



THE ECONOMIC TIMES



THE ECONOMIC TIMES



From the Editor's Desk

The Indian plastics and polymers industry is going through a dynamic phase. There are huge challenges and there are equally large opportunities. The Best Brands always stand out in the crowd; but at times like this, the Best Brands are also the torch bearers of everything that is excellent about the industry.

The term brand encompasses your entire customer experience; it goes beyond being just a logo or a graphical element. It is the way your customer perceives everything about your organisation - from product, processes to people. And 'The Economic Times Best Brands' is a series that celebrates brand excellence.

In continuation of this spirit and philosophy, the series has been now extended to the plastics and polymers industry. To be more precise, it recognises the Best Brands that cater to the plastics processing industries. These Best Brands have offered the plastics industry a fantastic combination of economics, excellence, engineering and environment friendly solutions. These Best Brands are not only setting benchmarks in the domestic markets but are also shining in the global arena.

They are more than good suppliers; they are great partners. Through this coffee table book, The Economic Times honours and celebrates these great partners by recognising them as 'The Economic Times Best Brands in Plastics & Polymers' 2018.

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About ‘The ET Best Brands in Plastics & Polymers’ Initiative

Measuring any brand’s success is never easy. It is even more difficult in a dynamic market. With the economy getting progressively digitised, customers and other stakeholders are now interacting more with brands on a regular and consistent basis.

Measuring the success of a brand is trickier for companies operating in the B2B segment. Customers of these companies want a brand they can position better to the end consumer; a brand that they can rely on for prompt post-sale support; a brand that offers them channel-friendly policies like price protection, etc.

Even while these companies’ marketing managers work hard at building a brand identity that resonates strongly with the end consumers, its brand managers are now challenged to come up with newer ways to build a long term connect with their channel partners, especially in the fast-evolving technology domain. They need to keep continually interacting and engaging with the channel partner to build an emotional relationship and then measure this engagement to see if the communication is mutually fruitful. The Plastics & Polymers industry is no exception to this.

It is in this light that The Economic Times presents the luminous edition of “The Economic Times Best Brands in Plastics and Polymers 2018”, in continuation of its ‘Best Brands’ series. This edition comes with a strong and rich legacy of major research-based and successful initiatives like Best Brands, Iconic Brands of India, Best Asian Healthcare Brands, Inspiring Business Leaders of India, etc.

The growing Indian plastics industry is strongly supported by many manufacturers of machinery, materials, masterbatches & so on. However, with more than 2,000 brands competing in the market, how can the processors know which is the best brand for the industry?

Therefore, in the best interest of the Indian plastics industry, The Economic Times presents the definitive guide to the Best Brands in the Indian Plastics and Polymers Industry through this coffee table book.

While the Indian plastics industry is already one of the fastest growing segments in the Indian economy, it has enormous unrealized potential, as indicated by the present very low per capita consumption levels of polymers in India which is ~11 kg vis-à-vis 38 kg in China, 65 kg in Europe and the global average of ~28 kg, as per a FICCI Report.

The objective of this knowledge-based platform is to highlight the key brands, which have evolved and innovated over a period of time to serve the Indian Plastics and Polymers industry.



An Economic Times Initiative

About ET Edge

Times Strategic Solutions Ltd., functional under the brand name ET Edge, is an Economic Times initiative founded to empower multiple industries and segments by sharing critical business knowledge through focused exhibitions and strategic conferences and summits. Encompassing business vistas, ET Edge strives to bring together visionaries and key leaders on its knowledge platforms to create a social and business environment conducive to the positive changes required by the industry. The main aim of this initiative is to channel global business intelligence through exhibitions, summits and conferences in overarching lectures, hands-on workshops, panels, roundtables, case studies and more.



Knowledge Partner

The Knowledge Partner for The Economic Times Best Brands in Plastics & Polymers 2018 is BDB India Private Limited. BDB India Private Limited is a leading Strategy Consulting and Market Research organisation specializing in Industrial, Agricultural and Healthcare sectors. As Market researchers and business analysts for over three decades, it has been BDB's continuous effort to produce innovative, aggressive and failsafe growth strategies for its customers.

Since 1989, BDB has had the privilege of working for leading, market savvy organizations, many of which are among the largest business houses of India. BDB also has had the privilege of working for various international organizations for their growth strategies. The geographical coverage of conducting Market Research includes South Asia, Middle East, Africa, Latin America and South East Asia.

For more details, visit [*www.bdbipl.com*](http://www.bdbipl.com)

Research Methodology

India has a thriving plastics industry and it is set to become one of the world's largest plastics markets within the next few years. In the past, plastics use in India was largely limited to household consumer durables and packaging. Now, plastics are also widely used in infrastructure, health care and agriculture. The consumer market for automobiles and electronic goods - both major users of plastics - is also growing rapidly.

The process of identification of the major companies in the plastic industry began by classifying the entire chain in the Plastic industry into:

- (A) Upstream sector: Manufacturing of polymers
- (B) Equipment manufacturers
- (C) Downstream sector: Conversion of polymers into plastic articles.

During the process of identifying the key companies in the plastic sector the focus was on organisations who have created value for their stake holders on the back of significant investments in innovative products, manufacturing excellence, talent management, community responsibility, investments in enterprise assets and customer orientation.

Inputs were taken from key industry bodies, academic institutions, secondary databases, BDB databank, sector reports and experts across the plastic value chain for compiling the key companies in the plastic industry.

The primary focus of this exercise was on upstream and the equipment manufacturing sector which is organised, technology oriented with a clear focus on excellence across the value chain.

The equipment manufacturing sector has been further classified as:

Processes	Products manufactured
Extrusion	Films and sheets, fibre and filaments pipes, conduits and profiles, miscellaneous applications
Injection molding	Industrial injection molding, household injection molding and thermoware / molded luggage
Blow molding	Bottles, containers, toys and housewares
Roto molding	Large circular tanks such as water tanks
Other equipment	Pipe turning, pipe cutting

To ensure that the representation of the companies cuts across the industry irrespective of their size, the companies have been classified below:

- Small Enterprise – Less than Rs500 crore
- Medium Enterprise – Between Rs500 crore to Rs1000 crore
- Large Enterprise – More than Rs1000 crore.



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**BEST
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2018**



PIPE TURNING



CNC TURNING & BEYOND

PIPE TURNING SOLUTIONS

Ace Designers offers a wide range of PVC pipe turning solutions for column as well as casing pipes. Armed with experience of working with many of the largest manufacturers of column and casing pipes in the country, Ace Designers has built the capability to offer high performance turning machines with automation, parts carousel and IoT enabled features to suit the industry's specific needs.



Having strived to understand the needs of Pipe manufacturing industry, the machine LTP-2 LM 500 of Ace Designers has been built specially for Pipe turning applications offering seamless performance. This machine is offered with Ø86, Ø110, Ø130, Ø160, Ø180 and Ø250 mm spindle bore sizes. Spindle bearings are of super precision class with bearings grease lubricated for life. With various types of work-holding to offer & axes rapid rates as high as 30m/ min, the LTP-2 LM 500 is an ideal machine to cater the needs of pipe turning.

Ace Designers is the flagship company of the Ace Micromatic group. The company was founded in 1979 as a design-consulting firm by three engineers from CMTI. In the early years, the team focused on product designs for various machine tools including special purpose machines. In 1982, Ace Designers stepped into the world of manufacturing with a range of special purpose import substitution machines for the I. C. engine valve industry.

Since then, Ace Designers has grown to become India's largest manufacturer of CNC turning centres with an installation base exceeding 30,000 machines and has remained the undisputed market leader for over two decades. With a strategic focus on developing high quality, cost effective products, Ace Designers has developed a wide range of turning centres to meet the needs of various industry segments. With more than 1,500 unique customized installations in the field, Ace Designers has built expertise in providing tooling up and automation solutions to meet specific requirements of its customers.

Sales and service support in India is handled by Micromatic Ma-



www.acedesigners.com



chine Tools. With over 40 locations across the country, customers can be assured of timely response to their needs. Globally, they have established their presence through regional offices and a dealer network in over 25 countries including Germany, France, Italy, UK, Middle East, China and Thailand.

Large scale production of world class machines has been one of the key strategies adopted at Ace Designers.

Ace Designers has been in the forefront of turning technology advancements in India and is the only Indian manufacturer to offer Sliding Head Automat machines. In addition, Ace Designers recently introduced industry specific innovative machines such as 4 axes vertical turning centre with tailstock, large vertical turn-mill centre with ram head spindle & ATC, an automated turning cell with robot for deburring, washing, dimensional measurement through electronic gauging and segregation. In addition to a comprehensive product portfolio of over 100 models, Ace Designers has also specialised in offering tooling up and automation solutions.



team of experienced engineers in R&D and design. Additionally to provide solutions to specific customer needs, they have a dedicated team of application and process experts.

To ensure quality standards of critical inputs are met, Ace Designers has meticulously established world class infrastructure including a large automated foundry, best in class mother machines for components and sheet metal manufacturing and state of the art painting facilities.

Ace Designers has focussed on product excellence through quality driven manufacturing processes that include incoming quality inspection, in process quality assurance and rigorous final product testing. In order to ensure on time delivery of standard products, Ace Designers has developed the flow line system of assembling machines, similar to the automotive industry.



“Our products being based on careful studies of customer requirements, their productivity is as important as our own. By relying on development of internal technical strength, our emphasis is on innovation in product design and in manufacturing processes. Built on a strong foundation of ethics and transparency, Ace Designers is committed to bringing the economic benefits of large-scale production to customers, enabling them to attain a high level of competitiveness and quality.”

Sridhar T.P.

Chief Executive Officer
Ace Designers Ltd.

In order to ensure continued innovation and to cater to the changing needs of customers, Ace Designers have established a strong



COMPOUNDS



INNOVATIVE ENGINEERING PLASTIC SOLUTION PROVIDER!

IN A NUTSHELL

1. Pioneers in providing Global Solutions for the Plastic Industry
2. Diversified product range to serve multiple industries such as Automotive and Electrical & Electronic Appliances apart from host of other Industries!
3. Calco exports its wide range of products to SAARC, South East Asia & European countries
4. Gearing up with a production capacity of over 30,000MT/Year
5. World Class Testing Lab as per ASTM/ISO standards. Certified with ISO/TS 16949 Quality Management System
6. Calco has complete range of High Performance Polymers, color and additives solutions, meeting the critical operational requirements and technical specifications. The manufacturing process relies on slim-line, high degree of automation, and flexible utilization of the production facility.
7. Calco's new plant is based on eco-friendly solutions and will be solar powered with clean energy generation concept with reuse of water resources!



