

### THE ECONOMIC TIMES



### THE ECONOMIC TIMES



### From the Editor's Desk



#### **Remarkable Brands**

These difficult times have definitely reiterated one thing – generating B2B leads has become really hard. And converting the few leads that you get into real business has become harder. Most of us are already experiencing this. While digital platforms have created another avenue for business, leveraging on these platforms is equally tough. At the same time, volatile market dynamics are making things all the more challenging for everyone. So, let's accept a simple fact. If one is to survive, sustain and succeed in today's world, it is important to find a way to differentiate one's brand.

Well, as the owner or as the custodian of a brand, you might be able to see the differentiating factors of your brand. But your customer may not be able to see the same with equal clarity; may be the customer is not able to see them at all! That's where branding helps.

Usually, the key elements of branding – like creativity and design and so on – have been associated with B2C companies. But that's only a perception and a very wrong one. Very few people realise that some of the most valuable brands in the global corporate world are B2B brands. These brands (think Boeing, think IBM, think TCS, think FedEx, and so on) have consistently proved that B2B businesses can benefit greatly from a strong brand. A strong brand helps your customer recognise the differentiators of your company / products / services. It helps your customers relate positively to your business value proposition. It projects your organisation as a reliable, long-term and beneficial business partner.

The ET Best Brands in Plastics & Polymers 2020 is an initiative that brings the significance of branding to the plastics value chain in a credible way. That is why we are delighted to present the third edition of this coffee table book. The plastics industry has not experienced the challenging times the way it is them experiencing now. In a period like this, it is all the more important to identify brands that are remarkable. It benefits not just these brands but also the industry that they serve.



Niranjan Mudholkar Editor

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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 third edition of "The Economic Times Best Brands in Plastics and Polymers", 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 this definitive guide to the Best Brands in the Indian Plastics and Polymers Industry in the form of a coffee table book.

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.



### About ET Edge

ET Edge strives to build global business intelligence through summits, conferences, communities, exhibitions in overarching lectures & presentations, hands-on workshops, panels, roundtables, case studies, buyer seller meets and networking platforms. The forums would ensure senior decision makers are equipped with information and networks to respond to challenges they face not just in India but also globally.

ET Edge was launched in 2013, making its foray through domestic conferences. It has now steadily moved into new formats not just covering knowledge sharing platforms such as conferences but also includes exhibitions, community building and more.

While ET Edge is well established in the domestic market with expertise in sectors panning Infrastructure, Education, Technology, Retail, BFSI and Telecom amongst other sectors, it is also expanding geographies by building initiatives in South East Asia and is covering new segments including the government segment as well as the B2C segment.

ET Edge conferences are primarily B2B platforms which bring together industry heads, vertical experts, academicians, government, visionaries and thought leaders for insightful conversations that aid in drawing the blueprint for policy changes and giving directions to these critical sectors. Delegates at the conference are key management personnel and decision makers who further enrich the gatherings with their crucial insights and vast experience.

ET Edge builds engagement for its conferences through validated content through third party market research agencies and interactive formats. It deploys cutting edge formats such as fishbowl sessions, speed networking and other diverse formats such as key notes, one to one discussions, workshops, panel discussions, roundtables, case studies and awards.



### Knowledge Partner

**Breakthrough Management Group International (BMGI),** a global consulting firm, partners organizations transform their business performance with a strong focus on *delivering results*. BMGI enables businesses to solve strategic, organizational and process problems. BMGI has partnered with organizations in various stages of their business life cycles and has delivered cumulative benefits to its clients worth several billion dollars with an engagement ROI of 5:1 to 20:1.

In India, BMGI is located in Mumbai. BMGI's clients include leading Fortune 1000 Global companies and other Indian companies from diverse industries such as financial services, IT/ITES, airlines, chemicals, FMCG, discrete manufacturing, telecommunications, petrochemical, textiles, healthcare & energy.

BMGI is recognized as a **thought leader** in the space of Innovation and operational excellence. BMGI has also gained worldwide attention through its **international bestselling books** such as **'The Innovators Toolkit'**, **'Insourcing Innovation'**, **'Design for Lean Six Sigma'**, "The Complete Idiot's Guide to Lean Six Sigma" and many more.

Learn more at: http://www.bmgindia.com/

### **Research Methodology**

BMGI, as the Knowledge partner for The ET Best Brands in Plastics & Polymers 2020, conducted detailed research to identify a list of the best and emerging best brands in India in plastics and polymers for the third edition.

The process included analyzing and reviewing companies segmented into various sub-sectors, which support the Plastics and Polymer eco-system, such as plastic compounds, additives, master batch players, machine and machine part manufacturers.

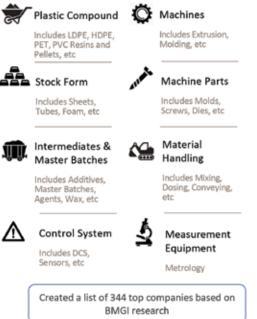
BMGI conducted a detailed secondary research to identify a reasonable and vast list of established and emerging brands which are recognized in the country and where applicable have a global outreach. The data was collected from various databases including industry associations, published lists and participant lists of various major Indian and global events. A preliminary list of 344 companies was created.

Core Dimensions applied to 344 companies spanning across 8 sectors to identify the best

- Technology Innovation undertaken by the entity to introduce new products
   Products Product mix made to appeal to
- different market segments
  Geographic Presence &
  Exports
  Spread of office presence in
  current and potential markets
- Manufacturing Capabilities Capability to integrate & deliver value and respond to changes in business environment
- Clientele Range of customers







The list was then subjected to further detailed assessment across various dimensions such as Technology, Product Range, Geographical Presence in India & Exports, Manufacturing Capabilities and Clientele

With the screening, a final short list of companies was prepared to finally arrive at 19 names in plastics and polymer industry as the best brands for this edition of the coffee table book.

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#### THE ECONOMIC TIMES



# **'ADDING GOOD'**

#### FOCUSSED ON FUTURE

ALOK continues to invest heavily on world-class machineries and state-of-the-art manufacturing facilities and making steadfast strides to address real-world problems.

In 2019, ALOK stood at a capacity of 130,000 MT, and intends to further grow and invest, by installing modern equipment such as environmentally neutral white and black masterbatch extruders at our Dadra, Ranipet and Surangi plants. It is their endeavour to help our customers optimize their products for the evolving needs of the plastic industry.

In addition to the exclusive partnership with Microban in 2019, ALOK also launched its range of TPE Compounds (PrimaFlex), which are bio-degradable and 100% recyclable. Prima Flex is food contact safe and finds wide application in medical & healthcare, appliance, electrical and automotive industry. In addition to this, we have also been working on developing a range of solutions aimed to help increase efficiency of Indian recycling industry, where formalised waste segregation programs are either absent or difficult to implement. LOK is India's leading masterbatch provider that is Adding Good to make better plastics that are sustainable, safer and affordable. With an amalgamation of research, world class manufacturing processes and an experienced team, we deliver high quality, consistent and cost-effective solutions to cater to the current and future needs of our customers for both standard and speciality solutions.

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A long-standing commitment to quality backed with on-going investments in technology and R&D, has made ALOK a preferred partner for a host of industry verticals. Over the years, ALOK's in-house ALOK Technology Incubation Centre (ATIC) has developed innovative, environment-friendly and cost-effective solutions in agriculture, water, construction, among others. With more than 5000 masterbatches (MB), it has the largest additive MB portfolio, widest range of filler and leading black MBs.

ALOK stands for innovation and sustainability; and this promise comes alive through the recognitions they have received over the past few years. From national awards for innovation to industry awards for specific sectors and more, ALOK lives the true value of 'Adding Good' to make better plastics that are sustainable, safer and affordable.

ALOK's manufacturing capability of 130,000 tons per annum spread across six locations in India and Paraguay, allows them to stay ahead

#### MASTERBATCHES



www.alokmasterbatches.com



of the market. ALOK invested heavily in world-class machineries and state-of-the-art facilities to address real-world problems. Their intent is to further grow and invest at our Dadra, Ranipet and Surangi plants through modern equipment such as environmentally neutral white and black masterbatch extruders and an even more efficient delivery mechanism of the colour masterbatch (within 5 days only) to enable operational efficiency for your business as well.

While globally, ALOK is witnessing an increased demand for plastics in packaging, medical and pharmaceutical sectors, we are also seeing a demand in various application sectors that are looking to focus on the cost efficiencies and sustainability.

To serve this need, ATIC offers an array of global-standard testing equipment, which enables us to partner with our customers and cocreate customized solutions in accordance to their needs.

