based Muesco Inc and Anchor/Darling Valve Company (now known as Flowserve Inc, USA) to manufacture sophisticated industrial/control valve. The company has been the ideal partner for design, production, testing and distribution of the products manufactured.

Contact:

Darling Muesco (I) Pvt Ltd, Ahmedabad
Tel: 079-40084881-84, 25832578, 25893791-92
Email: sales@darlingmuesco.com



CENTRIFUGAL PUMP

Sintech Precision Products is a leading manufacturer of centrifugal pump.

Features:

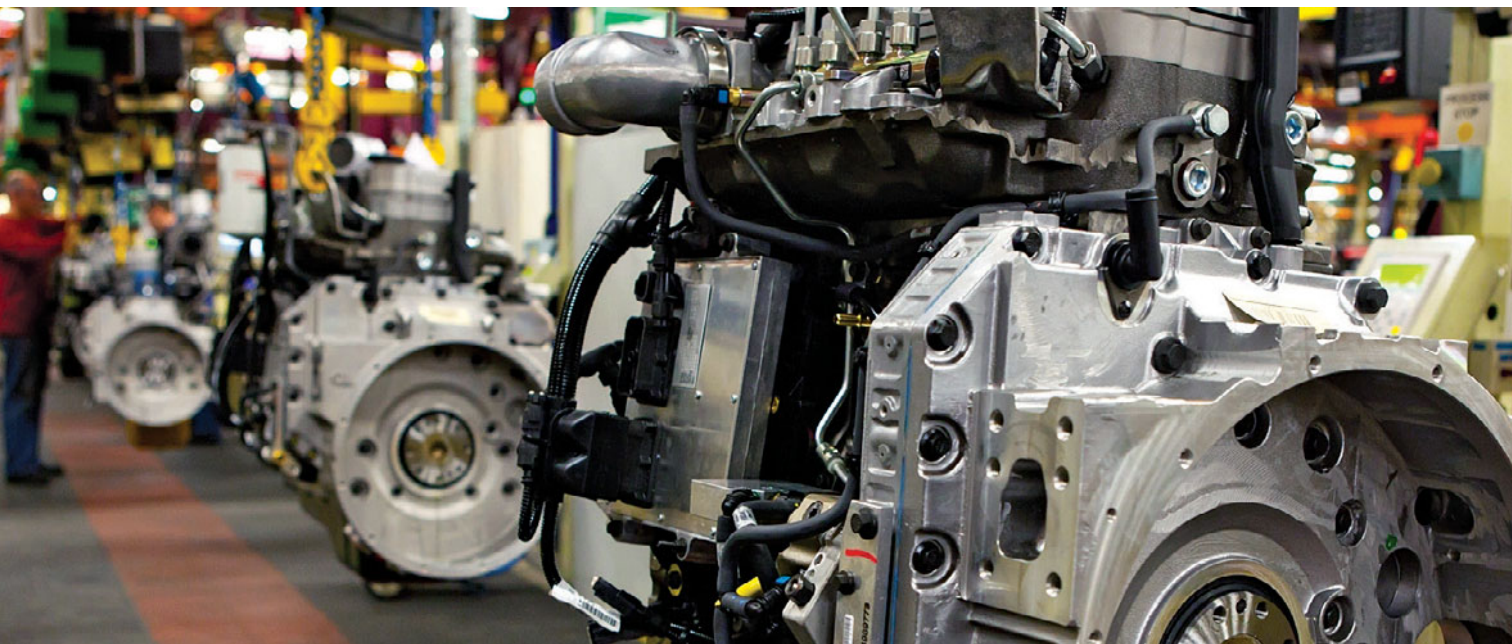
- This centrifugal pump is also known as a hydrodynamic pump or dynamic pressure pump.
- It is a manufacture and supply excellent centrifugal pumps like horizontal multistage pumps as well as vertical multistage pumps.
- These pumps are designed and manufactured in such a way that it can be easily used in chemical industries, water and wastewater industries, sugar industries, steel industries, power stations, handling of hydrocarbons, in industries such as irrigation, water desalination plants.
- Centrifugal pumps are used to move fluid in an industrial process. Centrifugal process pumps can be any variety of pump types like horizontal and vertical depending on the application.

About the company: Established in 1986, an ISO 9001 certified company, Sintech Precision Products Ltd is one of the leading pump manufacturing companies in India.

Contact:

Sintech Precision Products Limited, Ghaziabad
Tel: 0120-4176000 Fax: 0120-2867715
Email: sales@sintechpumps.com





Re-building manufacturing sector after Covid 19 shock

2020 was a year of complete disarray of economic activity leading to a collapse of conventional beliefs on operating businesses and running manufacturing operations. After initial lockdown shock, the industry slowly started opening up amid muted consumption and disrupted supply chain. Globally, there was a visible change in business strategies of big companies as they realise the futility of depending on one country (read: China) for their requirements. This has provided India an opportunity to make an impact on the global manufacturing industry. For this, as stories written by industry stalwarts in the "Cover Story" of IPF Annual 2021 Edition highlight, Indian manufacturers will have to do a complete rethinking about their processes and make them more productive and efficient. Cover Story also focuses on how the Covid-19 pandemic has presented us with an opportunity to take India's growth story to the next level. Read on...



Rebuilding India's manufacturing sector after COVID 19 shock

Covid 19 pandemic disrupted the business continuity plans of many companies because of uncertainties and volatility in supplies as well as demand downturns. The revival of manufacturing after pandemic-induced disruptions calls for a multipronged approach backed by cooperation between various stakeholders, says **Meenu Singhal**.



Innovation has always remained pivotal for manufacturing. But COVID-19 has upended all previous parameters. Today, innovation by itself won't win the business stakes. Instead, it must be backed by lower costs and more efficient supply chains providing shorter time-to-market roadmaps.

In driving a sustainable manufacturing recovery, leveraging the benefits of data analytics is imperative. The pandemic disrupted the business continuity plans of many companies because of uncertainties and volatility in supplies as well as demand downturns. Traditionally, companies made plans based on past data. But supply chains of new-age businesses keep generating immense volumes and variety of data. In such situations, supply chain analytics can help assess upcoming demand.



About the author

Meenu Singhal is Vice President (Industry Business) of Schneider Electric India. He is responsible for accelerating Schneider Electric's growth of the business with a focus on automation of industries and drive the push for Industrial Internet of Things (IIoT) platform across businesses for building greater efficiencies. Meenu Singhal brings with him a rich experience of over 28 years in the field of automation.

Distribution and allied disruptions

Inventory planning, sourcing, manufacturing, storage, logistics, sales and other crucial functions are all interlinked through a well-planned supply chain analytic network, transforming the supply chain's performance. Cutting across disciplines and functions, supply chain analytics generate insights that highlight interconnected trends. These aid in internal and external risk assessment, pinpoint pockets for curbing expenses and identify alternate models safeguarding profitability.

As the pandemic disrupted the traditional supply chain and distribution networks, manufacturers faced hurdles both from the demand and supply side. In such a scenario, some manufacturers reconfigured their priorities, keeping the overall societal good in mind. For instance, in the initial months of the outbreak, countries struggled with inadequate supplies of PPEs (personal protective equipment), ventilators, kits and masks. This is when leading automotive manufacturers made their units available for manufacturing essential pandemic-related items. Plants lying idle until then were put to productive use benefitting frontline warriors and others in the war against COVID-19.

Although manufacturing stands disrupted due to COVID, some facilities can still be used productively in the campaign against the pandemic. With India and many other nations dependent on China for myriad supplies, it became clear that manufacturing had to be decoupled from the dragon kingdom.

Consequently, the Government of India (GoI) formulated its Atmanirbhar Bharat (self-reliant India) mission. Given its focus on domestic manufacturing, the GoI recently announced its Rs1.46-trillion (\$20 billion) incentive programme to attract global manufacturers.[] Through this PLI (production-linked incentive) scheme, the Centre is offering 10 sectors incentives spread over five years. The sectors include automobiles, specialty steel-makers, solar modules, food processing, textile, telecom and networking products, white goods and pharmaceutical manufacturers.

Deploying tech tools

Meanwhile, manufacturing must boost productivity levels by deploying technological tools such as data analytics and artificial intelligence, among others. For instance,

leading manufacturing companies across geographies are deploying data analytics in increasing the productivity of assets (via predictive maintenance) and labour efficiency (by automating planning activities) while optimizing net working capital (through reduced inventory levels, among others). Companies such as Veolia Water Technologies for water and wastewater optimizes the water treatment process and energy consumption while delivering critical services reliably and sustainably. Veolia Water saves energy without sacrificing flexibility and reliability at the wastewater treatment plant of customers. The benefits include 15% annual energy savings, 20% improvement in production efficiency and 24-hour service continuity, among others.

Similarly, collaborations revolving around analytics and data can offer societal benefits too, especially vis-à-vis sustainability. When governments and corporations collaborate in addressing these issues, a common database is helpful. In the interim, as other nations seek to diversify supply chains from China to other cost-competitive countries, India has a good opportunity of entering the scheme of things.

Structural reforms

But this requires varied structural reforms and fiscal incentives, increasing its attraction to offset competition from other low-cost destinations. To begin with, structural reforms should be speeded up in fostering competitive ecosystems. For three decades, India's GDP manufacturing sector share is stagnating at around 15%, lowering merchandise exports' contribution to GDP to a subpar 12%.

Thanks to the Centre's efforts in improving India's Ease of Doing Business, the country climbed 14 places to the 63rd spot in the World Bank's 2019 EoDB rankings. Structural reforms such as GST and the fast-tracking of environmental clearances have helped. The country needs to deploy a multipronged approach to boost manufacturing in diverse sectors. Taking a long-term perspective, tax and fiscal incentives could be extended for building manufacturing ecosystems in industries such as mobile phones and defence equipment, among others. India must also focus on inking FTAs with nations throughout the globe. Additionally, it should avoid midstream policy changes and retrospective amendments in laws and policies that alarm foreign investors.

Institutional measures apart, manufacturers and other

entities in the value chain must adopt the latest technological tools in contributing their mite for transforming India into a global manufacturing hub. Artificial intelligence, automation and RPA (robotic process automation) are three tech tools that can transform manufacturing in India by resolving problems human minds cannot. Moreover, other new-age technologies such as 3D printing, virtual reality, augmented reality, blockchain and cloud, to name a few, can all transform manufacturing.

Reskilling programmes

But while the introduction of these digital tools is underway in manufacturing, a vital adjunct is needed to make these effective – training, skilling and upskilling of the workforce. The reskilling of workers is critical for both employers and employees. Driven by coronavirus constraints, myriad organisations globally have been forced to retrench or furlough workers while others have faced pay cuts.



With millions rendered jobless, the best way to boost the employability of workers and future-proof them against further disruptions is by reskilling and upskilling.

Undoubtedly, reskilling and upskilling can be practical solutions in helping unemployed people. With COVID-19 having rendered millions jobless in manufacturing as well as service industries, the Centre and State Governments can focus on reskilling programmes to facilitate gainful employment for such people. India already has many skilling programmes but these need to take into account the upcoming realities in the post-COVID era.

The World Economic Forum notes that emerging technologies such as AI, machine learning and big data are transforming businesses while Industry 4.0 is driving a decline in many roles, making them obsolete because of automation. By 2022, nearly 75 million jobs would be superfluous. Fortunately, digital technologies are poised to create 133 million new jobs, ensuring an overall net rise in employment opportunities.

By 2027, however, India is slated to have the world's largest workforce of one billion between the ages of 15 and 64 years. To ascertain that these people continue being gainfully employed against the backdrop of rising automation, reskilling remains the need of the hour.

As the pandemic disrupted the traditional supply chain and distribution networks, manufacturers faced hurdles both from the demand and supply side. In such a scenario, some manufacturers reconfigured their priorities, keeping the overall societal good in mind.

Right manufacturing strategies to reboot growth

COVID 19 has hit the supply chain the hardest. **Prof R Jayaraman**, in this article, highlights on strategies that manufacturers can adopt in order to reboot their supply chains. These strategies essentially are based upon three premises – reduce risk, reduce capital expenditure, and make use of technology to keep supply chains moving.

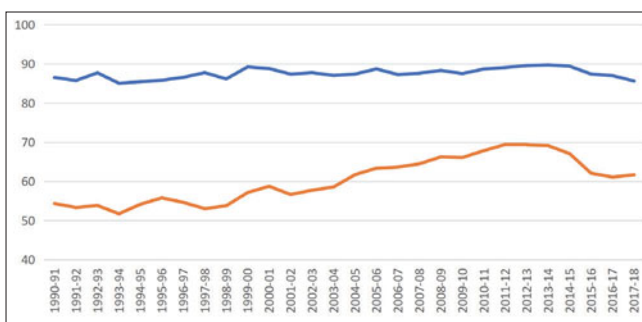


Figure 1: Percentage of Opex and RM cost to sales income, Indian manufacturing industry (Source: CMIE data)

The manufacturing industry in India contributes to about 20 to 25% of the GDP. Of this, 50% is from the auto sector. Towards the end of 2019, the PM gave a call for a 5 trillion USD Indian economy by 2025. He has re-iterated his confidence that India will achieve this, in spite of COVID-19. More recently, in May 2020, he inaugurated the ‘Atmanirbhar Bharat’ movement, to make India self-reliant, and a producer or manufacturer to the world.

In such a scenario, the manufacturing sector in India is expected to play a key role in rejuvenating the economic growth of the country. Expectations are high, and the industry needs to respond positively.

In the last few years, Industry 4.0 (or I 4.0, for short) has been progressing in many discernible ways, especially in Europe and the USA. Led by increasing levels of automation, robotics, big data analytics, artificial

intelligence and Internet of Things (IOT) or Industrial Internet of Things (IIOT) as applicable to the manufacturing industry as a whole.

According to a AIMA KPMG report on I 4.0, March 2018, the world I 4.0 market is expected to reach Rs 14 lakh crores by 2023. Signs of changes are already visible. As in the past, the auto industry is leading the I 4.0 revolution. BMW, VW, Benz all have full assembly lines working in either partial or complete IIOT based manufacturing. In India, too, companies like Siemens, Schneider Electric, IBM, and many others, are supplying many equipment and software to companies who are implementing I 4.0. The website of IoT ONE gives a list of 84 companies in India which are supplying IIOT gear. Both hardware and software companies are included.

The progression of I 4.0 has been accelerated by the advent of COVID-19. In view of the ‘social distancing’ and ‘mask’ norms, which are likely to remain for quite some time, online, work from home, safe working are the new mantras. Companies like TCS have vowed to allow almost 100% of their staff to work from home, after COVID-19. Tata Steel has recently announced a program by which those who wish to work from home can be given that facility. This is revolutionary by any industry standard, given the fact that the iron and steel industry is one of the oldest and the most capital-intensive industries. It therefore appears that the entire industry body has been galvanised into action, and we are likely to see many changes in the coming months and years.

The cost structure of the Indian manufacturing industry (refer Figure 1) shows that the supply chain cost is the most critical factor.

And COVID-19 has hit the supply chain the hardest. One of the latest examples of this is the difficulties being faced by the COVID-19 vaccine manufacturing companies like Pfizer, Zydus Cadila, Serum Institute, who are scrambling to meet the huge pent-up demand. The requirement of raw materials, especially for making glass ampoules, transporting vaccine filled vials over long distances and storing them at the appropriate temperatures has become a nightmare. If the supply chain issues are not tackled speedily, the vaccines may perish.

In order to reboot their supply chains, manufacturing companies need to carefully choose their options from amongst the SIX strategies available post COVID-19:



About the author

Prof R Jayaraman is the Head, Capstone Projects, Executive Management Education, SPJIMR (S P Jain Institute of Management and Research). Prof Jayaraman has been active in academics (B Tech, MBA and MS) and the industry (Tata Group companies Tata Steel, Tata Communications and Tata Teleservices). He has held senior positions in the industry, retiring as the Sr VP (Technology Operations) and Chief Safety Officer. After which he joined SPJIMR as a Professor of Operations and Supply Chain Management.

1. Pooling of supplies through a grid strategy:

Strategy adopted by electric power plants. Pooling is of three types – optimal supply source activation, supply diversion, supply isolation (islanding). This strategy can be used where companies are not in severe competition, or, in CK Prahlad's words, 'in co-opetition', where they co-operate in a limited way to reach supplies to the market cost-competitively. In India, this is possible, as the power generation industry is largely run by the government. And this pooling has worked successfully. More companies in the private sector, in other industries, should also look at this option. The Indian telecom industry has benefited from this approach when all the service providers 'pooled' the ownership of telecom towers in a few companies. Several pharma companies in India, like Sun Pharma, use this strategy to get some of their products manufactured by other companies. But this is strictly opportunistic, and we will discuss this more in another strategy point later.

2. Derisking through a multiple sourcing strategy:

Multiple sourcing was used by the Big 3, Ford, GM and Chrysler, in the bad old days as a low-cost supplies strategy, but, after COVID-19, useful for de-risking the supply chain. For example, in the case of the afore stated Pfizer company, there is bound to be immense pressure on its current suppliers to increase their supplies manifold. In such a case, the company should look for additional suppliers, widen and deepen their supply base speedily. What was once a 'cost containment' strategy, will, after COVID-19, become a 'de-risking' strategy. Those companies which opt for this strategy will have to contain costs using techniques like the Toyota practice of 'Sensei'. Toyota has been using such a strategy for many years, by having select suppliers for various auto parts, controlled through equity holdings, secondment of personnel from the parent to critical positions in the suppliers, and the 'Sensei' philosophy.

3. Agile manufacturing strategy: Produce in-house as well as identify others, who can be activated as per need, to produce goods at short notice, not regular, but contractual. Agile manufacturing is also known as 'horizontal integration'. As opposed to vertical integration, where much of the supply chain is owned in-house, the horizontal integration refers to the cases where companies use the facilities available in other companies, including competitors, to manufacture products which cannot be manufactured in-house to serve customer demands in time. Post COVID-19, the transport sector will take a lot of time to recover fully before trucks can ply freely, three wheelers and tempos can freely move about picking up goods from inside warehouses and godowns. Till then, and even beyond, agile manufacturing will help companies to locate 'beyond in-house' sources of supply, and get products manufactured on a 'conversion charge' basis, with specific instructions for supply to pre-identified warehouses, so that customers can be serviced in time, and safely. Such arrangements are not opportunistic, but, entered into between companies through regular, period-defined contracts.



4. Capacity outposts strategy: This is a variant of the agile strategy, where companies identify 'capacity partners', who will do only the final, finishing operations and supply back to the parent company. In India, the iron and steel industry has used this strategy to fulfil demands in far flung areas. The parent company identifies 're-rollers', to whom they supply billets or blooms, which will then be rolled down to smaller sizes. The finished wire rods or bars will then be sent back to the parent. The conversion agent or the consignment agent works as a 'capacity outpost'. The steel, industry being intensive, such a strategy works to the benefit of both parties. This type of strategy will be useful for other capital-intensive companies, such as, telecom, electric power, construction, which can ramp up new capacity speedily, without incurring the capital costs. In view of the large capital costs that companies may have to incur to introduce I 4.0, such a strategy will prove to be cost advantageous.

5. Toll manufacturing strategy: Identify sources who can manufacture on the payment of a 'toll'. This is an opportunistic mode of functioning, adopted by companies in the Indian pharma industry. The advantages are that supplies can be off-loaded to other companies, sometimes even competitors, who have temporary excess capacities. A parent company can ask another company to supply a specific quantity of goods, in a specified time-window, to a specific client/ warehouse, upon payment of a 'toll'. The supplier is interested as the load will keep its capacity occupied, and the parent company will be able to meet its demand which otherwise may not have been possible due to capacity and time constraints. The industry also benefits, as customers gain confidence that their demand will be met even in some extreme situations, as the suppliers can get together in a common cause. Typically, toll manufacturing is short period, contractual for that manufacturing run only, and satisfy short term supply shortage situations. Unlike a regular 'conversion' arrangement, for example, entered into by

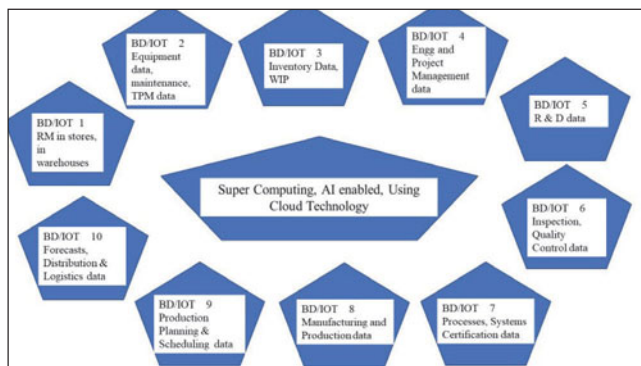


Figure 2: Showing the Big Data Blocks (BD/IOT) connected by IOT in company operations

large steel plants with smaller re-rollers, as 'capacity outposts', toll manufacturing is more of an opportunistic activity. Nevertheless, post COVID-19, it is likely to see higher usage.

6. Distributed global sourcing strategy: Sourcing supplies from different countries. This practice is used by many multi national and trans national companies. Since they have facilities in many countries (for example, Nestle has operations in 189 countries with 447 factories), they develop global sources, to serve their needs. Many of them operate through a 'network' of manufacturing plants, sometimes using a 'platform' manufacturing strategy (example, Toyota), to manufacture and supply to regions in their global demand profiles. In such cases, especially after COVID-19, global sourcing is a viable alternative. The COVID-19 development has put the global sourcing strategies into particular focus, from the risk point of view. A good example is that of many companies in the USA which have shifted their operations to China. Due to COVID-19 conditions, Chinese companies shut their works for continuous periods of time. And, since, in many cases, they supplied almost 100% of the requirements of US companies, the disruption caused resulted in the fracturing of supply chains. In such a case, having a distributed global strategy is the solution. While the drive to source almost 100% from China was cost driven, the risk element has proven to be far more important in the long run. It is important that, post COVID-19, companies develop 'distributed global suppliers', even if that means a slightly higher cost. The cost disadvantage should be overcome by using 'business excellence' techniques, TQM, lean manufacturing and the 'sensei' practice of Toyota, which has been followed by companies like Adidas and Nike. Mahindra and Mahindra in India also follows the 'sensei' method.

Controlled off-shoring strategy: Get work done in multiple centres across the globe, retaining control over the operations. Going forward, specialisation and technology will have a huge role to play in manufacturing. Given the advancement of I 4.0, which will happen at a much-heightened pace post COVID-19, the model shown in Figure 2 could be the norm in manufacturing companies.

In order to make the model work successfully, it may be necessary for companies to offshore certain services, like cloud computing, big data analytics, artificial intelligence, development of algorithms to unify big data networks. In all such cases, the COVID-19 experience shows that the offshoring should be done to countries and companies who will maintain a part of the operations- large or small, depending on the need and comfort level of the parent company- in the parent company, under its direct control and supervision. This strategy will give the parent a good grip on the offshored operations, while, at the same time, enjoy the benefits of lower cost and high competence. This model, which typifies the working of Indian IT personnel in offshore companies, and which has worked very well for both- the Indian IT companies and the foreign companies- of controlled offshoring, should become more and more popular in the days to come, which will help the manufacturing industry to develop speedily without the incumbent lack of trust, high risk and low efficiency operations currently plaguing many companies which have opted for the offshoring strategy.

Conclusion

Two forces are mingling and forcing huge changes in the manufacturing the world over. These are Industry 4.0 and COVID-19. While the I 4.0 is an ongoing movement, which has taken firm roots in many parts of the globe, COVID-19 is a one-off event, which has shaken the world to its core. It has disrupted supply chains across the globe, and many companies have suffered huge losses. Post COVID-19, I 4.0 will enable companies to rebuild for the long term. The principles on which such a rebuild will happen will be: de-risking, use of technology, use of IOT/ big data/ and all other related I 4.0 tools and techniques (which are growing by the day), co-operative and collaborative working of participants across the entire supply chain (CK Prahlad's concept of co-opetition should find increased use in practice), coordinated working across the supply chain to service customers in the best possible way. These principles will be deployed in practice through the SIX different operations strategies described above. Companies can choose to use one or all of these. These strategies essentially are based upon three premises – reduce risk, reduce capital expenditure, and make use of technology to keep supply chains moving.

Needless to say, using all would be a difficult proposition, as it would demand large managerial bandwidth and unified day to day working. Hence, companies can pick and choose, but each strategy, by itself, can deliver results for the long term. Companies should start working immediately on the decisions to select the appropriate strategies to be followed, and implement the same as soon as possible. The surge in demand, as has happened in the MBA education industry, where, the two-year pent-up demand is going through the roof and putting enormous strains on MBA schools in selecting candidates, will provide manufacturing companies with many opportunities. They should welcome this scenario, and become 'Atmanirbhar'.

Four-pronged approach for healthy future of manufacturing sector

COVID 19 has really challenged the modus operandi. Based on the learnings from the pandemic, Aditi Sharma suggests a four-pronged approach for rebuilding manufacturing sector and making it future-ready.



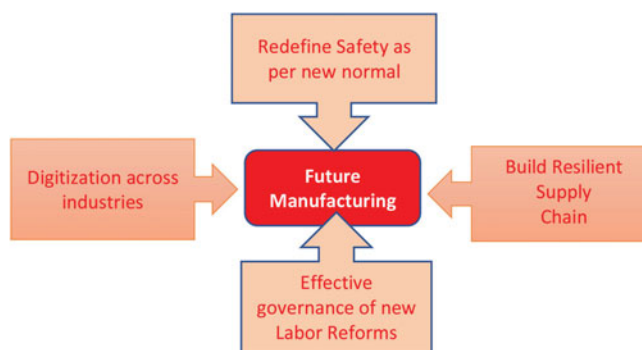
CCOVID 19 has posed challenges for all of us as never before in my living memory, be it in our personal life, be it economy, be unemployment, almost in all facets of life. The pandemic has triggered economic crisis rippling across the globe. The industries suffered a big-time shutdown of operations resulting in supply chain disruptions across the globe. Amongst all the negativities, the need for India to be self-reliant in manufacturing products for itself is one of the key positive aspects of the COVID crisis. This gave birth to the novel vision of Atmanirbhar Bharat Abhiyan reemphasizing the need to focus on Make in India. The comprehensive roadmap across the five pillars of the economy, infrastructure, technology-driven system, vibrant demography and demand supports the aspirational vision of 'Vocal for Local'.

COVID 19 has really challenged the modus operandi. The four-pronged approach that we need to rethink and redesign for future manufacturing based on what the pandemic crisis has taught us would be redesign Health and Safety to suit the new normal, build resilience in the supply chain to avoid disruptions, using digitisation as the

tool for future manufacturing and flexible labour laws to ensure business continuity.

1. Health, safety and employee well being

The topmost priority of any organisation is to protect the Health and Safety of people and ensure employee wellbeing. The biggest positive of COVID 19 is effective enforcement of work safety as the topmost priority. Prior to the pandemic crisis, we witnessed a varying degree of maturity in governance and deployment of Health and Safety measures at workplaces. This was largely governed by the leadership priority of the organisation and the SMART objectives many a time failed to meet the targets or the targets itself were diluted to suit the ease at work. The pandemic forced organisations to think differently and prioritise employee as the cornerstone to successfully running industries. All organisations, big or small, were vigilant in setting up Standard Operating Procedures and do a Pro-active risk analysis, to ensure Safer workplace when employees return.



All organisations revisited their Hazard Identification and Risk Analysis (HIRA) and incorporated needful changes in the Safety Playbook and for the first time, contrary to the growing culture of promoting collaboration and employee engagements through team lunch, social distancing was introduced as the new normal. What is heartening to see is the high adaptability to get into the new normal practices with ease and this behavioural based safety where employees started owning themselves and demonstrating in their activities is a milestone achieved. The use of Personal Protective Equipment (PPEs) with the mask as the new addition, maintaining personal hygiene and social distancing, avoid cross-contamination, are some of the practices which we should continue and encourage as a sustainable practice. We even saw the use



About the author

Aditi Sharma is HSE, Manufacturing and Quality Leader at Cummins India. She is responsible for integrating Quality at every touch point across the business value chain. Additionally, she also leads Six Sigma at Cummins. Aditi Sharma has 23 years of professional experience working across industries such as Service, Telecom, Manufacturing, Customer Support etc. She is also associated with the CII Total Productive Maintenance club.

of technological intervention to ensure social distancing and many innovative approaches to cope with the new normal. This culture of owning and practising safety by all is there to stay and will continue to deliver sustainable positive safety outcomes.

2. Build resilience in supply chain

One of the biggest challenges faced by industries during the COVID breakout was the Supply Chain disruptions on a global scale. With all the advantages of a global supply chain with lower costs, better quality and better inventory management, COVID threw tantrums across industries. The aftereffect is equally bad with supply chain still struggling to resort back to the original levels. COVID has shown that supply chains need to be smarter than before and be more resilient. Governments bold decision to build a manufacturing ecosystem in India with self-sustaining supply chain would enable us to command and control the economy at large, but at the same time build innovative approaches in redesigning the supply chain.

Contrary to the decision taken out of panic to build inventory through stockpiling in excess of safety stock as a buffer, which defies the long-term organisation Lean objective, it is important to move to more flexible manufacturing and supply chain models. It is also important to now diversify the sourcing strategy and treat multisource options across geographies as the cost of doing business. Another big game-changer to mitigate any future risks is to digitize supply chains and make it smarter than before to mitigate disruptions and drive agility, resilient processes and predictable driving in the end to end visibility and transparency. This investment is going to payback fast and deliver sustainable profitable business results.

3. Redefine manufacturing: Digitising to tide over the crisis

Traditional manufacturing has always been about stable processes and 6 sigma control on processes and quality. The disruption caused by Covid-19 has forced manufacturing everywhere to re-evaluate the way they look at manufacturing across dimensions of space-time and make tough decisions to quickly adjust to new normal. The re-building our manufacturing to achieve and for a few instances even excel pre-Covid era performance was delivered through innovative approaches to solving problems with new sets of technological tools.

All organisations revisited their Hazard Identification and Risk Analysis (HIRA) and incorporated needful changes in the Safety Playbook. For the first time, contrary to the growing culture of promoting employee engagements through team lunch, social distancing was introduced as the new normal.



As strict lockdowns were implemented across several regions the manufacturing on shop-floors stopped and frantic manufacturing re-engineering work started by engineers working from home to adjust the manufacturing to 'new-normal' future. The 'new-normal' defined by social distancing norms to be implemented on shop-floors where associates typically worked in the proximity of each other.

The processes and stations were redesigned to adhere to safe working distances without affecting the line throughputs. One must critically look at all aspects of work to identify the most essential work on the shop-floor and all that can be done remotely. Thereafter, much of the organizational hierarchy present at shop-floors in pre-Covid times was replaced by technologies like Augmented Reality for remote assist and digital shop-floor meetings with only the most essential workers present on the shop-floor delivering the product and managed by line and shop managers remotely. All the engineering and administrative, while much of the support services were accomplished by employees working from home.

During the redesign of workstations to maintain social distancing all the processes were analysed minutely and task those can be done by the cobots were identified. Thereafter based on task complexity and criticality appropriate cobots were selected and deployed quickly on the shop floors. This has resulted in an extended campaign to deploy cobots for repetitive tasks, ergonomic and safety risk and adhering to social distancing norms. This also resulted in determining cobots as the primary technology to be deployed for the simpler repetitive task for all future new process introductions.

Augmented Reality for remote assist delivered through smart glasses and AR applications is being deployed to support maintenance, operations and quality on the shop floor. Anyone in need of support on the shop-floor, for example, to resolve a machine error can call an expert who is working from home through his smart glasses and share his view of the machine and seek support in real-time. This has enabled far quicker resolution of the many issues compared to earlier times when the machine operator must wait for the expert to physically arrive at the

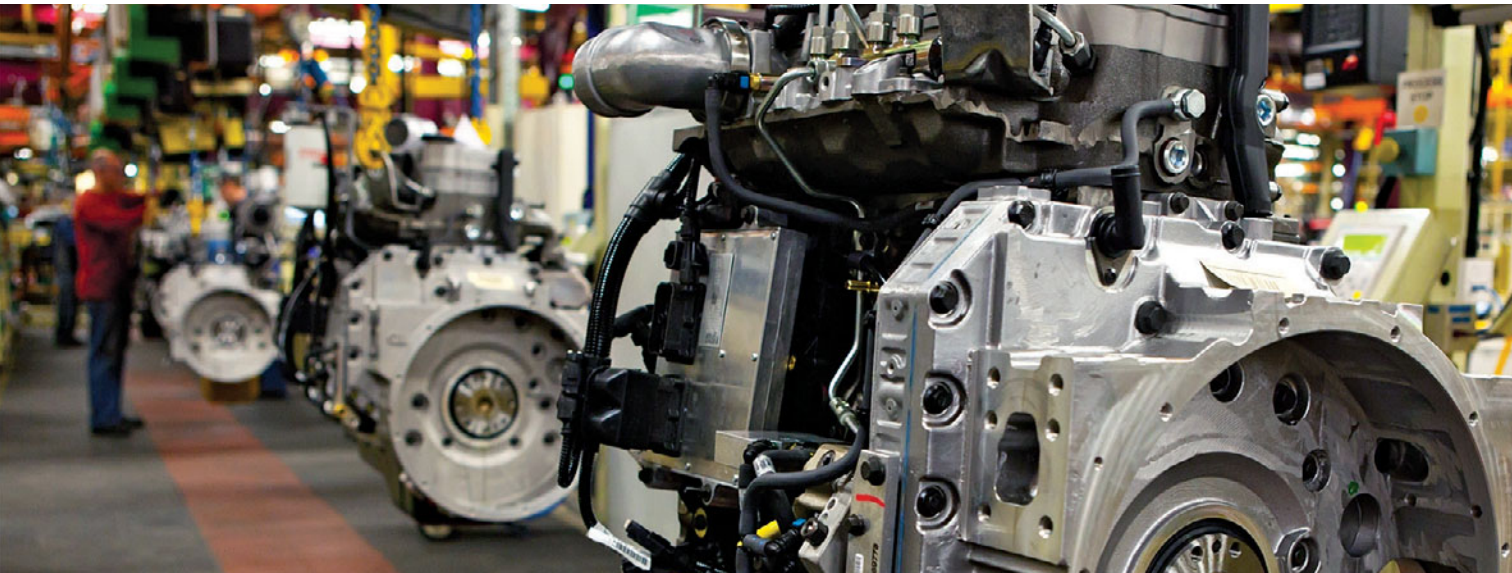
machine to troubleshoot.

Digitalization of manufacturing to bridge over the media-breaks allowing a seamless uninterrupted flow of information through the complete process chain is another key driver in enabling collaboration across the teams dispersed across space and time. Digitalization of information flow has eliminated non-value adding activities of manual data gathering, compiling and reporting. It also allows everybody to have a single view of truth across the organization.

Deploying the Industrial Internet of Things (IIoT) solutions for remote performance and condition monitoring of machine has become a crucial part of regular operations management. We are also deploying Machine Learning based Artificial Intelligence systems on IIoT data to do predictive analytics of machine health

economies globally and making India as the world's most "open and investment friendly" economy. This would help to overcome the erstwhile stringent rules were hindrance towards the flexibility of doing business which is a going to be a key enabler in redefining and promoting manufacturing post the pandemic crisis. The applicability clauses will give more flexibility in hiring and get the best efficiencies through the reforms. This will help to attract foreign investments as well as from big domestic investors transforming the landscape of mid-sized and large industries in India and add more jobs on a net basis.

One of the key challenges that lie ahead is the effective governance of the state machinery which is extremely crucial for taking the best benefit out of this transformation. The government needs to keep strict vigilance to ensure no misuse of the clauses at the



providing maintenance teams to foresee any prospective issue and resolve it before it aggravates.