CALCO is one of the leading providers of High Performance Polymers, Color and Additive Solutions. With an experience of over 18 years and serving more than 1000 customers, the company is focused to become India's Most Preferred Global Plastic Solution Provider. Calco's multiple production facility with total production capacity of 20KTPA ensures that it covers wide variety of markets and end-use-applications. In addition, the company's team of 100+ associates provides customers with efficient and innovative solutions ensuring profitable growth for everyone. Calco Group's mission is supported by its core value: sustainability. Calco Poly Technik currently operates with Head Office in Delhi and Pan India strategic distribution network for efficient supply chain and improved customer service. The Company has invested in state-of-the-art equipment, technology and people empowerment. The Company is a global solution provider offering end-to-end solution encompassing product development from concept to product realization. Calco has been awarded D&B SME Business Excellence Award in 2017. Last year, Varun Gupta, Director, Calco Poly Technik Pvt. Ltd. has been bestowed with 'CEO of the Year – India (2017-18)' by CV Magazine, UK for 'Redefined Leadership and Management' at Calco Poly Technik, moving forward with



Calco Poly Technik

www.calco.in



“Calco team is inspired to transform its business from commodity led to knowledge driven. We focus on developing a strong product portfolio and work on innovative solutions to further strengthen customer relationship and build partnerships with global players. Our vision is to be India's Most Preferred Global Plastic Solutions Provider, through growth and enrichment to our associates and the community in which we operate, thereby contributing to the success of customers and stakeholders. We also aim to further strengthen our relationships with OEMs & Tier – I / II industry. Calco Poly Technik at present caters to its Customers from diverse industries like Auto, Electrical & Electronics Industry.”

Varun Gupta

Director

Calco Poly Technik Pvt. Ltd.

enhancements in innovation, marketing, finance, employee engagement, skill development and technology. The company believes that its indigenous technologies and professionalism will help it align with Global OEMs and Calco can see positive outflow of raw material business being served from India. The company aims to be a leading exporter of innovative solutions in plastics for the world. Currently, the company's turnover is less than Rs. 500 crore.

Calco Poly Technik has a team of experienced polymer and chemical engineers having extensive experience in different product applications. They bring with them over 50 years of rich experience in product testing and innovation. Equipped with all latest technology, they are continually working with our application development team and customers to identify opportunities in changing consumer expectations.

CiLON & PiCAN range of polymers - Range of Engineering Compounds

Calco's CiLON range of polymers gives performance, durability and lightweighting solutions to the automobile industry. Not only they are high on functional performance but they also significantly

improve aesthetics and give design freedom to designers of vehicle manufacturers. Calco's PiCAN range of polymers covers all aesthetic electrical products including switches. The company has also developed a new product range to help replace CFL with LEDs. It also has a range of ZiLITE products for LED housing that manages thermal heat for long term performance.

Calco always looks at collaborating with OEMs in electrical space to meet challenging demands and stricter government norms. The company has created wide range of environment-friendly flame retardant polymers that can replace conventional heavy metal materials in applications such as MCB and MCCB. The company also works with leading lighting OEMs to make affordable LED products in downlighters, bulbs and tubes, which have the potential to replace all existing incandescent light bulbs/CFLs. Calco's technologies can surely see light of the day if brands are willing to upgrade their products in line with international standards.

The company is also working simultaneously to create sustainable solutions in electrical industry by innovating with light-weight, environment-friendly and recyclable material.



PUSHING BOUNDARIES WITH ITS HIGH-TECH MATERIALS

HIGHLIGHTS

- Covestro recently launched 'Made in India' sustainable products focusing on Smart Cities. The company has been a key player in India's industrial coatings & adhesive market and lately launched sustainable products based on PU technology
- With a focus on 17 SDG's of UN, Covestro is committed to preserve our planet & improve the quality & safety of lives of millions. Covestro (India) with its innovative solutions & collaboration with partners caters to the underserved community.
- It introduced 1K Moisture Cure Construction Sealant - an innovative technology for real estate developers that can help expansion joints in buildings, and 1K Moisture Cure Water Proofing that provides high performance & durability for residential & commercial spaces
- Medical technology continues to advance by leaps & bounds. But bringing life-saving products to market requires more than medical breakthroughs: it also requires materials that can meet the rigorous challenges these applications demand. Polycarbonate resins and blends developed by Covestro help bring medical & healthcare applications to life.
- Flame retardance is a key property for materials used in the electronics applications. The requirements of many standards, directives and environmental symbols for flame-retardant thermoplastics used in electronic devices have become more stringent. Bayblend® (PC+ABS; PC+ASA blend) resins aim to satisfy the increased demands.

With 2017 sales of €14.1 billion, Covestro AG is among the world's largest polymer producers. Business activities are focused on manufacture of high-tech polymer materials & the development of innovative solutions for products used in many areas. The main segments served are automotive, construction, wood processing & furniture, and electrical & electronics industries. In India, Covestro is well established with three manufacturing facilities at Greater Noida, Ankleshwar & Cuddalore.

In line with its vision “To make the world a brighter place,” the company works on solutions to the challenges of our time – to push the boundaries of what is possible. Hi-tech materials from Covestro are simply indispensable in many areas. They not only make little things in life easier, but on a grander scale, they provide solutions to today’s challenges. We are always working on innovation to move our business forward and ensure greater sustainability – with the aim of making the world a brighter place.

The company helps make cars become lighter so they save fuel. The company's insulation systems protect buildings against the heat & cold to reduce energy consumption. In entertainment elec-



www.covestro.in



tronics, the company's products support functionality, safety & sleek design.



Covestro India's facility in Greater Noida includes System House, Design Center, Eco Commercial Building & Color Competence.

- Eco-commercial building operates majorly on clean renewable energy, consuming 70% less energy compared to conventional buildings. To further complement its exceptional design, it has been rated Platinum by LEED, receiving a total of 64 points. The innovative solutions make it climate-friendly, highly energy-efficient and it functions at unbelievably low operating cost.
- Covestro site, Greater Noida was built in February 2006, quickly inaugurating the System House on June 12, 2007, Eco Commercial Building on January 21, 2011 and the Color Competence & Design Center on February 1, 2011.
- PUR (Polyurethane) system house has state-of-the-art blending technology for an unparalleled mixing to ensure consistent product quality. It has well-equipped Application Development Lab for customer interactions & develop new products based on customer requirements. The whole production process is controlled through SCADA system to maintain high accuracy in addition of raw material to produce high quality material. More than 80 different products are made to cater wider demanding requirements. The plant is self-sustainable in its operation and fulfills all EHS norms.
- **The Color competency and design center (CCDC)**, compounds a high-tech polycarbonate & its blends, in a vast range of transparent, translucent and opaque colors in different grades. The facility is networked with other six global facilities to provide quick support to the growing Indian market. The



"India is one of the fastest growing economies at present and has potential of being a growth engine of the world. While other emerging markets are slowing down, India is showing healthy growth rate of 7.2%. We see India as a big potential market for polymer based specialty materials and coating products as the per capita consumption of these are still very low in the country. With sustainability at fore, design aesthetics and performance becoming key, industries across are trying to utilize polyurethane, polycarbonate and composites to solve challenges of their respective industry. The demands for such innovative solutions will increase, opening up huge opportunity for innovative materials. In addition, the increasing thrust on sustainable solutions and government initiatives such as Make in India, Smart Cities, Ujala and Digital India, etc. will provide further boost to the market."

Ajay Durrani

Managing Director

Covestro (India) Private Limited

company has an open door for its customer to carry out joint color development projects based on their specific requirements with colors, color effects & grades. This strategic facility helps customer to provide a quick transformation from concept to commercialization

Covestro India's Cuddalore facility is dedicated to the production of Polyol with a capacity of 840 tons per annum while manufacturing over 30 different products.

Covestro India's Ankleshwar facility adheres to state-of-the-art standards in terms of production processes, quality, and safety. This unit caters to the customers in India & few Southeast Asian countries and the Persian Gulf.



**BEST
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PELLETIZING



PELLETIZING IS IN OUR DNA

Innovation leaders in underwater pelletizing

NEW DEVELOPMENTS

ECON has launched new hybrid pelletizer (underwater and air) for catering flexibilities at customer end, within just few minutes the machine can be converted from air to underwater pelletizing and vice versa.

ECON India has set up new plant in 2017 in Vadodara and made new investment in EITC (ECON India Technical Centre). EITC is equipped with new hybrid (underwater & air) pelletizer on 35 mm twin screw extruder for conducting various customer trials.



ECON is worldwide technological leader and trusted development partner with direct presence in all major plastic producing markets all over the world. ECON is a manufacturer of Underwater Pelletizing System, Air Pelletizing System, Underwater and Air Pelletizing System (hybrid), Pyrolysis Furnaces, Screen Changers, Pellet & Bulk Materials Dryers. ECON GmbH, Austria has incorporated 100 percent Indian subsidiary ECON Machinery Pvt. Ltd. in 2013 to fulfil Make in India vision. It is a small sized company in India and its turnover is less than Rs. 500 cr. ECON India Technical Centre (EITC) is equipped with 35 mm twin screw extruder and ECON's hybrid pelletizing system (underwater & air) to conduct wide range of material trials for customers.

Pelletizing systems

For more than 15 years, ECON has been THE specialist for underwater pelletizing systems. The continuous development of our technology has made us innovation leaders in underwater pelletizing, especially with our patented thermal insulated technology. Just as important as continuous innovations are our focus on finding the right solution to optimise the production processes of every individual customer.



ECON

www.econ-in.com



The ECON underwater pelletizer differs from competition by providing efficient insulation of the die plate. The Patented thermal insulation concept prevents the freezing of the die holes. In addition, ECON's technology eliminates the need for bypass piping, not only making pelletizing more efficient, but also providing significant energy savings.



"Since inception in 2013 in India, we have put great efforts in after sales support to our customers and that's the key of our success in Indian subcontinent and worldwide.

ECON is looking forward to being customer centric organisation, we understand the pain of every minute of machine breakdown, so our response level to customers is very fast. ECON has well trained technical support team available 24x7 to serve customers.

ECON's thermally insulated technology has helped many customers in India to solve their issues in pelletizing, and such happy customers give us utmost satisfaction. We are thankful to our existing customers for valuable faith in our technology, we have long term commitment to serve Indian market from Indian subsidiary."