Earlier in 2019, at K Show 2019, ALOK announced its partnership with Microban, the global leader in antimicrobial and odor control technologies, for developing antimicrobial solutions exclusively for the Indian market, which will find application in day-to-day use plastic products such as water tanks, and food packaging materials.

In 2019, ALOK was conferred the prestigious FICCI Chemicals & Petrochemicals Award, for Excellence in Safety (Petrochemical) for exhibiting global standard safety processes and technologies, deployed at our manufacturing facility in Ranipet.

Our investment into setting up ATIC is demonstration of their innovation capabilities to make better plastics that are sustainable, safer and affordable. The testament to cutting-edge research done by the ATIC team is the Golden Peacock Eco-Innovation Award, which got added to their kitty of recognitions. For over 25 years, the Golden Peacock Award is regarded as a hallmark for corporate leadership and institutional excellence worldwide.



"India has been emerging as a global manufacturing powerhouse across a wide array of sectors. The Indian masterbatch industry has been striving to develop specialty value-based solutions that address the current and future needs of the plastics industry. In coming time, demand in the sector will be addressed by 3 focus areas innovation, sustainability and safety. The industry's approach to people and planet friendly solutions will continue to drive innovation for across different sectors. This will also reform consumption patterns and perceptions around plastic usage, with increased responsibility residing with both the producer and consumers. The Indian masterbatch industry's conscious approach to introduce innovative and cost-competitive, quality solutions, is expected to augment demand in the long-term, thereby placing the Indian plastics industry on a global pedestal. As the industry fuels its manufacturing capabilities, it is imperative that we build a culture of safety, both at a product and worker level. At ALOK, we strongly believe that safety is sacrosanct and must be imbibed by everyone."

Vikram Singh Bhadauria Managing Director ALOK Masterbatches Ltd.

In July 2019, ALOK was conferred this award for UvNox additive solution - an indigenously developed additive solution that has proven to contribute to India's agriculture economy/ increasing efficiency of agricultural practices by farmers. ALOK shared this honour alongside leading manufacturing conglomerates such as TATA Steel, Hyundai Motors, Godrej Industries and GSK.



# **POWERED BY INNOVATION!**

Imbibing technical innovations and by using the most sophisticated R&D machinery and equipment, we provide and continuously develop value added quality products to meet the ever changing needs of our clients and their customers. Keeping this as well as the current scenario revolving around plastics in focus, Blend Colours has exclusively developed and launched "OXY-GREEN – an Oxo-Biodegradable additive".

Oxygreen biodegradable plastic additive is India's first advanced Oxo-Biodegradable additive, which has been tested under ASTM



standards to be added to plastic products so that they can go back to earth without affecting the planet. Oxygreen uses Oxo-biodegradation technology thereby accelerating the plastic degradation.

Oxygreen plastic additive can be incorporated in a wide range of plastic products like shopping bags, agricultural mulch films, flexible packaging. By adding this plastic additive to plastic processing, there will be no changes to process and product behaves like a conventional product during its intended service life. Soon after the plastic is discarded (different disposal environments), the plastic additive initiates oxo-biodegradtion where the plastic product will start losing its molecular weight and turns into hydrophilic molecular fragmentation, helping faster degradation. **B** lend Colours is a part of Shree Group of Companies. The group is into Flexible Packaging, Poly Bags, Printing Inks, Paper Cores, Pharmaceutical products etc. having a turnover of US\$ 200 Million. The Shree Group, while diversifying into the packaging industry in the late 1990s, also ventured into manufacturing of masterbatches and compounds. Thus, Blend Colours Pvt Ltd (BCPL) was setup in 1998-1999. Blend Colours pioneered in setting up the first masterbatch plant in United Andhra Pradesh. Shree group has a proud family of over 1000 plus employees.

Blend Colours entered the global business arena in the year 2007 after creating success stories in India. Our endeavours to be the best in the domain of masterbatches, made Blend Colours 'One Star Export House' by the Government of India.

Today, our business is spread over 50+ countries and it is all set to touch US\$ 50 million this year, with exports contributing to 25 percent. Our products are accepted in Europe, Africa, Latin & Central America, Middle East and Asia. Our customers include Fortune 500 companies that are into the manufacturing of films, pipes, PET Fibres, woven sacks, rotomolding, blow molding and many more.





#### www.blendcolours.com



Technology has always been a key differentiator for Blend Colours, which has notably benefited its customers and has in fact set a new standard in the plastic industry. A well-equipped R&D, technically advanced production and testing facilities, as well as a qualified human capital ensure that customers get a product that they are confident of. This way, we add significant value to our customers' produce.

We started with an installed capacity of 300MT P.A. and our second unit started in 2003-2004, exclusively to manufacture black masterbatches. The third unit commenced production from October 2014 to exclusively manufacture white, additive as well as colour masterbatches and fillers. Our total installed capacity exceeds 40,000 MTPA, which makes Blend Colours one of top five companies in India. Manufacturing facilities of Blend Colours are spread across three different industrial locations around Hyderabad.

We are now boasting with highest capacity in India for black masterbatches, i.e. 18000 MT per annum with dedicated, high capacity and technologically advanced plants, through which we can offer, quality superior to any other competitor in India.

The repertoire of products includes: White Masterbatches Colour Masterbatches





At Blend Colours, we are highly focused on meeting changing customer demands in terms of new products, service and knowledge sharing by collaborations in order to meet the stringent norms of highly sophisticated end applications. Consistent product quality also adds value to our brand! Commitment and focus: This is what experience has taught us. Commitment towards customers and products, and focus on our goals has led to our growth today!

Sharad Rathi Director Blend Colours Pvt Ltd.

Additive Masterbatches PET Masterbatches for Textiles Black Masterbatches PP Masterbatches for Non Wovens BOPP / CPP Additive Masterbatches Single Pigment Concentrates (SPC/MOC) Oxo-Biodegradable Additive

The Blend Colours team comprise of experienced and qualified professionals trained in handling the latest machinery. Our HRM focuses on training and motivating human resources with necessary skills to offer highest level customer satisfaction and commitment towards building work environment. Blend Colours facility reflects our consciousness towards the environmental safety and commitment of keeping the ecosystem green.

Blend Colours is perfect blend of Innovation, Commitment, Competition, Consistency, and Creativity. In recognition of our efforts towards maintaining quality systems the company has been awarded ISO 9001:2015 standard certificate by INTERTEK.

As a part of our continuous and consistent effort to bring better and more sophisticated products to the market, R&D is never ending at Blend Colours. Our R&D team strives to develop new products to meet the changing needs of customers. Beside our expertise in colour matching, we can draw on our long experience of application knowledge to tailor the product to exactly meet a customer requirement.



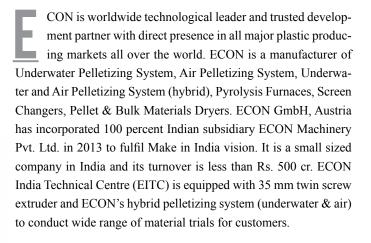
# **PELLETIZING IS IN OUR DNA**

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



#### **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.





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 key of our success in Indian subcontinent and worldwide. ECON is looking forward to being customer centric organisation, we understand pain of every minute of machine breakdown, so our response level to customers in 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 smallest labscale pelletizer of 1-30 kg/hr and biggest one is 10,000 kg/hr.

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

ECON's Pyrolysis Furnace is one of the most important equipment for cleaning of used in polymer industry, it is environment friendly, TUV certified and no emission because of activated carbon filters.

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#### INJECTION MOULDING MACHINES



# ELECTRONICA PLASTIC MACHINES LTD.

A shop-floor of 70,000+ sq. ft. is dedicated to providing worldclass solutions to all our respected customers. Our well-equipped in-house machine shop and in-house inspection facilities help us in achieving the highest standards of quality and reliability in manufacturing and providing the world-class products to our customers.



Lectronica group has an overall experience spanning more than 48 years in machinery manufacturing. Electronica Plastic Machines was founded in 1992 with the objective of providing high-quality machinery in the injection moulding space. EPML's latest technology along with continuous innovations has given it a high scalability and have resulted in providing consistent and energy efficient products. EPML has a pan-India presence with 12 offices at strategic locations to ensure swift and efficient customer communications and support for all its plastic injection moulding machines.

#### Resources

A shop-floor of 70,000+ sq. ft. is dedicated to providing worldclass solutions to all our respected customers. Our well-equipped in-house machine shop and in-house inspection facilities help us in achieving the highest standards of quality and reliability in manufacturing and providing world-class products to our customers. Our pan-India presence with offices at strategic locations helps in delivering timely and efficient service to customers. A dedicated Research and Development team enables us to keep up with the latest developments in technology and meet the challenging & evergrowing market demands.