The work culture must adapt to work with much of its supervisors, subject matter experts and leaderships working remotely with only the most essential personnel on the shop-floor. All the employees need to quickly learn the effective use of new technologies and adapt to new-normal of manufacturing. This necessitated roll-out of extensive programs on skill development and multi-skilling of personnel across the organization. With the pace of all these sudden changes, we faced the challenges with gaining expertise in new technologies with the hiring of external talent in these technologies on hold due to market uncertainties. It also brought to fore the strength of the culture of quality and integrity, which is part of our DNA.

4. Effective governance of labour reforms: Driving growth post COVID

The merger of the central labour laws into four codes is going to be a stimulus post-COVID towards India's ambitious growth strategy to be one of the leading

slightest pretext at an operational level. It is extremely important to keep a vigil watch on the flouting of safety norms as the flexibility as per Occupational Safety, Health and Working Conditions Code, 2020 and protect the interests of the workforce at large. The development and deployment of the implementation strategies would be key to get the best out of these reforms and a step forward towards the Vision of self-reliant India and "Make in India" campaign.

Conclusion

It is high time that manufacturers should strategize and put short, medium- and long-term plans in place so that they emerge out even stronger and more efficient through digital intervention and abiding by the reforms put in place. The workforce in their new avatar would emerge more responsible, sensitive to risks and more agile to cater to the changing requirements of the new normal. On the hind side of the pandemic crisis, there is a huge potential, where manufacturing is seen as growing and essential propelling India as one of the leading manufacturing hubs of the world.

Post COVID-19 survival strategies for SMEs

In this highly globalised era, Covid 19 pandemic has caused a ripple effect, whose consequences are being faced by all manufacturers including small & medium enterprises (SMEs). **Vikas Bajaj** suggests steps to be taken by the industry and government to create demand in the market and help SMEs survive & thrive.



The COVID-19 has probably been the biggest pandemic as well as the only incident which has shaken the world more than the Great Depression of 1930s. Without any proper medical solution, the economy hasn't collapsed. Despite a huge number of deaths, the countries continue to survive. Countries are either following partial lockdown or no lockdown at all. The economy for some country or sector has either stalled or decelerated. But there are some exceptions who had good business despite all hurdles. Where the world continues to suffer, India is no exception. In this highly globalised era with interconnected production and financial market causing a ripple effect, whose consequences are being faced by all including India, where developing suffers the most. Manufacturing, trade

and small & medium enterprises (SMEs) tops the list.

Small and medium enterprises, or widely known as SMEs, has been considered as engines of economic growth and development. They not only provide ample job opportunities to different strata of society but ensures the flow of money across the various level of society. To be precise, most formal jobs that are available in developing markets are created by the SMEs. The two macroeconomic factors were SMEs contribute is national income & employment. Hence, we can consider this as one of the reasons for the increasing number of unemployment, as most SMEs has either permanently shut down or somehow existing in the race. The biggest challenge for SMEs continues to face is the availability of working capital, paying off wages & salary, raw material, bills etc.

On a survey conducted reasons cited by business owners, what lead to shut down of firm, a majority said "It was necessary to comply with orders by government or health authorities," while a smaller share claimed it was the financial challenge or lack of demand in the market.

Measures taken by Government

Almost 31% of SMEs has been shut down post-COVID-19. The government has still tried to boost up SMEs through policies and scheme. The relief package of Rs 1.7 lakh crore, as a contribution towards the employee's provident fund. Some funds from Employee State Insurance Corporation (ESIC) has also been allotted for training in health & safety of SMEs. To boost up the morale of labours who are afraid of losing their life due to lack of capability to pay bills has also been taken care under the scheme of Ayushman Bharat. Even there are much needed monetary measures taken to maintain the size of the market. Loans were extended through Microfinance Institution (MFIs) and Non-banking Financial Companies (NBFCs). When three months moratorium wasn't sufficient for SMEs, it got extended to six months. Instead of pumping money, the government chose to reduce the interest rate for making capital available.

Digital is the new market

During COVID -19, we have seen many businesses going digital, were Facebook, Instagram and WhatsApp have become the best most used application for promoting & conducting business. The entire education system has also



About the author

Vikas Bajaj is the President of Association of Indian Forging Industry (AIFI), the governing body of the Indian forging industry. He is also the Managing Director & CEO of Bajaj Motors Limited. Vikas Bajaj has over 27 years of comprehensive and rich professional experience in managing all aspects of general management, strategic management and business leadership.

switched its mode of communication. The most positive thing of digital business is the ratio of women doing business through an online medium is more than men. Going digital for payment is good but making business digital is it a boon or threat? Business related to fashion, food, grocery has covered its loss as they no longer hold shop on rent, electricity charges. When a business goes digital the number of labour also falls. But what about hotel or automobiles? Can they ever go digital? Aren't these those industry whose demand lies in quality! The end products can be sold through the digital platform but can the raw material get supplied digitally? Some business where the interactions between client and owner which helps in pitch in more business even avail the option of credit availability, are these options still available through the digital medium? For a business to grow communication is must and next is trust.

Measures can be taken by the government

There are few more things which the government could have added further for betterment of the society at least for the crowd who have been unemployed since the COVID-19 and continues to exist. The proposal of moratorium didn't include a waiver of the interest rate. The interest rate should either have been waived off completely or partially. This step would have given the government an upper hand as a direct subsidy to all its citizen. Another step could have been waving off of electricity charges when the industry is shut down.

What about the raw material? Did anyone ever think what will happen if India stopped importing? More than manufacturing, India has mainly been assembling destination. Well, now we all can have a clear picture of why the cost of the commodity is increasing.

Talking about the forging industry, the steel prices in India are touching the sky compared to the rest of the world. There is a huge demand in the market for forgings but increasing raw material costs as well labour crunch are the two hurdles that are currently stopping to meet with the demand. With the sudden increase in the price of fuel, it is like icing on the cake.

Waving off or offering loan at reduced rates are not the only solution. If these steps are followed for a long time, half of the industry will result as Non-performing asset (NPA). A sound fiscal – monetary policy which works simultaneously might be a good solution. For example – instead of extending a loan, what if the government funds the project and hire people with a proper wage system. Once the business gains goodwill in the market, the government can withdraw his hands and have few shares of the company. This step could be followed in every

sector better than giving a subsidy.

The above-mentioned solution can help in creating demand in the market, which is an important thing for a market to survive. Supply alone can't rule the market without demand. Currently Indian market is facing a crunch in demand. The only commodities in demand are the necessity of goods.

Financial crunch can also be the next reason for fall in demand. Due to this pandemic, the demand for telecommunication to kill the boredom or for work from purpose & insurance as life has been more uncertain has grown. The government can pitch in to create demand by providing employment opportunities as this would increase the purchasing power of people. One of the



ways of increasing purchasing power is by lowering the interest rates & availability of credit, which has been already performed. What if the government tries reducing inflation? If supply exceeds demand one may see fall in prices and have more cash in hand for other purchases. Thereby diversifying demand.

Another point, what makes Rupee weak against Dollar? A continuous increase in import than export, whether its goods or capital market both weakens the Rupee. A greater portion of the money is spent on imports, whose costs are passed on to the consumers. If the country could completely follow the concept of Atmanirbhar Bharat, we can surely reduce our dependency on imports. And maybe in future become one of the leading exporters. Increase in production, hiring more labour, increase in purchasing, leading to self-investment in small start-ups.

How to make India's manufacturing industry globally competitive?

Traditionally, Indian manufacturing sector has been more inclined towards labour-intensive processes; thus, losing out on the chance to become a critical part of global supply chain. **Zurvan H Marolia** offers some useful tips to strengthen local industries and make India's manufacturing sector globally competitive.



For India to make it big on the global manufacturing stage, there is a need for us to completely rethink our processes and make them less labour intensive and more automated. In some ways, the Covid-19 pandemic presented us with an opportunity to take steps in this direction. Traditionally, as a country, we have been more inclined towards labour-intensive processes and have stayed away from automation because of an innate fear that automation would mean loss of jobs and livelihood which would affect the economic livelihood of our vast population. In a way, this sentiment has made it difficult for us as a manufacturing sector to be unfettered in our growth and become competitive in the global market. Labour laws have contributed to the current state of manufacturing which thankfully, have undergone a transformational rethink in the last couple of months.

Automating processes

Automation will help us overcome the challenges of



About the author

Zurvan H Marolia, Sr. Vice President, Godrej & Boyce Manufacturing Company Ltd, oversees the entire manufacturing and distribution operations of Godrej Interio which has a manufacturing footprint from Uttarakhand to Tamil Nadu. He has spearheaded the development of a robust supply chain, which helps achieve Godrej Interio's ambitious growth plan. He is also a member of the National Manufacturing Council of the CII.

consistency in our quality and help us build cost competitiveness. This, in fact, will help in expanding the manufacturing sector as it brings in more business and an enhancement in employment opportunities. To make this transformation, we require to reassess our processes such that the labour component has a more cerebral contribution, and that fatigue inducing manual labour is systematically done away with.

The Covid-19 pandemic becomes an essential launch pad thanks to the need for maintaining social distancing which requires redefining every process where two people are required to work in close proximity. This implies that the concept of operator and helper or two people handling material together needs to be redefined and automated, where possible, using intelligent material handling and material transfer systems.

Adopting digitization technologies

The increased penetration of affordable devices combined with cloud computing and analytics have made it easier for the manufacturing industry to adopt digitization and take steps towards smart manufacturing. This, in turn, opens up the possibility of fatigue free 24x7 operations with a guarantee of consistency in productivity as well as quality.

Large players have moved very quickly in the adaptation of technology and indigenisation of the same to suit local conditions. While learning from the west, it is very important to adapt technology that is suitable for Indian conditions and to have a control on costs. Low-cost sensors and embedded technology, coupled with high end technology has made the journey exciting and enriching.

The backbone of the manufacturing industry, however, is not the large companies but the SME sector. This remains the biggest challenge and they need to be taken through the initial steps of digitisation which, in effect, then become the building blocks for adapting to Industry 4.0. This is a journey which large companies have gone through over the years well before Industry 4.0 became a part of day-today jargon.

Technologies for competitiveness

Today's customer expects quick delivery of customized products of impeccable quality at increasingly competitive prices. To satisfy all of this, players in the manufacturing industry will have to explore technologies like Artificial Intelligence (AI), IoT, robotics, etc., in order to stay competitive.

IoT is a key enabler in driving digital transformation and in achieving operational efficiencies. Advances in Artificial Intelligence, connectivity, and real-time communication will enable weeding out non value-added activities and inefficiencies. As machines and the product being processed start communicating with each other through the network of manufacturing execution systems, human intervention will get minimised, leading to better and faster decision-making, predictive analytics and automation, and reduced opportunities for errors.

Transformation in the technology being used has to be accompanied by reskilling for the workforce as the new skills which are required are still comparatively scarce. This is one of the major challenges that the manufacturing industry faces, and we must prepare ourselves to take advantage of the opportunities presented by the pandemic and the search for diversification of global sources of supply.

Technology like AR/VR will need to be progressively put to use in training and reskilling our workforce. For example, machine manufacturers will turn to AR/VR to train the user operators as well as the maintenance personnel in place of imparting training in person.

3D printing, too, has a huge potential in terms of distributed manufacturing. In this case, a centralized expertise centre (such as a design centre) can produce

designs which can be digitally transferred to local 3D printing enabled manufacturing centres such that customised solutions can be delivered to the customer. This has far reaching implications in terms of reduced logistics which results in faster deliveries, and a substantially reduced carbon footprint which will reduce the burden on the environment.

IoT is a key enabler in driving digital transformation and in achieving operational efficiencies. Advances in Artificial Intelligence, connectivity, and real-time communication will enable weeding out non value-added activities and inefficiencies.

As more and more large companies become signatories to the EP100 initiative which aims to increase the productivity per unit of energy by 100%, there is a commitment to build with it an eco-system which will mean taking along SME supplier partners. This will gradually strengthen the complete supply chain which will in turn make the Indian manufacturing industry globally competitive and environmentally responsible. **IPF**

iNoW

Industrial News on WhatsApp

India's most trusted & largest circulated industrial magazine, Industrial Products Finder for last 48 years, now brings industrial news on WhatsApp

**GET INDUSTRY
UPDATES ON
THE GO!**



Give a missed call on 8422874016 and save the number to continue to receive updates



FOR REGULAR UPDATES

ASAPP[®]
INFO GLOBAL GROUP

ASAPP INFO GLOBAL SERVICES PVT. LTD.
A-303, Navbharat Estate, Zakaria Bunder
Road, Sewri (West), Mumbai - 400015.

Industry 4.0 outlook 2021 & beyond

Before the pandemic, the business drivers of Industry 4.0 were focused on productivity, cost reduction, faster time to market, competitive advantage, sustainability and innovation. The current crises will only hasten the journey towards Industry 4.0, says **Bhaskar Mandal**.



As the global COVID-19 public health emergency continues to spread, creating challenges for families and businesses worldwide, this is a difficult time for all of us.

These uncertain times are also a test of our resilience: of our mindset, our processes and our people.

Before the pandemic, the business drivers of Industry 4.0 were focused on productivity, cost reduction, faster time to market, competitive advantage, sustainability and innovation. The goal was to make businesses function better and efficiently. However, when we look at the road ahead for Industry 4.0, there will be a few more parameters that we will have to think through. The current crises, if not for anything will only hasten our journey towards Industry 4.0. There are some noticeable trends that will determine this:

Connectivity: Collaboration and virtual planning tools will be embraced even more in the future and compatibility across these platforms would be crucial. Demand for high-speed, secured WANs capable of handling high volume and velocity of data will also go up

to support engineering value chains, graphics data to support design, simulation and validation. Remote High-Performance Computing (HPC) would also see investments to support engineering simulation. Engineering data management and project management will need to be digitalized and integrated with business systems like ERP and CRM. This will be valid not just for the large manufacturers but now extremely critical also for Indian SMEs if you view both Engineering Collaboration and Supply Chain collectively.

Remote monitoring: Remote monitoring of operations aided by IIOT will be implemented on priority on the shop floor. With this, incorporation of digital twins and remote support from OEM's would improve availability of assets. Adoption of SaaS and Data analytics leveraging cloud would be the new normal with the need for real-time visibility into the availability of raw materials, finished goods, WIP, people and assets. Automation and robotics would also become key to maintain production with skeletal staff. Manufacturers will also warm up to the idea of Robotic Process Automation (RPA) to support non-value added labor-intensive activities. AI and Block-chain technologies will lead to faster decision-making, better accountability & quality and traceability in manufacturing operations. AGVs would support material handling and line fulfillment – and will also help to reduce the reliance on people and to further assist social distancing. Predictive maintenance supported by data analytics, spares management, asset monitoring and Performance Based Logistics (PBL) would be the new norm.

Agile Logistics: Businesses will have to de-risk against unstable supplies or dependencies on centralized manufacturing. There could be a trend towards onshoring versus the trend of offshoring in the past with a preference for local procurement. Readiness of local suppliers will be a crucial determinant here and I see a lot of opportunity for Indian OEM's and suppliers. Warehousing strategies also will have to be re-examined and JIT inventory will be debated with respect to the prospect of a disrupted supply chain. De-centralized warehouses might need to be created to achieve buffers as a mitigation against disrupted supply chain. Digitalization of Logistics and Automated Warehousing Solutions will be a big opportunity.

Additive manufacturing: During the COVID situation, we are seeing the need for parts that must be produced on demand because many of these parts are just missing by the original manufacturers. In industrial production, the prospect of additive techniques has been discussed



About the author

Bhaskar Mandal is the Head (Digital Industries) at Siemens Ltd. With a focus on electrification, automation and digitalization, Siemens India stands for engineering excellence, innovation, and reliability. As one of the world's biggest producers of energy-efficient, resource-saving technologies, Siemens is a pioneer in infrastructure and energy solutions, automation and software for industry and is a leader in medical diagnosis.

since the 1990s. What is completely new is that we are starting to break away from single pieces and prototypes and moving from the tech center into serial production. Digital software tools have made this development possible. Rapid prototyping, hyper-customization and ability to manufacture small batches of product have all emerged as realities today with industrial customers' need for additively made parts. The industrial world is only beginning to understand the value of additive manufacturing, and there is no doubt that new applications will continue to be discovered as the technology advances.

Industrial Security: Information and network security will become important evermore with the tech world moving to a newfound wave of convergence: Software is converging with automation, information technology (IT) is meeting operational technology (OT) and enterprise

In industrial production, the prospect of additive techniques has been discussed since the 1990s.

What is completely new is that we are starting to break away from single pieces and prototypes and moving from the tech center into serial production. Digital software tools have made this development possible.

Warehousing strategies also will have to be re-examined and JIT inventory will be debated with respect to the prospect of a disrupted supply chain. De-centralized warehouses might need to be created to achieve buffers as a mitigation against disrupted supply chain.

level is trying to become seamless with the manufacturing field. We will have to adopt technology; we will need to be connected and we will also need to be secure against the latest threats.

Learning and skill-building for the new normal: Needless to say, to support the above listed abilities, online and digital content would be needed for reskilling at all levels. A mindset and culture of continuous learning will have to be adopted across the hierarchy in all enterprises. The new normal is that this is not even a choice.

The need of the hour therefore is to relook at our business models and ensure a sustainable one. It needs to be looked at holistically right from design to production to services. In doing so, all available technologies especially Industry 4.0 must be evaluated to maximize the traditional KPIs as well as the emerging ones listed above. Only with this outlook, can our industries in India emerge stronger in the coming times.

IPF

CW | GOLD

CW Gold launched at India Construction Festival 2020!

Get top company stories, trends, financial performances, sectoral analysis, and more, directly at your fingertips!



SUBSCRIBE NOW!

Driving success through automation, digitization, and skilling

Industry 4.0 has become a reality through the pandemic times. Individuals, organisations, and skilling institutions must come together to embrace this change and create a sustainable future through learning, skilling, and collaboration, says **Neeti Sharma**.



India's manufacturing sector is responsible for approximately 17% of the country's GDP and employs around 12% of the workforce. In order to create a sustainable future that minimises the effect of "force majeure" circumstances like the pandemic, resilience & adaptability is key.

Here are a few of the aspects that require attention in 2021 and beyond:

Intelligent factories and automation:

While automation has certainly been a buzz word in the sector for the past few years, long-term sustainable adoption is less than 10% overall. However, the automobile sector is a shining example of how robotic process automation can help in delivering long-term sustainable profits. Artificial intelligence (AI) is also a useful tool to ensure health and safety compliance on the factory floor. AI creates intelligent factories through production analysis, identifying mechanical problems,

and manufacturing analytics. While the cost of adoption may seem daunting, a good place for manufacturing firms to start would be to enhance existing infrastructure and shop floor models.

Improving digital fluency: As with most other sectors, the manufacturing sector has also had to adapt to technology, specifically, the correct use of tools and technology for specific purposes. While digital fluency may not impact all manufacturing tasks, most of them will require some form of it. Moreover, unlike sectors such as IT, the manufacturing sector has had the biggest need for adaptation in the work-from-home scenario. In the advent of future catastrophic events like the pandemic, a digitally fluent workforce will be able to adapt much quicker and offset losses in production.

Emphasis on big data analytics: Big data is a buzzword that the manufacturing sector is aware of and adapted to in the past few years. However, a greater emphasis on big data is necessary. Big data analytics can help manufacturers remove redundancies, reduce dependencies, and create a smoother, sustainable production process. It can also be used to improve supply chain dynamics. Big data is also extremely effective in customer predictive analytics, especially in determining the effectiveness of sales and marketing campaigns.

The COVID-19 pandemic caused severe disruptions to the manufacturing, supply chain, and logistics sectors and created an array of challenges for both the private and public sectors. As the economy opens up further in the coming months and manufacturing gathers pace, the lessons learned from the pandemic must not be ignored. There is a need for significant investment and adoption of digital models, intelligent workforces, and factories through automation and up-skilling.



About the author

Neeti Sharma is the Senior Vice President at TeamLease Services Ltd. She has been heading the learning services at TeamLease which includes Public Private Partnerships with various State & Central Governments in the areas of Employability across the country as well as managing a network of Learning Centers pan India. Neeti Sharma has over 27 years of diverse experience in the domain of outsourcing. She has previously been associated with organisations such as Aptech Limited, Mittal Group of Companies & Goodearth Organics.

Investment in additive manufacturing: In India, additive manufacturing or 3D printing is primarily used to create prototypes and has not been widely used for the scalable, series manufacturing. Additive manufacturing can help offset job losses in the sector caused by automation and create a sustainable manufacturing environment. While there is a dearth of talent in this space, there is a tremendous opportunity for skilling existing employees with similar or interchangeable skill sets. Additive manufacturing improves flexibility, reduces material wastage, reduces cost, and improves the speed of production while offering greater precision.

Creating a skilled workforce: The Indian government's "Make in India" initiative aims to drive up manufacturing and create a sustainable environment for the future. It also aims to increase the GDP contribution to 25% within the next two years. In order to achieve this, the focus must be to create a rural workforce that is appropriately skilled and at par with the urban workforce. Skilling the rural workers must be driven through a collaborative initiative between government agencies, organizations, and NGOs in the sector. The government-run industrial and vocational training institutes suffer from

Make in India initiative aims to increase the GDP contribution to 25% within the next two years. In order to achieve this, the focus must be to create a rural workforce that is appropriately skilled and at par with the urban workforce.

a lack of quality trainers, poor infrastructure, and low-quality training programs. However, the new National Education Policy-2020, which seeks to include vocational training as a part of the school curriculum is a step in the right direction. Approximately 70% of our workforce comes from rural India, and creating effective training and skilling programs at lower levels of education is the only way to ensure a competent workforce for the future.

Apprenticeship linked learning: The manufacturing industry incurs huge fixed costs on material and labor. Some innovative organizations are turning to apprenticeships to reduce their cost and also add skilled labor to their workforce. Apprenticeships are mutually beneficial for both the employer and the employee. From an organizational perspective, they facilitate technical and technological learning at a much cheaper rate while the on-job-training creates a unique and valuable skill-set for the apprentice. Apprentices are also introduced to various aspects of this dynamic industry such as the impact of the supply chain on the environment, government regulations, and other factors that play an important role in the future of the industry.

Empowering the workforce: While automation might lead to some job losses in the sector, it is an avoidable circumstance. Organizations must invest in reskilling and upskilling of employees and ensure that they are trained

While digital fluency may not impact all manufacturing tasks, most of them will require some form of it. Moreover, unlike sectors such as IT, the manufacturing sector has had the biggest need for adaptation in the work-from-home scenario.

for the automated shop floor. It has long been held that the key to embracing automation lies with human capital. 2020 has seen more transformation than the entire previous decade, and a workforce that embraces a technological learning and data-driven culture is far more likely to succeed in the post-COVID world. Creating collaborative work-environments and decentralized business models across all levels of the organization is the key to the future.

Re-thinking human resource strategies: The future of the human resource function has changed drastically in the Post-COVID landscape. HR can no longer remain support and administrative function and must take on a greater strategic and role. Innovation and change must be driven through skilling, and this will become one of the primary roles of the HR function. Creating collaborative, flexible, agile, and data-driven workspaces are also crucial for success in the post-COVID scenario. Resilient and agile leadership can be achieved through upskilling existing employees, and the focus must shift from management to leadership. As HR managers become change drivers, manufacturing organizations will undergo a seismic cultural shift that transforms reactive leaders into agile and dynamic leaders.

Creating collaborative, flexible, agile, and data-driven workspaces are crucial for success in the post-COVID scenario. Resilient and agile leadership can be achieved through upskilling existing employees, and the focus must shift from management to leadership.

The skill gap that exists in the manufacturing industry must be viewed as an opportunity rather than a threat. Industry 4.0 has become a reality through the pandemic times and has advanced digitization and automation significantly. Individuals, organizations, and skilling institutions must come together to embrace this change and create a sustainable future through learning, skilling, and collaboration.

Preventing the automation of labour is impossible. However, this change should be taken as not a replacement but an extension. People require a skill makeover to get an edge over robots. With the correct training and L&D techniques, this can be a boon for the workforce.

“Redefined business models & tech adoption to help MSMEs thrive”

The government has already shown intent in re-building the MSME sector by announcing investments of Rs 200 billion to uplift this key sector. These changes, writes Dr Rahul Sharma, have led businesses to find a better foothold in the new normal, particularly in the Indian market striving to be self-sufficient.



The pandemic has capsized businesses across sectors, presenting them with unprecedented challenges and forcing them to adapt and re-invent to survive and thrive. There has been an indelible impact on the Micro, Small and Medium Enterprises (MSMEs) sector, which has perhaps been the most talked about during the pandemic. This isn't unwarranted considering that MSMEs play a significant role in the country's economy, employing over 100 million people and accounting for 45 per cent of manufacturing output and more than 40 per cent of the country's exports. It also contributes approximately 8 per cent to the country's GDP, making it imperative for the

government to safeguard and enable it to re-emerge stronger after this economic calamity.

However, the fact is that some MSMEs are still facing headwinds, and struggling with cash reserves, labour crunch, disrupted supply chains and exports. For some in the manufacturing sector, especially the Zinc die-cast segment, which was already encumbered with limited credit access and lack of appropriate tech knowledge, the crisis exacerbated challenges. Even so, the situation has also presented an opportunity to reflect and intervene on not just the pandemic-incurred repercussions but also existing gaps in many important sectors. It has given the country an opportunity to be on the global map for its manufacturing prowess in industries such as Zinc die-casting and galvanization which can change India's industrial landscape. With a focus on initiatives and investments that facilitate expansion of operations, we can be at par with global standards and moreover, lead the way in sustainable usage of Zinc. The fact that Zinc is also an important constituent of immunity building formulations, makes this an opportune time to invest in and re-vamp this crucial segment.

The government has already shown intent in re-building the overall MSME sector, announcing investments of Rs 200 billion to uplift this key sector and we laud the efforts to quickly come into action, a much needed one. These changes have led businesses to find a better foothold in the new normal, particularly in the Indian market striving to be self-sufficient. It has also lead the way to re-defining existing models and structural reforms for the sector to sustain and grow further.

Re-imagined business models

What the pandemic has most impacted is business continuity, thus nudging organizations worldwide to re-think their entire business models. As restrictions started lifting, many MSMEs focussed on increasing sales and managing credit as priority areas. However, it remains essential to focus on reimagining business models to optimise operational efficiency. Businesses have to now think of ways to reduce business risk in times of calamity, to optimise supply chains and workforce productivity and to re-look at skills to work best in the 'new normal'.

The sector will need to consistently evolve in order to



About the author

Dr Rahul Sharma is Director (India) of International Zinc Association (IZA), which represents the zinc industry globally. With 19 years of experience, in his present this role at IZA, he has been responsible for providing technical and marketing support to zinc consumers with the galvanizing sector in India. He is the member of BIS (MTD-4) committee, CII Corrosion Management committee and Life Member of Indian Road Congress, Institute of Metals.

be equipped to face any market variability. For those who have been under immense threat from Covid, perhaps the government can work with them and help them to strategize and re-model their businesses processes.

The right policy framework and ecosystem

The re-engineered business models will only be effective if there is a sustained conducive environment for them to operate in. The Government of India's response to Covid-19 regarding the MSMEs has seen welcome positives which have driven resilience and hope for a sustainable future for small businesses. Along with an array of bailout packages which included a fund-of-funds of Rs 100 billion for equity participation, definition level change for MSMEs to increase the limits of capital and turnover for companies to qualify for credit, finance schemes and clearing off dues, the government has voraciously upheld the need for the nation to become 'Atmanirbhar'. It is noteworthy that nearly 8 million MSMEs have taken advantage of Prime Minister Narendra Modi's Emergency Credit Line Guarantee Scheme (ECLGS) under the 'Atmanirbhar Bharat package'.

What is required now, is a sustained policy support which encourages MSMEs to scale operations, not to mention the tremendous job opportunities it will create. The government must focus on programs prioritizing the MSME and SME as suppliers to give them the desired boost. It might also be a good idea for to develop a vulnerability assessment framework especially for both the sectors.

Conducive policy reforms must also mean an ease of credit access for MSMEs. Banks and NBFCs will play a major role in facilitating easy financing for the sector. Incentives for banks focussing and innovating with lending strategies to MSMEs must be incorporated on a structured long-term basis. The sector needs to be positioned as a core business activity for these banks. Also, fintech sector can also be tapped into to provide unsecured loan offers to players in the MSME sector.

Targeted approach for specific sectors will be essential. For example, new frameworks for financing to manufacturing start-ups such as those in the Zinc industry can be looked at, as the gestation period for setting up such industries is much higher than the service start-ups.

Additionally, the private sector support does (and will continue to) play a huge role ensuring the growth of the SME sector. Take cue from technology leader Mastercard which recently announced an additional investment of Rs 2.5 billion to help small businesses in the country go digital and have easy access to credit. Apart from fund

Targeted approach for specific sectors will be essential. For example, new frameworks for financing to manufacturing start-ups such as those in the Zinc industry can be looked at, as the gestation period for setting up such industries is much higher than the service start-ups.

support, corporates can also help SMEs with supplier development for future scalability and competitive advantage. The financial sector can also drive uptake and capacity-building in new channels and payment methods.

Leveraging emerging technologies and investing in skill building

The pandemic made it amply clear just how much digital technologies can help businesses in the face of adversity. New and emerging technologies can be leveraged by MSMEs to reach potential customers or to provide a distinct USP. It also allows them to lower costs and overcome disadvantage of scale that they might have vis-à-vis larger players. Strategic investments in smart automation can help in the emergence of a tech-empowered SME, able to thrive in the new digital economy.

A recent Cisco study says that Indian MSMEs may add \$158 to \$216 billion to the country's GDP in the coming years thanks to the digitalization of their ventures. Innovation is what is going to drive this sector in the post-Covid world.

Investing in research and development to build skills and capacities to be able to efficiently operate in the post-Covid world will be extremely important. China, for instance, is using instruments for subsidised training for MSMEs and free access to online programs. While similar options are available in India, there is perhaps a need for a structured plan to help this crucial sector learn skills and be up to date with technology advancements. Creating institutions and skill development clusters for specialized domains such as Zinc die-casting can definitely boost skill output, in line with the requirement of the transformed ecosystem and will make for a better equipped workforce.

Future-ready

Despite the challenges and tougher than ever circumstances, the two critical, MSME and SME sectors have shown immense resilience and is already on the path to revival. Even in the middle of the pandemic a few months ago, 81 percent of micro-enterprises were confident of a post Covid recovery, according to a survey by GAME (Global Alliance for Mass Entrepreneurship).

The sector has the potential to spur unparalleled employment opportunities. As this sector redefines its business processes and join on the digital transformation wave with redefined models, the government must refresh the policy framework to be more conducive, not just in the short-term but also for the long-term growth and sustenance of the sector.

A recent Cisco study says that Indian MSMEs may add \$158 to \$216 billion to the country's GDP in the coming years thanks to the digitalization of their ventures. Innovation is what is going to drive this sector in the post-Covid world.

Adopt right measures to minimise COVID-19 risk at workplace

With offices gradually return to work in India, there is a chance that the coronavirus can transmit among workers who may seem asymptomatic if control measures are not adopted at the workplace. Hemant Sethi highlights some of the safety measures that can help in controlling the transmission.



As offices gradually return to work in India, rules have been issued to help reduce the risk of transmitting COVID-19. Offices are mandatorily required to have hand sanitisation stations and allow only asymptomatic workers to return. However, this alone will not be enough to eliminate the threat of the novel coronavirus. There is still a chance that the virus can be transmitted among workers who may seem asymptomatic if control measures are not adopted at the workplace. To control the risk of transmission at work, British Safety Council has developed a detailed COVID-19 Assurance Assessment framework which can ensure a safe return to work for you and your employees by practising the following measures from our return to work guide.

Screen employees' health before they return

Before your employees return to work, ensure that they are healthy by screening them. This is to ascertain



About the author

Hemant Sethi is the Country Head India of the British Safety Council. He has played an integral part in managing the successful launch of the British Safety Council's India operation. Prior to this, Hemant Sethi worked with British Airways in South Asia in various management roles in Commercial, Customer Experience & Operations.

that the workplace is at no risk of COVID-19 transmission. You can screen your employees in a few easy steps as listed below under British Safety Council's COVID-19 Assurance Assessment.

You can send out digital forms that need to be filled out by employees. Employees should respond to these forms at least three days before they resume working from the office. The form must contain questions regarding their general health and COVID-19. Firstly, they must confirm that they do not reside in a containment zone. Additionally, employees need to confirm that they are not suspected or have tested positive for COVID-19 in the last fortnight. Similarly, within the said period, they have not been in close contact with a confirmed or suspected COVID-19 individual. If the individuals themselves were suspected or diagnosed with COVID-19, they must guarantee that they have completed the mandatory period of self-isolation or treatment.

Conduct a workplace risk assessment

Now that you are as confident as you can be that your returning employees are free from the risk of COVID-19, you can proceed to carry out a workplace risk assessment. You can appoint leaders to carry out these assessments and ensure that safety measures are being followed once you resume normal operations. It would be best if you have a complete and thorough assessment of your workplace before you begin operations. The COVID-19 risk assessment should consider, among others, points like:

- Work location
- Workflow
- Work activities
- Workplace occupancy
- Adherence to government regulations.

The risk assessment is carried out to ensure that the workplace is safe and at minimal risk of future contamination (COVID-19 transmission).

For instance, along with the person-to-person transmission, there is also a high risk of transmission through shared surfaces such as door handles, telephones, and sanitation equipment, among others at the workplace. Therefore, all these factors should also be considered during the risk assessment. As an additional measure, you should have the workplace cleaned and sanitised, before resuming work, if possible or needed.

Enforce total avoidance of personal contact

It is critical that the prescribed social distancing guidelines are always followed strictly. There should be a minimum distance of one metre between two individuals, as per the guidelines of the Indian Ministry of Health and Family Welfare. Additionally, restrict the use of shared surfaces such as door handles, coffee machines and taps. If possible, have a single designated person to handle such objects. If infeasible, ensure that employees sanitise their hands properly before and after contact with shared surfaces. These small measures can add up and help in a big way to minimise the risk of transmission of COVID-19.

Make personal protection equipment mandatory

Personal protective equipment (PPE) such as masks should be made mandatory for employees within, as well as outside the work premises. Ask your employees to have a mask right from the moment they leave their homes. Ensure that they carry a hand sanitizer along with them during their commute and use it when required. Have them keep their masks on during the work hours (with reasonable exceptions). Additionally, ensure that when they leave the office premises, they take the same health and safety precautions.

If your workplace requires employees to interact with shared surfaces frequently, such as at a workshop or a warehouse, gloves can add an extra protective layer.

Another safety measure is to have your employees equipped with hand sanitizers and ensure that they use it before and after coming in contact with a shared surface or other individuals. You can provide your employees with all the personal protective equipment yourself or have them purchase it. Whatever the case, PPE's should be made mandatory.

Provide COVID-19 safety training to employees

Employers must provide COVID-19 safety tips to employees to not only improve their awareness but also bring about the necessary behavioural changes related to health and safety. This can help ensure their safety as well as their community and family members. COVID-19 safety training should include practices regarding workplace cleanliness, waste management, hand hygiene and instructions on using PPE, among others. You can also opt for an external assessment and consultancy service through recognised health and safety organisations like British Safety Council to carry out a risk assessment and provide consultancy services in addition to training your employees.

Getting back to our normal lives seems difficult but is on the horizon. By adopting the right control measures, organisations can minimise the spread of COVID-19 significantly. We just need to be vigilant and armed with the right information and safety practices in our fight against the COVID-19 pandemic.