Vinu Chavda

Managing Director

ECON Machinery Pvt. Ltd.

ECON's underwater pelletizing system is suitable for high performance plastics, technical plastics and standard plastics, high temperature ranges, compounds with high filler content, high MFR (melt flow rate) grades, rubber-like, hotmelt adhesive, viscous materials and even to produce micro pellets and various amorphous/elastic and semi-crystalline applications. We have the smallest lab-scale pelletizer of 1-30 kg/hr and the biggest one is 10,000 kg/hr.

ECON's screen changers are manufactured with special processes and are suitable for wide range of applications.

ECON's Pyrolysis Furnace is one of the most important equipment for cleaning of extrusion and filter parts. It is environment friendly, TUV certified and gives no emission due to activated carbon filters.



INJECTION MOLDING



A LEADING ENERGY EFFICIENT MOLDING SOLUTIONS PROVIDER

“VENTURA” SERIES INJECTION MOLDING



“Ventura” series plastic injection molding machines are characterised by technically enhanced, generous machine specifications matching the latest international norms. This is driven by the most energy efficient servo mechanism resulting in highest energy savings, consistency, repeatability & smoother machine performance. Its built-in advanced safety features & interlocks ensure safer, efficient & productive performance.

Electronica Plastic Machines Ltd. (EPML) is engaged in the manufacturing of a wide range of state-of-the-art plastic injection molding machines & allied products. This is a part of the ‘electronica group’ companies. The flagship company ‘electronica machine tools Ltd.’ is known for its pioneering EDM & Wire-EDM – metal cutting machines since 1972.

EPML with its over 25 years of experience has more than 4000 machines installations running successfully across India & abroad. Today, Electronica is one of the most trusted & hence preferred names in the manufacturing & supply of high quality plastic injection molding machines & allied products.

EPML offers full range of injection molding machines from 45 Ton to 650 Ton in various series of machines with a capacity to manufacture 750 machines per annum and has its strong pan India sales & service network in major cities and industrial towns of the country.

Innovative, dynamic & growing

Electronica Plastic Machines is best described as an innovative,



vibrant and energetic organization that is dedicated towards providing new technologies at affordable price.

EPML is the first company in India to manufacture the 'Micro Processor Based Injection Molding Machine' with 5-point double toggle type clamping mechanism, which is well-known for its inherent energy efficiency & uniform, positive clamping force. Also, it is the first company to launch the fully indigenized 'Servo' machine in the Indian market.

Product development is a continuous process to assist customers in increasing productivity, reliability & energy efficiency resulting in enhanced competitiveness. Growth of EPML is solely due to the continuous support & patronage of all its customers, partners & its strong, cohesive team.

EPML is known for its professional approach, business ethics, innovative technology, quality, reliability & dedicated customer care.

Manufacturing Facility

EPML's state-of-the-art manufacturing facility based at Pirangut, near Pune, Maharashtra; is spread over an area of 70,000 sq. feet to manufacture latest technology microprocessor based injection molding machines ranging from 45T to 650T with a capacity to manufacture 750 machines & allied products per annum.

The company's well-equipped in-house machining shop and in-house, high precision inspection facilities help in achieving the highest standards of quality in manufacturing and provide world class products to our customer.

EPML's cellular manufacturing techniques ensure efficient & time saving methods of manufacturing to meet customer requirements



"Today plastics & polymers have become an inevitable part of everyone's life. Plastic processing industry plays an important role to convert various plastics into desirable shapes & forms. The prime role of conversion is taken up by the plastic processing machineries. With the exponentially growing per capita consumption of plastics in India, latest processing & manufacturing technology available in India & the 'Make in India' initiative by the Indian government, the plastic processing machinery is poised to grow at an exponential growth rate. Electronica Plastic Machines Ltd has been & will continue to be an important, consistent, reliable & trustworthy player in the manufacturing & supply of high quality, energy efficient plastic injection molding machines & allied products."

Amit Pendse

Managing Director

Electronica Plastic Machines Ltd.

& expectations of highest quality, reliability & shorter lead times. Since beginning, the company has been striving to innovate & offer energy saving measures through its various products like 'Elektra Power Saver', servo machines, hybrid machines & so on. Recent launch of 'e2M', a state-of-the-art energy as well as productivity monitoring soft tool is another important stride in this direction.

An efficient effluent treatment plant as well as solar LED lamps for the factory internal street lighting; are some of the company's initiatives towards clean & safe environment & society.

EPML serves the entire spectrum of plastics molding application sectors; i.e. automotive, houseware, furniture, writing instruments, electrical, electronics & telecommunication, packaging, medical, irrigation, white goods, consumer goods, industrial components, construction & many more.

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RAW MATERIALS



MATERIAL MATTERS

Materials play a decisive role in determining industrial progress

FIBRE REINFORCED THERMOPLASTIC COMPOSITES



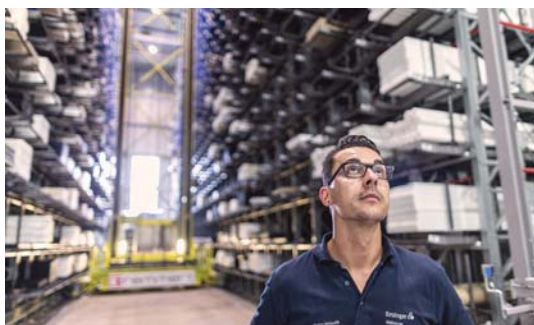
Ensinger offers fibre reinforced thermoplastic composites for new lightweight manufacturing technologies. TECATEC PEEK is carbon fibre composite materials characterised by extraordinary mechanical strength and high thermal dimensional stability. Very often, this material is beneficial within traumatology, with applications like internal fixation systems (target arms), external fixation systems as well as other structural elements.

Founded in 1966 by Wilfried Ensinger, his company now looks back to a successful history for over 50 years. The milestones which have marked the development of the Ensinger Group tell the story of a family firm which has never been content to rest on its laurels. The continuous further development of products and production processes and the encouragement of employee potential have been essential aspects of the company's corporate mission since the very early days. Ensinger India being a





www.ensingerplastics.com



100 percent owned subsidiary of Ensinger GmbH runs its business with the same ethics and loyalty as per the Ensinger family. It has been able to make its presence felt in the industry in a short span of time in the country with the continuous support and services provided to customers and actively participating for industry growth. It's a small sized company in India having turnover less than Rs. 500 cr. Today, the name Ensinger is synonymous with a broad based range of production techniques capable of processing thermoplastic stock shapes in a wide variety of material choices under a single roof. It is often the material or the end product, that determines the processing method used: Whether it be for large scale volumes or small production runs; large and bulky or small and delicate parts - the company's engineering plastic stock shapes can be purchased in standard unmodified grades, in addition to a variety of modified grades to fit your application. Furthermore, Ensinger's customers



"We promote the use of technical plastics in trade and industry, and develop individual solutions for our customers. Today, new materials play a decisive role in determining industrial progress. We have made it our task to supply our customers with thermoplastics to a high standard of quality, backed by exemplary service. Our mission statement describes our corporate culture and the approach we take in achieving our aims. We accept neither faulty products nor processes nor services. We respect the objectives of sustainable environmental protection and act responsibly when using natural resources."

Nikhil Tiwari

AVP – India & Sub Continent,
Ensinger India Engineering
Plastics Pvt. Ltd.

can rest easy, safe in the knowledge that the company's products are fully compliant with stringent quality standards.

Product range

Ensinger offers high quality semi-finished products made of over 100 different plastics including Nylon, POM, PC, PPS, PPSU, PEEK, PEI, PET, etc. Besides all standard thermoplastics, Ensinger develops and extrudes a multitude of special materials according to customers' demands. Rods, sheets and tubes are offered in a range of small dimensional increments and with special properties to meet your requirements. The company's products are manufactured by several different process techniques, which include plastic extrusion, plastic compression molding, and plastic calendaring, for a wide variety of high performance, engineering and industrial base polymers, in addition to having the ability to cast plastic sheets, plastic tubes and plastic rods from nylon. These machinable types of plastic are used as starting products for manufacturing precision finished parts. With presence in almost 33 countries with our subsidiaries, channel partners and manufacturing sites in Germany, USA, UK, Malaysia, Brazil, etc. the company has presence in almost every corner of the world.



■ PLASTIVISION INDIA 2017 receives Exhibitions Excellence Award 2018 for leading show in plastics and rubber

PLASTIVISION INDIA 2020

The All India Plastics Manufacturers' Association (AIPMA) was founded 73 years ago making it one of the oldest and the largest apex body of the plastic industry in India. The association has grown in leaps and bounds in all fields of plastics having its head office in a prime and commercial location in Mumbai and regional offices in Delhi, Ahmedabad, Chennai and Kolkata.

The baton of the association was lead and passed on by the past presidents and industry doyens viz, I.V. Ruia, D. B. Garware, Ambalal Kilachand, R.V. Turakhia, Vadilal Shah, Dilip Piramal, M.P. Taparia, Arvind Mehta, Raju Desai, Kailash Murarka, etc.

Being a legendary plastics association, it is the only recognized association by the Chemicals & Fertilizers Ministry, Department of Petrochemicals, Government of India and various Union and State Government Ministries to address difficulties faced by the industry. It is also actively involved in providing budgetary recommendations, monitor uniformity in government regulations on plastics industry, and to also be a part and parcel of the above parent ministry to chalk out strategies and policies concerning the plastics industry.

In its pursuit to achieve growth excellence, AIPMA organizes national and international seminars, lecture meetings, conferences, buyer and seller meets and training programs periodically and liaises between the government and the industry. With more than 2500 members registered with AIPMA directly and 22000

"PLASTIVISION INDIA 2017

was a super success and the efforts of the team made it as one of the top five exhibitions in the world.



We are now geared to take PLASTIVISION INDIA 2020 to greater heights! We envisage growth on all fronts including the number of exhibitors to 1500, visitors to 2,50,000, the exhibition area to 1,00,000 square meters and participating countries to be more than 25+. It will be Bigger, Better & Grander in true sense."

Rituraj Gupta

Chairman – National Executive Committee

Plastivision India 2020

members through our 175 affiliated associations all over India in more than 175 cities in various segments of the industry such as polymer manufacturers, machinery manufacturers, processors, molds and die makers, traders, exporters, manufacturers, consultants, institutions and many more such entities. About 90% of the members are from the MSME sector.