#### www.elpml.com



#### Innovations

Electronica Plastic Machines is a company that can be best described as an innovative, vibrant, and energetic organization dedicated to providing new technologies at affordable price. The first company in India to manufacture 'Micro Processor Based Injection Moulding Machine' with 5-point double toggle type clamping mechanism. EPML has also been the foremost plastic injection moulding machine manufacturer to launch the first fully indigenized 'Servo + Gear Pump' machines for the Indian market.

Electronica recently launched Platina 650T 2P Machine – its latest introduction in the Two-Platen series. With the challenging and ever-growing demands of the Plastic Injection Moulding industry and keeping with the latest developments in the international markets, Electronica Plastic Machines Ltd. has introduced a more energy-efficient, compact-sized, mid-tonnage, two-platen Injection Moulding machine with its PLATINA series.





"At Electronica Plastic Machines Ltd., we all strongly believe that all our customers and stakeholders are members of our closely-knit extended family. They are just located at various different locations pan India as well as abroad.

We, at Electronica, have been focused and dedicated to continuously serve and satisfy the ever growing & ever demanding industry challenges and requirements. More prudently we all are committed for delivering all the products and services as per customer's desire and ultimate delight.

We have been trying to do our level best to achieve and maintain this with the untiring efforts by our strong & cohesive EPML team, spread all across India.

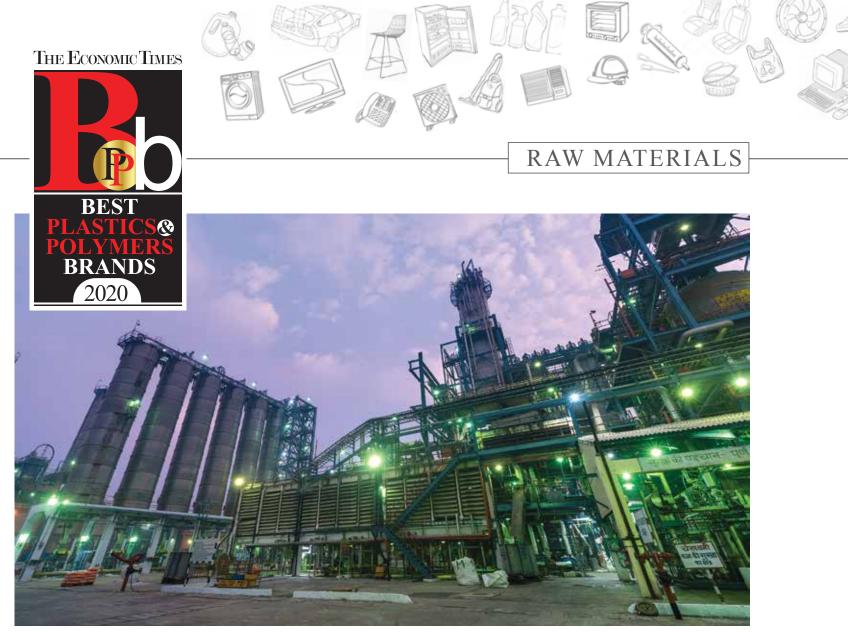
We have always tried to be innovative with the latest machine designs and configurations (recently added HyLock – Hydraulic Ram Type Machine and Platina – Two Platen Machine series) as well as are very keenly focused on the most energy efficient solutions coupled with consistent and reliable performance."

**Amit V. Pendse** President Electronica Plastic Machines Ltd., Pune, India.

The journey from 'Moulds to Moulding' has been exciting, full of challenges and rewards.

#### Belief

Our ethos, as an organization, is based on the simple yet effective ideals of Quality, Ethics, and Efficiency. We take immense pride in the patronage of our customers, support of excellent staff, and the faithful association of all our strategic partners.



# INDIA'S FIRST METTALOCENE Grade Producer

#### **METALLOCENE GRADE**

In January, 2019, GAIL became first company in India to manufacture Metallocene Grade: GAIL (India) Ltd. made a history by producing the niche grade – Metallocene LLDPE grades which were otherwise being imported 100%. GAIL became the firstever producer of Metallocene LLDPE film grade in India in its MAIDEN run.



AIL (India) Ltd. is a Central Public Sector Undertaking (PSU) under the Ministry of Petroleum and Natural Gas, with the mission of accelerating and optimizing the effective and economic use of Natural Gas and its fractions for the benefit of the national economy.

GAIL, having started as a Gas Transmission Company during the late eighties, has grown organically by building a large network of Natural Gas pipelines covering over 12,200 km; two LPG Pipelines covering more than 2,000 km; six Gas Processing plants for production of LPG and other liquid hydrocarbons, with a combined production capacity of around 1.3 MMTPA GAIL has a Petrochemical plant in North India with a capacity 810000 TPA, Northeast India with a capacity of 2,80,000 TPA and western India with capacity of 140,000 TPA. The company has integrated upstream into the business of Exploration & Production with participating interests in 11 E&P Blocks, including two blocks in Myanmar. GAIL has also integrated downstream into the high growth retail City Gas Distribution business both in India and abroad. GAIL is today an integrated energy company in the hydrocarbon sector with focus on gas and beyond.



#### www.gailonline.com

GAIL has overseas presence in five countries. The Company has a wholly owned subsidiary, GAIL Global (USA) Inc. (GGUI) in USA, which has formed a JV with Carrizo Oil & Gas Inc. to acquire stake in its Eagle Ford Shale acreage. Further, the company has booked 2.3 MMTPA capacity in Dominion Cove Point LNG liquefaction project and also signed a Gas Sale and Purchase Agreement (GSPA) with WGL Midstream Inc. for procurement of corresponding volume of Natural Gas.

GAIL has another wholly-owned subsidiary company viz. GAIL Global (Singapore) Pte. Ltd. based in Singapore for trading in LNG & Petrochemicals and for undertaking overseas investments. GAIL has around 4.2% equity partnership in South East Asia Gas Pipeline Company (SEAGP) which is transporting gas from Myanmar to China from these blocks. GAIL has made investments in two companies in downstream business in Egypt and one in China.

GAIL has executed a long-term LNG Sale and Purchase Agreement with Sabine Pass Liquefaction LLC for purchase of 3.5 Million Tons per Annum (MMTPA) of LNG from Sabine Pass Liquefaction terminal project, USA and also signed a long-term agreement with Gazprom Marketing and Trading Singapore for supply of 2.5 MMTPA of LNG from Russia.

GAIL has also signed a GSPA to source 38 MMSCMD of natural gas through transnational pipeline from Turkmenistan. GAIL is now an equity partner of TAPI Pipeline Company Ltd. (TPCL) which has been formed for the transnational pipeline project from Turkmenistan.

With an aim to ensure cleaner and quality energy in Eastern India at an affordable Price, Government of India (GoI) aggressively promoted the execution of 2655 Km Jagdishpur – Haldia & Bokaro – Dhamra Natural Gas Pipeline Project (JHBDPL), popularly known as the Urja Ganga of Eastern India. JHBDPL is being taken up at an investment of Rs.12,940 crore and is scheduled to be completed from 2018 – 2020 in Phases. JHBDPL caters the energy requirements of five states, namely Uttar Pradesh, Bihar, Jharkhand, Odisha and West Bengal, covering 49 Districts and 2270 Villages. This is being further extended from Barauni to Guwahati by laying additional 727 km pipeline.

#### **PETROCHEMICALS HIGHLIGHTS**

GAIL (India) Limited set up its Petrochemical plant in Northern India, Auriaya, UP to produce LLDPE and HDPE. Envisaged to be a world class complex with an annual capacity of 260 KT tons of HDPE/LLDPE. The UP Petrochemical Complex was commissioned in year March 1999.

· Over the years, GAIL has consistently worked towards aug-



"Our vision to accelerate and optimise the effective and economic use of Natural Gas and its fractions to the benefit of the national economy. We want to be the leading company in natural gas and beyond with global focus, committed to customer care, value creation for all stakeholders and environment responsibility."

**Gajendra Singh** Director (Marketing) GAIL (India) Limited

menting the capacity of the petrochemical plant through debottlenecking and addition of new processing and production facilities, the capacity enhanced to 410 KT.