IPF

CWoW
Construction World on WhatsApp

**India's Largest Circulated
Construction Magazine
Now on WhatsApp!**

**GET
INDUSTRY
UPDATES
ON THE GO!**



Give a missed call on **8657581178** and
save the number to continue to receive updates



FOR REGULAR UPDATES

ASAPP
INFO GLOBAL GROUP

ASAPP Info Global Services Pvt. Ltd.
A-303, Navbharat Estate, Zakaria Bunder Road,
Sewri (West), Mumbai - 400015. | Tel: 022-2419 3000

Four essentials for SMEs to thrive in post-Covid period

While multinational corporations have the advantage of vast capital and resource to their disposal, small and medium enterprises (SMEs) benefit from their agile and more compact nature of working. Hemant Sapra highlights on some of the essential measures that SMEs should take to overcome the negative impacts of the Covid-19 pandemic.



With the COVID-19 crisis forcing blanket lockdowns across nations, the global economy has taken a massive hit. The unusual circumstances of COVID-19 have seen many businesses faced with challenges the likes of which they have never encountered before.

As the battle with COVID-19 continues, conversations around the economic impact post-pandemic have become ubiquitous. While governments and international financial bodies have already planned strategic measures to combat the slowdown with modifications to monetary policies, rate cuts, loans and waivers etc., trade and business community across the country are concerned about their business post lockdown and are in the various planning modes of positivity. The pandemic and the

resulting lockdown have especially impacted the SME and MSME sectors, who operate on tighter credit and cash flow constrain.

It is very natural to expect a challenging future in terms of business after the lockdown, but it is really not impossible to tide over, as many believe, when the going gets tough, the tough get going. While the novel coronavirus has wreaked havoc upon the organized world, it has also given an opportunity for the new tides of transformation to emerge. Industry types such as manufacturing, retail operations, hospitality, mobility, among others, have always existed along the physical contours of process. While the giant multinational corporations have the advantage of vast capital and resource to their disposal, small and medium enterprises (SMEs) benefit from their agile and more compact nature of working.

Given below are four essential measures that every SME and MSME must take to overcome the negative impacts of the Covid-19 pandemic.

1. Neutralize the situation

No matter the dimensions or nature the essential concern for each business is to initiate an in-depth assessment of the prevailing company assets, its overall financial health, and security aspects. Because the pandemic has interrupted operations, productions, and sales across frontiers, it is essential for companies to reach a sensible and holistic overview of this situation within the face of the virulent pandemic. The corporate leadership must resolve the varied deficits, prospective inflow and outflow of capital, latent expenditures, and burdens. Obtaining dependable and actionable reports regarding the extra respite from government, apex trade and commerce bodies, investors are essential before undertaking critical decisions like pay cuts, scrapping of potential future investments, growth and expansion plans, etc.

2. Realigning your goals

Re-appraisal of all business blueprints is one of the uttermost essences for SMEs within the event of such an industrial setback. The post-pandemic landscape is undoubtedly getting to vary than the pre-COVID days and businesses need to revamp and realign their planning and strategy for the longer term accordingly. There is a



About the author

Hemant Sapra is the Co-founder and President, Global Marketing at KARAM Industries and President of Safety Appliances Manufacturing Association (SAMA) in India. With deep understanding of customer needs, and a dedicated approach towards excellence, Sapra's personal and marketing skills have enabled to build up trust and lasting bonds not only with customers all across the globe, but also with his team members. KARAM is one of India's leading Personal Protective Equipment Manufacturers.

requirement for the well-formed map for the road ahead while taking into consent the outlook of the varied stakeholders of the corporate. The leadership should also reschedule the corporate objectives following the unprecedented coronavirus developments. Reforming the annual execution plan can constitute a spectrum of diverse business variables like suspension of funding rounds, forging new partnerships, or discontinuing unfavourable ones.

3. Shake hands with digital

The current surroundings dictate that SMEs now increase the use of digital pathways of business engagement and create a sturdy and veritable online presence. Organisations could increase sales through customer interactions via numerous online channels of communication including social media. Organisations operating through traditional offline modes need to print out a transition layout for the approaching digital future while not compromising on worker potency or knowledge safety.

4. The revolution must be long-lasting

Even the SMEs must leverage the newest technological

disruptions like the Machine Learning, Artificial Intelligence, Internet of Things, Customer Relationship Management, etc., cloud, and other innovations. Businesses should adapt to the fourth revolution of smart automation and invest appropriately to bestow a new-age tech-empowered operational facelift, thus thriving within the digital economy.

Though the required investments for these overarching business augmentation and up-skilling could seem unfeasibly vast, it is an important cost that has got to be undertaken considering the long-term consequences. Businesses must execute optimum risk-mitigation strategies within the face of the pandemic and also seek to acclimatize for any future crises.

Conclusion:

Taking lessons from the recent crisis, it is vital to chalk up an efficient crisis management plan which must take into consideration both immediate and future impact from creating a financial back-up and reservoir of funding, to creating a robust digital and technology-enabled ecosystem which will ensure minimum damage to productivity.

IPF

NEWS SNIPPET

EcoCortec develops first compostable packaging technology for electronics industry

EcoCortec has developed the world's first Eco-Corr Film ESD - biodegradable, compostable static dissipative films and bags powered by "Nano" Vapor phase Corrosion Inhibitors (VpCI). This latest film technology is targeted mainly for electronics, telecommunications, packaging, and electric car industries seeking environmentally friendly packaging solutions. In anticipation of new EU regulations penalising sales of non-recyclable plastic packaging materials, EcoCortec is offering revolutionary, commercially compostable alternative to conventional polyethylene electrostatic dissipating (ESD) films.

Eco-Corr Film ESD products are high performance anti-static, corrosion inhibiting films and bags intended for disposal in a commercial composting environment. They are designed for use in the protection of static sensitive multi-metal items such as electronics. The film contains permanent anti-static properties to immediately reduce or eliminate static build-up as long as the films or bags are in use, independent of the presence of humidity. Eco-Corr Film ESD forms a molecular corrosion inhibiting layer on metal substrates and does not interfere with the physical or chemical properties of electronic components.

The film and bags replace conventional rust preventatives such as oils and desiccants and allow the film to be used immediately without cleaning or degreasing. Eco-Corr Film is commercially compostable,



meaning that when the film is placed in a typical commercial composting environment it will disintegrate within months. The exact time is dependent upon the conditions and activity of the disposal environment (temperature, soil quality, activity of microorganisms). Eco-Corr Film ESD is shelf stable and will not break down prematurely until disposed of in a proper composting environment.

A Czech subsidiary of one of the world's three largest car manufacturers, selected Eco-Corr Film as a biodegradable substitute to reduce the amount of conventional plastic packaging they use. They tested Eco-Corr Film as part of their new "green" logistics project aimed at decreasing plastic consumption.

Eco-Corr Film was tested as part of the pilot project of packaging car parts for shipment to their plant in Pune, India. Several tests were conducted for compliance with strict conditions for transport in sea containers.

IPF

“Demand for intelligent pumps is picking up in the market”

Denmark-based Grundfos is the largest pump manufacturer in the world. As a global pump and water solutions company, Grundfos provides expertise in energy- and water-efficient solutions and systems for a wide range of applications, including water utility, water treatment, industries and buildings. Heading its operations in the country is **George Rajkumar**, India Operations & APREG Operations Strategy Director, Grundfos India. During his 18 plus years at Grundfos, he has contributed to several prominent projects under the operations mandate. In this interaction with IPF, George Rajkumar focuses on the need for customised products and markets of digitalised solutions.

Could your brief us about the journey of Grundfos in India?

In India, we started our operations in 1998. In 2005, we moved to our new factory in Chennai. We have continuously increased our capacities to meet the growing demand of our products. In 2017, we expanded our footprint in India by putting up a new unit in Ahmedabad.

Our business model is slightly different. While we make use of our in-house manufacturing capabilities, we also do sub-contracting. In order to match, the international quality standards, we have carefully developed out vendor base in India. Along with the domestic market, we cater to the neighbouring countries like Bangladesh, Bhutan, Nepal and Maldives.

We also export, especially stainless-steel components, from India to our parent organisation, through which these components find their place in markets like Europe, the US and some parts of Asia.

As the head of India operations, what are your priorities at present?

At present, there are multiple priorities. First, focus is on safeguarding our people (as they are our assets). Second is creating a safe workplace at the factory for the people who come here and safeguard the entire supply chain.

By working closely with our customers and vendors, we make sure high safety and hygiene standards are maintained throughout the operations and, thus, the value chain is a safe.

While we focus on creating flexible workspace for the employees, we are also maintaining our efficiency and productivity.

On the operations side of the business, we are working on re-skilling/upskilling of labour within the company as



well as outside (especially the vendors). By collaborating with our vendors, we are trying to organise the unorganised labour market by providing them the opportunity of re-skilling or up-skilling. Also, we are working closely with our suppliers, to recruit more from the local place to ensure business continuity during pandemic-like situation. Having skilled workforce is important for the business that we operate in (which is into precision products) where high-quality is imperative. Companies cannot achieve high-quality manufacturing standards if employees lack pre-requisite skills. Skilling is important to ensure the supply chain.

How was 2020? How did you manage to sustain during this tough period?

It was not so great, but it was a moderate for us. Though the situation was tough (especially during the lockdown period), we focused on sustaining the business by serving the immediate/urgent needs of the customers. As every industry was affected due to the breakdown in the supply chain, we had to prioritise our resources. By having continuous communication with our customers and closely coordinating with vendors, we were able to fulfil the real needs of the customers.

Since September, the situation is slowly coming back on track. Order flow has started and the efforts put in by our team during the lock-down & after it are showing results on ground as customers are coming back with orders. Business has picked up in the last few months, but it is still below par compared to 2019.

Are you seeing a pick-up in demand?

Compared to the previous two quarters, October-December 2020 witnessed a slight recovery. Though it is nowhere near normal.

What is the composition of your customers? Are they institutional or industrial users?

It's a mixed bag of individual, institutional and industrial. Most of them are institutional and industrial customers. Especially during the pandemic period, we work very closely with the industrial users because most of them belong to water treatment and chemical sectors. These customers were providing essential services like chemicals (used in disinfection), disinfecting products used for public hygiene, etc. We proactively approached them and delivered some of our products during the lockdown after getting special permission from the government.

As the leading provider of pumping solutions, what kind of emerging trends do you foresee in the coming years?

The entire industry is talking about digitally enabled (or IoT-enabled) product and solutions. We were the first to launch such products in early 2006. More than 50 per cent of our products are electronically built and remotely operated. Now, we are seeing the demand is increasing very fast.

People have understood the advantage of the complete

digitalized solutions. Especially during this period, we conducted many trainings and awareness sessions with the customers and focused on how we can effectively develop products having intelligent solutions.

In the last two years, we have moved away from product-based approach to more solution-based approach. We understand the customer need and make customised solutions for them so that they can buy solutions that have real applications and are within their budget.

We offer intelligent solutions known as Grundfos iSOLUTIONS which brings a new era of intelligence to pump systems and water technology with solutions that look beyond individual components and optimise the entire system. Powered by its deep understanding of water, this solution utilises intelligent pumps, cloud connectivity and digital services. Together they enable real-time monitoring, remote control, fault prediction and system optimisation to help you reach a new level of performance.

In the last few years, we are seeing demand for such intelligent pumping solutions picking up in the market. Hence, we will continue to focus on digitalised solutions especially now when the awareness in the market is much better about IoT based products.

IPF**NEWS SNIPPET**

Grundfos applauds new C40 leadership standards

Grundfos - is a global water technology company committed to pioneering solutions to the world's water and climate challenges and improving the quality of life for people - has applauded C40's new leadership standards that set a new global benchmark for climate ambition including adaptation and climate resilience.

Poul Due Jensen, Group President & CEO, Grundfos, said, "C40 has set a great example of how to build and sustain a thriving economy that works for everyone. Even through 2020, they have worked tirelessly with mayors around the world to continue focusing on the climate crises, all while trying to overcome the COVID-19 pandemic. The mayors associated with C40 are uniquely positioned to build action plans for climate resilience and water security within their cities. We at Grundfos welcome C40's new leadership standards that focuses on adaptation and climate resilience and strengthen its ambition to create water secure cities. The C40 project on Water Secure Cities for the future is already delivering remarkable results that will pave the way for mayors to deal with their climate related water risk in the future"

It was in 2019 that the Poul Due Jensen Foundation and C40 decided to collaborate on the project "Water Safe Cities of the Future" to build up the C40 knowledge base on water related climate risk and ultimately moving water up on the agenda in C40. The idea for the project was co-created with C40 as a follow up to the strong



Poul Due Jensen, Group President & CEO, Grundfos

Grundfos engagement and participation in the C40 Mayors Summit in Copenhagen October last year.

Kicked-off in March last year, the project's first research phase with the identification of the major climate related risk to the urban water sector, has now been finalized. The research findings will support the key C40 agenda as set out in the leadership standards. It will support cities increased urban resilience by providing a stronger foundation for tackling the drought and flooding issues, which will continue to increase in importance as cities, countries and peoples around the world see the effects of the climate crisis.

Poul Due Jensen concluded, "This is a tremendous achievement for C40 and for Grundfos and we could not have hoped for more at this early stage of the project."

IPF

“Safe workplace protects workers as well as increases productivity”

...says **Giriraj Kumar Mall**, Executive Director of Mallcom India Ltd, who believes safety is good for business. Established in 1983 in Kolkata, Mallcom India has today emerged as one of the leading players in personal protective equipment (PPE). It is said that the cost of workplace injuries, illnesses and deaths is much greater than the cost of workers' compensation insurance alone. In this interview with IPF, Giriraj Kumar Mall explains criticality of safety for efficient functioning of a factory and how Mallcom is making workplaces safer.

Mallcom India has completed 38 years of service. What are the key milestones in its journey?

Mallcom India Limited was incorporated in Kolkata, India, as a private limited legal entity in 1983. We are the first Indian company with complete PPE (personal protective equipment) range protecting industrial workers from “head to toe”. The key milestones include entering the global PPE market with first export of leather gloves to Europe in 1986. In 1993, we became a government recognised export house and was further issued IPO through Calcutta and Delhi Stock Exchanges in 1994.

Setting up safety shoe and NBR coated units in Export Processing Zone was one of our highlight milestones to move to mid-sized industrialised unit.

Our greatest achievement was the launch of “Mallcom” and “Tiger” brand by setting up a unit in Uttarakhand in 2005. In 2018, we took an initiative to support Shiva Keshavan for his 6th Olympics. Further sponsoring Manasi Joshi and Mehuli Ghosh for their quest for Tokyo Olympics. We have also fulfilled our corporate social responsibilities (CSR) through energy conservation at our manufacturing plants through solar energy and biomass, promoting girl child education.

Today, Mallcom India is one of leading players in safety equipment. What would you attribute this success to?

Mallcom attributes all its success to its employees who have actively engaged themselves to fulfil the growing market demands of PPE. We are extremely thankful to all the workforce for working remotely from home and also in field even during this lockdown to help their company outperform the competition and emerge as one of the market leaders. It's the employees - from front-line to the C-suite - that make it all happen.

Our clients who have put their trust on Mallcom brand safety items. It gives us immense satisfaction to see our customers repeatedly purchasing Mallcom brand PPEs.

Needless to say, we are also working in close association with our vendors who are equitable in our success.



Why are safety so critical for efficient functioning of a factory?

Work injuries and illnesses can make workers suffer from low self-esteem, loss of independence, mental health problems, other medical problems, and damaged relationships. A safe and healthy workplace not only protects workers from injury and illness, it can also lower injury/illness costs, reduce absenteeism and turnover, increase productivity and quality, and raise employee morale.

In other words, safety is good for business. For business, one injury can mean financial disaster. It might cost production losses, wages for work not performed,

increased workers' compensation insurance costs, damage to equipment or machinery, hiring and/or training new employees, decline in product quality and worker morale, decline in worker morale, high turnover and lost work time. The cost of workplace injuries, illnesses and deaths is much greater than the cost of workers' compensation insurance alone.

How is the market for safety equipment in India? Which end-user industries are the key demand drivers for your products?

The Indian PPE market is increasing at CAGR of 12% due to adoption of strict regulatory framework for the safety of workers against various health risks in hazardous working environments. The high cost associated with workplace hazards post unlocking the economy, technological innovations for improved PPE fabric resulting in reduction of weight of the equipment has increased PPE demand in the country, thereby giving a healthy push to the Indian personal protection equipment market.

The main key demand drivers for our products are healthcare and fabrication industries, Construction and automotive sectors, Oil & Gas industry, Pharmaceutical industry, F&B industry. Healthcare sector are witnessing increasing market adoption for personal protection equipment owing to continuously increase in COVID -19 cases.

How was the performance of the company in 2020? Was there any improvement in the situation in the last quarter (Oct-Dec 2020) of 2020 with demand picking up?

The coronavirus crisis did result in financial jeopardy in the first quarter and the second quarter of 2020. But with time and resolution and the opening up of industries during unlocking phases, the presence of workers within the factory premises has increased. We have also seen an upsurge in the industrial activities to follow and implement SOP's post-COVID with the increased demand in PPE in this quarter.

What are the key lessons for you from COVID 19 pandemic? Will it lead to any change in the way the businesses are operating today? If yes, could you please elaborate?

The 2020 pandemic made us explore immense life-sustaining channels like true nature of workforce productivity i.e. remote work is doable, importance of social networking sites to increase brand awareness using digital marketing tactics, product promotion, and significance of video-conference tools for product launch, to be prepared for alternate supply chain sources in future to reduce supply chain dependency on a single region.

Definitely, the lessons taught by COVID-19 pandemic will add a leverage to the existing format of the business. It will help us utilise both the traditional and digital ways i.e along with traditional ways we will also hold meetings as per the suitable time zones over video conferencing

websites, flexible working hours thus enhancing work productivity of employees, rethink about the supply chains and to rework on limited visibility in inventory, production, and order and fulfilment status, participate in trade shows and expos including the virtual formats.

How did you strategise growth in the overseas market? Please elaborate on your future plans to further boost exports.

Mallcom and its products are not new to the global PPE market. We started our business from highly competitive and demanding European market. Almost 2/3rd of the revenue of Mallcom is coming from overseas market.

We are planning to grow by building strategic partnerships in the Middle East and APAC regions that are already in process with the further expansion of our PPE business with more strategic alliances in the international market.

Moreover, PPEs are highly sensitive product categories and have to meet the specification and certification of the country. All products manufactured by Mallcom are having one of the major certifications like CE, BIS, ANSI etc.

Are you looking to develop new products? If yes, could you please elaborate?

Change is the only constant that Mallcom believes in. We had been adding products and categories of products which can use indigenous raw material and labour talents.

Yes, we are planning to develop new products on Seamless Knitted Liner. Specifically, we are looking to develop new fine range of seamless high resistant liner to meet the upcoming requirement of high performance engineered seamless nitrile gloves to meet the customer's requirement which will provide security as well as comfort to the users during sophisticated and hazardous machinery works.

Mallcom is setting up a greenfield project in Ahmedabad to meet growing needs of Indian PPEs, particularly, multi-norm work wear, weather protective garments and rain wear.

Will the new 4 Labour Codes lead to increase in demand for safety equipment?

Yes, the new codes certainly have the capabilities and mechanisms to ensure that safety standards are followed and will boost the PPE industry in terms of standardization and mandatory use of PPEs.

In 2021, what will be your focus for ensuring growth?

In 2021, we plan to outperform the Indian market growth by adopting new technologies and focussing on PPEs with comfort, design and safety.

We will further strengthen the usage of our social media platforms and Mobile application to engage with the end users of PPE s and also increase engagement in the B2B space.

“Many countries look at India as a tech hub for engineering goods”

...says **Dieter Rasquinha**, Director, Mercury Pneumatics Pvt Ltd, optimistically as he sees demand picking up in the market. With its expertise in hydro-pneumatic technology and focus on R&D, the company has been developing innovative products to meet customer needs. Mercury Pneumatics Pvt Ltd was presented the IPF Product Excellence Award 2021 for its “Air Booster (Model no AB160-10)” during the first IPF Industrial Excellence Forum (IIEF 2021) held virtually on January 15, 2021. In this interview with Rakesh Rao, Dieter Rasquinha sheds light of advantage of hydro-pneumatic technology and the growth strategies for the company.

How is your company serving the manufacturing industry with its products & services?

Mercury Pneumatics Pvt Ltd is a manufacturer of pneumatic products for automation and a pioneer in hydro-pneumatic technology in India. Along with our range of standard pneumatic items such as direction control valves, pneumatic cylinders, air preparation units and pneumatic accessories, we also have a complete product vertical of specialised pneumatic and hydro-pneumatic products such as hydro pneumatic presses, hydro pneumatic pumps, metered grease dispensing pumps, air boosters and auto-lube systems.

How did you manage to tide over the Covid-19 storm? What were your strategies to sustain during this period?

2020 was an interesting year for us. We experienced a slight slowdown in 2019-20 and, during the lockdown, we were unable to predict the future. We utilised the time during the lockdown to design some interesting products one of which was an automatic resuscitator which could be used to help a Covid patient.

Once lockdown was lifted and we reopened, we noticed a good trend in the industry and managed to capitalise on the same by taking corrective measures very proactively to overcome constraints in the supply chain and labour shortages. Our entire team has managed to not only reduce wastages and control expenses but have been able to ensure the output is not affected due to good planning and team work.

We are expecting the upward trend to continue for some more time and looking forward to a good 2021 too.



How did you use the time during the lockdown period effectively?

The lockdown was a shock to all of us and took us by surprise. However, we used the time well by implementing better CRM and administrative softwares, conducted web training sessions for our sales team, had brain storming sessions with different departments about change.

The design team took up pending projects and completed them in the free time in hand. We also conducted training for managers as well as enrolled them for various online seminars which were being held continuously and last but not the least, reviewing and updating product literature.

All these steps helped us come back refreshed, reenergised and full of new ideas which is showing in the team performance post lockdown.

Is the market returning to normalcy? Are you

With the auto sector recovering post lockdown, we have seen a spike in investment in capital goods and investment is also taking place due to measures taken by the government to increase liquidity in the market.

seeing a pick-up in demand since the last quarter (Oct-Dec 2020) of 2020?

We have had a good order booking in all the months since July 2020 and expect the same to continue into 2021 too. With the auto sector recovering post lockdown, we have seen a spike in investment in capital goods and investment is also taking place due to measures taken by the government to increase liquidity in the market.

According to you, what are the key lessons for companies like yours from Covid 19 pandemic? Will it lead to any change in the way the businesses are operating today?

One of the key lessons from Covid 19 is all businesses have looked at their financials in depth, identified and understood cash drains and have learnt how to preserve cash for necessary operations. This has helped all of us plan for the future too.

In addition, business have started restricting their credit and payment terms with customers to ensure that their earnings are reinvested properly in business growth and not in financing customer's in terms of extended credit facilities which was considered a norm in earlier years.

One of the key lessons from Covid 19 is all businesses have looked at their financials in depth, identified and understood cash drains and have learnt how to preserve cash for necessary operations. This has helped all of us plan for the future too.

Communication via web meetings has also become widely accepted now and has helped reduce time to take decisions, has improved methods of communication to the sales channels across the country and has shown us that the traditional way need not be followed. We all have learnt to adapt to new methods in a short span of time.

What are the key concerns for growth for industries as they re-group after Covid 19 effect? Are there any solutions to overcome them?

The key concerns for growth are lack of skilled manpower as many of the labourers have gone back to their hometowns. In addition, the costs of raw materials and logistics have increased substantially, thereby increasing cost of production. And finally, liquidity issues still plague the industry.

One of the most obvious solution to the above is automation. By investing in the same, you not only get a more consistent output but better quality too. The overall running costs also reduce substantially and the payoff is sooner than expected.

Are the government's initiatives like Aatmanirbhar Bharat Abhiyan and a slew of other schemes to promote Indian industries

having an impact on the ground? What more can the government do?

Aatmanirbhar Bharat Abhiyan is not really working on ground. We have not seen its effects and do not expect those schemes to generate the business that they portray. One of the main reasons is the lack of transparent policies, no ease of doing business and tax terrorism. GST was supposed to make tax simple. But with continuous amendments to the initial GST Bill, the core idea of GST has been corrupted.

The GST filing system and cross reference is not robust yet and implementations has been sub par. With the introduction of TCS, a new procedure not at all required, has been forced down our throats and made us accountable for something that is not to be done by industry in the first place.

Furthermore, there is no major efforts being out into upgrading the country's infrastructure in terms of power, road, connectivity which will help in increasing the output of the country at a reasonable cost.

Indians are self-reliant and even with these hurdles, we will prosper with our own efforts and not because of such marketing schemes. The government has to concentrate on providing the basic infrastructure, transparent laws and make government departments accountable which is the only thing the industry asks for.

Are you seeing an increase in use of automated products/machinery and digital tools due to Covid 19?

Yes. After facing labour shortages, all companies are investing in upgrading technology, investing in factory automation and taking help of digital tools to boost their business and simplify processes.

How are you scaling up your overseas business?

Many countries are looking at India as a technology hub for engineering goods. Being machine tool manufacturers, we first focus on setting up a prompt after sales service before entering a new market. For that we tie up with local distributors and engineering companies who not only know the local market, but can guide the customer on product selection and can provide after sales service in the long run.

For technology items, we can easily compete against the first world countries in terms of price as well as robust product design as these products are designed keeping the Indian consumers in mind. If the products work in India, they can work anywhere in the world.

What will be your focus for ensuring growth in 2021?

In 2021, our major focus will be to increase our export market. While our domestic distributors and supply chain will be strengthened, we need to establish ourselves in new international markets to meet the exponential growth targets in terms of volumes as well as margins which will help us to reinvest and increase the manufacturing capacity in Indian to sustain our long-term growth plans.

“Robotic welding automation offers good Rol”

Welding is one of the oldest, yet the most important process in the manufacturing sector. India is today at the helm of digital transformation and manufacturers need to improve productivity and quality across the entire production cycle and factory as a whole. With its smart factory solutions, Panasonic is helping companies to produce high-quality weld output. In this interview with IPF, **P Gopi**, Sales Head - Robot & Machines, Panasonic Smart Factory Solutions India (A division company of Panasonic India Pvt Ltd), explains in detail the advantage of robotic welding and the future plans of the company.

How is Panasonic Smart Factory Solutions aiding the growth of the welding industry?

Panasonic Smart Factory Solutions India (PSFSIN) is a leading provider of welding robot and welding machines to Indian metal fabrication sectors – like automotive industry, construction equipment manufacturer, offshore platform, chemical plants, structural welding, hospital furniture, kitchen equipment, cross country pipeline, ship building, LNG storage and transportation system, power plant equipment, Railways etc.

PSFSIN has a manufacturing facility in Jhajjar near Gurgaon in Haryana. We manufacture full range of arc welding equipment - SMAW, GMAW and GTAW. The company imports arc welding robot from its parent factory in Japan and provides to industry like automotive, construction equipment and other fabrication industry.

What are the key challenges faced by welders today? How is Panasonic helping them solve these challenges?

There are mainly two types of challenges being faced by welders in India. First is lack of skill and second is training of operating latest technology of welding equipment, which support welders to achieve high quality weld output.

India needs to create many infrastructures in the



country to achieve target nominal GDP growth of 10-11 per cent annually like power plants, airports, bus rapid transit systems, elevated corridors, road projects, tunnels, petrochemical plants, cross country pipelines etc. But, due to shortage of skilled welders and latest technology, companies are facing it extremely difficult to complete the projects on time with quality construction.

Panasonic Smart Factory Solutions India understands the challenges being faced and is working with Japanese Government's Ministry of Economy, Trade and Industry (METI), many non-profit organisations (NPOs) like

Confederation of Indian Industry (CII), Indian Institute of Welding (IIW), Indian Welding Society (IWS) and Ministry of Skill Development and Entrepreneurship (MSDE). PSFSIN jointly with NPOs and Skill Development Ministry has organised many workshops to skill up welders and create awareness about latest welding equipment which support welders to achieve high quality weld output.

How is the market for welding equipment in India?

Welding equipment demand registered negative growth during April 2020 to August 2020 due to Covid-19 pandemic. But September 2020 onwards, demand has picked up as many refinery projects, pipeline projects and railway projects opened up. We hope that monthly growth from February 2021 will pick up 8-9 per cent month on month basis, and this growth can be termed as a healthy growth.

Is demand for automated solutions increasing in India (especially after Covid 19 pandemic)? Which end-user industries are the key demand drivers for your products?

Yes, projects opened up after Covid 19 and, thus, demand for welding machines and robots have picked up well. Demand for automation is increasing. Earlier

Earlier welding robots were mainly going into automotive and construction equipment industries, but there is now big demand from other industries like agriculture implements, hospital furniture, etc. Reasons for the surge in demand are shortage of skilled welder and need for high quality welding.

welding robots were mainly going into automotive and construction equipment industries, but there is now big demand from other industries like agriculture implements, hospital furniture, etc. Reasons for the surge in demand are shortage of skilled welder and need for high quality welding.

Main share of our business was coming from automotive industry. But now, oil and gas projects are giving good business as government is investing big in this sector.

September 2020 onwards, demand has picked up as many refinery projects, pipeline projects and railway projects opened up. We hope that monthly growth from February 2021 will pick up 8-9 per cent month on month basis, and this growth can be termed as a healthy growth.

Are automated welding solutions affordable for SMEs as well?

Yes, automated welding solutions will give more productivity, consistency and quality. Robotic welding automation involves high initial cost. But good RoI (return on investment) helps the industry to use the latest technology and automation. For supporting industry, Panasonic have different type of robotic welding solutions.

What are the key lessons for you from Covid 19 pandemic? Will it lead to any change in the way the businesses are operating today?

Now we, our suppliers and our customers are slowly reopening for business but it will not be business as it used to be. Safeguarding workplace health has become the top priority.

Most of the industry now using digital platform for techno-commercial discussion and business in place of traditional way of business. Internet based communications, sensors, device cleaning systems, maintain social distancing and safety have now become a norm.

We have started to adopt mobile computers and scanners enabled warehouse and production floor to maintain social distancing without compromising on productivity.

We are also trying to upgrade our suppliers to enable them become more digitalised so as to enable remote communication on real time basis.

Is the market condition improving with demand picking up in the last quarter (Oct-Dec 2020) of 2020?

April-August 2020 was extremely low as far as our business volume is considered. However, demand started picking up from September 2020. October-December

2020 was comparatively better. We hope to pick up 8-9 per cent month-on-month growth from February 2021.

Are you planning to launch new product in India in 2021? If yes, could you please elaborate

We have a fully equipped R&D division, and it is responsible for exploring new product development opportunity. New product development is an ongoing process for us. Currently, we are working to develop many new products for Indian industry. One such product is development of welding robot for MSMEs and training institutes.

What are the emerging trends in welding industry?

There are 3 industry trends which are helping our business to grow in automotive industry. These are high tensile steel welding, multi material welding and digital manufacturing solutions.

- High tensile steel welding: There is a demand of light weight, higher body strength, high energy efficiency and more safety. This is leading to higher usage of high tensile steel. Our high-end machine and robot (Super Active TAWER with Heat Balance Control or HBC) is suitable for this industry.
- Multi material structure is getting popular in automotive industry. Thus, our laser welding solutions is catching up for multi material welding like mild steel, stainless steel, aluminium, and CFRP (carbon fibre reinforced plastic). Laser welding is replacing conventional spot welding because of speed and accessibility.
- Digital manufacturing solutions: IWNB (Integrated Welding Network Box) collects records and analyses data of welding robots automatically to provide a solution to improve productivity, quality and traceability. Using LINKWIZ - automatic bead inspection system in welding process – inspection is now carried out by robot. It judges by 3D high accuracy images. There is no need of dedicated jigs for inspection.

Automated welding solutions will give more productivity, consistency and quality. Robotic welding automation involves high initial cost. But good RoI (return on investment) helps the industry to use the latest technology and automation.

What will be your focus for ensuring growth in 2021?

Our emphasis will be on addition of new products and exports. We intend to develop new product based on industry demand and technology with more focus on digital solution and connectivity. We will manufacture products not only for India but also for the international market. Our strategy will be to Make in India for the globe.

“Export market is slowly springing back to normal”

CP Grat-Ex Manufacturing Company delivers high-quality deburring and countersink tools to its customers spanning across India as well as the globe. Though export orders are trickling in, the lead time for delivery to international customers has increased due to impediments in transportation logistics, opines **Chetan Purav**, Proprietor, CP GRAT-EX Manufacturing Company. In this interview, Chetan Purav explains the advantages of deburring tools in enhancing the value of the finished parts and his growth plans for the company.

How is your company helping industries improve their productivity?

CP GRAT-EX Manufacturing Company develops, manufactures and supplies deburring and countersink tools for industrial uses. These tools help to enhance the value of the finished parts, by removing burr from the sharp edges. In order to smoothen the sharp edges, we have developed large variety of tools. In this endeavour, CP GRAT-EX has innovated new concepts that are changing the world of deburring.

What measures did you take in 2020 to sustain business during this tough period?

Year 2020 applied pause button to our growth story. However, with reopening, we have embarked on a rebound which is fast taking us to our original trajectory. During this lockdown, we focussed on new developments, export markets and work from factory models to make sure that our work force remains engaged and stays busy to deliver results. We encouraged our office colleagues to pursue self-improvement projects so that on resumption they were able to bounce back with vigour.

What are the key lessons for you from Covid 19 pandemic? Will it lead to any change in the way the businesses are operating today?

Some of the key lessons from Covid 19 pandemic are:

- Keep your work force close to centres of manufacturing
- Sales and other support functions should develop capability to work from home
- When mobility is impacted and supply chains in disarray, we need to carry higher stocks of materials to sustain lockdown periods
- When transport is not functioning, it is best to have your own transport
- In case of total lockdown, it pays to develop your new ideas, concepts and products

What are some of the key challenges before the industries for growth (as the Covid 19 pandemic is yet to be completely eradicated)?

Key concerns for growth for the companies are:

- **Mobility:** Supply chains are severely impacted by



mobility and hence it is important to restore road and rail mobility

- **Working Capital:** During lockdown working capital is severely impacted and hence it is important for government to provide concessions in tax and expedite refunds wherever applicable etc so that working capital becomes available for growth
- **Demand:** In order to kick start the demand, Government should embark on infra projects which will further spur the economic activity and reignite engines of growth

In its quest to make India a global manufacturing hub, the Government of India in 2020 launched Aatmanirbhar Bharat Abhiyan and a slew of other schemes. Are these schemes working on ground? What more can the government do?

Schemes to a large extent are high media hype and small portion of that assistance is reaching segments that need it the most. Government should establish close contact and start intense dialogue with different industry representatives to understand their issues and how best can government reach assistance to them.

The intention of the government to announce Aatmanirbhar Abhiyan is no doubt good; however, unless all the stakeholders are taken into confidence, the boost is not going to come.

For the initiatives to have an impact, the government needs to:

- Simplify process related to subsidies and aid
- Ensure that aid reaches those pockets which need it the most.
- Identify key industries with maximum impact and focus on them for revival

Many experts expect rise in usage of automated products/machineries due to Covid 19 pandemic. Do you agree with their observations?

Digital tools for real-time monitoring of shop floor activities in CNC manufacturing setup is fast getting developed. This is all the more important when mobility of key personnel is impacted and remote access through digital tools can bridge the gap of physical presence.

Having said that in manufacturing setup, operator engagement for several activities is a must and automation of all activities is neither feasible nor practicable. Hence, it has become important to keep your work force close to your manufacturing centres and this is the main reason that even during Covid 19, our manufacturing was not impacted.

What are your plans to scale up your exports business?