PLASTIVISION INDIA 2020

The 11th edition of Plastivision India 2020 is scheduled to be held from 16 to 20 January, 2020 at Bombay Exhibition center, NESCO, Goregaon East, Mumbai. Plastivision India is one amongst the Top 5 plastic fairs in the world. Plastivision India 2020 envisages 1500 exhibitors over an exhibition area of 1,00,000 square meters participating from 25+ countries. The host city Mumbai provides the exhibitors with the best in class hospitality and excellent connectivity to all major cities, national and international. The five day exhibition shall have concurrent events like seminars, conferences and conclaves by eminent speakers on various topics. Focussed pavilions in specialized sections would provide ample opportunities to niche segments. The focused efforts of the Plastivision Team are to notch a new high and make the 11th edition of Plastivision India 2020, Bigger, Better & Grander.

Activities

One of the recent initiatives of AIPMA included clean-up of the Versova beach. Apart from this, AIPMA has been instrumental in plastics image building. This step is taken to clear the misunderstanding that people possess about plastics.

AIPMA has been the organizer for exhibitions such as Plastivision Arabia and Plastivision India, which are premier exhibitions in the plastic industry. The recently concluded 10th edition of Plastivision India was an astounding event with 1450 exhibitors from over 25 countries. It sprawled over the area of 90,000 square meters and had a footfall of 2,00,000. During those five days of the tradefair business worth Rs. 2000 crore+ materialized.

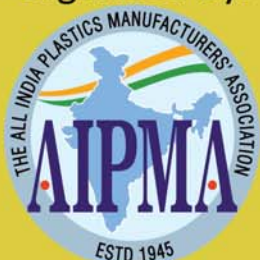
11TH PLASTIVISION INDIA MUMBAI BIGGER BETTER GRANDER

THE EXHIBITION THAT DEFINES
THE COURSE OF INDIAN PLASTICS INDUSTRY
IS SET TO ARRIVE IN MUMBAI.
BLOCK YOUR DATES

www.plastivision.org

For more information call on +91 22 6777 8846
or email - sanjeevani@plastivision.org

Organized by:



POWERING PROGRESS THROUGH PLASTICS



11TH PLASTIVISION INDIA 2020

	THU	FRI	SAT	SUN	MON	
JAN	16	17	18	19	20	MUMBAI
INTERNATIONAL PLASTICS EXHIBITION & CONFERENCE						



AUXILIARY



■ igus GmbH Headquarter: Cologne, Germany

SMART MOTION PLASTICS



ADVANTAGES OF MOTION PLASTICS

- Motion plastics development has been making huge leaps into previously untested areas.
- Some of our newest product families are low cost robots, light industrial assembly robots which are also in use at igus' own assembly factory. The advantage of 3D printed wear parts is that they eliminate the process of stocking spare parts or machine downtime caused by manufacturing lead time.
- Smart plastics for industry 4.0 eliminate unplanned down time. Intelligent high flexible cables, e-chains and linear bearings keep users informed about their expected life time in real time.
- Fast assembly, longer service life, light-weight from e-chains to bearings, as a motion plastics pioneer the company moves borders even if they are not always apparent at first sight igus motion plastics make motion easy all around the world.



Through technological progress over the years machines are growing ever faster and motion has become ever more precise. Gunter Blasé, a German engineer, had a vision in solving resulting challenges with high performance polymers. His promise was "Show me your problem part and I will find you the right solution" has been the motto of igus ever since. igus had its humble beginning in a modest double garage in Cologne, Germany in 1964.

Over 50 years of tribo polymer research and the industry's largest test lab resulted in highly specialised materials all based on the same thought - lower cost and longer life time. Globally, the philosophy of igus "the cheapest solution that works is the best solution" still reflects the same problem solving approach.

igus India, a wholly owned subsidiary of igus GmbH, operates in the Indian Subcontinent since 1998 with its headquarters in Bangalore. With 20 years of existence in India and steady double digit growth over the years, igus will continue to invest in expansion of both facility and man power in the coming years. Today, igus India has 150 employees and 30% more outside sales engineers added every



www.igus.in



■ igus India Headquarter: Bangalore

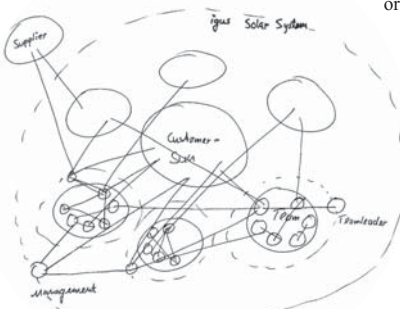
year to be nearer to the customer with PAN India presence in over 20 locations. Huge local stock ensures the delivery of products or services within a window of 24-48 hrs.

igus has grown as an outstanding brand providing solutions over conventional metallic components with specific advantages like maintenance free, lubrication free, corrosion free, ready to fit, easy to install, lightweight, resistance to adverse conditions like chemicals, atmospheric conditions & other aggressive environments.

igus offers detailed technical literature & life time calculations based on real tests done over the years in its lab. On an average, igus runs around 10,000 tests besides customer specific tests in a year.

igus continues to grow globally in stature & size as much as in vision and innovative products. Globally, the company has more than 3000 employees spread across the head office in Germany and 36 subsidiary companies around the world. igus also has representative partners in another 36 other countries.

Today, igus offers components & systems for machines in 16 distinct product categories. The range includes, e-chain systems®/Cable drag chains, High-flexible chainflex® cables, iglidur® polymer bearings, igubal® spherical bearings, drylin® linear bearings & guide systems among others enable the company to serve all industry segments in the country. The core of igus' offering remains tested & proven reliability with predictable lifetimes.



■ igus solar system



"Brands are not built in a day. Outstanding brands have a life of their own, one that is fostered with loving care and undying commitments. The Brand 'igus' is one that wants to be part of every problem solving and innovation in Engineering. We must either be able to improve a solution or reduce the cost; preferably both. We believe that without the trust and endorsement of our dear customers we would be nothing and this is again core to our philosophy of igus solar system where we believe the customer is in the center like the sun, giving us energy and warmth, to innovate and deliver - to pursue the path of excellence. This recognition motivates us more and more to do what we have been doing good and get better and better every day."

Antony P Kurian
CEO, igus (India) Pvt. Ltd.

igus India has undertaken many huge turnkey projects in moving cable management system in industries like material handling, power plants, mining, steel, ports, defence, automation etc including prestigious projects of our nation in astrophysics and Chandrayan Moon mission. The company has installed 280 bulk handling equipment with ready chain systems. Most of these have been retrofit projects resulting in huge productivity & safety improvements. Be it the 20,000 plus cranes running in India with igus energy chains or 6 million parts of the company's lubrication-free dry-tech bearings that have been supplied to the automotive industry on a monthly basis or the countless innovative solutions that igus co-developed with its customers all stand as a testimony to the company's commitment and global promise.

In the year 2018, igus plans to almost double the factory space from 23,000 sq mtr to 43,000 sq mtr.



**BEST
PLASTICS &
POLYMERS
BRANDS
2018**



RAW MATERIALS



THE ENERGY OF INDIA

LATEST NICHE GRADES OFFERED BY INDIANOIL IN 2017-18

IndianOil has recently introduced value added niche grades for the customers under the brand name Propel in the existing grade basket. Two random copolymer Polypropylene grades namely 2020EC and 2120MC ultra clear have been successfully positioned in the market.

2020EC grade is used for manufacturing transparent blow molded containers through Extrusion Blow molding and Injection Blow Molding (IBM) route for FMCG products packaging besides transparent file and folder and extruded refill for writing pens.



Indian Oil Corporation Ltd. (IndianOil), which prides itself as The Energy of India, is an integrated energy major with presence in almost all the streams of oil, gas, petrochemicals and alternative energy sources; The energy major is a world of high-calibre people, state-of-the-art technologies and cutting-edge R&D; a world of best practices, quality-consciousness and transparency where energy in all its forms is tapped most responsibly and delivered to the consumers most affordably.

India is amongst the fastest growing petrochemicals markets in the world. Taking this into consideration and to enhance its downstream integration, IndianOil is focusing on increasing its presence in the domestic petrochemicals sector besides the overseas markets through systematic expansion of customer base and innovative supply logistics

Petrochemicals have been identified as a prime driver of future growth by IndianOil. With new expansions in place, this rapidly growing segment is lending strength to the product portfolio as well as financials of the country. The Corporation is envisaging an investment of Rs. 30,000 crore in the petrochemicals business in



IndianOil

www.iocl.com

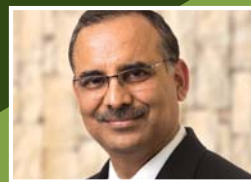


the next few years. These projects will utilise product streams from IndianOil's refineries group thereby achieving better exploitation of the hydrocarbons value chain.

Beginning with low-investment, high-value projects such as Methyl Tertiary Butyl Ether (MTBE) and Butene-1 at its Gujarat Refinery, Vadodara, IndianOil had set up a world-scale 120 KTA Linear Alkyl Benzene (LAB) plant at Gujarat Refinery and an integrated 553 KTA Paraxylene/Purified Terephthalic Acid (PX/PTA) plant at Panipat. A Naphtha Cracker complex of 857 KTA ethylene capacity was added in July 2010 with downstream polymer units at Panipat.

Manufacturing

IndianOil controls 11 of India's 23 refineries. The group refining capacity is 80.7 million metric tonnes per annum (MMTPA) - the largest share among refining companies in India. It accounts for 35% share of national refining capacity. IndianOil has one of the largest petroleum marketing and distribution networks in Asia, with over 43,000 marketing touch points. Its ubiquitous fuel stations are locat-



"Petrochemicals and speciality chemicals is a growing and highly profitable business. As the second largest player in the vertical, with a full slate of products and a countrywide logistics & marketing set-up, IndianOil views further integration of refining and petrochemicals as the way forward, and is scaling up its petrochemicals portfolio further with a Polypropylene Project in Paradip and expansion of existing facilities at its major refinery locations."

Sanjiv Singh

Chairman

Indian Oil Corporation Ltd.

ed across different terrains and regions of the Indian sub-continent. From the icy heights of the Himalayas to the sun-soaked shores of Kerala, from Kutch on India's western tip to Kohima in the verdant North East, IndianOil is truly in every heart, in every part. Indian Oil Corporation Ltd. operates a network of about 12,848 km long crude oil, petroleum product and gas pipelines with a throughput capacity of 93.7 million metric tonnes per annum of oil and 9.5 million metric standard cubic meter per day of gas.