- In 2015, GAIL commissioned cutting-edge gas phase Unipol PE Process Plant, at Pata with capacity to produce 400 KT of HDPE & LLDPE.
- Currently, GAIL's installed capacity has reached 810 KTA of HDPE & LLDPE polymers.
- With the establishment of the Plant at Pata, the socio-economic landscape of the area underwent gradual transformation, with better connectivity, education and health facilities and employment opportunities
- In 2016, GAIL as a major stakeholder with 70% equity stake, commissioned Brahmaputra Cracker & Polymer Limited plant at Dibrugarh, Assam with Capacity 220 KT of PE and 50KT of PP. This is the first Petrochemicals plant in North East India.
- With time GAIL expanded its presence overseas and has made successful forays into newer markets in eight countries.
- Over the years, aligning with the business interests of the company, GAIL is also providing training in Plastic Product manufacturing and Plastic industry related trades, in the cities of Ahmedabad, Bhubaneshwar, Guwahati, Lucknow and Hyderabad, through Central Institute of Plastics Engineering and Technology (CIPET).
- In March, 2019, GAIL coupled with BCPL crossed landmark sales of 1 million MT of Petrochemicals per year.
- GAIL's Petrochemicals business has come a long way & has completed 20 years. With Capacity enhancement from 260 KT in 1999 to 810 KT in 2019. GAIL has grown from selling 10 KT per month in 1999 to 100 KT per month in the year 2019.

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EXTRUSION AND RECYCLING MACHINES



## PLASTIC EXTRUSION & WASTE RECYCLING Equipment Manufacturers

#### WIDE RANGE OF \_\_ MACHINES

GMS has developed recycling technologies for all applications right from general recyclable plastics to multilayer, and right from washing to recycling. GMS also provides extruders for corrugated, HD / LD flexible Pipes, PC profiles, etc.

GMS has developed special technologies to recycle foamed material like EPE / EPS / XPS, etc. GMS has also developed special equipment to produce different profiles from mixed plastic waste with pre wet-wash or dry-wash.



If the date, GMS has sold nearly 450+ machines worldwide. Our range of supply is around eight to ten equipment per month with maximum capacity to supply minimum of 50 machines per month depending on the size.

GMS produces plastic extrusion equipment which includes waste recycling extrusion plants, washing plants (fully and semi-automatic, both), drier, plastics to profile plants, dieface cutters, and extruders for profiles and corrugated flexible pipes.

We offer recycling equipment for any type of plastics like film, woven sacks, non-woven fabric, disposable containers, injection, blow and roto moulded containers, pipes, EPS, XPS, EPE, pet bottles, engineering plastic waste and any type of waste of plastics.

We are a small (MSME) company with less than Rs. 10 crore turnover.

#### Innovations & Technological Upgradation

Trained technical team of GMS designs machines keeping in mind



#### www.recycleplastics.in

the best quality and advanced technology to provide 100 percent performance and maximum customer satisfaction. Since inception, GMS has made a prime decision to deliver machines with the highest quality at the lowest possible value to remain world leaders in recycling technology. We invest a lot in development and upgradation. Our new developments are done keeping in mind easy replacement of parts with local available parts to reduce downtime to customers. Automation and staff as well as equipment safety have our core care when developing newer equipment. Our future decision for intelligent machines providing data analysis will bring us closer to Industry 4.0.

Service & Backup: Our team of experts is the main asset of GMS. Our staff is trained to provide quality and uninterrupted service as and when requested. Our technicians are ready to fly in the shortest time to deliver quick service to our customers in the remotest cities of the world.

**Extended Producers Responsibility:** Recycling is the need of the hour, especially in India with the introduction of the Extended Producers Responsibility. Companies producing plastic products and packaging will need to introduce recycling as their secondary activity. With the fast changes in the Plastic Industry and its exponential growth, GMS is already geared up to deliver machines on time with complete satisfaction and keeping our motto of "Quality and Service" intact.

**Make in India:** GMS is a perfect example of "Make in India" as all our equipment are made in India, with technical support of our Joint Venture Partners in Italy. This is reason enough to sell 450



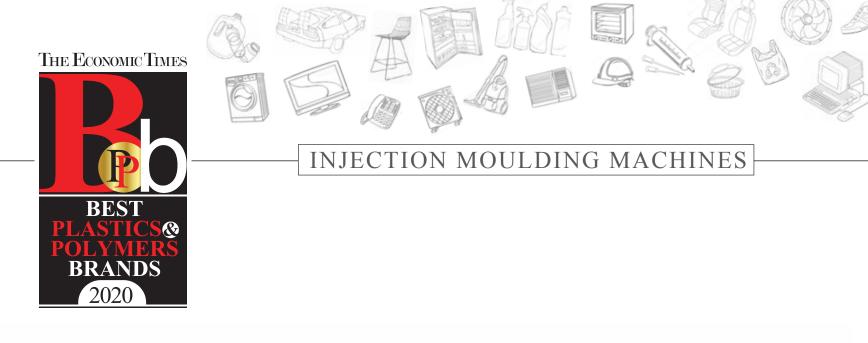
GMS Plastic Machinery Pvt. Ltd. was founded in the Millennium year 2000 for producing and selling extrusion and recycling machines with Italian technology. Inception of GMS was with a focus to serve the growing economies with subsidized Italian technology machine with the same service that one would expect from the Italian Partners M/s. Gamma Meccanica S.p.A. SERVICE AND QUALITY - OUR COMMITMENT

Haren Sanghavi Director GMS Plastic Machinery Pvt. Ltd.

and ever-growing number of machines in the market.

GMS has always upgraded with time and simultaneously improved its quality standards. Hence, our customers have always come back to us with repeat orders, though our equipment are more expensive compared to our competition. Competition always keeps us on our toes and we take it in our stride to innovate faster and better equipment with increased improved performance.







# WORLD LEADER IN INJECTION MOULDING MACHINES

#### **RECENT DEVELOPMENTS**

We launched new machine MAG 700 ton and displayed at Plastivision exhibition in Mumbai 2020, mainly for Furniture and Crate market segment. Its optimum designed for chair moulding of less than three kgs primarily, keeping in mind the customer's perspective of productivity and lower power consumption.

A recent acquisition by Haitian group was "Nigata" injection moulding division. All-electric Nigata machines will be available to Indian market directly from Japan by us. aitian Huayuan Machinery India Pvt Ltd is a subsidiary of Haitian International Holding Ltd, Hong Kong. Haitian is a global leader in manufacturing of injection moulding machines both in medium and top of line segment in Plastics Industries.

#### **Manufacturing capacities**

The Haitian manufacturing plant has the capacity to build about 200 machines per month. The plant has in-house facility of machining. We have 24 high technology CNC HMC and VMC machines, ranging from 86 ton machine to up to 2000 ton at present, beyond the 1000 ton machines that we supply from our HQ China plant. With a focus on niche market segments like automobile, medical and packaging, we are getting good business for our allelectric machines. In India, we manufacture hydraulic machines of series MARS from 86 ton to 780 ton. Our two platen machine Jupiter series JU III (third generation) machines are built in India below 1000 ton.

#### Advantages to the customers

We have special machines for thin walled products for food pack-





#### www.haitian.com





"We thrive for perfection and the highest efficiency with our own manufacturing, equally true for machine performance on the customer's premises. Everything we do is intended to place our customers in a position to overcome challenges profitably and sustainably. With this promise we shall enjoy success together in the future."

#### Sunildutt Chaudhari

Director Haitian Huayuan Machinery India (Pvt) Ltd

ing, containers and so on. As an alternative to our all-electric machines, we have hydraulic machines with higher injection speed without accumulators. For these machines, the product cost is less due to lower power consumption compared to the ones with accumulators. With our AU series machines for the application of PE Electro fusion fitting for Gas and water pipeline, a comparative study was conducted at a customer site having our machine as well as that of competitors. When compared, a 5.5 Kg product on competitors machine consumed electric cost of Rs.11 / piece, whereas the cost on machine model AU 450 ton was just Rs.5.50 / piece. This is a special machine designed by Haitian for applications of higher shot weight; for example a 650 ton will have a capacity of 24 kgs shot weight in PE.





# **PRECISION FOR MOULD MAKING**

#### HASCO CAD - NATIVE DATA

In addition to its product range, HASCO offers its customers numerous innovative service tools in its portal www.hasco.com.

Via the HASCO website, customers and designers can call up technical data for more than 100,000 products in the company's overall portfolio, including the corresponding 3D data records for the different CAD programs.

The parametric data is integrated directly in the CAD system without the need for a detour, via an exchange format, which can cause loss of data. This has clear advantages for the process as a whole and opens up additional options permitting rapid, straightforward implementation from the calculation through to design and production.



Features

- Easy design with HASCO native databases
- Support through digital services including assistants, installation spaces and parametric data
- Libraries coordinated with CAD systems / data packages
- Standard components available for NX
- Free download from the HASCO Portal



#### ASCO - Enabling with System.

Every success story starts with a basic idea. HASCO's idea is to offer the best possible support in mould making. With this in mind, the standard mould base was designed, patented and introduced in 1960, which made HASCO a recognised industry pioneer.