Export market is slowly springing back to normal and orders are trickling in. However, lead time for delivery to international customers has increased due to impediments in transportation logistics. Based on the ongoing situations as various lockdown measures are imposed in different countries, further delays happen and it will take long before situations become normal again.

We are showcasing our products through various apps and implementing digital media strategy to engage with the customers.

What will be your focus for ensuring growth this year?

In 2021, our focus will be on new products design, new concepts creation and new geographies development. Only this strategy is going to enable us to spring back to our original growth path. In addition, we are investing in automation of our design and manufacturing centres which are located in rural part of the country. This will help us detach from high-risk urban centres and at the same time spread the fruits of development far and wide to rural areas.

IPF

COMMUNICATION FEATURE

Hindustan Power Products empowering global industries

Hindustan Power Products Pvt Ltd was incorporated in 1979 with the core business of manufacturing, supplying and exporting products such as the servo voltage stabilizer, electronic voltage stabilizer, digital voltage stabilizer, isolation transformer, distribution transformer and other power management products. The company has a rich history spanning over 42 years in the manufacture of a host of power systems and the provision of power solutions designed to meet the specific needs of numerous customers.

"We derive great pride and responsibility from being among the largest Indian exporters of this technology to the vast majority of countries in Asia, Africa and the Middle East. These exploits and more have led to the conferring of the coveted International Star Award for Quality on us at an event held in

Geneva, Switzerland in 2005. Among our numerous achievements is the membership in the Dan & Bradstreet Global Database for which we bear the code D-U-N-S No. 91-727-4685 and also registered with the Engineering Export Promotion Council. We are professional in our conduct and abide by a strict code of ethical practices in all our dealings. We always supply an order on time and ensure that the products are of impeccable quality," says the company.

Hindustan Power Products constantly reviews its processes and product quality to keep in line with international standards and technological advancements. This is why its products are widely accepted by countless governments, laboratories, government departments, medical establishments, hospitals,



educational entities and numerous commercial entities in India and the rest of the world. More than 2000 stabilisers are being used in the UK, United Arab Emirate, Belgium, Nepal, Bhutan, Saudi Arabia, Turkmenistan, Kenya, Nigeria, Uganda, Tanzania, Burundi, Ghana, Benin, Zambia, North Sudan, South Sudan, Ethiopia, Rwanda, Malawi and Democratic Republic of Congo.

IPF

(Communication provided by the management of the company)

“Rising raw material prices is a concern”

Even though orders from overseas customers are flowing, increase in raw material prices and lack of government support are making Indian manufacturers less competitive in the exports market, feels **Nimesh Karelia**, Director, Jay Equipment & Systems Pvt Ltd - a market leader in the material handling equipment and storage solutions area in India. Since 1984, the company has been providing a wide range warehousing/in-plant material handling equipment and storage solutions. In this interview, Nimesh Karelia highlights the challenges of the industry, and growth potential of MHE & storage solutions sector.

What kind of products & services do you offer to the manufacturing industry?

Jay Equipment & Systems Pvt Ltd is engaged in manufacturing of material handling equipment (MHE) with market presence of more than three decades. We have a wide range of products in our portfolio like electric stacker, battery operated pallet trucks, dock levelers, goods lift, VRC and many more. We offer a complete range of products, material handling equipment and customised solutions to our clients in various sectors like logistics, pharma, engineering, chemical and so on. We are now even offering MHE on rental basis to all clients on short, medium and long term rentals.

Due to Covid, 2020 was tough period for the industry with demand drying up and supply chain disrupted. How did you manage to sustain during this tough period?

The year 2020 was very tough for all - individually as well as for companies. This global pandemic has hit hard, but the way India has emerged from this pandemic is remarkable. For us, we have had more than expected better results. We really thank all our customers, vendors and employees for this. The trust our customers has shown in giving repeat orders for our product range for being an excellent quality, made-in-India products has helped us a lot. We even managed to get good export clients, who have shown their trust on our brand 'JAY'.

Is the situation improving with demand picking up in the last quarter (Oct-Dec 2020) of 2020?

The situation has improved a lot in various sectors. In the material handling equipment sector, there is a very good demand for low and medium range of equipment, and the situation is improving day by day. We really expect a good year ahead for Indian products.

What are the key lessons for you from Covid 19 pandemic? Will it lead to any change in the way the businesses are operating today? If yes, could you please elaborate

This pandemic has set many examples on the way the



businesses can be done and the best example is online meetings, online presentations and work from home culture. Earlier work from home concept was there but had a limited presence in IT sectors or in some big corporates. But now this pandemic has taught everyone that online concept are more practical and are one of the best ways to work. We ourselves have adopted a work from home culture in the company, which has helped in guaranteeing safety of our teams.

Government has launched Aatmanirbhar Bharat Abhiyan and a slew of other schemes to promote

Indian industries. Are these schemes working on ground? What more can the government do?

Government of India has initiated the Aatmanirbhar campaign, which is actually a very good positive steps by the government for helping Indian manufacturers to grow. But, there was very negligible support in terms of any facilities from the government's side. On the other hand, the raw material prices have started to increase manifolds in various products which can have adverse effect on the manufacturers, who are looking to achieve competitive pricing. Even though there is a good flow from export sector, the manufacturers are not being competitive on export markets against China due to lack of support from the government. We really feel the government should look into for providing some benefits or incentives in terms of finance or others schemes to get more result for the Aatmanirbhar campaign.

Are you seeing an increase in use of automated products/machinery and digital tools due to Covid 19?

Since the pandemic has hit hard to all, the flow of funds is

limited. Automation being highly capital-intensive, there is limited increase in demand. But the future is very good for automated products and machineries. And due to pandemic, the companies have realised the benefits to work with less manpower and touchless systems. The future holds really good for automation industries.

How are you trying to tap the exports market? In 2021, what will be your focus for ensuring growth

Jay Equipment has already entered the exports market. Even during these tough times, we successfully bagged good export orders. The company has many new products in the offing, which we intend to launch later in 2021. Since we have an in-house research and development (R&D) facility, we keep on inventing and developing new products which can help our customers achieve maximum productivity. Besides, we recently also entered in rental business offering our own manufactured new equipment on rental basis, which we expect to be the major growth factor for our business in the coming years.

IPF

COMMUNICATION FEATURE

Ved Engineering aiding dairy industry growth with modern technology

Ved Engineering was established in 1993-94 in Noida to manufacture dairy and allied field machinery.

Since then the company has grown steadily every year and diversified in different fields like dairy, food, beverage, pharma, personal care machinery, plate heat exchangers and shell, tube heat exchangers and projects.

In dairy, Ved Engineering is involved in delivering projects and machines for liquid milk, curd, paneer, ghee, butter, flavored milk, ice cream, cheese, etc. In food, the company is involved in tomato ketchup, masala and cold chain projects. In beverage, it is involved in RTS juice projects and CSD line for renowned brands and private players.

In pharma and personal care, the company delivers machines and projects for Aasav, Pancharisht, shampoo, chawanprash, amla juice, pishthi, candy, etc.

Ved Engineering offers plate heat exchangers, shell and tube heat exchangers, and pasteurisers skid



mounted units for milk, juice, curd, paneer, coconut water etc. Besides, it offers packing machines for curd cup, Shrikhand, juice, milk, and bottle filling lines for milk, juice, water, fresh juice, long life juice, etc. It provides farm-level milk cooling tanks with refrigeration unit called as bulk milk cooler along with milk reception module, IBT, and DX chillers.

The company has equipment as jacketed kettle fixed/tilting type,

Khoa and ghee kettle steam/burner operated for a wide range of applications. Ved Engineering has skilled team for after sales service of the plant and machinery supplied to its customers providing full after sales support. Some of the company's well-known clients are Dabur, Emami, Britannia, Patanjali, Gopaljee, Verka, Vita, UCDF, RCDF, Pepsi, Coke, Creambell, Bisleri, RC Cola, Nestle, Paras, Heritage, milk cooperatives, etc.

IPF

For details, contact VED Engineering, Noida, on Mob: +91 93505 45986, +91 99719 34240; Email: sagar@vedengineering.com; or visit www.vedengineering.com

(Communication provided by the management of the company)

“To be really Aatmanirbhar, we need minimum laws & taxes”

Kusam Electrical Industries Ltd (Kusam-Meco), a four-decade old company, is a leading player in the field of electronic test and measuring instruments in India. The company pioneered the use of digital instruments in the 80's when Analog instruments were mainly used. At the helm of the company is **Chandmal Goliya**, Director, Kusam Electrical Industries Ltd, who has more than 50 years of experience in the field of electrical & electronic test & measuring instruments. In this interview with IPF, Chandmal Goliya highlights the challenges faced by the industry and importance of automation for companies.

How is your company serving the manufacturing sector?

Kusam-Meco is a 35 years old reputed company for digital test & measuring instruments. The company offers over 200 products to cover all most every requirements of the industry. Its products range covers high safety “UL” approved digital multimeters, professional grade digital multimeters, basic digital multimeters, LCR meters, high safety “UL” approved digital clampmeters, professional & industrial grade digital clampmeters, insulation resistance testers, earth resistance testers, high voltage measuring instruments, test & measuring instruments, laboratory instruments, environmental testing instruments, waterproof pen testers, cable fault pre-locator, portable thermal imaging camera, power measurement clampmeters, power measurement & control instruments, power transducers, signal transmitters, programmable digital panel meter, calibrators, gas detectors etc.

How severe was the impact of Covid 19 pandemic on the industry?

Year 2020 was very bad due to lockdown, initially in the whole country and later on partially in different states of India and the world. Business came to a standstill all over the world. Imports were affected badly as shipments from China were delayed. Also, due to the political situation between India & China, shipping companies were not booking consignments for India. This led to shortage of goods. Due to suspension of ‘Local’ trains in Mumbai Metropolitan area, workers and staff could not attend office which has hampered normal working in offices.

With relaxations in lockdown and travel restrictions, the situation is limping back to normalcy. The demand is picking up but still it is not at the levels which were in Oct-Dec 2019 quarter. Also due to financial disruption and lockdown, many companies have put their requirements on hold.



Is the situation improving with demand picking up in the last quarter (Oct-Dec 2020) of 2020?

With relaxations in lockdown and travel restrictions, the situation is limping back to normalcy. The demand is picking up but still it is not at the levels which were in Oct-Dec 2019 quarter. Also due to financial disruption and lockdown, many companies have put their requirements on hold.

Will Covid 19 pandemic lead to any change in the way the businesses are operating today?

Covid 19 pandemic has taught many lessons. Companies must develop the culture of “work from home” wherever feasible. They need to introduce automation in manufacturing plants so that dependence on human beings is minimum to maintain normal production levels.

The initial investments will be high, but in the long run, results will be rewarding.

As industries re-group after Covid 19 effect, what are their key concerns for growth? What are probable solutions for them?

After Covid 19 pandemic effect, industries are trying to bounce back to normal levels, but the key concerns for their growth will be finance, manpower, government spending in new projects for demand creation, and simplification of laws. The laws are so much complicated that even CAs are not able to give correct opinions for companies. Everyday there is some modification or the other whereby an entrepreneur has to spend more than 50 per cent of his working time only in compliance of the laws & is left with very little time to look after his business & its growth.

Government has launched Aatmanirbhar Bharat Abhiyan and a slew of other schemes to promote Indian industries. Are these schemes working on ground?

To be really 'Aatmanirbhar', we must have minimum laws, compliance, & taxes. Otherwise as mentioned above, a lot of time is wasted in complying with the laws leaving no time for development of new products or technologies. In

such circumstances, we can neither produce products with latest technology nor at competitive prices. We will always have to depend on other countries for the latest technology products.

Is automation and digitalisation increasing in the industry due to Covid 19?

Due to Covid-19, many migrant labourers who form the main work force for operating machines, which keep the production going, have gone back to their native place. Few have returned back, but a majority of the migrant labours are still at home. This has caused an acute shortage of labour force. In such circumstances, automation is the only alternative because automatic machines do not take leave, no ESIC, no PF, no unions, no bonus but can work un-interrupted 24 x 7 throughout the year. This will lead to higher profits for manufacturing plants.

How are you trying to tap the exports market?

Due to reduced demand for our products in overseas market, our concentration is on the local market.

What will be your focus for ensuring growth?

In 2021, we will consolidate on serving our existing customers. Also, we will focus on improving our after-sales service for our customer satisfaction.

IPF



GET ALL THE NEWS AND UPDATES AT THE CLICK OF A BUTTON!

Industrial Products Finder

India's Most Trusted & Largest Circulated Industrial Magazine since 1972

now available
any time
where

www.ipfonline.com

Access the digital edition of
Industrial Product Finder at
www.ipfonline.com/digitaledition/



Subscribe to our weekly newsletter
www.ipfonline.com/newsletter



Unmatched Digital Visibility!

				
Visits 93,486+	Unique Visitors 52,034+	Pages per Visit 8,19,797+	Hits 33,63,338+	Avg. Time spent per Visits 00:02:32



Scan this code with your
smartphone to directly log on to the
Industrial Product Finder website

BOOK YOUR SPACE TODAY!

FOR MORE INFORMATION
CALL ON: 022 2419 3000

Adsales@ipfonline.com

“Make in India has picked steam in the post Covid era”

Theeta Electricals is the largest tubular heating element manufacturing company in India supplying to major OEMs like Bajaj Electricals, Philips, Havells, etc. It has state-of-the-art facilities in Manesar (Gurgaon) and Solan (HP) with total of area of approximately 125,000 sq ft. In this interview with IPF, **Avishkar Prakash**, GM - Sales, Theeta Electricals Pvt Ltd, highlights on the current status of Indian appliances industry and how Theeta is helping its customers to make high-quality products.

Today, Theeta is one of the leading producers of heating elements in India. What would you attribute this success to?

The success can be attributed to two main factors. First is our single-minded focus. We have stuck to Tubular heating elements since the beginning, and this has ensured our quality, technology and design are far superior as compared to other heating element companies in India.

Second is Theeta's founders - headed and founded by S K Gulati in 1977 with Atam Prakash, Tejinder Singh and Narinder Gauba - always focused on building a strong and loyal customer base. Quality and customer service has always been Theeta's forte since its inception and this strong base has really helped us in our success.

What is the present status of the Indian appliance industry?

Penetration levels of Indian appliance industry is extremely low. As per Nirmal Bang report in 2019, the penetration levels of washing machine in India was 13 per cent compared to China's 88 per cent and world's 70 per cent. Similarly, for refrigerator, penetration level is 23 per cent in India compared to China's 92 per cent and world's 85 per cent. Water heater, which is Theeta's main market, was 10 per cent in 2018 and this is expected to increase drastically. Appliance market is very strong in China and India imports largely from China. We serve as a viable alternative to China's import and are strongly working towards Make in India efforts.

Are you seeing demand returning back since the last quarter (Oct-Dec 2020) of 2020?

Yes, market conditions have surprisingly turned positive in the last quarter. For us, we were lucky that the lockdown was during our lean season and our major season of Diwali was

largely unscathed.

What are the key challenges faced by companies like Theeta?

India is not only a developing industry but a learning one as well. Having lagged its neighbour China in its industrialisation, we are still some years behind in terms of technology and R&D culture. Auto industry is one that has seen major growth in this area, but appliance industry is still a few years behind. For Theeta to be a major global exporter, we need to find talent in the industry, automate processes and further enhance technology

equivalent to large heating element companies around the world. We also need to adopt new technology such as IoT, Web 2.0 etc.

What are the key lessons for you from Covid 19 pandemic?

There are two takeaways. First, like most QMS focus on risk assessment, this is a must to prepare ourselves for any such event in future. We neglect this a lot.

Second, find a silver lining in such scenarios. There are opportunities hidden within these phases and we need to be innovative enough to catch onto those opportunities.

How do you plan to explore the overseas market?

Our primary focus has been domestic market and will remain the same in the next few years considering major growth we see in domestic market. Though we do export and we will still keep exporting, our push will happen in a year or two.

Could you please elaborate on some of the products that you are developing?

We are working on foil heaters and soon will launch it in the market. Our R&D is working on various other projects but they are mostly at the development stage.



What are the emerging trends in your industry?

Some of the trends that we foresee are:

- Make in India has picked steam in the post Covid era
- Market is bouncing back after the beating it faced during lockdown
- Customers are becoming more and more conscious about quality and this is trickling down to OEMs who are focusing on quality culture even at their supplier's end.

What are your growth plans for 2021?

We are already working on a major expansion plan. Fine prints are still under discussion but we are going ahead with a major push with investments in capacity expansion, new machines, aggressive marketing and sales plan. The focus is to make Theeta the only quality alternative in India to major international heating element companies.

IPF

COMMUNICATION FEATURE

Balaji Switchgears offers smart solutions for automation

Today's world requires smart solutions for their machines and installations. The traditional technology is obsolete now in the market because in today's generation every manufacturer is looking for efficient and effective installations that can reduce the production cost and down time. Nowadays every machine in every plant has communication capable products which gives end-to-end data and full analysis. They reduce the working cycle of the machine or maybe the preventive maintenance with that machine or the installation could require. This not only helps a particular enterprise in reducing their downtime but also help in saving a lot of amount from their OPEX.

Balaji Switchgears, with its cutting-edge technology partners, offers a variety of smart solutions for any electrical and automation

installation. It may be Industry 4.0 IoT solutions for modern architectures or simple varied add-ons for your existing installations, our ranges can complement both type of systems.

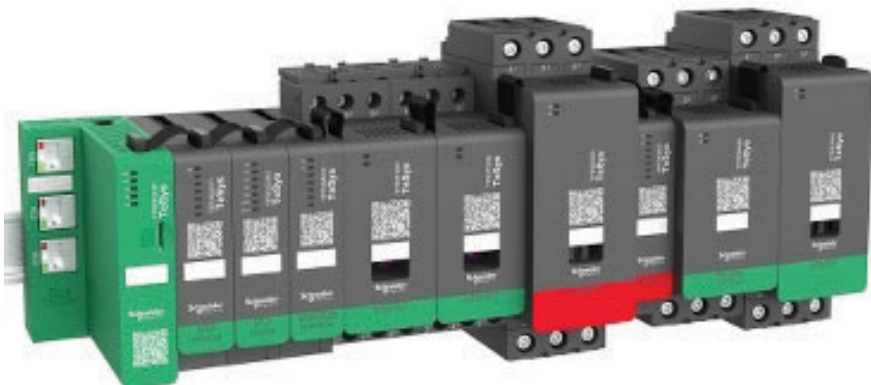
With Schneider, our smart solutions under the EcoStruXure banner helps any OEM to upgrade and communicate their machines making it hassle-free. These installations help its users witness various parameters which not only gives a clear picture of the production and efficiency of the machine but it also gives an advantage of knowing that when will the machine need some maintenance in future. This is very much needed in today's time as the



facilities cannot afford a downtime, and with predictive maintenance, data and analysis can be bypassed at any point in time.

From a simple machine to a complete complex plant, EcoStruXure can be your perfect guide. In addition to our new range of "TeSys Island" starters can help an installation to reduce its total number of IO'S and have a discrete architecture making a simple DOL Starter to be communication capable and predictive without any major cost. This makes your connections not only reliable but trustworthy as well as you get access to uncountable data which would not only help you to save cost but would also ensure that your machines are always running.

IPF



For more details, Saloni Garg, Asst. Manager-Sales, Balaji Switchgears Pvt Ltd, on Mob: +91 95603 01491, or Email: garg.saloni@balajiswitchgears.com

(Communication provided by the management of the company)

“2020 was tough, but COVID presented us opportunities”

Beko Technologies India Pvt Ltd - a 100% subsidiary of Beko Germany - has its manufacturing facility located in Hyderabad. For more than three decades, Beko Technologies has been developing, manufacturing and selling components and systems worldwide for an optimised compressed air quality and instrumentation & process solutions. In this interview, **Madhusudan M J**, Managing Director, BEKO Technologies India Pvt Ltd, talks about challenges before the industry and the company's focus areas for growth.

How did you managed to acquire new customers in a market hit by Covid 19 pandemic?

2020 was a tough period. However, COVID presented us opportunities in pharmaceutical segment providing us high value sales with aggressive customer approach both online, offline and visits after lockdown.

In spite of lockdown and minimal visits, online marketing and legacy performance of our products helped us in clinching the orders effectively.

Has the Covid 19 pandemic changed the way in which businesses are operating today?

Since we are an MNC, our parent company in Germany improved the online tools and IT infra to be in touch with customers during lockdown like video conferencing, online presentation, skype calls, review, webinars, etc. Even though company was closed, we bagged orders to dispatch after lockdown due to this IT infra and management sales pitch.

Yes, key changes are observed in logistics, online vendoring with the tools SAP, IT infrastructure, and COVID 19 protocols (touchless registering, social distancing, sanitising, safety posters, educating Covid precautions, masking, shields, factory & workplace sanitisation). The company has borne all the expenses.

What are the key concerns for growth?

The key concerns for growth are logistics, resources, automation, scheduling and sanitisation.

Logistics: Keeping deliveries in mind company took statistical inventory management by forward ordering of frequently ordered product components.

Resources: We made a 2-tier shift system instead of single shift keeping government law & order working & time instructions.

Automation: To minimise human resources and utilise automation tools.



Scheduling: Based on marketing inputs advance planning for manufacturing

Government has launched Atma Nirbhar Bharat Abhiyan and a slew of other schemes to promote Indian industries. Are these schemes working on ground?

Atma Nirbhar Bharat Abhiyan is implemented in our organisation for manufacturing products three years back. However, some products are unavailable temporarily and we are importing them. We are looking for indigenous alternatives keeping Beko philosophy of quality, performance & customer requirement satisfaction.

Quality and efficiencies are the key for Beko, and we are trying to match the schemes proposed by government.

Indigenous products require international quality & standards to be compliant.

Are a greater number of customers demanding automated products than before due to Covid 19?

Yes, we are seeing phenomenal increase in use of automated products & digital tools like all manual operations are upgraded to semi-automatic. All marketing activities are done in virtual environment.

In 2021, what will be your focus for ensuring growth?

Some of the key focus areas for the company to keep the growth momentum going are virtual sales, paperless operations, vendor base across country to minimise lockdown effects, strengthening marketing for advance manufacturing, strengthening IT infra, COVID protocols & resource education, health awareness, shorter deliveries, educating customer for spare & maintenance, training them for self-servicing to the extent possible, finding opportunities in the difficult times, new customer segments and new applications.

“Exports offer huge potential due to changed geo-political situations”

...says **Premal Karelia**, Managing Director, Jay Storage Solutions Pvt Ltd, during his interaction with IPF. He feels that the Government's initiatives (including Aatmanirbhar Bharat Abhiyan) to give a boost to industries will work, but need more time to show their effect.

How is Jay Storage Solutions helping companies in the manufacturing sector?

Our company began operations in 1984, we are a part of Jay Group of Companies specialising in providing warehouse solutions. We offer a vast ISO certified product range with tailor-made solutions to suit every industry. We have executed projects on national and international level and have won numerous awards. Our manufacturing facilities and offices are spread in combined area of 30,000 sq ft with latest machinery and equipment to keep pace with tremendous changes in logistic industry. Our human resource is highly trained and motivated to serve our clients. We are a customer focused company and swear by the motto “Always Customer First”



over Zoom and other apps have saved lot of time and money, helped us find a global audience to reach out in an acceptable way.

What are the key concerns for growth before the industries as they re-group after Covid 19 shock? What are probable solutions for them?

The initial key concerns may be to get organised again and make everyone work in one direction especially wherever physical presence is required. The other concern could be liquidity as it may take a little time for the wheel to roll faster. The probable solution is to

keep going and be positive.

Are the Government's initiatives like Aatmanirbhar Bharat Abhiyan and a slew of other schemes working on ground?

Certainly, the government schemes will work, but will require more time.

Are you seeing an increase in use of automated products/machinery and digital tools due to Covid 19?

Most certainly. This has been one of the positives from the Covid 19 pandemic, as companies are realising the necessity of automated systems to not only beat pandemic but also to make difference to balance sheet.

How are you trying to tap the exports market?

Export market has tremendous potential, especially looking at geo-political situations around the world. Many western companies are now focussing on India. We are trying to tap the export market through digital marketing and participation in virtual shows till time, exhibitions are restricted.

In 2021, what will be your focus for ensuring growth?

The main focus to ensure growth will be to increase existing market share and bring in new business, add new product and solutions, be more customer focussed and improve further quality standards.

IPF

How did you manage to sustain your business in 2020, a year full of uncertainty and severe downturn in the industry?

2020 has indeed been tough for everyone and we, of course, are no exception. However, after first couple of months, we were able to get back on our feet, mainly due to commitment and loyalty of our clients who believed in our services and products. It also gave us time for introspection on how to further improve our products and services.

Is the situation improving with demand picking up in the last quarter (Oct-Dec 2020) of 2020?

The situation definitely is improving, but nowhere near the levels prior to pandemic. But we remain optimistic as we definitely see demand and sustained growth over the next few months.

Will Covid 19 pandemic lead to any change in the way the businesses are operating today? What are the key lessons for you from this pandemic?

The key lessons are we should always strive to serve our customers well during good times, so that they can support us during bad times. Tough situations present new opportunities and this is no different. The use of electronic marketing has been a big plus, the meeting conducted

“We are focusing on verticals showing promising growth”

Established in October 2014, Instamod Airpipe Pvt Ltd specialises in air pipe work system for new projects, for renovation, extension or modification of existing system for industries like textile, electronics, food, automobiles and chemicals. It is a global company with presence in Asia (in countries like Vietnam, Taiwan, China, Malaysia), France (Europe) and USA. It has successfully won over 1,00,000 users at home and abroad. Instamod Airpipe guarantees 10 years quality assurance and provides excellent services. In this interview, **Santosh Kumar**, Managing Director, Instamod Airpipe Pvt Ltd, narrates challenges faced by the industry during Covid 19 pandemic and how the company plans to grow in 2021.

How did you manage to sustain during the tough period of 2020?

It was horrifying due to pandemic. It is little bit tough to survive in the market, but we didn't lose our concentration and focused on our pipeline. We were always in touch with customers, distributors and prospectus as well. It helped us a lot to conclude business with them.

2. Pricing as per situation
3. Sufficient production and proper planning
4. Need to enhance our reach, proper territory mapping
5. Availability of stock
6. Service

Are you seeing some bright spots in the market?

There was a slowdown. But now it is improving day by day as demand is rising. So, production needs to increase to fulfill demand. At present, we are focusing on some verticals, which are showing satisfactory growth. Going forward, we believe there will be a good opportunity in the market to increase business in terms of production and sales.

What are the key lessons for you from Covid 19 pandemic?

Key learnings for self and business are maintaining social distancing and using hand wash & sanitiser to ensure safety.

We saw some companies reducing their staff and operating with minimum workers. But we didn't opt for it. It is good time to act aggressively and tap the market at this time. We need to increase our reach so that we can grab more market share.

As the industries are restructuring in this pandemic situation, we need to focus on supply and service to win the customer trust.

As you re-group after Covid 19 effect, what are probable solutions for growth?

As far as growth is concerned, we need to take care of:

1. Market penetration



Are schemes like Aatmanirbhar Bharat Abhiyan, Make in India, etc working on ground? What more can the government do?

The Government has taken excellent initiative (Make In India) and is encouraging entrepreneurship in India. Through this concept, we can stop exodus of people and money as well. It will strengthen our country's economy. Yes, we can see there is lot of new start-ups and small-scale industries are getting benefits of these schemes. But people are suffering due to lack of knowledge about the schemes and process of getting benefits, getting financial aid from banks and

financial institutions.

In 2021, what will be your focus for ensuring growth?

In 2021, we need to focus on verticals which are growing in this situation. Our intention is to enhance both direct and indirect business, and increase the movement of salesperson. Our focus is on OEMs & large accounts (from where we can generate recurring business) and consultants (who are working on green field projects and recruiting new dealers).

How are you trying to tap the exports market?

To increase exports, we will be participating in industrial exhibitions in targeted country, recruit distributor and focus on branding.

Invest in right security seals to prevent revenue loss

Meter tampering is one of the main reasons for the losses of electricity distribution companies. The inconspicuous meter security seals can do wonders to prevent these revenue losses, says Rajesh Kumar Banka.

Today every electricity distribution companies are concerned to find ways to lower their AT&C losses and be self sustained and profitable. One of the main reasons of revenue loss is power theft by meter tampering. The meter tampering is not new and has been in practice since the very beginning of meter invention. Every distribution company is doing their best to reduce the loss by preventing meter tampering but is often failing to achieve the desired results.

One of the main reasons of failure to control meter tampering since ages has been the failure to protect the utility meters correctly. It includes selection, adoption, standardisation, procurement, application, record keeping, vigilance and disposal. It is a general impression of many utilities that meter seals do not work, and as a rule of regulatory authority, meter seals are being slapped over meters just as statutory requirement. No one has ever analysed the root cause of failure of meter tampering and the importance of tamper evident meter security seals and how effectively they can combat meter tampering.

Before we get into further details, first, we need to know a few important facts about meter security seals:

- Meter security seal is a security item, whose failure results in a substantial revenue loss to the electricity distribution companies and has a direct impact on their balance sheet.
- A meter security seal is a security and safety product and hence its specification is required to be kept secret, which is, generally not maintained.
- A meter security seal is the most important product that any electric distribution company procures, though the monetary value is very negligible to its total annual procurement value.
- Being a revenue protection product, a meter security seal, must be robust, foolproof and most importantly. It should not be accessible by counterfeiters.



About the author

Rajesh Kumar Banka is Managing Director of Safcon Seals Pvt Ltd and is in the security seal business for 25 years. He has invented many tamper evident security seals and many of his innovative security seals are patented. He can be reached on email: rajesh@safcon.co.in



Metgrip tamper evident patented meter security seals

- This product must be selected intelligently and the specifications must be under wraps. Generally, everything is clearly mentioned in tender technical specification - shape, type, design, size of the meter security seal, details of security id, company identification, and serial number details etc. All this makes ready reckoner for the counterfeiter to be well prepared beforehand to do his job.
- Meter security seal must be unique and should not be changed frequently as it goes directly in favour of counterfeiters. Unique means shape, size, design and ensuring that an identical meter security seal is not readily available in the market.



Installed Metgrip security seals

Now let us focus on what happens when we adopt a tender process to procure a security item and why it should not be procured through tender process:

- You select a unique technically superior type of meter seal and make a specification.



Tamper resistant metallic cable security seals for HT-LT connections

- The specification of your revenue protecting device, the meter seal, is made public to get maximum bidders to buy cheapest.
- In the process you select say, Meter Seal manufactured by 'A' and you end up buying from manufacturers 'B' or 'C'. Or sometime you order both B and C because their prices were cheapest.
- During your next procurement tender manufacturer 'D' and 'E' gets the order for being L1 & L2 bidders.
- Over a period of time your meters are being sealed with 5-6 different types of meter seals.
- Meter security seals on some consumer meters are changed for maintenance or replacement of meter and on some meters your security seal remain the same. Normally electric distribution companies maintain records of meter seals' serial number but never design details like type, design, make etc are on records. This gives very easy access to counterfeiters to easily tamper the meter and replace the seal with same serial number and hence tampering is never detected. Normally only logo and serial number is verified. Under the process the vigilance team fails to recognise the duplicate or fake seal without their fault.
- More than 70 per cent meter seals used are very common in shape and size because they meet the general technical specification of the power distribution companies and are easily accessible to the counterfeiters.

All the above practices may save you a few cents per meter but result into high power theft without any trace. This has been ruining distribution company's balance sheet year after year, accumulating higher losses.

It is high time to rethink about standardisation of unique security seals for protecting utility meters, manufactured by reliable and professional manufacturers, the procurement process, and keeping a long-term view of meter security seals usage, storage and installation process, along with a disposal system to achieve desired results. Being a small value product, many financially and/or morally weak plastic moulding units are claiming themselves as meter seal manufacturers and selling the product with cheaper prices to gain business. This low pricing is not possible for any innovative manufacturers,

investing in research and development teams to update their security products from time to time and innovating new solutions to defeat newly identified ways of malpractice by counterfeiters.

Today we all are under the impression that by replacing the traditional meters with smart meters, we can stop power theft completely. Smart meters or AMI or prepaid meters have remote reading facility which will reduce the physical contact of the utility with meters installed in the consumer premises, hence, it makes it all the more critically essential to seal the new meters with smarter unique meter security seal that will have authenticity for longer period of time.

The inconspicuous meter security seals can do wonders to prevent revenue losses to electricity distribution companies. The power theft losses by meter tampering of the electricity distribution companies can be attributed to the fact that they are 'Penny Wise Pound Foolish' while selecting the security guards (security seals) for revenue cash register (meter) thereby, missing the most important security aspect of the seal. We all know all security guards are not equal. They are different because of their training, performance and the experience of the security guard agency. You cannot compare the cost of a security guard from a renowned agency with that of a local small agency.



Glass-like transparent coloured meter security seals

Similarly, there will always be a difference in prices between a seal supplier and security seal innovator. Genuine manufacturers strictly follow professional ethics and know their responsibilities towards their customers in the revenue protection security product business.

In view of the above facts, the procurement of meter security seals needs to be reviewed simply because in 'Cheaper' or 'L1' process one ends up "Penny Wise And Pound Foolish" by compromising on quality of the product and poor security of meters which is the cash register for electricity distribution companies. Quality comes at a price and "Poor Security is No Security" which has been clearly visible in the AT&T losses of power distribution companies over many decades. The meter security seal must be purchased from the original manufacturers on Long Term Purchase Agreement (LTPA). Revenue Protection is a need, not a choice for utilities.

The Covid19 Pandemic has taught everyone worldwide that preventive measures are needed to increase our immunity system to save one from Coronavirus attack. Similarly, preventive actions to prevent meter tampering can save a lot of revenue to the electric distribution companies.

Metal detector silicone rubber enhances safety in industries

Product quality is matter of bigger concern in pharmaceutical, food and drink industry. Major processing steps involve the dynamic movement of silicone rubber parts. Silicone is most preferred choice for sealing application in food and pharma industry. There was a risk in the pharmaceutical, food and drink industry of silicone rubber particles accidentally falling into the products during the production process, due to natural wear and tear. This kind of contamination can cause serious quality problems during the production and it may affect the reputation of company.

Scope of Metal detectable silicone rubber

To assure the products contamination free, idea of metal detectable silicone arose. As the name suggests, metal detectable silicone rubber is unique solution to avoid contamination in production line. Metal detector devices can detect silicone-based products made from this unique formulation.

During mass production if device generates any signal of metal presence in product due to failure of seal or abrasion of gaskets, Line can be stopped immediately. Due to the safety and cost-effective solution, metal detector silicone rubber products are quickly becoming best solution for industries like pharmaceutical, food and beverages.

FDA-approved metal detectable silicone rubber: A challenge

Designing formulation as per food and pharma regulatory compliances is really challenging task for rubber formulators. To maintain food properties along with metal detectable formula is matter of expertise, which is required to be placed for balancing both properties.



Few silicone products are used in food and pharma product contact applications with required compliances to BfR, FDA, ISO 10993 (Biocompatibility testing), Class VI, European Pharmacopoeia, TSE-BSE, RoHS Compliant, Phthalate-free, French Pharmacopoeia, etc.

Metal detectable silicone rubber is used in following industries:

- Food contact applications: Silicone brush, silicone anti-slip conveyor, silicone seal, silicone conveyor for food industry, etc
- Pharma applications: Silicone bellow, silicone sheet

Above mentioned all the products can be traceable through X ray devices. Any small segment of rubber contaminating with drug product can be traced through devices and defected products can be separated due to this innovation.