In Petrochemicals Projects segment - IndianOil is setting up an integrated PX/PTA (Paraxylene/Purified Terephthalic Acid) plant at Paradip Refinery. PTA is used as raw material in the manufacture of polyester staple fibre, polyester filament yarn, PET bottles, etc. Estimated to cost Rs. 9,137 crore, the 1.2 MMTPA (million metric tonnes per annum) plant will pave the way for the setting up of a Plastics Park in Odisha.

A PP (Polypropylene) unit of 680 KTA (ktonnes per annum) is already under implementation at Paradip Refinery at a cost of Rs. 3,150 crore for commissioning by this year end. Polypropylene is used in the manufacture of plastic goods in furniture, appliances, household items, molded luggage, industrial products, automotive components and other applications.

An Ethylene Glycol plant of 357 KTA capacity of MEG (Mono Ethylene Glycol) is also coming up at Paradip refinery at a cost of Rs. 3,752 crore. MEG is predominantly used with PTA in the manufacture of polyester staple fibre, filament yarn, etc., and also finds many applications in the chemicals industry.



EXTRUSION



SUPERIOR EXTRUSION

Dedicated to technology, devoted to service

THE APPROACH



With more than 600 lines sold every year, KET's approach is dedication to technology and being customer centric. KET has always been at the forefront in introducing new technology to the Indian market. KET has achieved this through both in-house innovation as well as through technical collaborations with International technology leaders. Absorbing International technology and making in India ensures that KET delivers world-class technology with value and service to all their customers.

Incorporated in 1982, Kabra Extrusiontechnik Limited (KET) is a part of the Kolsite Group. India's largest manufacturer of Plastic Extrusion Machinery. The Group has more than 55 years of experience, more than 14,000 installations and presence in 90 countries spread across the globe. The Company is known for being the pioneer of technologically advanced plastic extrusion solutions. Kabra Extrusiontechnik caters to a broad spectrum of applications in infrastructure, building & construction, packaging, agriculture and irrigation. The Company has a very strong R&D facility and proven manufacturing processes. It is an ISO, UL-CSA, CE certified company and fourteen times winner of Excellence in Export Award since 1996. The company is also proud winner of the Government of India, National Award for Technology Innovation, for the years 2014 & 2015. KET has 12 Sales & Service offices across the country. KET is an SME which is publically traded on BSE & NSE.

Kabra Extrusiontechnik has 2 state-of-the-art Manufacturing Facilities with a combined area of 100,000 sq. m. These facilities consist of, Government recognised in-house R&D, Quality Labs, Machine tools & state-of-the-art paint shop. KET has one of the largest R&D



www.kolsite.com



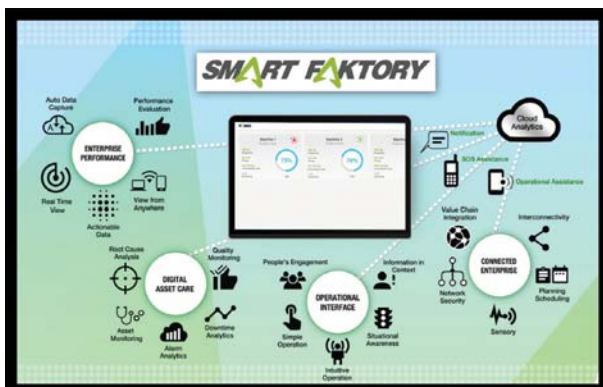
"We, at Kolsite group, are committed to demonstrate our leadership in our chosen field of business by focussing all our actions towards customer's satisfaction and make significant contributions to his success. We shall continue to innovate our processes, products and services to provide value for money in all our efforts both internal and external. Total employee involvement, sincerity of purpose and commitment to objectives are the pillars of this vision where all of us will perform as a team and shall trust and respect each other."

Anand Kabra

Managing Director,
Kabra Extrusiontechnik Ltd

team in the Plastics Machinery Industry with more than 45 dedicated engineers working in different areas of processing, manufacturing, application development, design, controls and automation. KET manufactures all critical components like dies, screws and barrels in-house with latest CNC machines. They also do assembly, trial & testing in-house.

Product Range includes Extrusion lines for PVC Pipes, HDPE Pipes, Drip Tubes, Pellets, Profiles, Mono & Multilayer Films.



KET has also expanded its Product Portfolio by adding Thermo-forming Sheet-line, Compounding, Inline pipe socketing machines, Automation & Material handling system in the last 12 months.

What gets measured gets improved

KET believes that 'What gets measured gets improved'. Through the SMART FACTORY, the company's idea is to connect and integrate factories. Through this technology, the company is all set to utilise its 50 years expertise in helping customers in raising their productivity to new heights. With this concept, customers will be able to see real time performance of their equipment anywhere, anytime across machines and locations.



**BEST
PLASTICS &
POLYMERS
BRANDS
2018**



MASTERBATCHES



Breathable Film Compounds

SUCCESS THROUGH INNOVATION

Coloring the future

HIGHLIGHTS

KIPL has a state-of-the-art facility with automated machinery in order to minimize human errors during production process. Latest Products which KIPL is working on:

- 1) Filler masterbatches to replace 10-50% Ldpe in all critical extrusion lamination applications such as:
 - a) Flexible & rigid packaging
 - b) Liquid packaging board
 - c) Composite cans
 - d) Drinking cups
- 2) Thermochromatic masterbatches: Masterbatches that can be added to film/yarn/molding applications. The articles change colour with temperature
- 3) Photochromatic masterbatches: Masterbatches that can be added to film/yarn/molding applications. The articles change colour with light
- 4) Glow-in-the-dark masterbatches for polyester POY / PSF applications

With a vision to consistently create innovative world-class masterbatches, Kandui Industries Pvt. Ltd. (KIPL) was established in 2006 with a modest production capacity of 2500 TPA. With a wide acceptance of its vast range of products, KIPL boasts of a production capacity of 30000 TPA.

By April 2018, KIPL plans to double capacities further to 60000 TPA in a phase-wise manner. A combination of state-of-the-art extruders, well-equipped laboratory, reliable quality control systems, well-qualified managers, and smart workforce enable KIPL to offer world-class quality products and services to its customers.

Kandui has been developing new and cost-effective solutions for additive, filler, colour, white and black masterbatches.

With a modest turnover of INR 9 Crores in 2006-07, KIPL has grown substantially to achieve a turnover of INR 172 Crores in 2016-17 with a staggering CAGR of 34.32%.

KIPL's product portfolio includes:

1. Filler Masterbatches



www.additivemasterbatches.com



"To be a world-class manufacturer of masterbatches and keep creating innovative masterbatches for various industries constantly striving for excellence."

Ashwin Agarwal

Managing Director

Kandui Industries Pvt. Ltd.



■ 100% filler in middle layer & up to 90% in mono layer Blown films

2. Colour, Black, White & Additive Masterbatches for Polyolefins & Engineering Polymers
3. Masterbatches for man-made textiles (Polyester, Nylon & Polypropylene)

KIPL has been actively investing in research and development



■ Additives & Color Masterbatches for PET Bottles

activities since its establishment. In recognition for its persistent R&D, KIPL has been recognised by DSIR (Department of Scientific & Industrial Research).

Some of the speciality products developed by KIPL include:

- a) Techblow: A unique modifier for blow molding applications, which can be added up to 20% without compromising on impact properties
- b) Technobreath: Breathable film compounds for hygiene applications
- c) Fire Fighter 02: A fire retardant masterbatch for polypropylene passing stringent regulations at dosage as low as 4%
- d) Pet Release: Mold release for PET to reduce cycle times increasing productivity & reducing energy consumption
- e) Blownfil Super: A filler masterbatch which can run 100% in middle layer of A-B-A type blown film line
- f) Konduct PE01: Conductive compounds for multi-layer blown film applications
- g) Antibacterial masterbatches to protect polyester yarns
- h) Perfume masterbatches to give a pleasant fragrance to articles in which they are added.



**BEST
PLASTICS &
POLYMERS
BRANDS
2018**



BLOW MOLDING

**Fully Automatic Machine
up to 1 liter in 2 & 4 cavity**



**Semi automatic
Jar / Bottle
Multipurpose M/c**



PET BLOWING MACHINES

To manufacture jars & bottles

QUALITY CONTROL LAB

Mahalaxmi Pet Machines is backed by a sophisticated quality control lab, which is facilitated with requisite equipment and tools and allows the company to carry out routine tests. Assisted by a team of quality inspectors, the company carries out various tests on the parameters of blowing result, transparent degree, weight and dimension precision and acetaldehyde (AA) level to ensure the quality of the machines.



20 liter Jar Machine

Established in the year 2008, Mahalaxmi Pet Machines has been in business of manufacturing Pet Stretch Blow Molding Machines for the past 10 years. Mahalaxmi Pet Machines is a well-known manufacturer, Exporter and Supplier of PET Blow Molding Machines. The company's range includes Fully Automatic Pet Blow Molding Machines & Semi-automatic Pet Blow Molding Machines. These are designed as per the industry standards, Certified with CE mark and are manufactured using high grade material, which the company sources from reliable vendors of the country. The company's Plastic bottle/Jars Blowing machines are highly efficient and are used for manufacturing mineral water bottles, edible oil bottles, soft drink/soda bottles, liquor bottles, juice bottles, pharmaceutical bottles, food & non-food Jars, 5 ltr and 20 ltr water jars, etc.

The owner has a 25 year of experience of working in Godrej. He is highly qualified and possesses in-depth knowledge about the industry. Under the able guidance of the owner, the company has been able to carve a niche in the industry. His vast industry experience and rich business acumen has helped the company in establishing ourselves amongst the eminent manufacturers of PET Blow



www.mahalaxmipetmachines.com

Molding Machines in the global market.

Quality

The machines are thoroughly checked for their efficiency, durability and maintenance level before sending to the client. Mahalaxmi's machines are certified with CE mark. The company is the first and the only one in India to get this mark for its product quality.

Infrastructure & Facilities

The unit is backed by all the requisite facilities required for producing a highly efficient range of PET Blow Molding Machines. The company has facilitated our in-house unit with Advance Machineries & CAD/CAM facilities.

Research & Development

In order to incorporate innovative designs and technology with the machines, the company has developed a sophisticated R&D unit.

Client Satisfaction

Mahalaxmi Pet Machines is a client centric organization and strives hard to meet their specific requirements. In order to offer



20 liter Jar Machine



"Mahalaxmi Pet Machines' motto is to provide a quality range of PET Blow Molding Machines, which are easy to run, operate, understand & maintain. Also, we continuously work towards improving the machines with innovative features."