Since the company was founded in Lüdenscheid/Germany in 1924, HASCO has become the internationally leading supplier and manufacturer of modular standard components, accessories and hot runner solutions. The range takes in more than 100,000 products, providing the customers with customised, simple and cost-efficient solutions for tool and mould making, as well as for the plastics processing industry. HASCO supplies a complete assortment of ready-to-mount system components, including comprehensive application and implementation support. About 700 employees at 35 locations worldwide are working on the standards of tomorrow.

In India, HASCO has been active since 1998. It first entered the market as a branch of HASCO Singapore Pte Ltd. The branch's increasing success made it possible to found HASCO India as an independent, limited liability company in 2003. At the moment, nine



### HASCO<sup>®</sup> Enabling with System.

#### www.hasco.com



specialists support around 1200 mould makers throughout India.

The combination of innovative products and international services shortens design and construction times and boosts productivity. With HASCO, mould makers are not only working with a system geared to the future but are also securing measurable competitive advantages for yourself.

Standards, hot runner solutions, special processing and qualified technical consulting: HASCO offers competence and service over the entire production process on the base of a certified QM System to DIN EN ISO 9001. With numerous innovations and extensions to its range, as well as user-friendly tools and new CAD services, HASCO supports and simplifies processes from the idea through to the production of the injection moulded part.

#### **Mould Base Technology**

The proven P and K plate range with extensive dimensions offers customers a large number of design solutions. In the case of accessories attractive developments and additions supplemented the standard component portfolio.

Innovations in the field of demoulding, heating/cooling, high-temperature applications, sensors, hydraulics and cylinders round off the range and make a key contribution to boosting efficiency and achieving cost efficiency in present-day mould making.

The versatile temperature control range has been rounded off by new, highly flexible, twist-free and kink-resistant EPDM hoses with high-strength synthetic textile reinforcement and PFA hightemperature hoses in a perfluoroalkoxy copolymer (PFA) with a solid silicone coating. It also has safety couplings for high-temper-



"We aim to facilitate the work of designers and mould makers from the idea through to the finished injection moulded article with our carefully thought-out solutions. In doing so, we supply our knowledge and a comprehensive range of standard parts. We support our customers with ideas and particularly high-guality and innovative products. We are naturally delighted to receive the recognition as a "Best Brand in Plastics & Polymers" 2020" and it shows that we are on the right path. For the team, it constitutes a special incentive to continue along the path they have started on and to face the challenges of the growing market in the plastics industry."

#### **Rajnikant Patel**

Business Development Manager HASCO India Pvt. Ltd.

ature applications and manifold blocks for flexible temperaturecontrol circuit design.

With a comprehensively extended module system for slides, HAS-CO offers variable and customer-specific configuration options for a wide range of installation spaces, thus guaranteeing reliable demoulding throughout the entire injection moulding process. DLCcoated components offer optimum gliding properties.

#### **Hot Runner Technology**

The new "Single Shot" individual nozzle has an optimum price to performance ratio in the field of easy-to-process plastics. It has been designed as a single nozzle with maximum temperature homogeneity and generous flow channel cross-sections. Different tip geometries guarantee an optimum tear-off quality and ideal heat conduction right through to the gate.

Cost pressure and ever shorter 'times to market' require solutions that are capable of meeting these demands. When using the HASCO Hot Half with a single needle valve, users benefit first and foremost from the high efficiency and safety of the complete, ready-to-connect system, suitable for immediate production and individually geared to the needs of the customer.

THE ECONOMIC TIMES







## PLASTIVISION INDIA 2020 WE PROMISED......WE DELIVERED....!!

#### UNTIRING EFFORTS OF TEAM PVI

The stupendous success has been a result of the untiring efforts of Team PVI and the members of the entire AIPMA committee who have collectively put in all that they had to achieve this business prosperity in this trying time by getting the right business visitors to the show.

Each committee member, extending his honorary and selfless service to the AIPMA association headed focused pavilion, was instrumental in bringing focused exhibitors and visitors. These pavilions included the Medical pavilion, Finance Zone, Industry 4.0, Solar Pavilion, Plasticulture pavilion, Job fair, Consultant clinic, Education and plastic Image, Recycle pavilion, MSME and so on. A memorable event planned to perfection.....!!!

his is an attribute that PVI events are most complimented by the business fraternity for micro thinking, micro planning and micro monitoring.

The experiences were many.....starting with the smoothness of registration check-ins, the vibrant and colourful ambience, welcome drink, free flow of bottled drinking water, free Wi-Fi for all exhibition days, easy access to exhibitors information and many more. Industry feedbacks highlighted this by calling it "The most convenient show that the industry has ever witnessed".

For PVI 2020, it was like an army at work. To bring to the industry this mega "Business ka Booster" platform, organisers along with 6,200 industry volunteers, professionals, service providers and contractors during five days of the event build-up and dismantling, cumulatively put in over 75 million-man hours. So strong was the industry support that captains of the industry, who are institutions on their own, put in their invaluable quality time in the last 90 days to give the event such a momentum that it overcame the inertia of recession.

The days were spotless with Zero issues - be it power breakdown, earthing issues, or issues relating to supply of utilities, food & beverage, information, infotainments and entertainments. You name it, and everything was precise and perfect.



#### www.plastvision.org

The organisers acknowledge that they missed the presence of some big machinery manufacturers. But the huge turnout of more than 229,000 visitors over five days says it all about the opportunity lost by big players in this challenging time, an industry expert opined.

The organisers were very happy that they successfully built yet another landmark in PVI 2020 that the industry would continue to recognize for many years to come. They remain delighted that they could add significant value to the exhibitors and visitors alike.

For the comfort and convenience of all, organisers put up 535 mobile and laptop charging points across exhibition venue with tastefully decorated resting area that included 3,00,000 sq ft of special theme based printed carpets as well as 5,900 meters of LED stall strips offering a unique ambience all around.

It was a dazzling performance with 1483 exhibitors spread over 105,000 sq m. With 229,000 visitors, for the first time ever, is today an event which is growing in dominance in the global arena. This edition had global exhibitors covering over highest ever 6000 sq m of space for PVI 2020. It was a delight to exhibitors and visitors to find minute details paid attention to which the organisers prepared themselves with such as providing over 535 charging points, resting and meeting area,

The exhibitors, visitors, industry experts and entire business community were in for pleasant surprise with each passing day starting with the grand opening ceremony on day one attended by the who's who of the business fraternity followed by the Indo-China B2B meet attended by over 450 delegates. The following four days were power packed with knowledge terminal conferences jointly organised with Elite Plus. This conference provided much needed views on varied subjects like circular economy, advances in materials technology, process to improve productivity and other important as well as relevant topics. For the first time the industry witnessed such an expansive knowledge sharing platform attended by over 650 participants.

The huge business visitors, who also came from far flung places of Gujarat and Maharashtra interior parts in chartered buses were awestruck when they were greeted with complementary morning shower and breakfast arrangements made by the organiser at sprawling exhibition venue.

The event has charted the way for many-a-business. This included the MSMEs, start-ups, first time exhibitors, and the special "Dana Bazaar" category carved out as part of PVI-AIPMA handholding initiative for most unorganised workforce working for the recycling sector. This was the unique dimension to the show which gave a clear indication of the level of confidence the plastic industry has in PVI exhibitions at the grass-root level. These first-time exhibitors added a lot of value to the visitors as well as they got to know much more that was "new".



"I am delighted that each PVI edition surpasses its previous records, making it a "must exhibit-must attend" plastic event globally and competing with top international exhibition brands. I am also delighted that the industry acknowledged the strength, dedication and devotion of Team AIPMA-PVI efforts in bringing all sectors under one roof and importantly extending helping hand to start-ups and smallest stakeholders of the industry who were never part of the exhibition benefits and networking opportunities. First time ever four-day conference on varied subjects aimed at "circular Economy and production Optimization" drew large number of focused audience. I salute and dedicate this stupendous success to members of the AIPMA managing committee without whom the achievement of this scale was impossible."

Kailash B Murarka Chairman-PVI 2020

One of the most deciding factors and guiding force for the huge turnout of visitors could be the result of more than 50 road shows the organisers held at various places across the length and breadth of the country within the span of three months, under the direct supervision of PVI and AIPMA team supported by huge number of well-wishers, plastic industry stalwarts, different associations as well as media supporters.