Market of metal detectable silicone is growing and many industries are waiting to taste fruits of this development. Polymer industries are developing multiple applications of these formulations and we expect that conventional silicones will be soon replaced with metal detectable silicones.

IPF

Article Courtesy: Ami Polymer Pvt Ltd

NEWS SNIPPET

Hindustan Impex seeks distributorship for industrial products for expansion

Hindustan Impex, one of the leading suppliers of industrial products in Chhattisgarh and adjoining states since last 75 years, is looking for distributorship to expand its business. "We are biggest (all India ranking) supplier of reputed brand industrial lubricants and bearings to all small and big industries of Chhattisgarh and adjoining states. We are a group of companies with turnover of over Rs 300 million. To expand our business spectrum, we are seeking distributorship of likewise reputed industrial products for Chhattisgarh region. We have efficient experienced sales

team, godown space, transportation facility and sufficient financial resources to add new products in our sales range," says the company official.

Major steel and power plants, cement plants, oil chemical and gas plants, construction companies, casting units, paper industries maintenance units and ancillary industries are its customers.

IPF



For details, contact Mitesh Singhania of Hindustan Impex, Raipur (Chhattisgarh), on Mob: +91 98933 02224, Email: himpex_raipur@yahoo.com, or visit www.hindustanimpex.in

Thermal imaging camera helps solve HVAC duct leak issues

In case of a series of failures within a building's HVAC system, a thermal imaging camera can quickly scan the ductwork for leaks and help you take corrective measures.

When duct work is improperly installed or develops air leaks in residential/commercial premises, HVAC systems will run inefficiently. In such cases, thermal imaging cameras provide a fast, easy way to identify air leaks, so repairs can begin immediately.



the ductwork system, a thermal camera can be used to inspect the condenser unit to see if a coil is plugged and identify exactly where on the coil the blockage is occurring. It is also ideal to detect if there are mould conditions, troubleshoot airflow problems, and better predict mechanical failure. The FLIR C3 includes a professional reporting software, FLIR Tools and is Wi-Fi enabled. It is an affordable

addition that will no doubt pay for itself after the first successful job.

The challenge

Sudden surges in electricity use can indicate a problem or series of failures within a building's HVAC system. A common source of energy loss is with leaks in the HVAC ductwork. This could mean energy bills up to 30 or 40% higher than running a system without leaks. Heating and cooling professionals are tasked with diagnosing what the problem could be. This can be time consuming, since the traditional method would require inspecting each system element individually. Not to mention that some ductwork can be located in very hard to reach areas.

Highlighted solution

It is more efficient to use a thermal camera to scan for potential problem spots first. With a thermal camera, you can detect hot spots and cold spots, for example, using a FLIR C3, a pocket-sized thermal camera, on ducts and vents could reveal spot leaks at joints. It could also help an HVAC professional determine that the HVAC inefficiency is from insulation loss. In addition to scanning

The results

A thermal imaging camera can help you quickly and efficiently scan the complete ductwork for leaks and disconnections. Thermal imaging can detect small leaks and areas where duct insulation has broken down causing hot/cold air to escape. What would have taken a whole day of crawling in hot attics and tight crawl spaces or inspecting a large system can be accomplished in a fraction of the time. Once detected, the leaks can be fixed so the HVAC system runs efficiently again. In the end, thermal imaging helps HVAC professionals solve problems faster and save customers money.

IPF

For details, contact FLIR Systems India Pvt Ltd, New Delhi, on Tel: +91 11 4560 3555, Email: flirindia@flir.com.hk, or visit www.flir.in/building-inspection-maintenance

TECH UPDATE

C. And C. Laser Engineering offers PhotoScribe pill marking solution

PhotoScribe Technologies has impressed the pharmaceutical industry by developing the fastest laser for micro-marking pills on the fly. Marking at speeds exceeding 410,000 pills per hour, the laser's marking operation's efficiency reduces both cost and downtime for companies looking to increase productivity in a tangible way. Lasers have made inroads into the pharmaceutical industry, primarily marking unique IDs on packaging, security control, tracking, direct pill marking, and drilling. There has been a tremendous development and significant improvement in lasers' capabilities; they are easier to operate, don't require laser expertise, and have intuitive software with a friendly user interface.

PhotoScribe's LMCP-100 Extreme laser provides a fast,

single process, non-contrast marking. No consumables are required. Allows for extremely high speeds while maintaining a low cost of operation. Flexibility is key, with the operator having the ability to change marks without the need to change printing rollers. The LMCP-100 Extreme laser has the ability to serialise and change a mark on the fly during the marking process. Because multiple marking files can be saved, the process gives a renewed sense of ease to marking, while also reducing the cost of high-quality printing and drilling.

IPF



For details, contact C. And C. Laser Engineering Pvt Ltd, Mumbai, on Mob: + 91 98331 05515, Email: info@cncclaserengg.com, or visit www.cncclaserengg.com

Simulation software eliminates programming errors in CNC machines

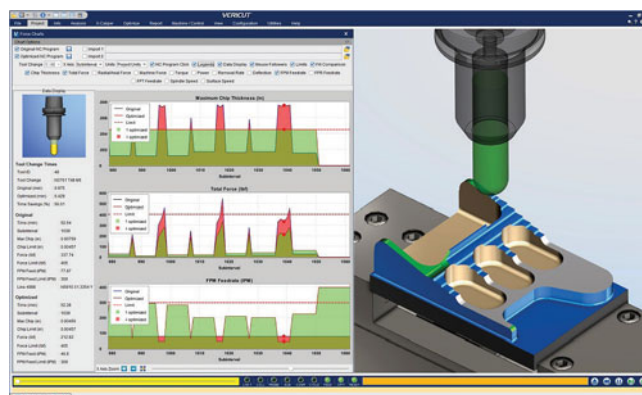
A programming error can inadvertently crash a costly machine tool. CGTech Inc's VERICUT toolpath simulation and optimization software helps programmers eliminate such errors and ensure efficient metalworking operations.

A manufacturer might have any number of reasons to look for outside programming help. The engineering department is overloaded. A new five-axis machining center or multitasking lathe just hit the floor and the shop's programming team is now scratching their heads, wondering where to start. Or perhaps the workpiece is worth tens of thousands of dollars and some expert advice is needed on how to most efficiently process it. This last situation is a common one for many aerospace shops, especially when combined with the second scenario - the increasing prevalence of highly sophisticated CNC machine tools, equipment that many programmers are still struggling to master.

Risk avoidance

Dale Fry knows all about it. Three years ago, he decided he'd had enough of the daily machine shop grind and opened Southern Programming Application Contract Engineering (SPACE). He's been busy ever since. "I've been in the business for 30 years now," he said. "When I first started out, I moved from company to company across the United States, learning all I could from each one. And when I came here to Alabama, I decided it was time to start programming for myself."

Most of Fry's work is from clients in the aerospace industry, and most of that is the programming of five-axis machining centers. Despite this common theme, he's noticed one thing, both as an independent programmer and before: every shop does things differently. Different brands and styles of cutting tools, different toolholders and workholding methods, and especially different approaches to metal removal, all of which require that Fry work closely with his customers to understand each one's unique manufacturing processes.

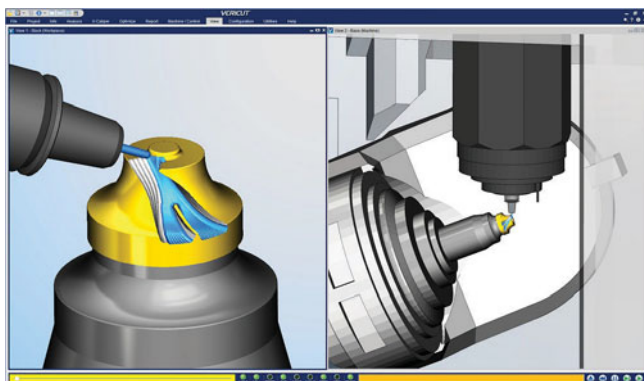


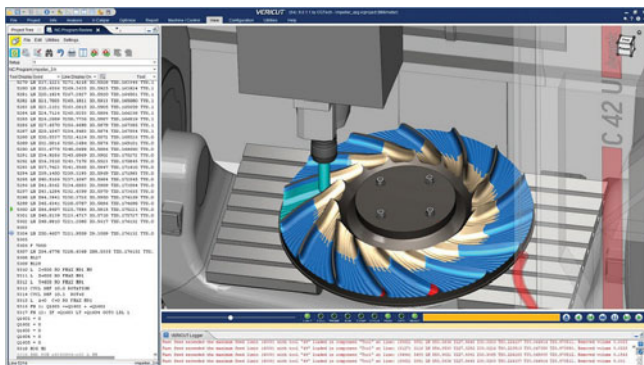
Yet there's one tool that has consistently levelled the playing field, assuring Fry and his clients that a programming error won't inadvertently crash a costly machine tool: VERICUT toolpath simulation and optimization software from CGTech Inc. in Irvine, California. "I've used VERICUT over the past twenty years or so at different companies, so when I opened my own business, and my first customer sent me a VERICUT file, I knew it would continue to play an important role in my work," Fry said. "In fact, I've turned down jobs from potential clients just because they don't use VERICUT."

In addition to his previous shop experience, Fry now works with dozens of manufacturers; he's seen the good, the bad, and the just plain ugly. When asked about common mistakes and what advice he would give to shops hoping to improve their operations, his response was hardly surprising: get VERICUT. "I have a well-known, very high-end CAM system, but it's not all that great at toolpath simulation," he said. "For one thing, it's too cumbersome, but more importantly, it doesn't provide all of the critical information that VERICUT has to offer. The stakes are just too high for me not to use VERICUT."

Seeing clearly

Bruce Roth of Clearwater, Kansas, has had a similar experience, albeit for far longer. Like Fry, he's been a VERICUT user since opening the doors of his contract programming firm, Superior Programming, but that was 25 years ago. Roth has since done work for numerous consulting firms and direct customers, most of it in the aerospace field and, again, most of it five-axis programming. He and Fry even use the same brand of CAM software, although Roth's biggest complaint is that it doesn't offer the same level of technical data as VERICUT.





"I've been working full-time with Advanced Plastics and Machining in Owasso, Oklahoma over the past year and a half, and was actually brought on to help them implement that CAM software, along with VERICUT," he said. "Both are excellent systems, but we're cutting a lot of titanium here, and it's critical to maintain constant cutter loads, something that VERICUT does quite well. It lets you know, for example, when you plowed into a corner, which would either cause a bunch of chatter or even break the cutter. By watching the load graphs, it's pretty easy to

catch stuff like that."

Despite his extensive programming experience, Roth admittedly makes mistakes. VERICUT finds them. Aside from the overload situation just described, there are collisions, over-travels, and post-processing errors to be concerned with, all of which are clearly visible in VERICUT. This allows Roth and the others at Advanced to correct such problems before they hit the production floor.

Aside from agreeing with Fry's advice to use VERICUT, Roth had several additional recommendations to anyone interested in continuous improvement, starting with re-evaluating their current methodology. "If you're one of those people who says 'Well, we've been doing it this way for the last 30 years and it's been working,' you need to break out of that rut," he said. "There've been so many advances in manufacturing technology over the past decade or so, from workholding and cutting tools to advanced toolpaths and machine simulation. The cost and productivity benefits of each are pretty dramatic. Grabbing hold of them is just a matter of setting aside the status quo and taking the next step forward."

IPF

Courtesy: CGTech Inc

TECH UPDATE

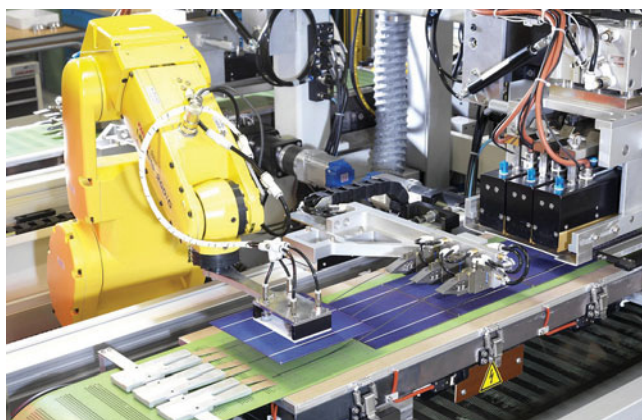
Steel belts shine in solar cell applications

In recent years, the production of solar cells has exploded as the world makes a dash for cleaner, renewable energy sources. As production ramps up, producers are looking at more efficient ways to produce these cells at cheaper prices and more efficiently in volume. Above all, quality and reliability of the cell in application is key to continued growth of sales and consumer confidence.

Machinery manufacturers use the belts in the Tabber and stringer operations of their automated production machinery. Here, the cells are transported individually, often by vacuum, and welded together on the steel belts to form complete solar panels.

Steel belts are used over other belt options for several reasons. Firstly, they are robust enough to be used as vacuum belts – holes are perforated in the belts and belts are put under vacuum so cells can be precisely moved to the required spot ready for welding. Belts must be able to survive high-speed movement across a vacuum plenum. Accuracy of movement in both the lateral and horizontal planes of 0.1 mm or less is often required. Furthermore, the belts must resist the high temperatures of the soldering operation as the individual cells are assembled using bus ribbons, with the soldering of these ribbons often carried out by laser. Some belts are coated with release coatings such as Teflon to avoid any solder sticking to them. The coatings must have high abrasion resistance and also resist the various fluxes used in the industry.

Sets of up to seven belts between 10 and 30 mm wide



are used, some perforated for vacuum, others with coatings and also some without vacuum holes. In such applications, as belts are running in parallel with one another, very tight length tolerances are expected. Alternatively, wider single steel belts with more pronounced vacuum patterns, often over 200 mm wide, can also play a role.

The demands of this high-tech 21st Century business could not be met without the versatility of steel belt technology.

IPF

For details, contact the Business Team of The Prolific, Kolkata, on Tel: +91 33 2231 1075, Mob: +91 98303 48650, Email: sales@prolificbelting.in, or visit www.prolificbelting.in

ACE banking on premium MHE segment for growth

The company, which tied up with Korea's Doosan Corporation for premium material handling equipment (MHE) in July 2020, hopes to gain a good market share in this highly competitive segment.

Action Construction Equipment (ACE), India's leading material handling and construction equipment manufacturing company and the largest crane manufacturing company in the world, is banking on the premium material handling equipment (MHE) segment to bolster growth. In July 2020, ACE joined hands with Doosan Corporation, a Korean multinational conglomerate, to represent their 'Industrial Vehicle' - MHE Segment in India. This was a strategic move for both the partners to secure a majority market share in India.

Doosan Corporation, a Fortune 500 company, is one of the first foreign MHE brands to foray in India. The company had its supremacy established through its technologically advanced and innovative products. The brand is popular for its reliability and dependability, whereas ACE is the Indian brand grown with the core philosophy of offering 'reliable product at reasonable price and supported by prompt services'. ACE represents Doosan premium material handling equipment in India, besides its own range for the mass market. In Indian MHE market, 75-80 per cent represents mass market and the remaining 20-25 per cent is premium segment.

The economic growth in India in the past couple of years has attracted many multinational companies (MNCs) to establish their presence in India.



“ In the cranes market, we are number one with 70 per cent market share, which is a similar market. In the forklift market, we started from scratch 10 years back and today we are one of the leaders. We have good scope and have the potential to do well in the premium MHE segment as well. **”**

Chetan Gole, CEO (Forklifts Vertical), ACE



These global brands and certain Indian industry segments have affinity towards high performance premium products. This premium segment contributes to around 20-25 per cent of the current MHE business, which is mainly taken by imported European and Japanese brands.

The current market for the premium MHE segment in India is competitive with the presence of these global brands. But ACE is bullish on gaining a good market share in this segment.

Chetan Gole, CEO (Forklifts Vertical),

ACE, elaborated, "In the cranes market, we are number one with 70 per cent market share, which is a similar market. In the forklift market, we started from scratch 10 years back and today we are one of the leaders. We have good scope and have the potential to do well in the premium MHE segment as well."

The new joint initiative is expected to help Doosan regain and consolidate its market share by using the wide spread ACE network of more than 100 dealers for sales and service support across India. On the other hand, ACE gets a pie of the premium segment, thereby increasing its market share further. So, it is a win-win strategy for both the partners. This new partnership of Doosan in India with ACE is expected to streamline and support the existing customers and infuse new energy and confidence in brand Doosan in India, making them leaders in the premium segment in the country.

IPF



Empire Cables eyes government projects and exports for growth

With the government reinstating stalled infrastructure projects, the company expects rise in demand for cables and wires in the coming months. In addition, Empire Cables is exploring overseas markets like Middle East for more business opportunities.

Empire Cables, a leading manufacturer of various types of wires and cables, is banking on the Government-backed infrastructure projects and overseas markets to give a fillip to its business in 2021. With the government reinstating stalled infrastructure projects, the company expects more demand to be generated for cables and wires.

Highlighting the significance of the infra boom in India, Rajesh Aggarwal, Director, Empire Cables, stated, "The government projects announced and those which remained stalled during nationwide lockdown will now gear up demand for cables and wires. These projects include projects of power, roads, electrifications, development of industrial zones and others."

Speaking further on the government's role, he said, "We are actively involved in the government tendering and private tendering. Thus, we have been supplying large organisations for long. As PSUs have now opened up more to seek supplies domestically, we have bigger opportunities."

Government initiatives that were announced recently are based on the premise that Indian industries develop indigenous products, build economies of scale and become export hubs. "We have explored a pilot for exports to initiate our business overseas. We exported to the Middle East before the lockdown was imposed. We will look forward to strengthening the same in the days to come," he elaborated.

Empire Cables' products are used exclusively in different departments of companies like BHEL, NHPC, NTPC, Power Grid Corp, etc. In line with its motto 'We care for you', safety and customer service have been the company's top priorities.

The company offers a wide range of products such as XLPE cables, power cables, control cables, domestic wires and FRLS wires. The extended range consists of LT and HT cables, FR/FRLS and ZHFR cables, single and multi-core cables, cables for house and industry, co-axial cables and CCTV cables, telephone cables and PCM cables, PVC submersible 3 core flat cables, multi-core screened (shielded) cables, RF cables and telecommunication cables, CAT-5 cables for computer applications.

Quality is a top priority

Empire Cables has a state-of-the-art manufacturing facility at Badli Industrial Area in Delhi. With the modern technology & independent testing facilities of excellence, products undergo stringent quality tests as per national &



“ We are actively involved in the government tendering and private tendering. Thus, we have been supplying large organisations for long. As PSUs have now opened up more to seek supplies domestically, we have bigger opportunities. ”

Rajesh Aggarwal, Director,
Empire Cables



“ UL 1015 approved cables and tri-rated cables are manufactured utilising the most advanced technologies and superior grade of copper conductor that confirms to acceptable high standards and ensures a smooth and un-stopped flow of electricity. ”

Ishaan Aggarwal, CEO,
Empire Cables

international standards at Empire Cables. It is an UL India approved company producing the best quality of wires and tri-rated cables. The continuous inspection in the quality deliverance has made Empire Cables inculcate the international quality standards and is striving for the Six Sigma quality levels.

The company's R&D department churns out innovations that ultimately transforms into a new product. With these innovations, Empire Cables has widened the scope of supply for UL approved cables. "UL 1015 approved cables and tri-rated cables are manufactured utilising the most advanced technologies and we use supreme quality or superior grade of copper conductor that confirms to acceptable high standards and ensures a smooth and un-stopped flow of electricity. Empire Cables offers time-crunched and cost-effective UL approved cables to all corners of the world," said Ishaan Aggarwal, CEO, Empire Cables.

Washmatic India's new UV sterilizer cabinet enhances safety in restaurants

The sterilizer cabinet can be used as a knife and other articles sterilizer in food preparation industry. It is one of the innovative products to make the food business safe and hygienic for people visiting.

Restaurants and hotel businesses impacted hugely with Covid 19 and people are still worried about having dinner anywhere outside. To make the hotel business and food joints safe and hygienic Washmatic India has now introduced new UV sterilizer cabinet.

The sterilizer cabinet can be used as a knife and other articles sterilizer in food preparation industry. It is one of the innovative products to make the food business safe and hygienic for people visiting. Restaurants are the most visited places and it has to be safe, attractive, cozy, and relaxing for all family members. It is also necessary that hotels look appealing to your guests and they should find it as clean and safe.



Restaurants are the most visited places and it has to be safe, attractive, cozy, and relaxing for all family members. Washmatic's sterilizer cabinet is one of the innovative products to make the food business safe and hygienic for people visiting.

If you are among those who are planning to reopen your hotel / restaurant / any other food outlet or even a saloon for guests then buying a sterilizer is an important decision to make. It is generally believed that adding high-class accessories and gadget can not only bring more magnificence and glamour to the food outlet but it also enhances the trust of your customers.

Why sterilizer is important?

It is one compact gadget with an overall Size of 400*150*600 mm and has a capacity to hold 15 knives or similar articles like scissors, tools etc. It makes your outlet look elegant as it consists of double-walled construction with a brushed finish exterior and mirror interiors and a smoked plexiglass door. Hotels nowadays are encouraging open kitchens that bound staff to make their kitchen area clean and hygienic and a sterilizer is one kitchen gadget that every hotel should have.

The sterilizer is a sophisticated appliance with a soft closing door of high quality smoked acrylic and an attractive removable see-through knives holder. No need to rotate the articles, thanks to its all-round sterilization technique.

The manufacturer, Washmatic India Pvt Ltd, tends to innovate new things that may assist the user in doing

business with great ease. It is one of the best products with Philips make UVC 254 nm (germ kill) UVC lamps for maximum effect. It is also equipped with a door safety switch which switches off UV lamps on opening the door.

The sterilizer has many more features like:

- One-touch on/ off switch with 120-minute timer
- Made from 100% stainless steel.
- Removable power cord
- Easy to hang keyholes
- Soft closing door
- See through door
- CE and ISO9000 certifications

Hotels nowadays are encouraging open kitchens that bound staff to make their kitchen area clean and hygienic and a sterilizer is one kitchen gadget that every hotel should have.

Technology is providing great help to people and they can control their daily routine in a much better way. Washmatic is known for giving top quality products that may build your daily activities of preparation easy and fast. It has developed a number of products from dishwashers to sterilizers. "If you're trying to find some reasonable choices for appliances then you'll like Washmatic products. They are known for providing innovative, prime quality merchandise, and the products are extremely famous across India and the world," said the company in the release.

IPF

For details, contact Washmatic India Pvt Ltd, New Delhi, on Mob: +91 88000 23044, or Email: info@washmaticindia.com

Salvagnini's laser cutting machines enhance sheet metal processing

L3 and L5 fibre laser cutting machines are consolidated systems in the market. In line with the Salvagnini tradition, they are constantly perfected with the introduction of new hardware and software solutions.

With its progressive shift from a make-to-stock strategy and from the economic batch to a lean, make-to-order, just-in-time strategy, the modern economic and industrial context has been driving Salvagnini's product development for some time.

The two Salvagnini laser product lines are both based on fiber technology: L3, a versatile system intended for transversal use, whatever the applications, materials and thicknesses, and L5, a highly performing, high-dynamic system for thin and medium-thin material. The adoption rates of the L3 and L5 vary according to the customer's industrial sectors but, above all for the L5, we can identify an interesting trend: the choice of relatively low powers, precisely in those sectors where thin sheet metal is used the most, demonstrating that increased power is not always the best answer. And it is particularly interesting that this is confirmed by the customers themselves, when seeking the most suitable solutions for their own sector and their own needs.

However, Salvagnini has also extended its cutting power range, introducing first a 6kW high-density power source, and then a 10kW source. This extension has benefited the L5: its high dynamics have further improved the cutting speed reached by more powerful sources. From early 2021, both product lines will have higher XY positioning speeds.

So, the L3 and L5 are both consolidated systems in the market but, in line with the Salvagnini tradition, they are constantly perfected with the introduction of new hardware and software solutions.

"In this sense, we have focused on three main trends," explains Pierandrea Bello, Salvagnini Product Manager for laser technologies. "The first is that of simplification, developing easy-to-use, lean solutions allowing operators to effortlessly solve some of the everyday problems involved in their work. This category includes for example a series of artificial vision devices, including the recent



Salvagnini's L3 fibre laser cutting machine

addition, the NVS (Nozzle Vision System). The second area is that of automation, which helps to recover significant efficiencies. The third is that of process optimization, to improve overall factory performance through digitalization and OPS, the modular production management software."

Solving problems with artificial vision

For some time, Salvagnini has been developing and implementing artificial vision applications on its systems, allowing operators to effortlessly solve some of the everyday problems involved in their work. These lean, easy-to-use solutions have the advantage of increasing flexibility and extending the sectors of laser cutting applications.

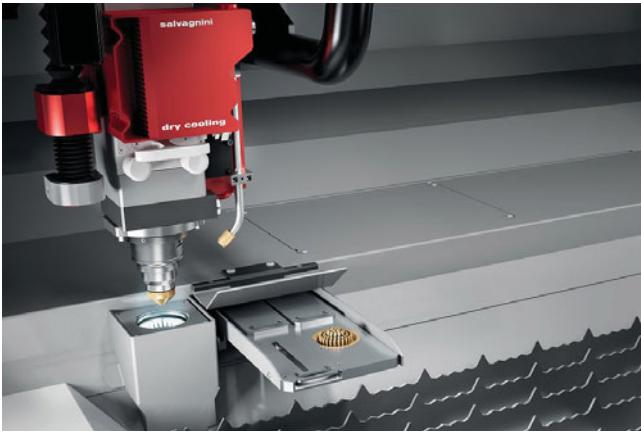
"To accelerate sheet metal centering, and to allow centering even on parts that have already been punched or pre-holed, we have introduced the AVS," Bello explains. "The AVS can transform laser cutting into a downstream work station after punching. Then we focused on the SVS."

The SVS, acronym for Sheet/Scrap Vision System, helps to re-use sheet metal leftovers - the residues of previous machining which are often used for samples, to make urgent parts of different sizes, in single batches, and to replace any machining scrap after cutting. Directly on the machine, the SVS calculates a dxf to use as the starting sheet for quick, easy and error-free nesting of the new parts to be cut. The SVS is supplied combined with STREAMLASER on Machine, the on-board version of the Salvagnini CAM.

"The SVS comes in two versions," Bello continues. "SVS1, which has a single camera focusing on the leftover and a working range of 1600x1500mm, and SVS2, which uses two cameras and has a much larger working range of 3000x1500mm. The latest innovation is the NVS, acronym for Nozzle Vision System. The NVS checks the centering of the laser beam and the state of the nozzle, solving various imprecisions in a truly rapid and intuitive



Salvagnini's L5 fibre laser cutting machine



Salvagnini's artificial vision devices, like NVS (Nozzle Vision System), allow operators to effortlessly solve some of the everyday problems involved in their work

manner. With the machine learning algorithms applied, it can suggest solutions that help to reduce waste."

Automation for recovering efficiency

In the world of laser cutting systems, automation plays an increasingly important role. On one hand, the cutting speeds achieved today have shifted the attention of many companies in the sheet metal sector to the phases immediately up- and downstream of the actual cutting: unloading and loading often risk becoming dangerous bottlenecks. On the other, automation can help reduce the impact of labour costs.

"Obviously, both perspectives are correct," Bello resumes. "But, in our vision, what is truly decisive is the positive impact automation has on the efficiency not only of the individual machining phases but of the production process as a whole."

Because system configurations can have a decisive impact on efficiency.

"With LINKS, our IoT solution that continuously monitors the data from systems connected all around the world, we have assessed the efficiency of their configurations, analyzing the many variables that come into play, such as the type and weight of the sheet metal used and the material handling and waiting times. The results of this study are remarkable: while stand-alone solutions have an average efficiency of around 60 per cent, automated systems have much higher efficiency values, reaching 80 per cent or even 90 per cent, if we consider the LTWS store-tower," Bello explains.

Automated loading/unloading coupled to a store-tower is an enabling factor for increasing the autonomy of the cutting system, as it makes different materials and thicknesses available continuously for just-in-time machining, reducing waiting times due to sheet metal feeding. Above all, in production contexts marked by low volumes and rapid production changes, combining the store-tower with automatic loading/unloading devices is a winning strategy.

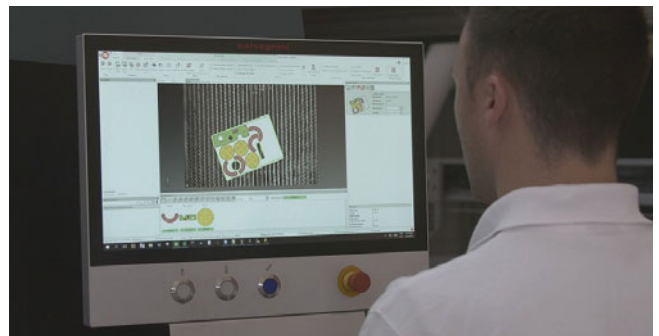
"And if we add an automatic sorting solution to the loading/unloading device, we can also regain efficiency

not just in the cutting phases but also in the machining phases after cutting," Bello continues. "In this sense, our LTWS store-tower with MCU sorting is very interesting. The store-tower can manage different materials, thicknesses and sizes, reducing waiting times and making the loading/unloading phases extremely fast, indeed 50 seconds. Moreover, the software controlling the store-tower is able to identify the trays loaded with the sheet metal to be machined, when empty, as trays used to stack the machined material, thus increasing the operating autonomy of the store-tower, thanks to dynamic tray management. The MCU sorting device can cleverly stack parts of different shapes, sizes and weights, in multigripping mode, thus allowing several parts to be picked up by the same gripping device. Automatic sorting considerably facilitates the work of the operators, who can pick up the parts already stacked without having to separate them, thus greatly reducing the waiting times between the end of cutting and the start of the next phase. But sorting can also make single parts available for downstream machining in urgent cases, or in some cases can physically integrate the laser system with panel benders or robotized bending cells downstream."

Complete, modular product range

The Salvagnini laser automation range has always been very wide and modular, and each system can be configured differently to suit different production needs. Today the whole range has been updated, not only to respond to practically all layout and configuration needs, but above all the need to reduce loading/unloading times even further. While faster cutting speeds have reduced cutting times, Salvagnini automation has naturally evolved as a consequence.

The new ADLU connection automates the sheet metal loading and the machined sheet unloading phases, with a cycle time of less than one minute. It is equipped with a suction-cups loading device and independent forks unloader, and is naturally set up for integration with the MCU or with any tray store if required. ADLU is also a flexible solution in terms of layout, because its floor-based structure is modular and can be adapted to the available spaces in the workshop. At the same time, ADLL, the Salvagnini connection with performance similar to the ADLU, but used in longitudinal configuration and which



The SVS, acronym for Sheet/Scrap Vision System, helps to re-use sheet metal leftovers

can be integrated with either a store-tower or an MCU, is particularly suited to situations in which depth is a constraint. In configurations from 5 to 20 trays, with ultra-rapid cycles and high autonomy, the LTWS store-tower is an extremely compact high-end solution. It is available in single or double tower versions, with wooden pallets, without wooden pallets or mixed.

Finally, for workshops requiring flexible yet extremely compact machines, the LTWS Compact is the ideal small solution. Its ultra-rapid cycle times can be further reduced with an extra bay, and can guarantee the machining of different materials in A/B/A/B sequence.

Process digitalizing and optimization

"Process efficiency has been one of the most frequent industrial issues for several years now, and is one of the founding pillars of the Industry 4.0 paradigm," Bello continues. "Salvagnini has been concretely tackling this issue since 1993, when it launched the first Order Processing System, the modular software for managing production, known as OPS."

OPS receives the production list from the factory information management system in real time, and delivers an updated version to the programmer. It

provides support for the programmer's activities by defining the priorities, automatically generating the machine programs and sending them to the workshop. It checks the availability of raw materials or semi-finished parts and generates feedback to the factory information management system, updating it in real time, part by part. It can make autonomous decisions according to a production logic – or according to a multiple mix of production logics – designed to meet the needs of the customer and transformed into an algorithm. It integrates labeling, traceability and store-tower management upstream and downstream of the cutting, punching and bending activities.

"Compared to the other process management software available on the market, OPS can define the rules and algorithms required to automate the process, adding intelligence to the system," Bello explains. "To regain efficiency in the cutting phase, for example, we can add constraints relating to maximum scrap tolerances, efficiency or the number of kits to include in the same nest: OPS ensures that the system complies with these logics. Automatic OPS management eliminates jobs with low added value and cancels out the related waiting times."

IPF

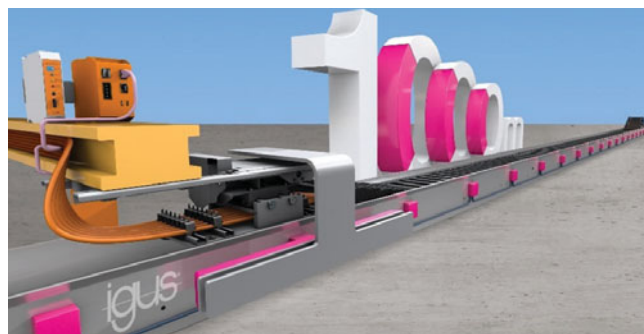
NEWS SNIPPET

Igus' EC.PR monitoring system ensures safety in crane systems

A forgotten screwdriver in an energy chain, a bent trough as well as ice, snow and bulk material can quickly lead to a total failure of cranes with high costs. This prompted igus to develop a new push/pull force monitoring system. The EC.PR precisely records the force values of the floating moving end and adjusts the force limits. This prevents high repair costs and damage to the system.

A system failure is the worst-case scenario for crane operators. Often high costs are incurred not only for repair and maintenance, but above all for downtime and non-produced goods. igus has developed the EC.PR system especially for long travel energy chains from 150 metres upwards, which uses sensors to determine the push/pull force of the energy chain and automatically switches off when a defined force is exceeded. This can prevent a crash of the system. If, for example, a foreign object enters the energy chain or if the trough bends, the push/pull force increases at that position. The system detects the changed value and switches off the system. By means of the new EC.PR system, the force for switching off the trolley is automatically adjusted to the position. The system receives the position information from additional modules of the Siemens PLC, an OPC-UA server, and analogue or digital position measuring systems. The EC.PR system can be easily integrated into existing control concepts and switch cabinets.

The EC.PR system consists of two sensors that communicate with each other. A sensor measures the



The EC.PR system monitors the push/pull force along travels up to 1,000 metres based on the position and switches off automatically when the measured values change

push/pull force of the e-chain while, for example, a digital distance measuring system determines the exact position of the trolley or the moving end of the e-chain. For this purpose, so-called "beacons" are attached to the outside of the guide trough at a distance of 500 millimetres. Each position and thus each beacon is assigned a specific push/pull force. If the assigned maximum push/pull force of a position is exceeded, the system switches off automatically via the EC.PR. The user can remove the foreign object from the energy chain, reset the system and then put the system back into operation. The new system has already been successfully tested at the 200-m long outdoor test rig at igus in Cologne.

IPF

Schmersal helps firms attain functional machine safety cost-effectively

The company offers a wide range of efficient systems for functional safety that are individually adaptable, fail-safe in operation and help to reduce wiring. Some examples are installation solutions using the new Safety Fieldbox and the SD bus from Schmersal.

For many companies, maximising cost-effectiveness is still one of the most important objectives. The increasing digitalisation and networking of the production environment offers significant potential for higher productivity, for example by collecting and evaluating large volumes of data to optimise manufacturing processes. The Schmersal Group supports this objective with a wide range of efficient systems for functional safety that are individually adaptable, fail-safe in operation and also reduce wiring. Some examples are installation solutions using the new Safety Fieldbox and the SD bus from Schmersal.

Cost-effectiveness is also an important aspect of functional machine safety. For this reason, Schmersal focuses on developing system solutions that guarantee safety with a reasonable effort, for example that are not over-dimensioned, and which contribute to productivity increases wherever possible.