Madhukar T. Patil

Director,
Mahalaxmi Pet Machines

high quality products, the company undertakes rigorous measures throughout the production process.

Product Portfolio

The company's range encompasses:

Product Category	Products Name
Fully Automatic Machines	Fully Automatic Pet Blow Molding Machines up to 1ltr in 2C& 4C
Semi Automatic Machines	Semi Auto Pet Blowing mc up to 2ltr & 5ltr
Semi Automatic Machines	20 Ltr Jar Blowing Mc

Some of the salient features of our range are mentioned below:

- Robust design
- Excellent performance
- Easy to operate
- Longer service life
- Available in multiple variants
- Low power consumption
- Low investment cost
- Low maintenance
- Durability.

THE ECONOMIC TIMES



ROTO MOLDING



ROTATE INNOVATE

NABBLOW BLOW MOLDING MACHINE

NABBLOW is a venture of N.A. Roto Machines & Molds India, an ISO 9001-2015 Certified firm commonly popular for its brand NAROTO. NABBLOW is developed specially for customer desire to offer Blow Molded Water Tanks as an additional/alternate Product line to Roto Molded Tanks. Usually it is perceived that Blow Molding Product is economical than Roto Molded Product, thus client can improve their Top line in long run. NABBLOW Blow Molding Machines have been built with most reliable technology there by delivering consistently better quality product, thus enabling client to enjoy an edge over their competitors. NABBLOW uses Extrusion Blow Moulding Process to make Plastic Water Tanks.



N. A. Roto Machines & Moulds India is an ISO 9001:2015 Certified Company that is engaged in manufacturing of NAROTO brand Rotomoulding Plants. The company has completed 36 years of quest for the best. And during this journey, N. A. Roto has traversed through endless enlightening moments - all that has turned into unmatched excellence.

The company is based in Ahmedabad, Gujarat, the most progressive state of India. The company's plants are located in one of the prime industrial zones of the country. This industrial area enjoys privileges of the most developed area and is a hub for growing Engineering, Plastic and Chemical industries.

With this, the company is all set, for further advancements in the farthest corners of the world!

Enabling innovation

NAROTO's untiring efforts and endeavors over a wide span of time have helped the company gain rich experience to pave the way for the revolutionary innovation in the Rotational molding technology.



“N.A.ROTO is one of the fastest growing companies in the Roto Molding Machinery, Molds & Ancillaries industry. Our endeavour is innovative approach and enhanced technology to build products that are high quality and cost efficient. We have employed the most advanced technology right from manufacturing to QC and final delivery to not only meet but also exceed our customers' expectations. The most important part of our company is our dedicated team that acts as a strong pillar to the group for the growth and success. I would sincerely like to thank our partners, employees, customers and other stakeholders for their commitment in shaping and improving the performance of our company.”

Anand Panchal

Marketing Director

N.A.Roto Machines & Moulds
India

A deep understanding of the industry and requirement of customers, coupled with sound technological expertise and experience, topped with a penchant for giving the best of the products to customers have gained us a leading position and a worldwide reputation as a trustworthy company providing finest quality products.

Manufacturing capabilities

At present, the company's manufacturing capacity is more than 28-30 plants per annum & 1300 - 1500 moulds made of stainless steel & mild steel material.



With an overwhelming response from the company's customers, N. A. Roto Machines & Moulds India now also handles turnkey projects across the world. The company's manufacturing facilities are spread over an area of 16000 sq. meter, with in-house R&D centre. The company has deployed versatile machines that enable them to be an ISO 9001:2015 Certified Company.

N.A. Roto enjoys a commanding position in Asia with global prevalence in countries like Middle East, Africa, CIS and Europe. Today, NAROTO has earned the faith of 1170+ clientele that is spread over 80+ countries. This has been possible due to the company's unmatched quality delivery.



EXTRUSION

THREE DECADES OF EXCELLENCE IN EXTRUSION



HIGHLIGHTS

5-layer non-barrier blown film line, which has been an astounding success while ensuring a thin skin layer of property polymers and a thick core layer of inexpensive materials, offers enough versatility for processors to produce films that comply to difficult industry demands with specifications that provide a competitive edge to its customers' business, both in terms of diverse film properties and of course costs. The film capabilities with a 5-layer are significant when compared to a conventional 3-layer alternative. Operating at 600.4 kg/hr, TUV certified during an onsite visit, that the specific electricity consumption under standard conditions for the 5-layer co-extruded blown film line PENTAFOIL-RECF-260-90/2400 IBC-A is certified to be 0.301 KWh/kg of blown film (40 micron thickness, 2000 mm width). With a growing bet on automation, this line christened PENTAFOIL RECF 2560-90/2400 IBC-A is with 4x60 mm and 1x90 mm extruders and 500 mm CSD Die. With a max. output of 650 kg/hr, the line produces all-PE film in the thickness range of 30–250 microns.

Applications in following industries:

- Flexible Packaging (lamination grade film, collation shrink film, liquid packaging)
- Agriculture
- Infrastructure
- Food & Beverages
- Pharmaceutical

Based in Rajkot, Rajoo Engineers Limited, having made a modest beginning in 1986, has today emerged as an undisputed global player in blown film, sheet extrusion lines and thermoformers. Owing to its focused efforts the Company enjoys premium market position in the segment. Being a technology driven Company, product innovations, adaptation, world-class quality, state-of-the-art workmanship, precision, increased energy efficiency and high levels of sophistication and automation have become the hallmark of Rajoo products during all these years, positioning the Company's products on a global platform, competing with the established world leaders. With representations in many countries of the world and customers in over 60 countries, the Company's exports have multiplied after its debut in the international market in 1990.

Knowledge, experience, technology assimilation and implementation are skills harboured by the company, which continue to result in a number of 'technology firsts' and the ability to suit solutions to regional needs.

'Excellence in Extrusion' is the origin, path and destination-defining



excellence in extrusion

www.rajoo.com



solutions offered by the company. Solutions include - the widest range of mono and multilayer blown film lines (up to seven layers), an impressive range of sheet lines (up to five layers), water quenched downward extrusion lines (up to two layers), lines for PE and PS foamed film and sheets (for various standard and special applications) as well as end-to-end thermoforming solutions. Lines for WPC and granulation are the most recent additions to the product portfolio. The extrusion lines cover processing of wide range of polymers like LDPE, LLDPE, MDPE, HDPE, PP, EVA; barrier materials like Polyamide, EVOH, Surlyn, elastomers, plastomers; thermoformable materials like PET, PS, and PP including new generation exotic polymers. Technologies / products categories available include:

- Mono and multilayer blown films lines
- Mono & multilayer sheet lines
- Thermoforming & vacuum forming machines
- Foam extrusion systems (chemical and physical)
- WPC Sheet, Profile Line, Granulators
- Pipe plants

Skilled and experienced manpower ensure quality in product and after-sales-service.



“Our vision is to become one of the most trusted and passionate solution providers for plastic extrusion machinery worldwide in the best interest of all the stakeholders, while pursuing ethical business practices.”

Khushboo Chandrakant Doshi

Executive Director
Rajoo Engineers Ltd.



Infrastructure

Rajoo's state-of-the-art design and manufacturing facilities in sprawling green acres and built-up area of 20,000 sq. mts. are located on the outskirts of Rajkot, Gujarat, one of the most industrious and vibrant states of India, which is famous for its engineering skills. World-class integrated facilities comprise R&D, design office, tool-room, die shop, metal treatment shop, fabrication shop, paint shop, assembly shop and testing shop.

The in-house modern paint shop facility is the first of its kind in the Asian industry. An amply dimensioned shot blasting room and baking oven ensures long life of paint and improves machine aesthetics.

The huge and well equipped 3 different assembly shops are partitioned to accommodate machines of different heights and lengths.



MASTERBATCHES



ADDING LIFE TO PLASTICS

HIGHLIGHTS

With the introduction of different polymers in the white goods industry, SCJ has been working closely with its customers. It has been able to develop masterbatches for six different polymers with the same shade ensuring that the colour of the plastic components matches with the metallic components.

Also, SCJ has been in the forefront for developing high dispersion skin extrusion masterbatches, XLPE masterbatches for LT & HT cables and high-speed core extrusion masterbatches in tandem with the developments taking place at various times in the cable industry.



New Plant

SCJ has recently set up a new state-of-the-art manufacturing plant in Southern part of India with covered area of 30,000 square feet and installed capacity of 24000 mt per annum to produce wide range of Colour and Additive masterbatches.

SCJ was established in the year 1969. The company started manufacturing masterbatches and polymeric compounds at the time when only a couple of players existed in the plastics market. These players controlled the complete masterbatch and compound segment and there was nobody else that the customers could buy from. The only other option for the customers was to import the masterbatches / compounds. At that time, SCJ emerged on the horizon as a relevant option for Indian customers.

Since then, SCJ has grown multiple fold with manufacturing facilities at seven key geographical locations having installed capacity of 80,000 mt per annum at present. SCJ's manufacturing facilities are customised to ensure that the products meet the most critical requirements of the customer.

The multi-location manufacturing facilities and the regional offices help SCJ in providing excellent service and support to the end customers. Having diverse manufacturing facilities at Delhi, Baddi, Daman and Bangalore and offices at strategic locations, SCJ is just a call away to serve its customers.



MASTERBATCHES

www.scjindia.net



From its humble beginning, SCJ has grown to become the largest supplier and manufacturer of colour masterbatches in India. In fact, the house of SCJ is a one stop shop for any colour and additives masterbatches, thermoform sheets as well as telecom cables.

The key to SCJ's success has been the consistency in quality at highly cost effective prices for the customer and being able to understand the customer's requirements. SCJ understands the final product and the engineering behind the polymer processing being used by the customer.

The secret behind SCJ's satisfied customers is that the company has never gone for standardisation and the products meet the rigorous requirements of the customer's applications. With the vision of rising opportunities and understanding of the consumer needs, the company constantly develops innovative materials at its R&D Centre in Delhi. The strong R&D base of SCJ has kept it at the forefront in the Indian colour masterbatches industry.

The company's products conform to International Standards and comply RoHs, REACH, EN-71 with special emphasis on the environmental aspects. This is achieved through the help of the company's state-of-the-art lab equipment.