A staggering 30,000+ stakeholders of the industry turnout at road shows providing a precursor to the event success also indicated the confidence that the industry has in AIPMA as an organisation par excellence that is striving and continues to strive for the betterment of this industry.

The man of the moment and chairman of the mega event, Mr. Kailash B Murarka, together with the entire AIPMA team was beaming with joy and satisfaction that the 11th edition of PLASTI-VISION INDIA exhibition successfully closed on a lasting impact like "Things are looking better and better with each edition".



# SMART MOTION PLASTICS

#### LAUNCH OF OUR LOW-COST AUTOMATION PROGRAM

igus have launched the Low-Cost Automation Program wherein igus will take up complete automation solutions with absolutely maintenance free igus components, each individual component being able to have a lifetime calculator. Three successful installations are already done in less than two months and many projects are in progress. We look forward to reliably automating and provide one stop solution for the automation requirements. In continuation of our reliability promise, we are now able to offer a 3-year guarantee\* for our e-chain program also. igus chainflex cables already comes with a three-year guarantee.

\*Can be downloaded online





rom a garage to the global market with tribopolymers! What began in 1964 with a single injection moulding machine in a garage in Cologne has within half a century become a global enterprise. It all started more than 50 years ago when Günter Blase, who established the company, had an idea about the potential of polymer materials. In 1983, Frank Blase established the energy chain systems and the injection molded polymer bearings as two distinct product groups and set up a network of sales engineers.

Today, the 3,800 employees distributed between the head office in Germany and 35 subsidiary companies around the world come up with new ideas daily, make high-quality products, ensure stream-lined processes and delivery times and, above all, stay close to the customer.

igus® operations in India started in the year 1998 with its headquarter in Bangalore. By 2000, igus® (India) Pvt. Ltd. became a 100% owned subsidiary of igus® GmbH. Today, igus® has 160 employees with a goal to add 30% more outside sales engineers every year to be closer to the customers. igus India, with its pan India presence in over 20 locations, offers a wide network of trained





www.igus.in



igus India Headquarter: Bangalore

sales and service personnel with an aim to serve our customers wherever they are. The world-wide customer support team takes care of any service or support requirements for machines exported to other countries with all sales and installation team members well trained in Global HQ, Cologne.

Over the past years, igus® India has established itself as a reliable and quality partner for many industries like Cranes, Automotive, Packaging, Pharma, Material Handling, Automation, etc. 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 installation, lighter weight, resistance to adverse conditions like chemicals, atmospheric conditions and other aggressive environments.

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

igus philosophy of "the cheapest solution that works is the best solution" stands ready to support our customers and grow along with them and the dynamic Indian Industry.



"We are extremely happy to be recognized as a "Best Brand" under the plastic and polymer category. This back to back recognition bears testimony to our dogged pursuit of excellence not only in our polymer product offerings, but also our engagement and service standards. A brand is built over years of patient, honest and diligent efforts. Since inception igus through every customer engagement follows "Smart frugality" leading to improve the customers value stream or value proposition. In these difficult times as industry is going through uncertain periods, we believe we have a larger role to play. We continue our investments into the Indian industry and will add 30% more active selling associates across the country. We are also happy to announce the launch of our Low-Cost Automation program which brings together all our products to offer completely maintenance free solutions.

If you are looking at reducing costs or to improve lifetimes, please look us up and chances are high that we could surprise you with "Smart Frugality" with our Smart Motion Plastics."

Santhosh Jacob Director and Country Manager igus (India) Pvt Ltd





# THE MASTERBATCH PEOPLE

#### FOCUS ON INNOVATION

The R&D team of JJ Plastalloy has always worked hard to substitute imported masterbatches with the ones made at JJ Plastalloy. In the recent past, the company has successfully substituted the following imported products.

- 1. Black Masterbatches for Engineering Plastics Applications: Earlier this product was being imported from different countries. However we have developed a better product in-house which is running successfully with the customers.
- 2. Black Masterbatches for Drip Irrigation Pipes: Again this Masterbatch was being imported in India. However we have been able to develop and launch better products at better competitiveness.
- 3. UV Masterbatches for Agricultural Applications: There are various specific UV Masterbatches being used in Plasticulture and the future is very bright in this sector. Hence the company has launched various tailor made UV Masterbatches which are very well proven ones.
- 4. Various other performance masterbatches such as Antimicrobial, VCI, Antifog, Antislip, Antistatic Masterbatches

J Plastalloy is one of the largest manufacturers and exporter of various Masterbatches from India. Company has its most modern plant at Dahej (Gujarat) and Varanasi. The manufacturing facility is very well supported by State of the Art R&D Center at Dahej. The company is a Recognised Export House and its R&D Center is also recognised by DSIR, Government of India.

Currently, the company exports its quality products to more than 35 countries across five continents. The company has its distribution centers and sales offices at various strategic locations in the country.

The entire team of JJ Plastalloy is 100 percent committed to serve our customers with consistent quality, innovative and sustainable products.

The company has got a remarkable presence in automobile industry also by serving quality products to OEM manufacturers like VECV, Suzuki, Piaggio and many others.

It has always been a collective endeavour to offer products that



#### www.jjplastalloy.com



adds value to daily life of the common man. The company enjoys a very, very strong confidence and trust of all the stake holders like customers, suppliers, human resource and others.





"The company aspires to become an organisation having manufacturing base in at least two more countries over the next five years. The complete focus is to act as a raw material solution provider to the plastics industry.

The ultimate vision is to serve with products that add value to our customers and make them competitive in the market. Customer Delight is the ultimate objective."

Shivam Bansal Director JJ Plastalloy Pvt Ltd

Improved Quality of life of every stake holder has been the primary Mantra and Philosophy of JJ Plastalloy working. Every day innovative ideas are discussed and implemented in the company which adds value to anyone. With a capacity to manufacture 5000 MT per month of masterbatches, the company is serving a huge market base.

The company highly believes in Sustainability and is sensitive to our environment. The manufacturing plants use solar energy for its various activities. In order to save water, every drop of water is recycled and consumed in-house.

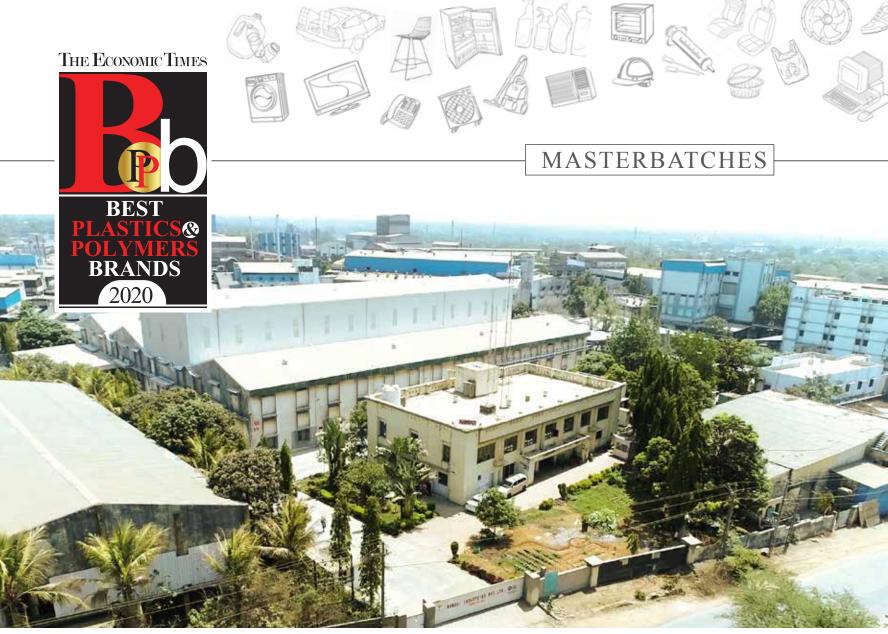
Human Resource plays a very key role in delivering happiness to the customers. The company invests a lot in training of its manpower.

It follows KAIZEN, the Japanese manufacturing philosophy in its manufacturing plants. This activity has seriously led to remarkable change in attitude of entire Human Resource and feeling of ownership in every member's mind has led to wonderful improvements. Through KAIZEN, total employee participation has been achieved. The thrust is always to deliver 100 percent guaranteed and consistent product to the customer at right time at right price. Quality, Cost and Delivery (QCD) are the core parameters on which every decision is taken.

In order to deliver consistent product, the raw material selection and approval process is very, very stringent. There is very strict policy of usage of standard and approved Raw Material. All the manufacturing processes are very well defined and the team is trained to follow the procedures. There are very strong Award and Reward Systems in place.