Very often safety switchgear that perform various functions, such as safety sensors and safety interlocks, must be fitted, installed and integrated into the safety circuit of not only complex machines and systems. Schmersal has developed the Safety Installation Systems for these cases where the user wishes to have access to information from the safety circuit for activities such as fault diagnosis: The passive distribution module (PDM) and the passive field box (PDF) enable mixed series connection of up to four purely electronic safety switching devices.

With these installation systems the machine manufacturer or electrician does not connect the machine's safety switchgear to the safety controller or the associated safety relay module, but to a separate wiring module that can be installed in the control cabinet or in the field. There, the signals are bundled together and forwarded to the evaluation unit or to the safety control unit. The safety switchgear is permanently connected in series for a safety function by the wiring modules. This considerably reduces the wiring work - and the user



Simple plug & play solution: the new Safety Fieldbox from Schmersal

continues to use their existing safety evaluation unit.

Simple plug & play solution

The new Safety Fieldbox with Profinet/Profisafe fieldbus interface from Schmersal offers more flexibility. An eight-pin M12 connector enables the connection of all common types of safety switchgear: electromechanical safety switchgear, electromechanical and electronic safety interlocks with single or dual-channel control, safety sensors, optoelectronic protective devices and also control panels. This does not only apply to the Schmersal Group safety switchgear range: Safety switchgear produced by other manufacturers can also be connected simply by using an adaptor.

As a simple plug & play solution the Safety Fieldbox enables a fast and fail-safe installation and, used together with the fieldbus system, cost-effective system cabling. The M12 power connector allows cables with a larger cross-section to be used. This reduces the voltage drop, and machines extending over a larger area can also be safeguarded. The Safety Fieldbox consequently covers typical safety concepts that are usually used for larger facilities: For example, two or three safety relays or safety interlocks can be used for monitoring the position of a single or double-leaf safety guard and an inspection

hatch, a safety light curtain for safeguarding the area of an loading station and an operating panel with emergency stop button can be connected to the superordinate safety control system via the Safety Fieldbox

An integrated digital input on each eight-pole device slot of the Safety Fieldbox enables the evaluation of the diagnostic signals from all connected safety switching devices and a wide range of operating data, helping to improve process transparency. This information can be used to detect irregularities and enable prompt intervention if service is considered necessary.

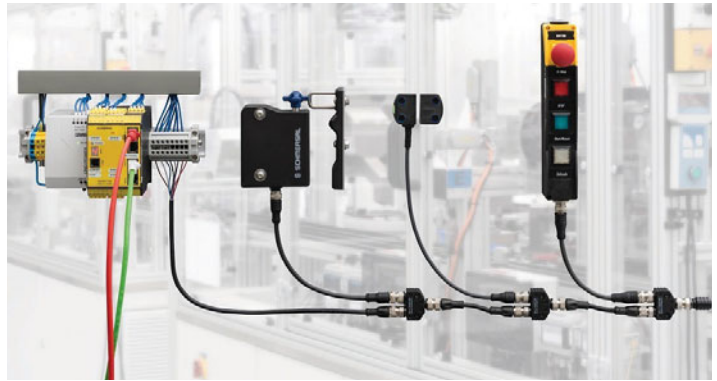
Cost-saving, lean wiring

Economic safety solutions are also possible using the SD bus (SD = serial diagnosis) from Schmersal. Safety interlocks and sensors can be easily wired in series via Y-adapters and standard M12 cables (Plug & Play) or a conventional connection on the terminal strip in the control cabinet. The non-safety related diagnostic signals are transmitted via the SD interface. The locking and unlocking of safety interlocks also takes place over the SD bus. This saves control system inputs and outputs. All common fieldbus protocols such as PROFINET, PROFIBUS, EtherNet IP, EtherCAT, ModbusTCP, etc. are available as communication interfaces to the control system.

All of the Protect PSC1 series safety controllers have an SD bus master in the version with an integrated fieldbus gateway. Up to 31 sensors with extended diagnostic functions can be connected directly to the compact controller PSC1 and evaluated via the integrated SD bus gateway. In addition to the standard diagnostic function "Safety device actuated or not actuated", these safety sensors can transmit further information such as "Actuator near limit", the temperature in the sensor, error messages such as cross-circuit, overtemperature, internal device error, communication error, status output Y1/Y2, etc. This solution also enables safety switching devices to be replaced before the end of their service life. Consequently, the SD bus is an important component of systems for condition monitoring and predictive maintenance, especially for more complex machines.

The use of the SD bus is particularly beneficial when machines are equipped with many safety guards or access hatches, for example filling machines, where the safety guards provide access to the workstations (feeding, filling, closing, labelling etc.). With the series connection of sensors and safety interlocks using SD bus, then practically only one cable harness is routed through the entire machine and the system can be used for up to approximately 31 safety switching devices. This enables very streamlined wiring and helps reduce costs. Wiring the sensors in series does not reduce the performance level (suitable for applications up to PL e). Different safety functions that communicate via the SD bus can also be formed into groups.

The BDF 200 control panel from Schmersal now also has an SD interface. Efficient safety solutions can be



The SD bus system not only enables additional diagnostic functions, but also makes it possible for the machine builder to reduce the number of safety inputs on their system

created by combining the control panel with the AZM201 door interlock, for example for large production areas where robots are operating, as can be found with extensive guarding around robot workstations with many access doors. Wiring in series allows such work areas to be safeguarded with minimal wiring effort.

Safety interlock with two safety functions

The AZM201D version offers two independent safety functions in one device. Safety function 1: Door closed, but not locked. Safety function 2: Door closed and locked. Two safety outputs are available for each safety function. Safety function 1 is typically used when operating robots in setup mode. Under these conditions it must be ensured that the operating personnel are cannot be inadvertently locked into the robotic system enclosure. However, the facility must be safely shut down if other unauthorised persons enter the enclosure. The dual function eliminates the need for an additional safety sensor for use when operating in setup mode.

Schmersal System Configurator

To simplify the best safety solution for the application in question Schmersal has developed a new web-based design tool for various installation systems - SD Interface, IO Parallel Wiring and Safety Fieldbox. The Schmersal System Configurator calculates the supply voltage to each device according to the wire length and cross-section and evaluates it according to a traffic light system. If for example the supply voltage comes below a minimum value of 20.4 V, the display will switch from green to yellow and, if lower than 19.5 V, to red. In this case it is advisable to select an alternative installation solution, such as a passive field box instead of a series connection with Y-distributors. The best configurations can be stored. Parts lists can also be created, meaning that the user is just a click away from the best and most efficient safety solution available.

IPF

For details, contact Ramji Singh, Vice President – Sales & Marketing, Schmersal India Pvt. Ltd, Pune, on Tel: +91 02138 614702, or Email: rsingh@schmersal.com

SCHUNK launches slim hydraulic expansion toolholder with cool-flow



Three years ago, SCHUNK launched the slim hydraulic expansion toolholder TENDO Slim 4ax, which received great attention. Its precision mounting combines the outside geometry of heat shrinking mountings according to DIN 69882-8 with the proven qualities of SCHUNK hydraulic expansion technology. SCHUNK launches a version with cool-flow technology now that allows for highly effective cooling via tool mountings.

The TENDO Slim 4ax cool-flow toolholder offers various advantages, when it comes to machining of steel, aluminum, and plastic. Since the coolant or water jet does not depend on the unclamped length and always optimally adapts to the metal-cutting process. In contrast to heat shrinking mountings, the jet of the TENDO does not bounce back along the whole unclamped length of the tool shank, but instead fully surrounds the tool shank up to the cutting edge. This is a benefit for cooling the cutting edge, improving the chip removal, and increasing efficiency of the overall process. Pilot applications in the field of tool making show that the vibration-absorbing mounting cool-flow technology particularly pays off in the form of an excellent surface quality when roughing, pre-finishing and finishing. Moreover, reworking measures and tool costs are reduced.

In contrast to heat shrinking toolholders, the TENDO Slim 4ax seamlessly fits into the proven program of hydraulic expansion technology from SCHUNK with its permanently precise run-out accuracy of < 0.003 mm at an unclamped length of $2.5 \times D$, and a balancing grade of G 2.5 at 25,000 RPM. Moreover, the shape and positional tolerances can be met precisely. Like all SCHUNK TENDO hydraulic expansion toolholders, the TENDO Slim 4ax is also convincing in terms of perfect vibration damping and a rapid tool change by using an Allen key. Investments into expensive peripheral equipment are not required. Since the precision mounting of conventional heat shrinking toolholders can be easily replaced by Plug-&-Work without having to reprogram the outside contour, their advantages can be directly tested or permanently used. The slim mounting with cool-flow technology will be available in the lengths of 90 mm and 120 mm for the interfaces HSK-A63 between $\varnothing 6$ mm up to $\varnothing 32$ mm. The interfaces for SK 40 with $\varnothing 6$ mm up to $\varnothing$

32 mm will be available in mid-2020. Further interfaces such as BT 40 and length variants with 160 mm are being planned.



Elequip Tools receives award from Hercules Hoist



Elequip Tools Pvt Ltd has been awarded All India Highest Sales for Indef products for the financial year 2019-2020. Amid such gloomy global scenario due to the pandemic, Elequip did not let its motivation diminish. As always, the company has strived against all odds to meet its business goals. And this felicitation has certainly lifted its spirits.

November 22, 2020, became another milestone moment in the history of the company, when Surojit Ghosal (Zonal Head, Hercules Hoist limited), honoured Elequip with the most coveted All India Highest Sales Award along with Zonal champion trophy for East India. Warm congratulations received from CEO & President Prakash Subramanyam and senior managers from across the table via computer screen has boosted Elequip's morale and its steadfast belief in the company, the brand and the Hercules Hoist family.

Running a company is a team effort, and this achievement too is a result of combined effort of all members at Elequip. As Elequip lurched forward after three months of complete lockdown, its prime focus was to get in touch with all existing customers and provide service to all who needed and get equipment up and running which remained dormant. Elequip got in touch with companies who have been operational under essential services and installed new equipment in a few as well.

Despite having almost half its manpower immobile in containment zones, the company did the best it could with what it had. Each employee gave their 200 percent to fulfil customer needs and accelerate business. Good intentions bear sweet fruits and their hard work was duly recognised.

"Today we share our achievement with all our esteemed customers for their faith in us and their patronage that we hold close to our hearts. We proudly continue to be customer driven by focusing on user application solutions and committed service to ensure long equipment life. Our journey as business partners with Indef is as old as Elequip itself, and we continue our

strong patronage with new goals for 2021," said Elequip in a press release.

With optimism for a better year ahead not just for Elequip but the entire industrial market at large, the company has set higher targets and aims to maintain its market leadership.



CECO Electronics plans foray into solar pumps and robotic controls



CECO Electronics Pvt Ltd, one of the leading players in industrial electrical & automation space, is planning to venture into the field of solar pump and robotic controls for industrial use as part of its growth strategy for the future. "We are in the process of discussions with various foreign organisations for the same. We also plan to expand our present factory space in Kolkata to 100,000 sq ft from 30,000 sq ft in line with the Make in India policy of the government," said a company official.

Control Engineering Co (the predecessor of CECO Electronics Pvt Ltd) was established in 1973 by D K Dugar in Kolkata with an aim to bring new technology in the field of electrical & electronics for the benefit of the industry. The company has been doing business in the field of manufacturing, assembling and trading of electrical and electronics controls such as microprocessor based programmable controllers, counters, power distribution, motor controls, etc.

To begin with, the company started doing business with textile industries of Eastern India and thereafter spread throughout the country. The system supplied by CECO to textile sector helped mills to not only save energy, but also improved the productivity of their machines. Today, systems manufactured by the company find ready market in countries like Bangladesh, Indonesia and Thailand on regular basis.

The company has a tie-up with LS Industrial Systems Co Ltd (formerly known as LG Industrial Systems Co Ltd) of South Korea for their automation, LV/MV control gear & switchgear products. While tying up with LGIS, the idea was to bring latest technology, quality products and competitive prices available in India, keeping in view of the industrial growth in the country. Also, considering the energy problem in many part of the country, CECO was able to bring in the concept of energy saving and energy efficient product. The company has been, thus, able to

offer various automation solution and energy saving system using AC variable frequency inverter drives and programmable logic controllers in various Industries like textile, bottling plant, power plant for ID and FD fan application, oil industry etc. CECO was awarded a prestigious order by Hindustan Petroleum Corp Ltd (HPCL) for the energy saving in its 34 tanker filling stations throughout the country.



Ravik Engineers helps Indian firms gain competitive edge with global technology



Abhinav Singhal,
Executive Director,
Ravik Engineers
Pvt Ltd

Ravik Engineers - which represents some of the leading multinational companies like JIH-I Machinery, Kinkelder, Soco Machinery, Winton Machine Co, etc in India - aims to bolster the competitiveness of Indian machine tools industry by providing globally-renowned, high-quality machineries and equipment.

"We believe in quality and durable products with the adoption of newer technologies in the field.

Our adherence to these principles

has led to a phenomenal growth in sales and a strong base of satisfied customers in India. Our clients on the basis of excellent quality and longevity have appreciated our range of machineries and equipment," said Abhinav Singhal, Executive Director of Ravik Engineers Pvt Ltd.

The company offers a premium range of industrial equipment such as circular sawing machine for ferrous and non-ferrous materials; tube & rod end chamfering machine; tube benders; saw blade sharpening machine for circular saw blade; band sawing machines; different range of circular saw blade; HSS circular saw blades; band saw blades; TCT cold saw blades for ferrous & non-ferrous metal, etc.

Ravik Engineers, established in 1989, has acquired tremendous technical skills and specialisation in this field due to experience in the machine and tool industry for over decades. The company aims to provide finest quality machineries and equipment. Additionally, innovation, flexibility and performance are the key areas of focus in the design and development of its equipment. Providing quality is the top most priority for Ravik Engineers' production unit.



Lubrite Industries making a global impression

Lubrite Industries - one of the leading players in centralised lubrication systems - is expanding its customer base not just in India but also across the globe because of



its high-quality products and services. Established in 1975 and located at Phagwara (Punjab), Lubrite Industries - an ISO 9001:2008 certified company - manufactures and exports a complete range of lubrication pumps and lubrication systems to keep the machines running trouble free.

Lubrication systems and other products manufactured at Lubrite's highly advanced manufacturing plant are meant for a variety of industrial verticals like machine tools, rubber processing industries, sugar mills, paper mills, cement plants, pharmaceutical industries, coal mines and other uses.

Lubrite Industries offers products such as drip feed oilers, multi-point lubrication systems, dual line lubrication systems, automatic lubrication units, deluxe automatic lubrication units, hand operated single shot and pneumatic single shot lubricators. The company also manufactures customised centralised lubrication systems and comprehensive lubrication solutions as per the customer's requirements.

The company has a strong distribution and sales network spanning the length and width of the country, and offers technical support, after sales services and other similar services to its customers. "We keep a ready stock of products with us at all times, and ensure timely deliveries to our clients. We intend to expand our operations to all parts of the country and explore new markets abroad," said the company official.

The extensive domain expertise helps Lubrite Industries in the production of high-quality products which are manufactured as per international standards. "We can also customise these products as per the clients' exact requirements due to the in-depth knowledge of our professionals. In addition, our professionals also work in a close coordination with each other to meet the defined organisational goal of delivering high quality product range in accordance with international quality standards," added the official.

For details, contact Lubrite Industries, Phagwara (Punjab), on Tel: +91 1824 503488, Mob: +91 98553 82288, Email: info@lubriteindustries.com, or visit www.lubriteindustries.com



SS fastener maker Sudhir Automotive eyes expansion

Banking on the growth of automotive industry, Sudhir Automotive Industries Pvt Ltd (SAI) - a pioneer in stainless

steel fasteners and manufactures cold forged/turned components - is planning business expansion to cater to the increasing demand in the industry.

SAI has been serving its esteemed customers since last 25 years. It's remarkable journey to the forefront of fasteners business is achieved out of a vision to be rated alongside in the best in the India. The company is expanding its vision to conquer new horizon. SAI strives to be distinct in its efforts to provide complete solution for stainless steel fasteners that are innovative and best. Its valuable clients are Maruti Suzuki, Samsung, Spark Minda, BEML, Bajaj, Mahindra Reva, Royal Enfield, Indian Railways, etc.



The company's state-of-the-art manufacturing facility has installed capacity of 500 MT per month and is situated 70 km away from national capital in Rohtak District in Haryana. Its commitment for quality and delivery ensures complete customer satisfaction in all respects. SAI's team of experienced persons ensures highest standards of manufacturing. All testing facilities are available in-house and quality systems are followed as per ISO 9001.

SAI's policy highly emphasises on customer satisfaction; reliable service; well defined quality system; meeting technical requirements; adhering to delivery schedules of customers; minimisation of in-house rejection; updation of manufacturing, inspection and testing capabilities; and latest laboratory facility.

For details, contact: Manoj Gupta on Mob: 099109 01128, 097291 83128, or email: mgupta@saifasteners.com



SCHUNK's sensory quick-change pallet module increases process transparency

In the course of digitalization in production, the trend is towards fully automated, fully networked, and autonomously acting manufacturing systems. Of course, this trend has an influence on clamping technology: With the VERO-S NSE-S3 138 SCHUNK presents for the first time a sensory quick-change pallet module, that allows



permanent monitoring of the pull-down force and of the clamping slide position. Moreover, the presence of workpieces, or clamping pallets can be monitored. Basis for this are the strain gauges, measuring amplifier, and inductive sensors, which are directly integrated in the module, and, compared with the conventional clamping module VERO-S NSE 3, the dimensions do not change. The sensory quick-change pallet system paves the way for the pre-conditions for achieving a continuous real-time analysis of the clamping situation and provides important parameters for process optimization. Power supply (24 V DC) and signal output (analog 0-10 V DC, digital 0/24 V DC) are carried out reliably via spring contact.

The sensory quick-change pallet module is a part of the comprehensive modular system SCHUNK VERO-S that offers more than 1,000 possible combinations for efficient workpiece clamping. As its conventional predecessor, it has a patented dual-stroke system, and achieves pull-down forces up to 28,000 mm when the turbo function is activated. Fixing or positioning is done via short taper at a repeat accuracy of < 0.005 mm. Due to the entry radii, the clamping pins can be easily inserted into the modules: eccentrically or with an angle of inclination. The actual clamping is done without energy supply via spring force; it is form-fit or self-retaining. In the event of a sudden pressure drop in the air system, the workpieces remain safely clamped.

A pneumatic pressure of 6 bar is sufficient for opening the clamping module. On option, the changing interface can be equipped with a spring-actuated cone seal for closing the module as soon as the clamping pin is being lifted out. For using the module as a single-acting module, SCHUNK offers the VERO-S NSE-S3 in two versions with anti-rotation protection: with a defined position (V1) or with the option to rotate the pallets in 90° increments (V4), so that the position of the pallet assembly can vary by 0°, 90°, 180° or 270°. Depending on the thread diameter of the used clamping pin, the holding forces are 35,000 N (M10), 50,000 N (M12), or 75,000 N (M16). All parts such as base body, clamping pin, and clamping slide are made of hardened stainless steel, and are therefore, absolutely corrosion-resistant and in turn long-lasting.



Igus' dryspin lead screw nut cost-effectively replaces ball screws in heavy-duty applications

Plastic and heavy loads? This time igus proves that the combination works with a new lead screw nut design. The injection-moulded dryspin JGRM polymer nut offers a cost-effective alternative to ball screw nuts. The new lubrication-free and wear-resistant design can move heavy loads. For higher axial loads, the new lead screw nut is also available with a stainless-steel plate as a "Heavy Duty version".

Whether in construction machinery, actuators or solar trackers, lead screws must be able to move high loads safely and durably in a wide variety of applications. Igus has now developed a new lead screw nut precisely for this application. "The new JGRM series is a robust alternative to ball screw nuts. The new design of the nut, distributes the radial and axial loads in such a way, that we can absorb higher forces in contrast to conventional flanged lead screw nuts," said Thorben Hendricks, Division Manager of Screw Technology at igus GmbH.



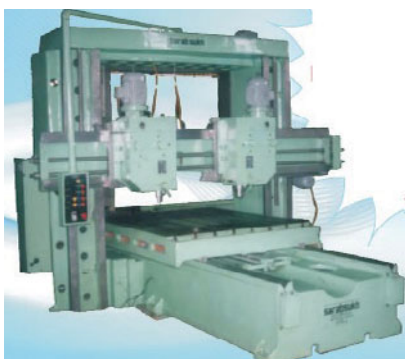
The new type is based on the connection sizes and pitches of ball screws and therefore can be easily replaced. The nut offers a variety of installation methods: it can be screwed on or off or installed in a hole. The thread centring spigot, the anti-rotation feature by means of spanner flats, and the use of four M6 cap head screws help in the installation. The nut is manufactured by igus using injection moulding in Cologne, so it is very light and cost-effective. Compared to ball screw systems, the polymer lead screw nuts cost only half as much. Due to the use of iglidur J high-performance polymers, the nut has a very low coefficient of friction. The rounded thread flanks and the absence of balls make the lead screw very smooth running. In addition, due to the use of dry lubricants, the lead screw nut does not require external lubrication that has to be released into the environment. "We are offering customers a maintenance-free solution that is insensitive to dust and dirt", said Hendricks.

For higher axial loads, igus has also developed the JGRM lead screw nut as a heavy-duty version with a stainless-steel plate. The flange dimension remains

identical. The stainless-steel plate is mounted on the nut and thus increases the load-bearing surface for force dissipation. The screw heads no longer rest on the plastic. Tests in the company's in-house 3,800 sq m test laboratory showed that the heavy-duty version can absorb up to 6 MPa and take 50 per cent more load than a comparable plastic flanged screw nut. The new lead screw nut is available for all thread types with a diameter of 14 to 20 mm. It achieves its highest efficiency on the patented asymmetrical dryspin lead screw from igus.



Sarabsukh Enterprises crafting growth with innovative VMC technology



The Batala (Punjab) based Sarabsukh Enterprises - a manufacturer of vertical machining center (VMC) machines - is eyeing for exponential growth in 2021 with its novel products and timely customer

services. Established in 1981 by Sarbjit Singh, the company has seen high growth in the domain and is today one of the top-notch VMC machine manufacturers in the region. "Besides, being the founder, Sarbjit Singh is the true leader who has put his excellence and visionary approach to the work and helped the company attain such a great height that today Sarabsukh Enterprises is considered to be among the best CNC plano miller machine manufacturers in Batala. With its focus on high quality and 100-per cent client satisfaction, the company has evolved its production facility and performance significantly.

During the last 40 years, the company has gained enormous understanding and expertise in the domain and is able to serve its clients with a vast range of products like VMC machinery, CNC vertical turning lathe machine, CNC plano miller machine, etc. Sarabsukh Enterprises utilises advanced technology and lab-tested raw materials for manufacturing to make its machines as efficient as possible.

The company's advanced and well-equipped manufacturing unit designs and manufactures every machine by using the modern tools and technology that help it control the design, features and quality of its products. It is equipped with CAD and R&D units and other facilities to meet the production capacity and day-by-day rising demand of the market.

Every machine that reaches its customers goes through comprehensive quality tests on different stages and parameters right from the procurement of raw material to

the packing of the final product. "As one of the preeminent Vertical Turning Lathe Machines Exporters and Suppliers in India, we promise to serve our clients the best we have. Since we are an ISO 9001:2015 Certified Company, we make no compromise with the quality and assure that it will attain end-user satisfaction," said the company office.

For details, contact Sarabsukh Enterprises, Batala (Punjab), on Mob: +91 98151 63893, Tel: +91 1871 223 893, Email: sarabsukhbatala@yahoo.co.in, or visit www.sarabsukhmachines.com



L&T bags mega EPCC contract from HPCL Rajasthan Refinery for new cracker unit

L&T Hydrocarbon Engineering Limited (LTHE), a wholly owned subsidiary of Larsen & Toubro (L&T), has won a mega contract (worth over Rs 7,000 crore) from HPCL Rajasthan Refinery Limited (HRRL), a joint venture between Hindustan Petroleum Corporation (HPCL) and Government of Rajasthan.

The engineering, procurement, construction and commissioning (EPCC) contract is for setting up a Dual Feed Cracker Unit (DFCU) having a capacity of 890 kilo tonne per annum (KTPA) for Rajasthan Refinery Project at Barmer, Rajasthan. The DFCU is the biggest EPCC contract awarded in the country to date in the refinery and petrochemical sector. The unit is licensed by TechnipFMC.

Subramanian Sarma, Whole-time Director & Sr. EVP (Energy), Larsen & Toubro Limited and CEO & MD, LTHE, commented, "We are very delighted to be part of this mega development project in Rajasthan and I would like to thank HRRL and HPCL for having trust in our capabilities to deliver such complex process plants with high standards of HSE and Quality."

The DFCU is used to convert refinery naphtha and offgases to produce polymer grade ethylene and propylene by the process of thermal cracking. The ethylene and propylene is used as feed stock for downstream polyethylene unit and polypropylene unit. The process also produces by-products like butadiene, benzene, toluene and gasoline.

L&T Hydrocarbon Engineering is already executing three packages, namely residue up-gradation facility, crude distillation unit / vacuum distillation unit and full conversion hydrocracker unit for HPCL's ongoing Visakh Refinery Modernisation Project at Visakhapatnam. LTHE has a proven track record of over 25 years in the refinery and petrochemical sector and bagging this contract from HRRL reinforces our integrated capabilities in executing critical plants for the sector.

The contract is awarded through an international competitive bidding on lump sum turnkey (LSTK) basis. With both the petro fluidised catalytic cracking unit and dual feed cracker unit projects, LTHE has emerged as the largest EPC contractor in the entire Rajasthan Refinery Project.

Lasers and machine vision improve pharma manufacturing

Through pill marking, quality assurance and more, laser-based manufacturing processes and machine vision make medications safer for consumers and more profitable for pharmaceutical companies, David Benderly of PhotoScribe Technologies.

In the multidisciplinary pharmaceutical industry, photonics plays an increasingly crucial role in the manufacturing process. From quality assurance to marking, the scope of photonics is wide-reaching. Specifically, the use of lasers and machine vision in pill manufacturing is revolutionising functionality, security and speed while reducing overall cost.

In emerging economies, a growing problem exists with the development of medication containing a lower dosage of active ingredients, leading to patients not receiving the drug's full benefit. Worst-case black-market scenarios involve nonpharmaceutical-grade or harmful ingredients resembling medication, such as chalk and talcum powder, being used as substitutes.

The grey market, on the other hand, manifests itself in several ways, but with reselling, importing, and exporting that ultimately can have high costs both for the end consumer and the manufacturer.

Pharmaceutical manufacturers should express concern over the grey market, particularly since it most commonly affects their bottom-line profit. When medicine is inexpensive in less-developed countries but moves



through the grey market to be resold in countries without drug pricing regulation. Laser marking of unique product identification, both overt and covert, helps control and promote an orderly supply chain.

Lasers for pharma

Lasers now are used in several ways for pharmaceuticals, particularly where traceability and security are important considerations. Packaging is being laser-marked with a unique identification number, allowing for

manageable tracking through the supply chain. A given product can be traced to a specific manufacturing facility, batch number or manufacturing date, providing transparency and accountability, and ultimately boosting consumer confidence. With pill marking, high-speed lasers have the capability to mark on the fly with a unique identification number, if desired – even down to individual pill level – without slowing down production speed. **IPF**

For details, contact C. And C. Laser Engineering Pvt Ltd, Mumbai, on Mob: + 91 98331 05515, Email: info@cncclaserengg.com, or visit www.cncclaserengg.com

TECH BYTE

PhotoScribe upgrades LMS-650XS laser for optical components ID marking

PhotoScribe Technologies has launched upgraded LMS-650XS, which is an exceptional laser solution for optical component ID marking for traceability.

This laser incorporates a high precision motion system with submicron accuracy, making it perfectly suited for subsurface and micro-optic marking applications. Ideal for optical component marking, the lasers can be used to create a fiducial mark, determining the area of transition in optical lenses and eyewear. In addition, efficient unique ID marking is increasingly important for tracing the product through the life cycle. With the LMS-650XS ID marking lenses can be traced back to the equipment level, identifying and sorting defects,

minimizing loss of time and effort. In addition, optical components can be marked for brand recognition as well.

A stress-free, photo ablative, non-thermal process, cold excimer laser marking will not impact optic performance, nor will it negatively affect any coating on a lens. Often today, a pencil is used to mark the direction of lens coating, which would otherwise be hard or impossible to identify in the field. However, this is not a permanent mark; it is hard to read and not suitable for micro-optics. The LMS-650XS laser renders the entire process permanent, simple, and stress-free. **IPF**



Gandhi Automations' innovative products offer safety and efficiency

The company's electro-hydraulic dock levelers are not only "a bridge for connecting a vehicle", but also facilitate fast, smooth and safe transition by compensating the difference in heights between the loading bay and the vehicle.

Gandhi Automations Pvt Ltd is India's No.1 entrance automation and loading bay equipment company. This widely recognised position has been achieved over years of hard work, innovation, commitment to quality and reliable customer service. The company is also proud to be certified to ISO 9001 : 2015, ISO 14001 : 2015 & BS OHSAS 18001 : 2007. Since its inception in 1996, the company has been manufacturing, importing, distributing and installing products that are problem free and easy to operate.

The company offers complete logistics solutions by providing dock levelers, dock shelters, sectional overhead doors and dock houses.

Electro-hydraulic dock levelers offered by Gandhi Automations are not only "a bridge for connecting a vehicle", but also facilitate fast, smooth and safe transition by compensating the difference in heights between the loading bay and the vehicle. This contributes to minimising energy used and savings on heating and chilling costs resulting in maintaining the quality of the transported goods. Dock levelers offered by Gandhi Automations are designed as per EN 1398 standard for the most demanding loading and unloading operations.

Efficient loading & unloading the goods

The importance of efficient loading the goods has always been evident, and it has increased over the years, essentially for two reasons: the lesser availability and the higher cost of manpower. Consequently lesser qualified manpower is being utilised which leads to damage to the goods.



Forklift roll-off barrier lip dock leveler

The cost of loading and unloading the goods can be calculated precisely and is exactly definable, which allows for a scientific approach to find out the investment that goes into the process. Gandhi Automations has always designed solutions based on such scientific approach and feedback from clients. The dock levelers offered by the company ensure loading and unloading with lesser effort and minimal cost.

It is possible to load and unload your products in a safe way and in the process, obtain remarkable energy savings. The dock leveler remains with the loading bay in rest position and the sectional overhead door closed, until the vehicle is positioned. The driver drives back centring to the dock shelter and stops the vehicle the moment it gets in contact with the bumpers.

The sectional overhead door is then opened only when the vehicle is positioned, brakes are applied and engine is shut off. This eliminates the exit of hot air, intake of cold air (or the opposite in hot area and inside conditioned places) and intake of exhausting gases in the warehouse. After the sectional overhead door opens, the lip of the dock leveler connects to the truck bed for loading / unloading to take place.

At the end of the loading/unloading the dock leveler is put in rest position and the sectional overhead door is closed, without moving the vehicle. The vehicle then departs at the end of the process. Following are the four



Radius lip dock leveler



Sectional overhead door

types of dock levelers:

- 1. Radius lip dock levelers:** Radius lip dock levelers are available in multiple size and capacities. It allows the dock to connect with the truck bed, thus making it convenient to drive directly on and off with forklift trucks etc. Also the self-cleaning lip - hinge system does not retain dust and dirt which allows a smooth operation.
- 2. Telescopic lip dock levelers:** Telescopic lip dock levelers are ideal for connecting vehicles unable to drive near dock i.e. sea containers, side loading railway wagons etc. These dock levelers can be supplied with a lip extending up to 1 m.
- 3. Edge-of-dock levelers:** Edge-of-dock leveler is developed in compliance with the latest European safety standard, EN 1398. It has a capacity of 6,000 kg and is suitable for use with all types of material handling equipments.
- 4. Forklift roll-off barrier lip dock levelers:** The newly introduced product Forklift Roll-Off Barrier Lip Dock Leveler add a run-off protection which prevents accidental forklift roll-off when the Overhead door is open and no trailer is stationed at the dock. These dock levelers are designed and built to provide all the benefits of the hydraulic dock leveler along with the additional benefit of providing a formidable barrier.

Entrance door with automations

Gandhi Automations Pvt Ltd offers Porto and Max Vista - automatic sectional overhead doors - the ideal solution for all industrial and commercial needs.

Porto: Porto sectional overhead doors are ideal for all industrial and logistics needs. The design and different solutions offered ensure the door to be aesthetically pleasing and perfectly suited to any architectural environment - from modern and traditional industrial buildings to fine commercial buildings. As these doors slide vertically, stopping in the proximity of the ceiling, they blend in with the architectural features of the building. Porto doors are built to ensure the highest ease and flexibility of use which, in turn ensures a quick, hassle free

and accurate replacement of old doors. Their compact size ensures more available space both inside and outside the premises. Depending on the structure of the building and the requirement a choice can be made from a standard lift, vertical lift, horizontal lift, low headroom or inclined lift. Porto range comprises of a wide series of track systems, panel options and safety features. Special glazed doors provide excellent lighting and vision into the building.

Max Vista: Max Vista sectional overhead doors are ideal for industrial and commercial buildings. The doors are made with a combination of aluminium panels and transparent acrylic, gridded or meshed windows giving it a distinctive look and enhancing the look of a building. Max Vista doors make the environment bright and pleasant to work in as it allows natural light to pass through the large



Telescopic lip dock leveler

clear areas.

Gandhi sectional overhead doors provide heat insulation and sound proofing thus improving the working conditions on the premises and saving energy. The products are affixed with a CE mark making them reliable and safe.

Gandhi Automation's dock levelers & sectional overhead door are equipped with the most secure safety devices and accessories.

IPF

For details, contact Gandhi Automations Pvt Ltd, Mumbai, on Tel: +91 22 6672 0200, 6672 0300, Email: sales@geapl.co.in, or visit www.geapl.co.in

(Communication provided by the management of the company)

Crest Ultrasonics offers efficient metal part cleaning systems

For increasing efficiency, cleaning industrial parts is essential in modern manufacturing processes. Crest Ultrasonics offers the right solution in metal part cleaning to achieve the required cleanliness level with consistency, without spoiling environment.

Metal parts cleaning, like most metalworking processes, is experiencing ever-tightening specifications. Owing to the constantly increasing requirements in terms of efficiency, quality and environmental protection the cleaning of industrial parts has become absolutely essential in modern manufacturing processes. It is highly critical especially in case of automotive components, aerospace parts and medical implants.

Crest Ultrasonics offers the right solution in metal part cleaning to achieve the required cleanliness level with consistency, without spoiling environment. Having the latest technology with several patents and innovation in ultrasonic cleaning technology, the lab versed with sophisticated equipment to understand and measure the contamination, as well as to find out the suitable process along equipment, Crest understands customer requirement precisely and suggests the most suitable system (as per Millipore standards or Particle counts), maintaining zero rejection level along higher productivity.

Aqueous based 4 or 5-station cleaning systems

The 4-station wash-rinse-rinse-dry is ideal for cleaning at the microscopic level. The 5-station wash-wash-rinse-rinse-dry system is configured for dual process or semi-aqueous precision cleaning applications. Standard tanks sizes (for manual and automated

Crest solvent-based precise cleaning systems are passed from pollution board in California and known for negligible solvent emission with small footprint, less energy consumption and inbuilt refrigeration.



Vibra bar.



Push pull resonator.