SCJ has a rich data bank of over 7000 shades to choose from and also develops shades as per customers need and to International standards like PANTONE and RAL. SCJ has in-house capability in terms of experts from various fields of applications. This gives the company edge to understand the exacting demands of the customer. Continuous testing of products for long term ageing characteristics ensure that SCJ's products meet all the international standards. The company caters to all industrial sectors including FMCG,



"Starting from scratch way back in sixties, I had a dream and vision to make the Indian plastic Industry a force to reckon with, in terms of colours and property enhancers for plastics. Not depending on imported technologies, SCJ has developed products meeting international standards.

As a human resource policy, we have an in-house training program to train non-technical educated resources and develop them into skilled technical resources for the company. Believing in girl power we have a strong team of administrative force consisting of women only.

Sustainability is an important objective with SCJ group and we continuously upgrade our technologies to reduce the environmental impacts.

We have a strong base of customers of micro and small scale sector, whom we nurture and take pride in meeting their small requirements of masterbatches so that they can create their own niche customer base.

Innovation and economy is my code to success."

S. C. Jain

Chairman,

SCJ Group of Industries

White Goods, Agriculture, Plastics Furniture, Automotive, Electronics, Electrical, Construction, Medical, Cables, Alcoholic and non-alcoholic Beverage sector, Sports & leisure industry, and so on. Today, SCJ provides masterbatches for all types of Engineering plastics. The company works with its customers and assists them in reducing their cost of colouring.

Thus, over the period of nearly 50 years, SCJ has earned an impeccable reputation for leadership and innovation in the world of colours and additive masterbatches.



EXTRUSION



■ Long Glass Fibre



■ Carbon Black masterbatch

STEERING A NEW WORLD

GPVC – GLASS FIBRE PVC

STEER has developed Glass Fibre reinforced PVC pipes in one-step process of mixing continuously fed glass rovings with PVC melt & direct extrusion of pipes. These GPVC pipes exhibit superior mechanical properties such as Tensile Strength, Flexural Strength, Impact resistance, Compressive Strength, Creep resistance and Burst Strength when compared with normal PVC pipes of equivalent dimension. This development a very significant market, hitherto inaccessible to plastics pipes in applications other than fluid transmission. Globally, the rigid PVC pipe/profile production employs counter rotating screws to minimise shear. STEER used its own co-rotating extrusion technology to achieve better dispersion and distribution of glass fiber and minimise shear as well as attrition with patented wave elements. These GPVC products now compete with products made from metals, such as Aluminium, steel and galvanized iron in specific applications for Water, Construction, Agriculture, Space Frames, Furniture, etc.



STEER is a creator of materials platform technologies that transform and functionalise materials in the fields of plastics, pharmaceuticals, food & nutraceuticals, biomaterials and biorefining. Founded in 1993 by Dr. Babu Padmanabhan with a vision to steer a new world, STEER today has 5 global offices and 10 satellite offices, serving over 39 countries and employs over 500 gifted engineers, scientists and technicians across the globe. With 60 patents for breakthrough innovations, the company is committed to the design, creation and implementation of advanced platform technologies, components, elements, peripherals and applications that help in the creation of safer, stronger, lighter, more sustainable products.

The company is an expert in providing processing technology for the following applications: Filler Masterbatch; Black Masterbatch LLDPE; Black Masterbatch PET; White Masterbatch; Color Masterbatch; PP Talc auto compounds; PP glass filled; Engineering polymers PC-ABS; PEEK high temperature; Fluoro compounds; Pearlescent pigments; Recycled polymers (engineering); Flame retardant; TPE / TPR /TPV; Long Fibre Thermoplastics; Natural Fibre and Additive masterbatch.



www.steerworld.com

■ Extruder Assembly Floor



■ Special Effects Pigments

The patented Fractional Geometry Technology in STEER's products differentiates the company from the rest. The company has won several awards in the last 25 years, including the latest Plastics Awards 2018. With the fractional lobed invention, STEER transformed the co-rotating twin-screw extruder into a 21st century fully self-cleaning Intelligent Compounding (IC) processor to work on materials using precise application of forces that smear, elongate, re-orient, compress or fold the material.

The fractional lobed processor, the new IC Engine, creates necessary impetus for product development in pharmaceuticals, sustainable programs in bio-materials, advancement in polymer compounds and paints, unique processing conditions for food & beverage products ushering in a yet another IC revolution.

With an annual capacity of 150 extruders, STEER has deployed 625 extruders so far. It has three factories in Peenya, Bengaluru and one in Coimbatore. The Application Development Centres are in India, Japan, China and the US where extruders are customised for clients. STEER is present in 39 countries through five global and 16 satellite offices.

STEER continues to improve technology offerings depending on the process requirements. An improvement in process efficiency of an extruder is realized due to the reduction in viscous dissipa-



"STEER embarked on a journey to create technology platforms that challenge traditional methods in improving performance characteristics of plastic products. We are in the business of transforming materials physically and chemically by combining them. We realise that all materials, one way or the other, are a part of nature. Being aware of the entire ecosystem is what drives our programmes. Having pioneered materials compounding in the plastics industry, we are now expanding our horizon to other sectors impacting society to make a difference to people. Drug delivery platforms, pharma manufacturing, and food fortification, are some of our key focus areas, which will help us realise our vision."

Dr. Babu Padmanabhan

Managing Director &
Chief Knowledge Officer,
STEER

tion per unit mass of material. The ability to process material has benefited from improvements made in diameter ratio and specific torque. The advantages with deeper screw flights are higher intake capacity (especially in starve feed), lower melt temperature due to decreased shear stress, and greater devolatilisation capacity. Further, the ability to process certain shear and temperature sensitive materials is greatly enhanced in an extruder with deeper flights. The increase in melt temperature due to the kneading elements at high speeds is solved by fractional lobed element geometry with unequal tip angles. This geometry can easily replace standard kneading elements, and STEER has been supplying Fractional Lobe Geometry-based elements for specific requirements.

Engineering product portfolio includes extruders, barrels, shafts, elements, feeders, screen changers, dies, and screw design software. In addition, STEER undertakes trials on behalf of customers to help enhance their material processing capabilities at Application Development Centres, turnkey projects, refurbishing, and technical services.



**BEST
PLASTICS &
POLYMERS
BRANDS
2018**



INJECTION MOLDING



INFLAMING EXCELLENCE

EXPANDING HORIZON

Toshiba Machine has added a new facility at Nayappakkam, in the vicinity of our existing unit to augment production capacity. With growing demand for its machines, the days are not far when the company may have to look out for further expansion. Plans are afoot in this direction also.

Toshiba Machine's endeavour to introduce cost-effective high-performance machines in the market has been its forte for the sustenance and growth. In this direction, the company would be shortly coming out with machines of 650T and above clamp force. While these machines would definitely have cost benefit, there would not be any compromise on the technical and performance parameters.

The company's R&D has honed its skills to be responsive to newer requirements from market. This has enabled us to develop many customised solutions earning us kudos from the appreciative users.



With the immaculate blend of Japanese ethos of management & well established practices of operations in its Chembarappakkam most modern factory, Toshiba Machine (Chennai) Pvt. Ltd. is imposingly placed in the plastics industry to provide comprehensive solutions to wide spectra of customers. Innovation, Quality & Customer focus are the cornerstones of the company's culture. Continuous upgradation in technology in tune with the ever growing demands of its highly discerning customers for both Injection Molding Machines & Auxiliary Equipment has been the key to its success. Its parent company Toshiba Machine, Japan has been in the field of injection molding machines for more than 6 decades. With wide array of technologies both in Hydraulic & All-electric formats, Toshiba Machine Japan commands strong presence across the globe. Before venturing into India, the company had established manufacturing bases in China & Thailand in addition to its principal works in Numazu, Japan

Covering a wide range of segments encompassing majorly Automotive, Electrical, Packaging, PET Preforms, PVC Fittings, Writing instruments & Medical, the company's TS & TD models have fared extremely well in these categories. The classic models like



TOSHIBA MACHINE

www.toshiba-machine.co.jp/india



DTS XP & ASWA have been consistent performers for a long time in medium & high tonnage category. The company aims to constantly innovate & improve its technology to become leaders in the global market. Thanks to Toshiba's high performance machines, the company is enjoying strong presence in the automotive segment with majority of leading players in Tier 1 & Tier 2 vendor category patronising its products for many years. In the electrical industry, the company's sway is quite evident as well-known brands of modular switches and other electrical items are made in Toshiba Machine injection molding machines. The same story gets replicated in writing & medical segments. Packaging segment demands fast cycling machines with high powered injection units & robust clamp mechanism. As the company has requisite technology machines, Toshiba's presence has spread far & wide in this segment as well. Toshiba Machine's foray into pipe fittings segment has been facilitated with its patented DBC screw profile whose processing capabilities are unmatched. Since launch of these machines, order inflow from major players of pipe fittings have been on an upswing.

The company provides machines ranging from 60–1000 Ton clamp force. The 5-point twin toggle machine, which has been the main stay, continues to be endearing to all its customers. While Ram-type & 2-Tech machines, which were introduced a few years back are growing steadily in numbers signalling increased acceptance.

Based in Chennai, Toshiba Machine has manufacturing facilities for Injection Molding Machines & Auxiliary Equipment like Hot air & Dehumidified air driers, Vacuum loaders, Blending units, Sprue Granulators, etc. Large number of automated systems operating successfully across various units of plastics processing companies stand true testimony to the company's unmatched expertise in the realm of comprehensive systems for drying, blending & conveying of plastic granules. In the company's advanced manufacturing set-up, it has established moving line concept of assembly. This capability has set Toshiba Machine apart from other manufacturers in terms of new-age manufacturing techniques.



"Our vision for Toshiba Machine Chennai is to be the leader in Injection Molding machines in domestic market and to achieve position within top 10 players in the global market of Plastics machinery business. We will be introducing latest technology machines to Indian Molders to keep ourselves in leadership position. Our manufacturing systems will be fully aligned with Japan quality and manufacturing systems to ensure world class quality. Our exports growth will be focused more to improve our sales in global market including developed markets like USA, South East Asia etc."

Kailas.P, Managing Director,
Toshiba Machine (Chennai) Pvt Ltd



Our Vibrant marketing force with relentless energy & unwavering passion is highly customer centric. As our focus has been to work closely with customers for arriving at economically viable solutions, rather than selling machines, we could establish long lasting mutually beneficial relationship with them. This drive would continue even with more vigour in the coming days.