Continuous thrust on R&D has helped to serve our customers with new products. The idea is to substitute imported products with 'Made in India' products in JJ Plastalloy manufacturing facility.

Strategic location of its manufacturing facility has really helped to serve the customers with much shortened lead time. Proximity to sea port helps execute overseas orders very quickly.



# INNOVATE. DEVELOP. SUSTAIN.

Kandui Industries Pvt. Ltd. (KIPL) was established in 2006 with a modest production capacity of 2500 TPA. With state-of-the-art manufacturing facilities, today, the company's production capacity has increased to 45000 TPA.

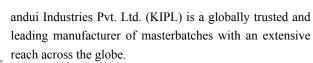
Kandui's two best-in-class facilities, based in Daman, India with a combined area of 2,00,000 sq. ft., are equipped with automated machinery that helps minimize human errors during the production process. The company's cutting-edge global technology helps achieve high standards of quality in manufacturing and provides the customers with world-class products. Kandui's finest products are manufactured on the best machinery

from:

Germany

- Coperion Farrel Pomini
- Farrel PominiKrauss Maffei BerstorffGermany
- Mixaco
- Steer
- Germany India





Established in 2006, Kandui offers world-class quality products and services to its customers thus making it one of the most preferred names in masterbatch manufacturing.

KIPL, manufactures a vast range of products that cater to the plastics and textile industries.

Kandui has a very strong R&D infrastructure and proven manufacturing processes.

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

Kandui has been consistently awarded for its innovation and sustainable business change by combining its proven method with more than a decade of experience gained by working with some of the world's leading experts.

Kandui is the second masterbatch company in India to have been



#### www.additivemasterbatches.com

#### Latest Offerings

KIPL has been actively investing in research and development activities since its establishment.

In the packaging market, there is a strong and growing consumer preference towards biodegradable materials because of environmental concerns. There has, therefore, been a concentrated focus, in recent years, to develop new extrusion coating materials that are biodegradable. BioCoat is Kandui's latest offering to replace conventional polymers with a compostable mineral based alternative to be extrusion coated on paper to make the (paper based) packaging completely biodegradable.

Some of the other speciality products developed by KIPL include:



- a. Compostable Compounds: To mitigate the menace caused by single-use plastics, researchers at KIPL have come up with a ready-to-use compostable compound for blown film, injection moulding, cast film applications. The compounds conform to ISO 17088 standard
- b. Filler masterbatches to replace 10-50 percent Ldpe in all critical extrusion lamination applications such as

  Flexible & rigid packaging
  Liquid packaging board
  Composite cans iv. Drinking cups

The company has a very strong R&D infrastructure and proven manufacturing processes. The Kandui laboratory is well-equipped with machinery from:

Busschaert Engineering	Belgium
• Dusatec Inc.	USA
Dynisco	USA
• Labtech	Thailand
Perkin Elmer	USA
• Q-Lab	USA
• VB Soluzioni e Tecnologie Srl (VB-S&T)	Italy

In addition to the above machinery, the Kandui laboratory consists of other well-recognised quality machinery as well.

awarded a membership to the prestigious **Bureau of Indian Standards (BIS).** The company has also been certified with the prestigious ISO 9001:2015 certificate by TUV.

#### **Innovation & Growth**

With a vision to consistently create innovative world-class masterbatches, Kandui offers a combination of state-of-the art extruders, well-equipped laboratory, reliable quality control systems, wellqualified managers, and smart workforce.

Okeanos India - Kandui's joint venture with US-based startup-Okeanos, aims to replace single-use plastics and non-recyclable packaging with a mineral based alternative. With constant innovation building from its core technology, this venture seeks to significantly reduce and ultimately phase out the conventional single-use plastics.

India is the 15th largest producer of plastic globally, creating 26,000 tons of plastic waste. Okeanos India will create its revolutionary Made From Stone<sup>TM</sup> products locally, while partnering with Indian non-profit organizations to educate the public about plastic



"Our vision is to become the most trusted & preferred solution/material provider for our customers in the plastics & textile sector. We constantly strive to achieve excellence by creating the most innovative and costeffective masterbatches. We believe in expanding values and undertaking global challenges to provide futureready solutions to the industry. We are truly thankful to our customers for their constant support and faith in us.

Ashwin Agarwal Managing Director Kandui Industries Pvt. Ltd.

pollution through the Okeanos Foundation. Made from Stone<sup>TM</sup> products will reduce traditional plastic use by up to 80 percent, depending on the product. Use of locally sourced natural calcium carbonate will also lower the overall carbon footprint of the packaging by 50 percent or more, while also reducing harmful toxins and micro-plastics proportionately. Okeanos India, will bring the Indian plastic problem into sharp focus and will work collectively with NGO's & companies to solve it.

#### **Green Initiatives**

Kandui is on a mission of conserve water and energy in the most efficient way possible. The company has implemented rainwater harvesting systems across its factories in Daman to reduce the consumption of groundwater and use soft rain water more productively. The systems at Kandui are also revitalizing the natural properties of land, helping to improve the quality of groundwater, raising its level, and preventing wells and tube wells from drying up. Almost 80 percent of the plants' water requirements are fulfilled with the captured and recharged groundwater which is also having a huge positive impact on the overall environment of the surrounding areas.

Energy efficiency is a key driving force in meeting India's environmental and climate goals and Kandui has adopted a unique approach to accomplish it at its Daman factories. The company has installed solar panels that cover 5 percent of the overall energy consumption of both its plants.

With such innovative development strategies in place, Kandui continues to grow globally in size and stature, as much as in vision and products thus recording a steady double digit growth over the years.



#### Cosmetic, Agrochemical and Food Packaging Application of EVAL

## **EVOH BARRIER RESIN AND FILMS**

Kuraray is a proud sponsor of the Save Food Initiative, founded in 2011 by Messe Düsseldorf of Germany and the United Nations Food and Agricultural organisation (FAO). "Save Food" felt like a perfect fit for EVAL<sup>™</sup> EVOH. The majority of EVAL<sup>™</sup> applications world-wide are still designed to shield food from contamination. The result is the preservation of vitamins and food quality, combined with a reduction in both food and packaging waste. The benefits of EVAL<sup>™</sup> function can be found throughout the food product life cycle. A few key examples: TIF mulch films help increase production yields in the field, while reducing the amount of fumigants necessary and protecting workers and nearby communities. Food packaging with EVAL<sup>TM</sup> extends shelf life in reliable light-weight plastic structures that also make processing and distribution more efficient. UHT milk pouches offer effective protection against oxygen and outside contamination without cold chain.

evalevoh.con

s the impact we create on our environment becomes an ever-greater concern, the world continues to look for solutions that are truly sustainable. At Kuraray Co., Ltd. we're committed to contribute to an improved natural environment and quality of life. We're involved with our local communities. We monitor and work hard to reduce the resources we use, and carefully control and target reduced emissions

Kuraray Co. Ltd, was the first company in the world to produce and commercialise EVOH – Gas barrier resins. Today Kuraray is the world's largest producer of Vinyl Acetate Monomer derivatives. We in the Kuraray Group are committed to opening new fields of business using pioneering technology and contributing to improvement of the natural environment and quality of life.

EVAL<sup>TM</sup> is one of Kuraray's core businesses and is produced globally in Europe, America and Asia-Pacific. The sales and technical development of EVAL<sup>TM</sup> is supported by specialised local teams in each region.

The EVAL<sup>™</sup> product line provides the world's widest available grade range of EVOH resins. These unique high barrier polymers are particularly suited for preserving quality and avoiding waste in food, medical, pharmaceutical, cosmetic and industrial packaging.

## **CEVAL**

#### www.evalevoh.com



They also help use energy more efficiently and reduce environmental impact in automotive fuel systems, building and construction materials and agricultural films.

What really sets us apart is our pioneering and often unique technologies, bringing value to our customers and to the world. This is the story of just one of them, EVAL<sup>™</sup> EVOH. And this is how it works: 10 M LDPE = 1 MM EVAL<sup>™</sup> EVOH

Imagine a plastic wall that is 10 metres thick. Not very much is going to get through a barrier like that. Now imagine that the same protective function can be realised with only 1 mm. With EVAL<sup>™</sup> EVOH it can. In fact, it normally takes just a few microns of this EVOH copolymer to create an amazingly effective gas and aroma barrier.

#### **Protecting quality and value:**

EVAL<sup>TM</sup> adds real function to packaging by keeping oxygen out and locking flavour and atmosphere in where they belong. This protects quality and value, prolongs shelf life without artificial additives and reduces waste, often while reducing the total amount of packaging. This allows for innovative plastic structure designs that are both reliable and safe in use, usually reducing environmental impact and generating savings throughout the product life cycle.