Tank, Genesis generator and immersible transducers.

consoles) range from 10"(L) x 14" (W) x 10" (D) to 24" (L) x 36" (W) x 20" (D). Custom tank sizes are also available. The Crest Ultrasonics Optimum Console is a cost-effective, highly flexible solution for all industrial precision cleaning applications. Engineered with a compact, space-saving design and rugged, stainless steel tubular frame, it offers the convenience of an all-in-one, wash-rinse-dry design with a single-point facility connection for easy installation.

Solvent-based precise cleaning system

Crest solvent-based precise cleaning systems are passed from pollution board in California and known for negligible solvent emission with small footprint, less energy consumption and inbuilt refrigeration. Model F-100-1010 consumes hardly one litre solvent per week and electrical energy consumption is hardly 2-3 kW only.

Ultrasonic immersion box:

Rectangular immersion box can create ultrasonic energy in an existing cleaning solution tank. Crest ceramically enhanced transducers with true sweep

technology ensures consistency in cleaning with long life.

Push pull resonator transducers: These patented solid resonators are great invention in transducer technology. It is solid rod transducer which can be immersed in any liquid tank. These transducers can't get puncture or leak as these are solid rod transducers.

Crest Ultrasonics can offer variety, small bench top models to large 100,000 litre tanks and aqueous/solvent-based with 25 kHz, 40 kHz, 68 kHz, 132 kHz, 198 kHz, and 1 MHz frequency.

IPF

(Communication provided by the management of the company)

Monotech Engineers: A pioneer in metal finishing machinery

Ever since the inception, the company has put the best foot forward and created the best industrial machinery/equipment according to the client's demands. For Monotech Engineers Pvt Ltd, clients come first and nobody understands this better than the company itself.

Established in 1991, Monotech Engineers Pvt Ltd, an ISO 9001:2015 certified company, is a leading manufacturer and exporter of metal finishing machinery. With its strategic location, 40 minutes hassle free journey from New Delhi International Airport, the company has its clientele widespread all over the globe. With almost 30 years of experience and tremendous positive clientele, Monotech has successfully emerged as one of the most flexible manufacturers, supplying various special purpose machines, converting its customer's unique ideas/requirements into reality.

"Quality & reliability are one of our most important principles and the prime reason of our success. We work together to deliver on our promise of quality products & service excellence. High performance of manufacturing equipment and continuous improvement management techniques are combined to enhance our reputation for quality. We also take care of execution of turnkey industrial projects & EPC for end product manufacturing in metal finishing business," said the company official.

Monotech Engineers is leading manufacturer of following machines:

- Hydraulic press brake machine
- Hydraulic shearing machine
- Special purpose machines
- Mechanical/pneumatic/hydraulic power presses
- Hydraulic tincture press
- Deep drawing hydraulic press
- EOT, HOT & heavy-duty gantry cranes
- Material handling solution
- Double pre-punching plate rolling machine
- Hydraulic & mechanical plate rolling machine
- Sheet straightening/leveling machine
- Section bending/roll forming machine
- EPC of industrial plants on turnkey basis
- Fully automatic/semi-automatic CTL line

Ever since the inception, Monotech Engineers Pvt Ltd has put the best foot forward and created the best industrial machinery/equipment according to the client's demands. For Monotech, clients come first and nobody understands this better than the company itself. Fulfilling customers' needs is Monotech's main aim and it thrives on that. For that the company has the best team one could ask for. With the support of an experienced and dedicated team of professionals, the company has been able to serve reputable government and private agencies such as



HYDRAULIC PRESS



jib



POWER PRESS



PRESS BRAKE



SECTION PIPE BENDING MACHINE



STITCHING



STRAIGHTENING



TEST STAND

BHEL, BEML, Defense Unit, and NTPC.

The company official said, "Our clients are fully satisfied with our services and that is what motivates us to do even better. Having said that, we are fundamentally different as compared to our competitors, and we are way ahead of them and that makes us stand out in the market. We thrive on maintaining the distance and even increasing that gap. To sum up, our clientele reveals what we have achieved so far. And we won't stop here!"

IPF

(Communication provided by the management of the company)

Libratherm: The one-stop control solution provider for OEMs

The company not only provides products, but also offers end-to-end solutions for its valuable customers.

Libratherm Instruments was established in 1991 by Mr. Kamlesh Panchal, with a vision to serve the industry by offering optimised solution and support for a wide range of standard and non-standard industrial process control applications. Today Libratherm offers high quality, precise, easy to use, robust products across the globe.

"Libratherm is built around a team of competent engineers with access to specialised infrastructure for design, development and manufacturing of electronic instruments. The company aims at not just selling products, but providing end to end solutions for its valuable customers. Libratherm has offered made in India products as an upgrade or substitute solution against various imported systems to various Industries, across the country," said Kamlesh Panchal, who obtained his Masters degree in Physics (Electronics) from D G Ruparel College, Mumbai University.

The company launched its first product, the PID temperature controller for the plastic industry. After its success, Libratherm went on to develop several multi-loop PID temperature controller and RAMP/SOAK Profile Controllers for a wide spectrum of industrial applications. These products were quickly accepted for high temperature furnace control, stress relieving and post weld heat treatment and investment casting process. Libratherm is the pioneer in India for manufacturing Ramp/ Soak programmers in 1/4 DIN size. It was very well recognised and accepted by laboratories, research institutions and OEMs across the country.

Over the years, Libratherm expanded its product portfolio to include 8 to 32 points temperature scanners and data loggers, two-wire head mount and field mount simplex/duplex temperature transmitters, single set point and multi-set points ON-OFF temperature/process controllers, signal isolators/convertors.

In 2000, Libratherm introduced its own series of Thyristor power regulators, Thyristor power switches and Thyristor triggering cards. Over the past two decades, Libratherm Thyristor products have been successfully integrated by hundreds of OEMs manufacturing hot air / water generators, steam boilers, heat exchangers, hardening/ tempering/ nitriding/ carburizing/ annealing furnaces, electroplating plants, battery chargers, induction



Kamlesh Panchal, MD,
Libratherm Instruments

heating systems, textile machineries and many more. The company has also expanded its expertise to provide Thyristor based power switching for Real Time Power Factor Correction (RTPFC) up to 100 KVAR.

During the last 10 years, Libratherm has developed several specialised series of products for the temperature & humidity monitoring and control segments. Special purpose controller for AHU, humidifier and dehumidifier coupled with a wide variety of T+Rh sensors and transmitters make Libratherm a one stop control solution provider for OEMs and system integrators. The company also offers fully digitised solutions for clean room and server room monitoring coupled with the latest communication and data logging facilities.

Libratherm also offers indigenously developed IoT modules, which allows user to remotely monitor and control the Industrial process directly on Internet via Ethernet/Wi-Fi network along with a fully managed back end service along with a customizable WebApp available on PC, Smartphones, and Tablets. These modules can capture data from RS-485 enabled hardware or various Analog and Digital sources.

As on today, Libratherm hosts a portfolio of more than 300 products, serving over 100 different industry segments.

Libratherm has held a belief of delivering the right solution to every customer. With nearly three decades of experience, the company delivers products that meet the global standards, yet retain a distinctive Indian brand.

All Libratherm employees are trained and motivated to deliver the best possible solution. They overcome all impediments for successful execution and implementation of the designed system. The vast knowledge gained over the years by the company is passed down to all employees and associates for the benefit of our customers. According to Kamlesh Panchal, Libratherm is committed to do the business in the right and most ethical way. **IPF**

Contact:
Libratherm Instruments Pvt Ltd, Mumbai,
Mob: +91 98211 36685, 98700 11544,
Tel: +91 22 4255 5333,
Email: libratherm@libratherm.com

(Communication provided by the management of the company)

AJOONI offers long span shelving systems

Long span shelving systems are always in demand, thanks to their flexibility, strength & cost-effectiveness, apart from being the ideal solution for the long run.

The importance of taking full advantage of the space of the warehouses requires solutions which make it possible to access the highest levels. One of these solutions consists of installing high-bay long span racking with one or several levels of gangways or elevated aisles supported on the racking itself.

The system is for manual picking of products following the "man-to-product" principle. This AJOONI Longspan Shelving is designed for warehouses where goods are deposited and removed manually from shelves.

Access to the different levels of gangways is made by means of stairways located in suitable places, fitted in function of accessibility and safety. As a compliment to the stairways, freight lifts or scissors lifts can also be installed.

Long span shelving systems are always in demand, thanks to their flexibility, strength & cost-effectiveness, apart from being the ideal solution for the long run. Ideally suited for any type or size of goods, these racks do not occupy much of floor space; making them the best choice for retail and industrial houses with space constraints. Installing these shelving storage racks is simple and does not require expert help, and they can be quickly and easily assembled and disassembled.

Following are the types of long span shelving units:

1. **Steel shelves:** For those heavy-duty retail displays, steel is the most popular material used in retail display shelves. These shelves are durable & long lasting; hence, are also popular as warehouse & basement storage solution. The height of these shelves can be altered offering additional flexibility.
2. **Wooden shelves:** These shelves can be found in



many places like factories, workshops, offices, homes, schools, etc. The wooden long-span shelving is cost-effective when compared to steel shelves; but is durable and flexible like the former. Similar to the steel racking solution, the height is adjustable; thereby making it the best storage shelving unit for both commercial and industrial use.

3. **Mesh shelves:** This type is considered one of the most beneficial materials when compared to the other three types of shelving due to its fire safety potentials. Moreover, these are best suited as retail display shelves as they do not accumulate dust and looks better than the other types.

Some of the advantages of long span shelving units are:

- Possibility of storing medium to heavy loads.
- Ideal option for different article types and split turnover.
- Adjustable load levels.
- Racks up to 12 m high can be built.
- A wide range of components adaptable to your needs

The different potential combinations make it possible to adapt to the characteristics of the warehouse, and to needs such as accessibility, safety and ergonomic work. These are several possibilities for the location of the access stairways; at the side, at the front, in the center of the installation or between two racks. At AJOONI Storage Systems, we provide you with the best quality and genuine products. Contact us to know more.

IPF

For details, contact AJOONI Storage Systems, New Delhi, on Tel: +91 11 4545 3626, Mob: +91 82857 00600, Email: info@ajooni.co.in, or visit: www.ajooni.co.in

(Communication provided by the management of the company)

“Shri Guru Nanak Electricals offers all-in-one solutions for industries”

For the last 41 years, the company - which manufactures all types of control transformer, isolation transformer and ultra-isolation transformer (single phase, two phase and three phase) - has been serving its valuable customers belonging to different reputed companies and hopes to increase its customers list in the coming future.

Shri Guru Nanak Electricals Pvt Ltd - established in 1980 - is located in West New Delhi. As a part of business, the company is committed to excellence in the areas of manufacturing, designing and development of all types of electrical components. It is an ISO 9001: 2015 Certified Company and offers CE-approved products under the brand name is New Gold. For the last 41 years, the company is serving for its valuable customers belonging to different reputed companies and hoping to increase its customers list in the coming future.

The company manufactures all types of control transformer, isolation transformer and ultra-isolation transformer (single phase, two phase and three



Rajinder Singh Rooprai,
Owner, Shri Guru Nanak
Electricals Pvt Ltd

phase). These transformers are especially suitable for CNC machines and for various machines control. These transformers can also be developed into Step up & Step down. The voltage range is up to 550 Volt and frequency 25Hz to 65Hz. The company manufactures these transformers according to the customer requirement. For the last 25 years, its customers are continuously using transformer for Fanuc, Siemens, Fagor, Mitsubishi, Fidia and Heidenhain Control.

Shri Guru Nanak Electricals Pvt Ltd is equipped with the state-of-the-art technology & machinery in processing of products. The company possesses a well-experienced management team & technical staff having vast experience in their respective field with utmost

dedication in its kind and acts with their skill and confidence along with the co-operation of its valued customers & suppliers. The company is gaining popularity in its product line.

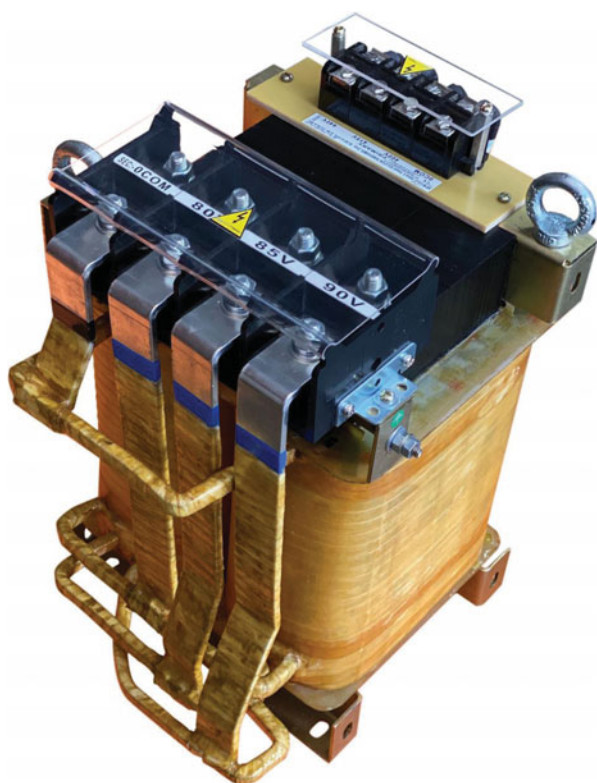
Shri Guru Nanak Electricals Pvt. Ltd. is always dedicated to its customer to provide its products in much better way and to meet the satisfaction of customers. The relation between the company and its customers/ suppliers is cordial and co-operative. It has a specialty for manufacturing of servo stabilizer (single phase & three phase) up to 2000 KVA and all type of manual stabilizer (single phase & three phase) air cooled and oil cooled. The company develops these stabilizers according to the input & output voltage specified by its customers. It also undertakes the manufacturing of all types of line chokes and line reactors for A.C. & D.C. Drives, Three Phase and D.C. Chokes Two wire 1 Ampere to 5000 Amperes.

Reactors for Power Factor Panels, 1 KVAR to 100 KVAR 440Volt to 1100Volt, 7% and 14% or as consumer requirement

It also provides solutions to all kind of electrical & mechanical problems marked with exceptional quality to companies at national & international level such as France, Japan, Germany, Italy, USA, Taiwan, China & England.

IPF

(Communication provided by the management of the company)



TRADE FAIRS & CONFERENCES

Event	Date & Venue	Contact
MACHAUTO EXPO 2021	February 19-22, 2021 Glada Ground, Ludhiana	Udan Media & Communication Pvt Ltd, Ludhiana Tel: 0161-3290509, 4626350, 2533350, 5045322
INDIA CHEM 2021	March 17-19, 2021, Hotel Taj Palace, New Delhi	Federation of Indian Chambers of Commerce & Industry, New Delhi Tel: 011-32910411
INDIA ESSEN WELDING & CUTTING 2021	March 25-27, 2021, Bombay Exhibition Center – BEC, Mumbai	Messe Dusseldorf India Pvt Ltd. Mumbai, Tel: 022-48550062, 48550057, 48550056, 48550000
WIRE INDIA 2021	March 25-27, 2021 Bombay Exhibition Center - BEC Mumbai	Messe Dusseldorf India Pvt Ltd, Mumbai Tel: 022-48550062, 48550057, 48550056, 48550000
INDIA BRUSH EXPO 2021	April 14-16, 2021 Cidco Exhibition & Convention Centre, Mumbai	Unitech Exhibitions Private Limited, Chennai Tel: 044-24564131, 24564132
ACMA AUTOMECHANIKA-NEW DELHI 2021	April 22-25, 2021 Pragati Maidan, New Delhi	Messe Frankfurt Trade Fairs India Pvt Ltd, Mumbai Tel: 022-61445900, 61445962, 61445966
DIE & MOULD INDIA INTERNATIONAL EXHIBITION 2021	April 28-May 1, 2021 Bombay Exhibition Center - BEC Mumbai, India	Tagma Tool & Gauge Manufacturers Associations, Mumbai Tel: 022-28526876, 28508976
9th IMTOS-INDIA MACHINE TOOLS SHOW 2021	July 28-31, 2021, Pragati Maidan, New Delhi, India	K and D Communication Limited, Ahmedabad Tel: 079-40305602
ELEKTROTEC 2021	August 12-15, 2021, Codissia Trade Fair Complex, Coimbatore	Codissia Intec Technology Centre, Coimbatore Tel: 422-2222396/2222397/2221052 Email: info@cointec.in
PU TECH 2021	September 28-30, 2021 India Expo Centre, Greater Noida	Indian Polyurethane Association, New Delhi Tel: 011-41556163
INTERNATIONAL		
AGRITECH WEST AFRICA 2021	Feb 24-26, 2021 Accra International Conference Centre, Accra, Ghana	WegVoraus, New Delhi Tel: 011-49508264 Email: projects@wegvoraus.com
CWIEME SHANGHAI 2021	March 10-12, 2021 Shanghai World EXPO Exhibition & Convention Center - SWEECC Shanghai, China	CWIEME Shanghai, China Tel: 86-21-61978628
CPCA - CHINA INTERNATIONAL PCB AND ASSEMBLY SHOW 2021	March 15-17, 2021 National Exhibition and Convention Center (Shanghai) - NECC, Shanghai, China	Shanghai Ying Zhan Business Service Co Ltd, Shanghai, China Tel: 86-21-54900077
CIMT - CHINA INTERNATIONAL MACHINE TOOL SHOW 2021	April 12-17, 2021 New China International Exhibition Center – NCIEC, Beijing, China	China Machine Tool & Tool Builders' Association (CMTBA), China Tel: 86-10-63345268/63345696

A

24 port I/O controller	42	Air conditioning equipments.	52
2W 12 way dtmf telephone	155	Air coolers or condensers.	131
3 axis gun drilling machines.	c-iv	Air filter.	115
3 phase SSR	55	Air filter regulators.	161
5 axis microdrilling SPM	45	Air gauges.	37
6" three phase borewell pump set	50	Air heater	31
70 bar low pressure work holdings	71	Air preparation units	11
Abrasive mounted points	151	Air-cooled heat exchangers	237
AC drives	103, 107	Air-cooled steam condensers	237
AC shared pole motor & gear motor	129	Aircraft control bearings.	148
AC synchronous motor & gear motors	129	Alarm annunciators	43
AC/DC TRMS digital clampmeter – Model - KM 2777	70	Alco booth	73
ACB	39	Alcohol sniffing breathalysers	73
Access control tools storage	125	Alkali immersion heaters	19
AC's	39	All geared lathe machine.	97
Active harmonic filters	63	All industrial safety products.	13
Active welding robot systems	51	Alpharex multipurpose disinfectant concentrate.	128
Actuator – cost effective	End Paper ii	Aluminium profiles.	End Paper ii
Actuator – precision LM guide	End Paper ii	Aluminium space heaters for panel boards.	137
Actuator systems	End Paper ii	Aluminum space heaters	19
Actuator	End Paper ii	Anti-collision devices	38
Adhesive	107	APFC panels	39
Adsorption dryer	99	APFC relay	39
Aerial bunched cables	End Paper iv, 151	Arc welding in progress	51
Aging, homogenising furnaces	17A&17B	Arc welding machine	110
Agri Machinery	15	Area bunch cable ABC upto 11KB	End Paper iv
Air boosters.	11	Arm chairs.	38
Air circuit breaker	91	Armlight lamp	151
		Atmospheric plasma treatment system	142

Austenitic stainless steel	125	air operated (flameproof)	109
Auto drain valve CTD 11B	157	Barrel pumps.	56
Automated reference method sampler	17	Batch/continuous annealing furnaces	17A&17B
Automatic four head volumetric liquid filling machine	154	Batch/continuous ovens	17A&17B
Automatic rotary glass/ pet bottle washing machine	154	Batch/continuous rotary retort furnaces.	17A&17B
Automatic sanitizer & soap dispenser	128	Batching plant drum mixer.	159
Automatic servo voltage stablizer	21	Battery tab welding equipment.	117
Automatic transfer switch	39	Bearing fitting tool kit.	151
Automation & control cd12 with display	66A & 66B	Bearing induction heater	3
Automation products	39	Bearing mounting heater	151
Automotive bearings	94	Bearing temp. monitoring relay (PT100)	43
Avron platinum plywood	78	Bearing washers	157
B		Bearings / precision bearings	151
B3 auto press brake.	c-iii	Bell type furnaces.	17A&17B
Bag filter	115	Bellow	139
Bag house dust collectors.	66	Belt conveyors	17, 114
Ball bearing extractor kit	151	Belt	93
Ball nose cutter	112	Bevel gear box	89
Ball screw press brake BB4013	81	Bevel gearboxes	End Paper ii, 89
Ball screws – slim nut.	End Paper ii	Billet re-heating furnaces	17A&17B
Ball screws	End Paper ii	Bimetal band saw blades.	110
Ball transfer units – high capacity range		Bin vibrator	52
maximum precision up to 4550 kg	End Paper ii	Bladder accumulator	125
Ball transfer units – light duty range up to 250 kg	End Paper ii	Bladder and accessories.	125
Ball transfer units – medium duty		Blower – twin / tri lobe roots type.	113
range up to 600 kg	End Paper ii	Blum receiver systems - RC66.	44
Ball transfer units.	End Paper ii	Bobbin heaters	19
Barcode scanner - Havsol SC-830W.	78	Bogie hearth furnaces	17A&17B
Barrel pumps – hand operated/motorized/		Boiler feed pump.	121

Boiler panel alignment clamps	Paria-i	Cable trolleys	38
Bolt nuts	75	Cables	End Paper iv
Boring tools	155	Calibration services	37
Bottle /matka filling machine	77	Cam + roller follower	End Paper ii
Box type space heater	19	Camprofile gaskets	153
Braided hoses	255	Cantilever load cell	60
Brake drum couplings	38	Cantilever racking	137
Brake motors	68	Capacitive level sensor	123
Brass solid link bracelets coatings	135	Capacitor controller/overload relay controller	91
Brazing furnaces	35	Capillary thermostats	19
Brazing	35	Carbide cutters & cutting tools	155
Breath alcohol analysers	73	Carbide tipped cutters	155
Breather valves	160	Carbide tipped reamers	155
Brushes	149	Carbon steel fasteners	132
Brushless DC Motor with build in drive	66A & 66B	Carbon/alloy spring clamp	2
Brute force screen	17	Cartridge filter	115
BTA deep hole drilling machine	c-iv	Cash/courier bags	End Paper iii
Burner controller	153	Caster wheels with various mounting options	113
Burner controllers, 700 series	153	Caster wheels, hi-tech	113
Burner controllers, 100/200/300 series	153	Castors & wheels	126
Burner sequence controller	54	CCT/CAT-5E/LAN cables	End Paper iv
Bushes	139	CE Type-4 safety light curtain	143
Butterfly valves	156, 160	Ceco-presscon for automatic winders	64
Buzzer	39	Centralised lubrication for machine tools	23
C		Centralised lubrication System	23, 40
Cable drag chains	48	Centrifugal chemical process pumps in gland/ mechanical seal & CI/SS-316/PP construction seal-less magnetic driven pumps, filter press pumps, rotary gear, diesel & fuel handling pumps	34
Cable ends	39		
Cable glands	39, 124		
Cable reeling drums	38		

Centrifugal pumps	125, 162	Close power chucks	37
CGF flameproof / weatherproof double compression cable glands	135	CNC controlled hot spinning machines.	79
CGF IIC flameproof / weatherproof double compression cable glands	135	CNC fiber laser	87
CGTech India Software Solutions Pvt Ltd	101	CNC hydraulic shears	87
CGW weatherproof double compression cable glands . . .	135	CNC lathe trainer	97
Chain pulley block.	7	CNC LED machine lamp	151
Chamber type furnaces	17A&17B	CNC machine	42
Changeovers	39	CNC press brakes	29, 87
Chemical bags	End Paper iii	CNC rotary tables – NCTT- Series	40
Chemical process pumps	34	CNC servo motor driven ram turret punch press	81
Chemical pumps	34, 109	CNC servo press brakes	29
Cheunbok screw	End Paper ii	CNC single pass honing machine	41
Chuck spares	37	CNC SPM for chasis component.	45
Chucks	37	CNC turret punching	87
Circlips	157	CNC/VMC machined components	153
Circular cold sawing machine	106	CO ² laser marking	141
Circular friction saw blades	105	Co-axial/instrumentation/computer cables	End Paper iv
Circular saw blades for metal cutting (steel pipe, tube and solid bar) industries	105	Coffee vending machine	31
Clamping & braking elements for linear guides	146	Cold pipe cutting and beveling machines	Paria-i
Clamping & braking elements for LM guides	End Paper ii	Cold pressure vessel stub cutting machines.	Paria-i
Clamping and braking system	61	Cold rolled sections	46
Clamps	2	Combi heater	19
Clean-in place.	77	Combination drive jack	89
Clean room systems	129	Combinorm	125
Cleansweep microfilters	157	Combustion burners	57
Clearpoint filtration	99	Commercial air conditioner harness.	150
		Comminuting mills	255
		Communication gateways	65
		Compact thermal camera, FLIR CX-Series	46

NO WATER? NO PROBLEM!



Driven by our thirst for innovation, Paharpur, in collaboration with Dambassinas S.A. (Europe), is proud to introduce in India the SPARTIUM® range of state-of-the-art adiabatic coolers and condensers, which can give 80% water savings vis-à-vis traditional cooling towers in water-cooled systems and 50% energy savings vis-à-vis air-cooled systems.

In today's world of global warming and water scarcity, whether you own and operate an air-conditioning plant in a green building or an industrial process at your factory, SPARTIUM® can provide a significant operating cost advantage, and typically pays back for itself within six to thirty-six months. Reason why it has a worldwide installed base of more than 1,000 units for customers such as Malaga Airport, IBM, IKEA, Coca-Cola, Nestle and Airbus, to name a few.

So contact us today to learn more about how this technology can help you achieve cost-efficiency in your operation.

Salient features of the SPARTIUM® adiabatic cooler and condenser:

- Energy-efficient electronically commutated (EC) motor fans
- Corrosion-resistant Magnelis® frame
- Legionella-preventive design
- Factory-assembled, plug and play units - practically zero installation time
- Smart control systems from Siemens, with direct BMS connectivity

 **SPARTIUM®**



Your Full-Service Cooling Technologies Company
www.paharpur.com



Paharpur Cooling Towers Ltd spartium@paharpur.com

AIR-COOLED HEAT EXCHANGERS

COOLING TOWERS

AIR-COOLED STEAM CONDENSERS

PRODUCT INDEX

Visit the upgraded Ipfonline.com

Conical springs	132
Connect	143
Contactors	39
Contamination control equipment	85
Continuous quenching tempering & cooling line	17A & 17B
Continuous furnaces	17A&17B
Continuous spiral crimped fins	131
Continuous spiral g type fins	131
Continuous spiral l type fins	131
Control & signalling.	39
Control relays with 70% regeneration	66A & 66B
Controller boards	95
Converters – AC-DC, DC-AC, DC-DC, AC-AC	251
Conveyor dishwasher.	47
Conveyorised brazing furnaces	17A&17B
Conveyorised furnaces	17A&17B
Cooking coil	31
Coolant pipe	151
Cooling towers	52, 237, 238
Copper busbars in strips	74
Copper tape	114
Cordless power tools	117
Corrugated covers for bell furnaces	17A & 17B
Corrugated covers for bell furnaces	17A & 17B
Cotton hand gloves	144
Couduit glands / screw couplings.	135
Counter weight limit switches	38
Counters.	39, 103
Couplers and oil	71



21⁺

Years
Experience




A brand trusted by the best



































COOLFLOW Cooling Towers Pvt Ltd
Complete Cooling Water Solutions

915, Vishal Towers, District Centre, Janakpuri, New Delhi- 58
011- 41315111, 42630438, 42630439, +91 - 9811013799
lalit@coolflow.in

www.coolflow.in

Compressed air and gas system.	44
Concrete drill bit	38
Concrete pile cutting saws	Paria-i
Condenders	52
Condensate drains.	99
Condensate processing	99
Condensate sensing drain valve – Series LDV	157
Condensers.	52
Conductivity meters	42
Conductor/armoured unarmoured cables.	End Paper iv
Conduit pipes	39
Cone crusher.	17
Cone mills / comills	255

Couplings – curvic	End Paper ii	Cutting oil	83
Couplings – flexible	End Paper ii	Cutting tools - tailor made	105
Couplings	End Paper ii	Cylinder honi NG machine	108
Crab/end carriages	7	Cylindrical grinding mandrels/arbors	139
Crane – single/double girder, jib, under slung, goliath	7	Cylindrical taper & grooved pins	144
Crane buffers	127		
Crane wheels	38	D	
Cranes	15, 59	Dairy plant	77
Credit risk covers	25	Data logger with USB drive output	42
Credit risk insurance for banks	25	Data loggers	42
Credit risk insurance for exporters	25	DB	39
Cross LM guide – SCR	End Paper ii	DC micro motor & dc micro gear motor	129
Cross roller guide + table	End Paper ii	DC motors & dc gear motors	129
Cross roller ring	End Paper ii	DC power plant	251
Cross-hole deburring tools - orbitools	33A & 33B	Dc pumps	125
C-track flexible trailing system	38	DC-DC SSR	55
Cup filling machine/ice cream filling machine	77	Deburring tool head for idod	33A & 33B
Current collector and slipring columns	48	Deburring tools, multi-component handle based	90, C-i
Current transformer-outdoor type	138	Decorative coatings	135
Custimised sales traning programs	27	Defrost heater	31
Customised cutting tools	105	Dehumidifier heaters	19
Customised power supplies for industries	251	Delay timer, 4W/2W DTMF train traffic control equipment	155
Customised power supply	251	Delta VFD-E Series drive	125
Customized deep hole drilling machines	c-iv	Detuned reactors	39
Cutmaster boiler panel cutting saws	Paria-i	Diamond coated band saw blades	110
Cutter savings calculator	101	Diamond disc for grinding & hacking, chatur	108
Cutters & cutting tools	155	Diaphragm accumulator	125
Cutting lasers	6	Diaphragms	139
Cutting machines	149	Die forgings	159

Dies and Moulds	44	Dish washer	2
Diesel / gas counterbalance trucks (forklifts)	67	Display panels	119
Diesel electric gensets – Euro Series	140	Distribution transformer	21
Diesel engine controller & protection	118	Dock levelers	End Paper i, 5
Differential limit switches	38	Dock shelters	End Paper i
Digital 350 amps mig/mag machine	51	Double clevis	89
Digital crane scales	38	Double coil retaining rings	123
Digital cross talkmeasuring set	155	Double compression cable glands	135
Digital inclinometer	122	Double cone blender	156
Digital insulation resistance tester - Model KM 887, 878, 877	131	Double ended shear beam load cell	92
Digital meter	39	Double girder crane	7
Digital panel meter, flair series	116	Double girder	59
Digital PID controllers (FY series, FU series)	107	Double retort furnace	17A&17B
Digital power regulator	107	Downlights	108
Digital rotary encoders	107	Drilling tapping machine, double spindle	100
Digital thermostat	103	Drive solution	1
Digital thyristor power controllers up to 600 W	103	Drives	39
Digital time interval meter type-1425 MA	133	Drum handling equipment	5
Digital time interval meter	155	Drum heating pads	112
Digital timers & counters	129	Drum unloading system	80
Digital transmission measuring set	155	Dryspell plus heatless air dryers	157
Digital transmitter	103	DSL systems	7
Digital voltage stabilizer	21	D-type muffles for BA lines for SS	17A & 17B
Dimple jacketed tank & hemispherical kettle's	77	Dual gas monitor, Model Digi-69	159
Din mount solid state relay	55	Dual output dc SSR & power proportional controller	55
Din rails	39	Dual thermostat	19
Direct drive rotary servo	End Paper ii	Dust collection bag	84
Disc springs	157	Dust collectors	129

E

Earth cable pair insulation tester	155	Electronic controllers	50
Earth fault / leakage relays	43	Electronic counters	107
Earth leakage detector	155	Electronic process control instruments	123
Earthing transformers	140	Electronic timers	43
Eco series SSR	55	Electrostatic filters	129
Economic range of panel accessories	143	Embedded systems	95
Edge protectors machinery composite cans		EMS systems	39
machinery, packaging machinery	121	Encl Thermostat (Bi-metalic/electronic)	19
Electric & digital motor protection switches	91	Enclosure heater & thermostat (din)	19
Electric chain hoist	7	Enclosure systems	39
Electric counterbalance trucks (forklifts)	67	Enclosure with plug & socket	39
Electric heating elements	19	Encoders	39, 107
Electric linear actuators	End Paper ii	Energy meter	39
Electric meters	End Paper iii	Energy regulators	19, 96
Electric pedestrian stackers	67	Energy saving device for furnaces	17A&17B
Electric pedestrian trucks (bopt)	67	Energy storage	117
Electric turret punch presses	29	Engineering plastics	145
Electric wire rope hoists	59	Entrance automation equipment	End Paper i
Electrical ball screw press brake	81	EOT cranes	7
Electrical panel	138	Epoxy flooring - clean tech ESLS	142
Electrical reset auxiliary relay, Type JRV 192	72	EV chargers	63
Electrical switchboards	140	Everdry dryers	99
Electro hydraulic thruster brakes	38	Excavator mini	36
Electro hydraulic thrusters	38	Excel hydraulic oils - Mobil DTE 10	82
Electro magnetic brakes	38	Exhausters	113
Electro mechanical linear actuators	End Paper ii	Explosion-proof forklifts	67
Electromagnetic vibratory feeder	52	Extruded gaskets	139
Electromechanical switches	c-ii front gatefold	Extruded profiles	139
		Extruded rods	145

F

Fabrications of tanks and storage vessels	131	Fixed oxygen monitors	73
Face gear.	89	Fixed smoke detection system	73
Face masks	13	Flame proof hoists.	7
Fail safe electronic timer	155	Flame proof switches	c-ii front gatefold
Fail safe flasher relay	155	Flameproof gas detector	159
Fan filter units	92	Flange type cable glands	135
Fasteners.	75	Flanged heater	19
Fiber laser cutting machine	141	Flash butt welding machines	134
Fibre drums	End Paper iii	Flasher relay.	155
Fibre drums machinery	121	Flat mounted table bearings.	84
Fibre products	124	Flexi logics	65
Fibreglass (FRP) boats	48	Flexi panels	65
Fibreglass (FRP) products	48	Flexible geared couplings	38
Fifo racks	137	Flexible industrial cables	End Paper iv
Filter ceiling system	85	Flexible shaft accessories	151
Filter housing.	115	Flexible shaft grinders	151
Filter	115	Flight type dishwasher	47
Finger sleeve rollers	100	Floor cleaner, pine all jasmine	130
Finned air heaters.	19	Floor standing	39
Finned heater tabular heating element	31	Flow level sensors	103
Finned heater	31	Flow meters	42, 109
Finned strip heaters	19	Flow switches / meters	46
Finned tubes	131	Flue gas analyser.	159
Fire alarm hooter.	146	Fluid bed dryer (FBD).	154
Fire rated doors	End Paper i	Force5-15000n	127
Fire rated shutters.	End Paper i	Forced air-circulation furnaces	17A&17B
Fittings, tubings & accessories	11	Forced draft cooling towers	238
Fixed gas detection systems	73	Forehead thermometers	128
		Forge fittings	159