V.Padmanaba Bhat,
Jt. General Manager, Head - Sales and
Customer Care, Toshiba Machine
(Chennai) Pvt Ltd



EXTRUSION & INJECTION MOLDING



MAKING IT POSSIBLE

AWARDS & RECOGNITION

- T.S. Rajan, Executive Director & CEO, was awarded the Outstanding Manager of the year 2017 by AMA Metrochem
- Received 7th National Awards 2016-17 for Technology Innovations under the Industry category of 'Innovation of polymer processing machinery and equipment' for our most advanced KL Series.
- 7th CII Design Excellence Award in the 'Industrial Design' category for the KL Series
- Sustainability Award for Best Green product in Petrochemical Sector 2017 by FICCI for energy efficient WINELEC machine.
- National Award for Strong Commitment in Employee Relations 2017 by Employers Federation of India.
- Recognized as the 1st Runner Up in the National Award for Outstanding Achievement in Industrial Relations 2015-16.



Windsor Machines Ltd. has been leading the plastic processing machinery industry with innovation, state-of-the-art technology and excellence in a partnered ecosystem, for over 50 years. The company is engaged in manufacturing of Injection Molding Machines, Pipe Extrusion Lines and Blown Film Extrusion Lines. Windsor has two manufacturing facilities in Gujarat, India and one manufacturing facility at Brescia, Italy.

Windsor is one of the few companies in India that serves and supports varied needs of the plastic processing industry across the globe with cutting-edge product design & technology. The company's technology partnership with Kuhne GmbH (Germany), T.H.E Machines (Switzerland) and Protool (Switzerland), plus, the recent acquisition of Italtech (Italy), has enabled the company to build technological expertise and rise rapidly against competition.

For customers, Windsor has emerged as a reliable partner due to its high quality and futuristic machines.

Being Customer-Centric

Windsor's production cycle is designed around its customers to provide them with perfect solutions that suits their needs. From creating the company's first machine that redefined the plastics industry, Windsor has grown into a Company that touches customers' lives in more ways than one. The company has been steadfast in its



www.windsormachines.com



mission of creating happy customers around the globe.

The company's people are its greatest assets & it fosters a highly productive work environment that enables new ideas, optimizes the existing & upgrades past ones, to deliver trailblazing solutions. As a leading machinery supplier, Windsor's philosophy of working for customers' profits remains its success mantra.

Being Futuristic

The company understands that businesses can no longer be reactive. So, the team thinks ahead of the curve & constantly strives to be the frontrunner in enhancing the future of customers.

Tomorrow is about speed that advances imagination, strength that defies boundaries & style that dictates trends. The future is fantastic & Windsor just makes it possible.

Goal: It is company's goal to become the world's premier plastics processing Company with holistic concern for its employees, stakeholders & society; Windsor is striving to generate maximum value by adopting best global practices.

Company Direction: To continually achieve newer productivity benchmarks by offering innovative & automated solutions that help customers unleash the full potential of their business, thereby enhancing lives of the end-users.

Being Innovative

The company's latest machines are setting benchmarks in their respective segments. Designed for superior performance, they are a perfect blend of highest quality and aesthetics. Windsor continues to focus on design & development of new capabilities within its core product offering of Injection Molding Machines, Pipe Extrusion Lines and Blown Film Extrusion Lines with a focus on superior performance & aesthetics.

Injection Molding Machines: KL Series Injection Molding Ma-



"Being a pioneer in the plastics processing industry, we envision the world of endless possibilities. The new-age world thrives on safe & innovative plastic solutions that make life better. Today, we are at the threshold of a radical evolution, where plastics will transform the future. Windsor is spearheading this change with its proactive future-ready solutions. We are catalysing an incredible future through Innovation, Quality, Speed, Responsiveness and Range. By integrating advanced technology in our machines, we provide unprecedented value in plastics processing machinery. Facilitation of data driven insights using modern analytics is setting newer paradigms in driving our customers' progress."

Nitin Chowdhary
Dy. CEO,
Windsor Machines Ltd.

chines, winner of the 7th National Award for Innovation of Polymer processing Machinery & Equipment, is setting new benchmarks in Automotive, White Goods, Houseware & Furniture sectors.

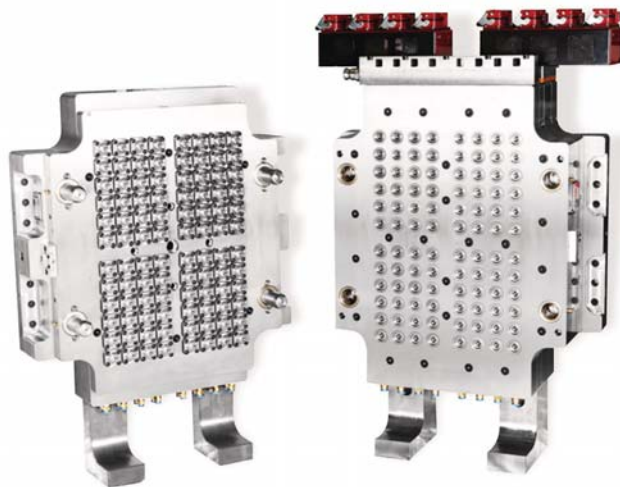
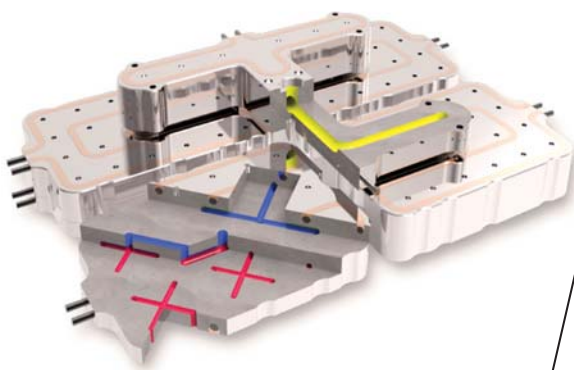
Blown Film Machines: This year, Windsor continues to grow the confidence of the customers in 5-Layer Polyolefin Dedicated (POD) and 7-layer Barrier Blown Film Extrusion Lines. This year, Windsor has become a proven supplier & market leader with its Dedicated Machine for the base film used in 'Cross Laminated Tar-paulin' projects.

Pipe Extrusion Machines: This year Windsor has indigenously designed Conical Twin Screw Extruders for cPVC pipe manufacturing. For the PVC pipe customers, Windsor offers its newly designed 3 layer die construction with a capability of 'Foam Core' or 'High Filler' middle layer used in specialized applications in building and construction. A similar concept is also designed & developed for 3 layer PE pipes in large diameter applications.

Industry 4.0: There is a tremendous focus on IoT and getting all machines connected with our IoT solution called SAM 4.0.



HOT RUNNER SYSTEM



EFFICIENT, EFFECTIVE AND INNOVATIVE

ISO TECHNOLOGY - HOT RUNNER SYSTEM FOR PACKAGING

ISO technology designs flow channel & cooling channel by conformal projection method according to the shape of parts and then shapes up through Diffusion Bonding Technology.

ISO technology implements the flow channel balance and cooling channel optimization by conformal projection, which designs the flow channel and cooling channel by product. It makes hot runner system balanced and mold core cooled well, which effectively avoids the product defects problem in the injection process.

Major Advantage of products

- Guarantee for the hot runner system balance
- Smooth flow channel without dead spot
- Shortening product cooling time
- No end Plugs
- Faster Color change

Yudo Hot Runner India Pvt. Ltd. leads the world with its Consilience Technology. Since its foundation in 1980, YUDO strived to develop and produce high quality hot runner system. It achieved the No. 1 ranking in the global market share through its efforts and customer satisfaction. Yudo is also a leading solution provider for automated takeout robot and factory automation, injection auxiliary equipment, machine tool automation system, Packaging and PET Preform solutions.

Yudo has a powerful network that connects business bases in more than 40 countries around the world. The company strives further to expand with 24 Plants (Manufacturing & Sales), 26 Sales subsidiary and 65 sales offices, 9 R&D centres across the globe.

Manufacturing capacities

Yudo has the state-of-the-art manufacturing facilities. In the company's Cyber factory in Korea unmanned operations can be performed for 24 hours. Besides having 7 plants in China, the company also has manufacturing facilities in Singapore, Portugal, Brazil, Malaysia and now in India.



HOT SOLUTION
YUDO
HOT RUNNER SYSTEM

www.yudo.com



The company produces more than 60,000 systems in a year, which is the largest number globally.

Product portfolio

Yudo has most diversified product portfolio in the industry. In India, the company has capability to cater to a part as small as 0.5 gms to as big as 22 kg. Yudo solutions are applied successfully in industries including Packaging, Automotive, Home appliances, Medical, PVC & CPV fittings, etc.

Tina AM Premium Hot runner system for automotive

TINA AM is a hot runner system in which all parts, such as manifold, nozzles, connectors, valves, heater, and thermocouple, are preassembled and wired in a perfect unit concept.

Key Highlights of this product are -

- Zero Material Leakage,
- No heater Failures
- Zero Air/Oil Leakage.
- The system assembled in the duct type minimizes the allow-



ance during mold fabrication.

- Because it has a simple assembly structure, fast HRS maintenance and repair are possible by simply separating the clamping plate.
- Various applications can be applied by adopting a free-angle manifold.
- It provides minimized heat loss and reinforced color change performance by having a screw-type nozzle that is directly combined with the manifold.
- It prevents yellowing and carbonization by optimizing the heat balance through the multiple step control of the heater.
- Thread-pulling and gate solidification are prevented by a separate gate heater that flexibly molds the cooling condition.
- It maximizes the cylinder cooling efficiency through the individual cooling plate and enhances the sealing performance.



"We offer the widest range of Hot Runners in the industry to almost all the segments including Automotive, Packaging, Medical, Electrical, Thinwall, IML, Household, PVC and also CPVC, which only Yudo has been doing successfully till date. The credit for this goes to our strong Global R&D department with 200 researchers and more than 175 patents.

Indian market has huge potential for Growth in the tooling industry and hence also for us. In order to keep pace with the continuously growing domestic market, we are moving into our new state-of-the-art manufacturing facility in Bhiwandi near Mumbai.

Additionally, we have established Yudo Global Design Center.

We are a customer centric company and always keep our customers first in every act, which is the core Value of our company."

Vishal Agarwal

President

Yudo Hot Runner India Pvt. Ltd.
& Yudo Suns Pvt. Ltd.

THE ECONOMIC TIMES



Disclaimer

The Economic Times Best Brands in Plastics & Polymers 2018 is the result of cumulative inputs taken from a sampling of brands and does not purport or claim to be a comprehensive study on the subject of branding. This book is not to be taken as a ranking of brands in the Indian context.

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