Forged/rolled ring	153	Gas monitor, microprocessor based	159
Forging	35	Gas spring	127
Forging/normalizing furnaces.	17A&17B	Gas/smoke detector system	70
Forgings & flanges-split flanges	159	Gaskets	139
Forklifts	15	Gear boxes	38, 59
Foundation bolts	53	Gear pumps	9, 125
FR/FRLS/PVC cables (ST & LT cables)	End Paper iv	Gear pumps, for oils & chemicals.	109
FR/LS building cables and wires	149	Gear units.	1
Frequency inverters	1	Gearbox	End Paper ii
FRP position switches	c-ii front gatefold	Geared drilling machine	98
Fume extractor.	74, 129	Geared motors	59
Fumekillers	129, 156	Gears	End Paper ii
Fumes & dust Control	129	Gears, gear components & assemblies.	56
Functional coatings	135	General purpose cranes	59
Furnaces	17A&17B	General purpose hydraulic cylinders	71
G		Genuine bearing	151
Galvo scanner controller	86	GGR stencil cutting machines.	149
Gantry cranes	7	Girder cranes	59
Gas carburising/nitriding furnaces	17A&17B	Gland related accessories	135
Gas cylinder stretch test pump	109	Glass washers	47
Gas detection system	73	Globe valves	162
Gas detector – 5 channel.	159	Goliath cranes.	59
Gas detector(dual) for oxygen & combustible gases.	68	Goliath cranes.	7, 59
Gas detector, 15 channel.	159	Goods lift	7, 48
Gas detector, semi portable single channel.	159	Grease for LM systems.	End Paper ii
Gas filter.	115	Grommet	139
Gas fired rectangular bell furnaces.	17A&17B	Ground ball screws	52
		GSM communication PLC EM4	66A & 66B

H

H F spindles	36	Hex nuts	53
H D Cartridge & 'd' shape heaters	19	Hexagonal headed bolts	53
Halogen detector – Freon, SF ₆	159	High density polyurethane rods	145
Hammer handles and brass copper hammer	120	High frequency induction heating machine	35
Hammertone finish enamel paint	76	High frequency screen	17
Hand cleaner soap bar	54	High grade aluminium fittings	44
Hand pallet truck	137	High grade aluminium pipe	44
Hand-deburring tools - classic line	33A & 33B	High pressure chemical reactor	80
Hard chrome plated bars	120	High rack stackers (very narrow aisle trucks)	67
Hardening furnace	17A&17B	High speed belt actuator	End Paper ii
Hardening	35	High speed doors	End Paper i
Hardness testers repairing & servicing centre	64	High speed homogeniser	118
Heat detector	145	High speed oil hydraulic press	79
Heat exchangers for heat recovery	131	High speed steel reamers (HSS)	155
Heat exchangers with 'u' tube construction	131	High speed tripping relay, JRV 171/18	74
Heat exchangers	52, 131	High strength friction-grip bolts	53
Heat resistant silicone timing belt	93	High strength threadlocker – loctite – 270	147
Heat spy monitor fixed infrared sensors	103	Hoist, flexible	7
Heavy duty air motors	92	Hoists	59
Heavy duty CNC/mechanical vertical turning lathes	42	Honeywell FF2100 FFP1S mask	145
Heavy duty hydraulic oil	83	Hood type dishwashers	47
Heavy duty impact	125	Hook up wires	End Paper iv
Heavy duty industrial connector	86	Horizontal honing machine	106
Heavy duty machine	42	Horizontal immersion heaters	19
Heavy duty pallet racking	82, 137	Hose clamps	2
Helical gear	89	Hose couplings	132
Helical reduction gearboxes	59	Hot air blower	161
Helicoil inserts	123	Hot air generator/RDF to energy projects	17A&17B
		HOT cranes	7

Hot rolled sections	46	Hydraulic test pump – motorised	109
Hot water generation system	77	Hydraulic tools and accessories	125
House wiring/multi core cables	End Paper iv	Hydraulic torque wrench	125
HPC	109	Hydraulic valves	9
HSS - circular saw blades	105	Hydraulic bench and shop presses	71
HSS - segmented circular saw blades	105	Hydraulic hoses	71
HSS and TCT saw blades	33	Hydraulic manual pumps	71
Humidity cum temperature data logger	80	Hydraulics flanges & components	115
Humidity	42	Hydraulics jacks	125
Hybrid and electric vehicles	117	Hydraulics pullers hydraulics hand pump	125
Hybrid stepper motor + BLDC motor/drive	End Paper ii	Hydraulic tools and accessories	125
Hydraulic accumulators	125	Hydro pneumatic presses	11
Hydraulic bolting tools, manual and powered hand tools and tool storage	125	Hydropneumatic bladder accumulators	119
Hydraulic cylinders	37	Hygrostat (mechanical/electronic)	19
Hydraulic electric pump	125	Hypoid gear	89
Hydraulic expanding mandrels and chucks	161	I	
Hydraulic filters	9	Ice cream cone baking machine	116
Hydraulic fittings-pipe elbows	159	ID grinding drums	109
Hydraulic flanges-four bolter flanges	159	Idler rollers	82
Hydraulic hand pump	125	Igbt based 400 amps mig/mag machine	51
Hydraulic ironworker & punching machine	115	Igbt based 400 amps pulse tig machine	51
Hydraulic jacks	125	Igbt based 400 amps rectifier	51
Hydraulic jacks	End Paper ii	Imasieves	76
Hydraulic manual stackers	112	Immersion heaters	88
Hydraulic power packs	37	Immersion rod	31
Hydraulic press bake machine	97	Impact hammer crusher	17
Hydraulic presses	88	Impellers, various types	17A&17B
Hydraulic test pump – hand operated	109	Imported bearings	151

Induced draft cooling towers	238	Industrial sprockets	150
Induction annealing machine	35	Industrial stethoscope	151
Induction billet heaters for forgings.	35	Industrial switch gears /control gears	91
Induction billet heating.	35	Industrial tool – trolley	119
Induction hardening.	35	Industrial valves.	150
Induction heaters	3	Industrial welding machine.	137
Induction melting furnaces brazing.	35	Inflatable seals/gaskets	255
Induction soldering	35	Infrared radiant heaters	19
Induction tempering machine.	35	Inline feed batching machine	159
Inductive/capacitive switches	107	Inserts	123
Industrial adhesives tapes.	147	Inspection and measurement devices	125
Industrial automation products	39	Instrument cooling fans & blowers	129
Industrial automation solutions.	94	Insulated plugs	39
Industrial bulk washing solutions for your canteen	47	Insulated sockets.	39
Industrial cables.	End Paper iv	Inverter cabinets, 3 CFL	126
Industrial coolant separator	102	INVT	143
Industrial dc inverters	63	Isolation transformer	86
Industrial ethernet switch	69	Isolation	54
Industrial fasteners-steel forgings	159	Isolator RCBO	39
Industrial fume extraction wet scrubber system	161	IT security and messaging solutions	95
Industrial gas detector system.	159		
Industrial gas leak detection systems	73	J	
Industrial IOT	69	Jacks with guides	89
Industrial machine lamp.	151	Jacks with safety nuts	89
Industrial permanent magnetic lifter	157	Jacks with torque limiter	89
Industrial pumps	125	Jacks with twin screws.	89
Industrial racks	137	Jaws – soft, hard & special.	37
Industrial shock absorber.	End Paper ii, 127	Jib cranes	7, 141 & 158
Industrial shoes	13	Joint assembly tools.	71

Joy sticks	39	Lifting platforms.	5
Juice and beverages machinery	77	Light/medium duty racking.	137
K		Limit switches	c-ii front gatefold. 39
Kat®welding and cutting automation carriage	134	Linear – rotary – gonio, manual and	
Kevlar woven belts	93	motorised stages - X-Y-Z-A-O	End Paper ii
Kgen series pumps	125	Linear actuator	89
L		Linear ball & roller guides	End Paper ii
L drive	89	Linear bearings	End Paper ii
L5 High dynamic fiber laser	c-iii	Linear bushes	End Paper ii
Ladle preheating stations	57	Linear shaft + support.	End Paper ii
Laser marking machine	141	Linear shaft servo motor	End Paper ii
Laser tube cutting machine.	33	Linear speed guides.	End Paper ii
Lasers	6	Linear step actuator	End Paper ii
Latex surgical sterile gloves	130	Liquid hand cleaner	54
LD/HD capacitors	39	Liquid level indicators	109
Lead screws – DC/DCM.	End Paper ii	LM ball spline	End Paper ii
Lead screws.	End Paper ii	LM stroke ST	End Paper ii
Leaf chain & hollow pin chain	148	Load cells	38
Level adjusting caster wheels	58	Loaders.	15
Level control valve	162	Loading bay equipment	End Paper i
Level controllers	39	Lobe pumps	118, 125
Level controllers & pump automation products	43	Local scare alarm	126
Level indicators, Glidomat	56	Lockable gas springs	127
Level switches/gauges/transmitters/indicators	46	Locking elements.	End Paper ii
Lever limit switches	38	Long span shelving racks.	137
Library display racks	137	Loss of head indicators	46
Lift trucks.	5	Low strength thread locker – loctite 222	147
Lifting & clamping devices	86	LT PVC XLPE power control cable	149
		LT switches and switchgear.	96

Lubricants	38	Manual stacker	158
Lubrication system for cements plants	40	Manual stacker, SDJ.	113
Lubrication system for printing & packing	40	Manual torque wrench	125
Lubrication system for steel plants	40	Manual welding plasma cutting, welding accessories, welding robots	51
Lubrication system for coal mines	40	Mark sensors	107
Lubrication system for food processing industries.	40	Marking lasers.	6
Lubrication system for forging industries	40	Marking systems	149
Lubrication system for machine & machine tools	23	Master controllers	38
Lubrication system for machine tools industries	40	Material handling equipment	5
Lubrication system for paper mills.	40	MCB	39
Lubrication system for rolling mills	40	MCCB.	39
Lubrication system for rubber processing industries	40	Measurement	99
Lubrication systems	23	Measuring pins	37
LV switchgear and control gear	39	Mechanical and hydraulic pullers	125
M		Mechanical jacks	End Paper ii
Machine savings calculator	101	Mechanical power transmission products	68
Machine screw washer	75	Mechanical vacuum booster.	113
Magic fresh - hand sanitizer (liquid/gel)	128	Mechanical vertical turning lathes.	42
Magnetic drum machine	52	Medium duty racking	155
Magnetic indicators	109	Medium frequency induction heating machine	35
Magnetic level switch, inserstat.	100	Melting furnaces	17A&17B
Magnetic pulley	52	Melting	35
Magnetic pumps	34	Melting/holding furnaces	17A&17B
Magnetic separator	52	Membrane dryers	99
Malleablising furnaces	17A&17B	Mesh filter	115
Manometers	109	Metal cutting tools	155
Manual & servo robotic weld gun.	c-ii	Metal detectors	73
Manual and powered hand tools and tool storage	125	Metal detector-subscan	62

Metal doors for conventional clean rooms	85	Modular soft wall clean rooms	85
Metal forming and heat treatment	35	Modular ups systems	63
Metallic gaskets	153	Modular walls (progressive and non progressive)	85
Metallic stereotypes for pharma packaging machinery.	107	Monitor & control	143
Meter and capacitor	39	Mono roll trolley	7
Methyl methacrylate adhesives, partite	66	Monoblock & cone type diaphragm, piston type & carbon vane type oil free vacuum pressure pumps.	34
Metric hex nuts	132	Motion network	End Paper ii
Micro excavator	60	Motor & speed reducer(customized)	89
Micro motor system - MIM STG3S 3/800	34	Motor / pump protection relays	43
Micro switch	39	Motor control	55
Micromachining lasers	6	Motor speed controllers (drives)	129
Microswitches and limit switches	127	Motorised cable reeling drum.	48
Microswitches and limit switches	66A & 66B	Motorized version nema flange	89
MIG CO ² welding cell	c-ii	Motors + gearbox – AC/DC	End Paper ii
Mild steel special electrodes - Tenalloy S plus	134	Motors	1
Milling line	111	Mould & core drying machine	57
Milling machines	97	Mould design services	102
Miniature stepper + AC sync motors	End Paper ii	Mould drying conveyors ovens.	17A&17B
Mist cleaner for machine tools	End Paper ii	Moulded plugs and all kinds of other special cables .	End Paper iv
Mist collectors	129	Moulds & dies	116
Mobile compactors	137	MPCB	39
Mobile dc valves	9	Mud/sewage, descaling & host of various industrial pumps .	34
Mobile filtration systems	64	Multi function meters	39
Modular assembly systems	End Paper ii	Multi loop controller.	103
Modular ceilings (walkable & nonwalkable)	85	Multi tear racking structure.	137
Modular clean room doors.	85	Multi-component handle based deburring tools . . .	33A & 33B
Modular linear axis	End Paper ii	Multi-cutting edge deburring tools	33A & 33B
Modular mezzanine floor	137	Multiple cell heat exchangers	131
Modular positioning table	End Paper ii		

Multispindle drilling & tapping SPM 45

N

Networking & communication products. 95

New TCT saw blades to cut any type of rails

in large numbers 105

Nibbler attachments. Paria-ii

Nibblers Paria-ii

Nitrogen charging kits 125

Nitrogen generators. 50

Non contact infrared temperature indicator. 107

Non-contact pyrometers. 103

Non-ferrous melting & heat treatment furnaces. . . . 17A&17B

Non-standard/odd size bearings 151

Nylon cast. 145

Nylon wheels cable trolley 158

O

Oil and bearing. 38

Oil and grease pumps. 11

Oil boards. 149

Oil cooled suspension magnet 52

Oil fired furnace 17A&17B

Oil free air 99

Oil heater 31

Oil immersion heaters 19

Oil lubricated rotary vane vacuum pumps. 34

Oil tankers End Paper iii

Omni ball End Paper ii

Omni float – glass handling systems. End Paper ii

Omni wheel End Paper ii

Online rotary shearing system 3 row model 79

Online ups systems 63

Open channel flow totalisers / meters. 46

Optex photo electric sensor 107

Optical composite image level /

micro level-model micro – 01 144

Optical system. 106

Orbital pipe welding carriage – pipe kat. 98

Order pickers 67

O-rings 139

ORP meters. 42

Other products-forged components 159

Outtrigger 89

Oven heater 31

Over load relay - Mau Series 140

Overband magnetiseparator 52

Oxygen monitor. 159

Oxygen detector, portable 159

Oxygen monitors 73

P

P2 Lean adaptive compact panel bender c-iii

Packaging cutting machines 149

Pad printers, 5 colour. 88

Pad Printing machine 141

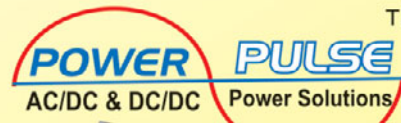
Paint filter 115

Paints and coating additives 154

Paper cone machinery 121

Paper conversion machinery.	121
Paper mill cranes	59
Paperless recorders	103
Parallel & woodruff keys.	146
Passthrough sanitizers	47
Paste hand cleaner	54
Pasteurization system	77
PBX – positive break switches	129
Pen spray hand sanitizer	130
Pendant push button stations [IP-65]	38
Pendent stations.	39
Perforated body space heater.	19
pH controllers	42
Pharmaceuticals processing plant.	77
Phase angle control SSR.	55
Phase angle meter.	155
Phase failure (spp) with	43
Phase SSR / semiconductor motor starter	102
Photo electric sensors.	107
Photoelectric sensors	94
Physical vapour deposition coatings	135
PID controllers.	103
Pilling rings	15
Pipe & joint systems	137
Pipe conveyors.	17
Pipe edge facing & weld edge preparation machines	Paria-i
Pipe end chamfering machines.	Paria-i
Pipe flanges	159
Piston accumulator.	125

TM



POWER PULSE
AC/DC & DC/DC Power Solutions





An ISO 9001 : 2008 & ERTL Certified Products

Our Products Range:
For Standard & Customized needs

- Rectifier for Telecom & BTS
- Customized Power Supplies for Industries
- Converters: AC-DC, DC-AC, DC-DC, AC-AC
- Battery Chargers: SMPS based, Linear Chargers, Float-Cum-Boost Chargers
- Power Packs & Power Panels
- Power Systems for BTS, Telecom Exchange & EPABX







POWER PULSE

An ISO 9001 : 2008 & ERTL Certified Products

A-2/22, GD Steel Compound, Site-4 Industrial Area, Sahibabad, Distt. Ghaziabad, U.P.-201010, India Tel-0120-2807459
 Mobile: 9810 676 780 E-mail: sales@powerpulseindia.com
 Web.: www.powerpulseindia.com

Piston valves	160
Pit pot type annealing	17A&17B
Pit pot type annealing	17A&17B
Pitch conveyor chain, 135 MM	121
Plain plug gauges – Tieco brand	56
Plane level gauges.	37
Plane plug gauges.	37
Planetary gearboxes.	114
Planetary gear motor 62mm dia.	66A & 66B
Planetary gear motor 81mm dia	66A & 66B
Plano milling machines	42
Plano milling machines & special purpose machines.	42
Plasma plants & vacuum furnaces	98

Plastic and rubber products	135	Polyacetal/delrin rods	145
Plastic bearings	90	Polypropylene parts	145
Plastic blowing machines	153	Portable burnishing machine	111
Plastic chains	151	Portable electronic devices	117
Plastic coolant pipes	100	Portable gas monitors	73
Plastic pallets	137	Portable induction heating machinery	35
Plate chamfering machines	Paria-ii	Portable oxygen monitors	73
Plate clamp	50	Portable smoke detectors	73
Plate decladding machines	Paria-ii	Posi-lock pullers	125
Plate edge beveling machines	Paria-ii	Position controller	106
Plate edge facing machines	Paria-ii	Position limit switches	143
Plate heat exchanger	77	Powder metallurgy	35
Plate weld edge preparation machines	Paria-ii	Powdered hand cleaner	54
Platinum cured silicone tubes	255	Power & control cables (aluminium/copper)	End Paper iv
PLC	39	Power chucks, 4-jaw	37
PLC interface units	69	Power chucks, hollow high speed	37
PLCs	107	Power cord	148
Pliers	125	Power jacks	End Paper ii
Plug and sockets	39	Power management	21
Plug gaskets	153	Power plant cranes	59
Plunger pumps	124	Power press	97
Pneulube	11	Power regulators	107
Pneumatic actuator	End Paper ii	Power SMPS, 110 V DC	251
Pneumatic cylinders	11, 37	Power SMPS, 220 V DC	251
Pneumatic -electric-manual	127	Power supplies	39
Pneumatic lubricators	127	Power System, 48 V	251
Pneumatic machines	79	Power transmissions	End Paper ii
Pneumatic valves	11, End Paper ii	PPT kits	13, 130
Pocket gas detector, Model AI-1000	159	Practical and evidence based sales training programs	27

Preci chucks.	37	Proximity sensor.	120
Precihole machines	c-iv	PTC heater	19
Precision ball screw integrated actuator	End Paper ii	PTFE/teflon rods	145
Precision balls + rollers	End Paper ii	PU compounds	147
Precision belt/ball screw actuator	End Paper ii	PU/PP/TPR/high elastic rubber caster wheels.	113
Precision components.	135	Pull back clamps	104
Precision ground ball screws	End Paper ii	Pull wire switch	90
Precision locknuts.	End Paper ii	Pulse jet bag filter	17
Precision moulded and extruded rubber products	62	Pulse jet dust collector - dedusting system.	161
Precision optics	End Paper ii	Pumps.	34
Precision screw jacks	End Paper ii	Pumps for every industrial applications.	121
Precision switches	c-ii front gatefold	Purge rotameters.	161
Predictive maintenance	49	Push buttons & pilot lamps foot switches	39
Pressure reducing station	84	PVC chains	54
Pressure transducers	111	PVC insulated industrial wires & cables.	End Paper iv
Pressure transmitters and pressure	111		
Pressure transmitters	103	Q	
Pressure transmitters/switches.	103	Quenching furnace	17A&17B
Preventive maintenance	49	Quenching tanks.	17A&17B
Process control instruments.	103	Quick change sleeve	146
Process control instruments, export quality.	42	Qwinwell SMPS	107
Process cooling	52		
Process filters.	115	R	
Process pump	121	Rack + pinion	End Paper ii
Profile/shape wire	123	Rack	137
Programme controller	103	Radar sensor - T30R	36
Projection welding machine with auto nut feeder.	c-ii	Radial drilling machine	97
Protection systems	61	Radio remote control	38
Protocol and interface converters	95	Radio remote control pendent station	80
		Rail jacks.	End Paper ii

Railway earthing switch	88	Rotary geared limit switches	38
RCCB	39	Rotary high vacuum pump	34
Reach trucks	67	Rotary indexing type SPM	45
Refiner furnace	17A & 17B	Rotary shears	79
Refrigeration compressed air dryers	157	Rotating screw	89
Refrigeration	99	Round linear guide (HCR)	End Paper ii
Relay	39	RR busbars and tapes	126
Relay cards	39		
Remote controlled cold pipe cutting machines	Paria-i	S	
Remote monitoring solutions	95	S S punched grid resistance boxes	38
Resistance boxes	60	Safety blocks	125
Resonance screen	17	Safety gloves	13
Retort furnace	17A&17B	Safety guard	107
Rig pumps	9	Safety relay	66A & 66B
Ring joint gaskets	153	Safety solutions	39
Road Equipment	15	Safety switches	c-ii front gatefold
Road hooters for level crossing	155	Sales traning programs	27
Robotic bending cells	29	Salt bath furnaces	17A&17B
Robotic spot welding cell	c-ii	Saw blades	33
Robotic welding	51	SC Cable glands with multi layered rubber seal	135
Rod end + link ball	End Paper ii	Scam welder	c-ii
Rodless cylinders	127	Scan & control outputs	143
Roller pad LR/LRU	End Paper ii	Scissors lift	7
Roller screws	End Paper ii	Scissors maintenance platform	5
Rolling shutters	End Paper i	Screw conveyor	153
Rotameters	109	Sealless magnetic drive chemical pumps	34
Rotary & moving hearth kilns	17A&17B	Sealless magnetic drive chemical	34
Rotary encoders	103	Seal-less magnetic pumps	109
Rotary gear pumps	52, 121	Seals	139

Seat retainer ring	153
Sectional overhead doors	End Paper i
Sector gear	89
Self drilling screws	133
Self-Balanced Extractor Arms	129
Self-priming multistage boiler feed pumps	109
Semi electric stacker.	155
Semi goliath cranes	59
Semi-synthetic cutting oil	83
Sensitive smoke detectors	73
Sensors incorporate the superior Silicon-on-	
Sapphire sensor technology to make one of the most	
advanced ranges available in the market,	
vacuum to 5000 Bar	111
Sensors	107
Sequence controller	153
Serrated gaskets	153
Service & air audit	99
Servo + stepper motion controller	End Paper ii
Servo	39
Servo controlled volatage stabilizers	63
Servo controller with built-in drive.	End Paper ii
Servo motion system	End Paper ii
Servo motor.	89
Servo stablizer & Transformers	54
Servo stablizer	54
Sewage/mud pump	121
Shaft hardening.	35
Shaker hearth furnaces	17A&17B


Ami Polymer Pvt. Ltd.
"Sealing Expert in Silicone"
TUV Nord Certified ISO 9001:2015/14001:2015 & BS OHSAS 18001:2007 & Clean Room Class 10000 Certified Manufacturing facility.



[@amipolymerindia](https://www.facebook.com/amipolymerindia)
[@amipolymerindia](https://www.linkedin.com/company/amipolymerindia)
[@amipolymerindia](https://www.twitter.com/amipolymerindia)
[amipolymer.com](http://www.amipolymer.com)

**TUV NORD
CERTIFIED
COMPANY**

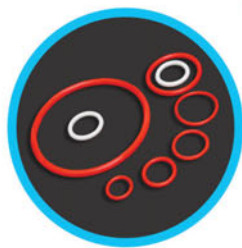
**NSF-51 (AESOP 6516; ISSUE 16)
CERTIFIED SILICONE RESIN
SLE-(PT)-30 to SLE-(PT)-80**

**TOXIKON LAB BASED
E & L STUDIES
ON SILICONE PRODUCT**

**Specialized in
Platinum Cured
Silicone Tubes,
Braided Hoses &
Inflatable
Seals/Gaskets**







**End-To-End
Solution For
Engineering,
Automobile,
Power Sectors,
Aerospace,
Textiles,
Defence &
Nuclear Industry.**

info@amipolymer.com | mktg@amipolymer.com



Sifter Sieves



Cone Mills/Comills



Comminuting Mills



Silicone/FKM/EPDM Bellows

Shearing machine	97	Skate cargo trolley for heavy machines.	102
Shears.	29	Skiving & burnishing machine	c-iv
Sheet metal / pressed component	131	Slewing bearings	143
Sheet metal cutting tools	Paria-ii	Slewing ring	End Paper ii
Sheets	145	Slide pack – stainless steel series FBW	End Paper ii
Shell & tube type heat exchangers	131	Slotted angle steel racks.	137
Short circuit protected	SSR 55	Slulce gate screw jack	89
Short plasting plants	79	Small site office container	157
Shrink machine	122	Smoke detectors	73
Shrouded bus bar system.	38	Snap rings.	123
Shuttle / pallet carrier	67	Soft starters	39
SIBG (SC-heavy duty) cable glands.	135	Solar actuator	89
Sifter sieves	255	Solar backup heaters.	19
Sight flow indicator	62	Solar battery -150AH.	76
Signal converter.	65	Solar cable	End Paper iv
Signaling and telecom equipment.	155	Solar containerized solution	136
Silicone /FKM/EPDM bellows	255	Solar hybrid grid tie-inverters	63
Silicone products	139, 255	Solar led street light.	136
Silicone sealants	147	Solar tunnel drier.	136
Simplex bag/strainer filtration systems	62	Solar water heaters	136
Single axis gun drilling machines	c-iv	Solenoid valve, gas vehicles.	110
Single compression cable glands	135	Solid carbide cutters.	155
Single core / multicore flexible cables.	152	Solid carbide drills.	155
Single girder crane crab.	7	Solid grid-tie inverters	63
Single girder	59	Solid state relays	39
Single phase SSR.	55	Solid state relays (SSRs)	107
Single shot oil system – Model ELU-2700	C-i	Soluble cutting oil	83
Single toggle jar crusher	17	Space heaters	19
Single/double stage, direct coupled	34	Spare bladder kit.	125

Special builds	67	Stainless steel belt	93
Special purpose machines	42	Stainless steel cable ties	135
Special steel sections	46	Stainless steel fasteners	75
Speciality lubricants	147	Stainless steel forgings	159
Speed motor	143	Stainless steel gate valves.	160
Spherical plain bearing, SB	135	Stainless steel materials, grade 321	58
Spindles	36	Stainless steel watch straps coatings	135
Spindles for special purpose machine.	147	Steam thermic fluid heated air heaters	131
Spindles	44	Steel flanges	159
Spiral bevel gear	89	Steel mill duty cranes	59
Split frame cold pipe cutting machines	Paria-i	Steel tank cutting solutions	Paria-i
Split type ground resistance on-line detector – Model 2800 KC	72	Steel/stainless steel pipe beveling machines	Paria-i
Spot welding machines	96, 134	Stencil cutting machine	117
Spot welding SPM	c-ii	Stencil ink	149
Spotlight machine lamp	151	Step up/ step down transformers	21
Spout assembly	151	Storage racks	137
Spring dowel pins	157	Storage system	137
Spring operated cable reeling drum	48	Storage water heater H/E.	31
Square / rectangular fins	131	Straight bevel gear.	89
Square motor 57mm	66A & 66B	Strainer	115
SS enclosures	39	Strip heaters	19, 74
SS woven belts.	93	Strip/finned strip heaters	19
SSD.	143	Stud bolts	53
SSRs	107	Submersible agitation system	57
Stackers	137	Submersible flat cables	152
Stages – linear – rotary – gonio, manual & motorised X-Y-Z-A-O	End Paper ii	Suco - pressure switches	111
Stainless steel bellow	147	Super active robt welding systems	51
		Super precision bearings	151
		Supermarket racks.	137

Supo caster wheels	113	Three core flat submersible cables	End Paper iv
Suspension magnet	52	Thyristor based 400amps mig/mag machine	51
Switch mode power supply (SMPS)	251	Thyristor power controller.	103
Switches	109	Tie – rods	53
Switchgear products.	39	Tier lamp	151
T		Tilting furnace	117
Tabular heating bundles and systems	31	Time switch to GIC	143
Tachometer	42, 107	Timers.	103, 39
Tally counters.	107	Tool cabinets	119
Taper gauges.	37	Tool cupboard, CNC	119
Taper lock pulley	104	Tool holders.	139, 155
Tata bearings.	84	Tool transporter for VMC	119
TCT - tipped circular saw blades.	105	Tool trolleys & tool cabinets	104
TDS meters	42	Tool trolleys, CNC	119
Techtrol magnetic level gauge IBR – MLGB	58	Tools discs.	139
Tele communication cables.	End Paper iv	Toothed double roll crusher	60
Telecom equipment	155	Torque multiplier	125
Telecom power supply	251	Tow tractors.	67
Temperature controller	39	Tower lights	39
Tension springs	114, 127	Toxic detector with aspirator	159
Terminals.	39	Traffic barrier, PAT 6N	145
The arc welding robot systems	51	Transducers & multifunction meters.	43
Thermal imager.	103	Transfer trolleys	7
Thermal imaging cameras	49	Transformer core frame parts	138
Thermocouple extension /compensating cables.	152	Transformer with ht automatic voltage regulator	94
Thermostats.	19	Translating screw	89
Thread cutting	83	Transmission measuring set (Type 368-C)	131
Thread measuring gauges	37	Transmitters	109, 111
Threadlocker – loctite 243	147	Travelling machineries	59

Travelling machinery	59	Unarmored copper cables	152
Traverse units & assemblies	120	Unbalance vibratory motor.	48
Tri lobe roots blowers.	113	Under / over - voltage / current /frequency relays.	43
Triplex plunger pump, high pressure.	121	Under slung cranes	7
Triplex plunger pumps	124	Undercounter dishwasher.	47
TRS/TRS braided/welding cables.	End Paper iv	Uninterruptible power	69
Truck pumps	9	Universal auto trimmer	79
Truck tarpaulin.	End Paper iii	Universal cable glands in nylon	135
Trucks & containers	End Paper iii	Universal cable glands with IP 68 protection.	135
Tube bending machine	33	Universal calibrator	103
Tube cutting machine	33	Universal converter KA 301	107
Tubes & components	145	Universal converters.	107
Tumble kart.	133	Universal joints	89
Tunnel excavator- EX 200LC.	158	Universal process controller-model CT-SV8.	78
Turbine side channel, roots & centrifugal blowers	34	Universal transmitters.	103
Turning and turn mill center: 4-spindle line	81	Utensil washers	47
Twin / tri lobe roots blowers.	113	UV flame relay/amplifier for oil/gas fired boiler/burner/furnaces	153
Twin and single spindle automated turning machines and turning centers	81	UV flame sensors.	153
		UV sensor for oil/gas flames	66
U		V	
U shape air heaters	19	Vacuum booster – mechanical	113
UHMW PE rods	145	Vacuum components and solution	127
Ultra high frequency induction heating machine	35	Vacuum components and solutions.	58
Ultra isolation &controlled transformer line choke and line filter for CNC machines.	54	Vacuum conactor/mini switch controller	91
Ultra isolation transformers	63	Vacuum pumps, plants & systems.	34
Ultrasonic cleaning machine metal parts.	119	VAG AW disk check valve.	162
Ultrasonic rat repellent for cars	90	Valve components H&P, P&V.	153
Ultrasonic Washer	119	Valve stems	153

Valves	46	Way type SPM	45
Variable voltage auto transformer.	21	Weather proof switches	c-ii front gatefold
V-belt/direct driven & monoblock type	34	Welding electrodes manufacturing machinery	141
Vegetable washers	47	Welding fume extractor	72
Vent filter.	115	Welding transformers.	96
Ventilation Systems.	129	Wet scrubbers	156
Vertical honing machines	118	Wheel loaders, ZW 370-5A	40
Vertical immersion heaters	19	Winches	End Paper ii
Vertical milling machine.	104	Winding temperature relay (PTC)	43
Vertical shaft impactor	17	Wire and cable	39
Vertical worm reduction gearbox	122	Wire mesh belt	148
Vibrating feeder.	17	Wire mesh welder	c-ii
Vibrator controller	52	Wire nail making machine.	108
Vibratory feeders, screen & tables.	48	Wire recovery machine	141
Vibratory finishing machines.	142	Wire rope hoists	7, 82
Vibratory furnace chargers	48	Wire screens, heavyduty.	112
Vibro finishing rotary dryers	142	Wire straightening and cutting machinery	141
Viewing systems.	61	Wire wound finned tubes	131
W		Wired and wireless connectivity solutions	95
Wall mounting.	39	Wires & cables.	End Paper iv
Wall storage	119	Wiring ducts	39
Warehouse racks	137	Work bench / work station	119
Water cooled diesel generator	138	Worm shafts & gears, hardened & ground	92
Water filter	115	Worm speed reducer	150
Water heater H/E.	31		
Water immersion heaters	19, 31		
Water treatment chemicals	238		
Water-ring vacuum pump.	34		

SALVAGNINI MACHINERY INDIA PVT LTD

2nd Floor, No.26, R V M 2nd stage, New BEL road

Sadashivnagar, Bangalore - 560 054, India

Ref. Mr. Sharma Puneet

T. +919538872298

E. puneet.sharma@salvagninigroup.com

FLEXIBLE SYSTEMS FOR PROCESSING SHEET METAL

L5
High dynamics fiber laser



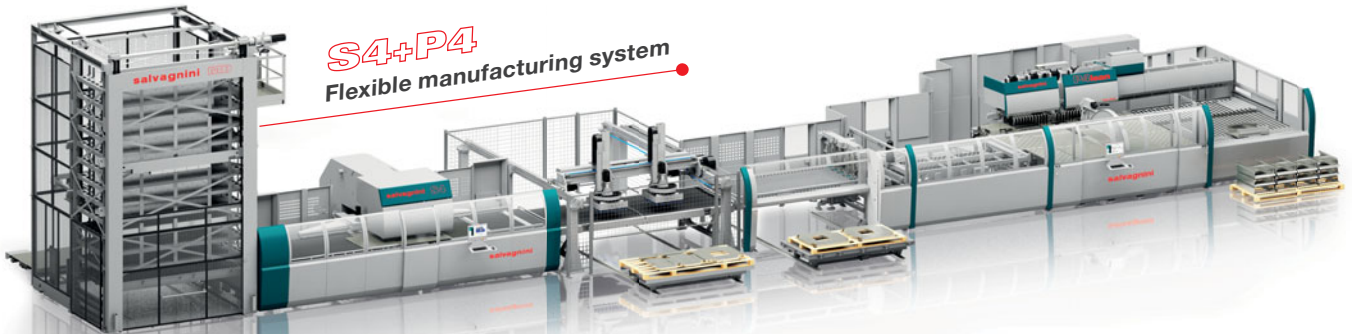
B3.AU-TO
The adaptive press brake



S1
Mechatronic punching machine



S4+P4
Flexible manufacturing system



P2lean
Compact panel bender



The Salvagnini Group **designs, builds and sells** flexible systems and machines for processing sheet metal: punching machines, panel benders, press-brakes, fiber laser cutting machines, FMS lines, automatic store-towers and software.

salvagnini



DEEP HOLE DRILLING & HOLE FINISHING SOLUTIONS

Precihole®
Inspire - Innovate - Deliver

HONING MACHINES



GUN DRILLING MACHINES



**RELIABLE
PRODUCTIVE
USER FRIENDLY
VALUE FOR MONEY
STATE OF THE ART TECHNOLOGY**

BTA DRILLING MACHINES



www.precihole.com

Precihole Machine Tools Pvt. Ltd. Behind Harmony Arcade, Pimpalghar,
Bhiwandi - Kalyan Road, Taluka Bhiwandi, District Thane - 421311, Maharashtra India.
Mobile: +91 9321305480 / +91 7498019135 | Email: sales@precihole.com