"We strive to integrate environmental conservation into all levels of our business activities. We inherited this commitment from our parent company Kuraray Co. Ltd., which established the Kuraray Group Action Guidelines on the Global Environment already in 1993.

Compliance with international environmental regulations was the first step. We also consider it our responsibility to implement and promote new technologies to minimise the impact on the environment of all our corporate activities. In every stage, from development, design to production, sales and service, we strive to prevent pollution, to utilise energy and resources more effectively and to conduct reduction and responsible disposal of waste."

**Sachin Gangal** Business Head – Eval Division

#### **Reduced emissions**

When used in barrier structures for construction, agricultural and automotive fuel system applications, EVAL<sup>™</sup> helps create light-weight structures that help protect the environment from gas, fuel or chemical emissions.

#### **Recyclable and recoverable**

EVAL<sup>TM</sup> EVOH is recyclable, and is commonly used as part of a regrind structural layer in rigid packaging and automotive applications. It can also be used for post-consumer recycling, and will not disrupt polyolefin or PET recycling streams.

A very high proportion of energy is recoverable from EVOH, often reducing the amount of extra fuel necessary for thermal disposal of sorted waste. EVAL<sup>TM</sup> does not contain chlorine or metals that can later be released into the environment.

THE ECONOMIC TIMES





#### PACKAGING MACHINERY

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# **INTEGRITY, QUALITY AND VALUE**

#### **NEW PRODUCT LAUNCHES**

Lohia nova 12 – Recently Lohia Corp introduced 'nova 12' circular loom, capable of weaving heavy-duty flat fabric of up to 250 GSM, from slit tapes. With a maximum weaving width of up to 5.9 meters, the fabric produced on nova 12 is wider than the widest fabric produced on flat weaving looms that are currently in use. Moreover, the fabrics produced on this loom meet the stringent technical parameters required for a variety of heavy-duty wide width woven fabric applications such as geo-textiles, agro-textiles, wrapping fabrics, lumber covers, tarpaulins, etc., making it an ideal replacement of flat looms.

Lohia blokomatic - 'Lohia blokomatic' is a reliable and efficient solution for the conversion of coated polypropylene woven fabric into block bottom valve bags without the application of adhesive. With a production capacity of up to 120 bags/min, the Lohia blokomatic comes with patented features like 'Double Stacker' and Pre-Opening units.

**Lohia RECLAMAX** - 'Lohia RECLAMAX' is a one-step recycling machine developed on the lines of an inline conveyershredder-extruder concept for the re-processing of PP/PE Raffia industrial waste.

**Twisters -** Lohia Corp also offers Twisters for producing twisted yarns from synthetics fibres. Capable of producing yarns in the range of 5,000 to 100,000 denier that are used as input material for making different types of twines/industrial yarns.

**S** ince its inception in 1981, Lohia Corp has continuously endeavoured to provide advanced solutions to the woven plastics flexible packaging industry. As the flagship company of the Lohia Group, it has over three decades of experience in the field. Today, it is the single largest company that offers a complete product portfolio in Raffia fabric manufacturing and conversion.

With a market share of over 80+ percent in India and a presence in over 92 countries, Lohia Corp has built a global reputation of a company committed to innovation, quality, and customer satisfaction. With either company offices or dedicated Sales Agents/Associates in major markets like the USA, Brazil, Thailand, Indonesia, Vietnam, Philippines, UAE, and Tokyo, Lohia Corp is equipped to deliver prompt and efficient after-sales services to its international customers.

Lohia Corp believes in manufacturing all critical and precision machine components in-house. At Lohia Corp, R&D efforts have always received due importance. The R&D lab is also recognized by the Department of Science and Technology of the Govt. of India.



## **LohiaCorp**

#### www.lohiagroup.com



#### **Revolutionising the Raffia industry**

Circular Looms that produced tubular fabric was an innovation that made the process of converting fabric to bags easier. The bags, too, were better in terms of shape and strength. Lohia Group started manufacturing Circular Looms in India in 1983. These looms had speeds of over 600 picks per minute and completely revolutionised the Raffia Industry.

#### TTRC – Technical Training & Research Center

In 2012, the Lohia Group set up the Technical Training & Research Centre (TTRC) in Kanpur - India. This first-of-a-kind institution conducts onsite and residential programs offering theoretical and practical training for the operation and maintenance of all machinery involved in woven sacks production. It helps the youth (from India as well as from other countries) find employment in the Raffia manufacturing & conversion sector. Lohia TTRC is part of the India International Skill Centre (IISC) Network. It has also signed MoUs with the renowned Central Institute of Plastic Engineering & Technology (CIPET) and other government Polytechnics to facilitate industry-relevant training programs. Lohia TTRC's laboratory is NABL accredited for testing and QC services for the Raffia Industry as per the Bureau of Indian Standards.





"Our mission is to be world number one in woven plastics machinery and allied businesses through innovative solutions. We intend to fulfil our mission by staying true to our credo of 'Integrity, Quality, and Value'. As a leading global machine supplier for the Raffia Industry, Lohia Corp will continue to be a reliable business partner for providing the latest stateof-the-art technology and solutions to our customers worldwide."

#### Ujjal De

Director Sales & Marketing Lohia Corp Limited

#### Innovations

With its range of tape extrusion lines, winders, circular looms, extrusion coating/lamination machines, flexo-printing machines, bag conversion machines, spin-draw-wind lines for PP multifilament yarn, and recycling machines, Lohia Corp has an impressive product portfolio.

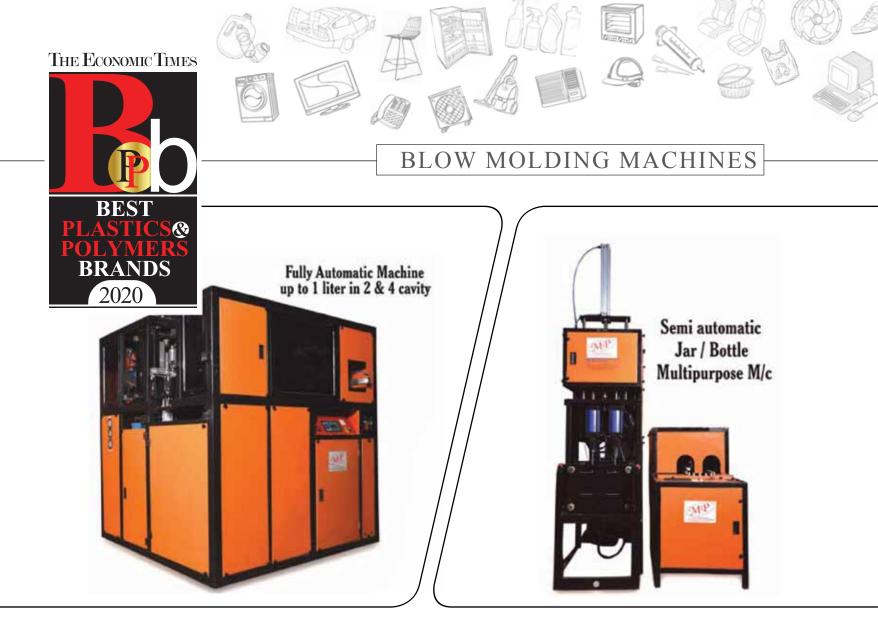
#### Trendsetter in the industry

- In 2007, Lohia introduced the 'Lohia duotec' extrusion line having a unique dual-stage stretching process that results in the production of tapes at a much faster speed than conventional methods.
- Lohia Corp introduced the concept of three-layer tape extrusion in its 'Lohia Co-Ex' tapeline. It allows for the customization of input material recipe and makes for a highly cost-effective solution.
- 3. Lohia Corp was the first to introduce a high-speed tape winder with automatic tape transfer the 'Lohia autoroto'.
- Lohia Corp was the first one to launch 'Lohia valvomatic', a machine that produces both sides stitched valve bags with dimensional accuracy and better profitability.

#### Focus on R&D

Lohia Group has endeavoured to provide advanced solutions to the woven plastics flexible packaging industry through its relentless focus on R&D, innovation, quality, and customer satisfaction.

Lohia Corp Limited follows the best business practices with the highest standards of ethics in serving the industry globally. It is strategically prepared to unlock its immense potential for growth by setting new industry standards.



## **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

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.



stablished 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





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 improvising 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:

<b>Product Category</b>	Products Name
Fully Automatic Machines	Fully Automatic Pet Blow Molding Machines up to 11tr 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
- Durablity.



# **BECAUSE MAMATA MATTERS**

#### HIGHLIGHTS -

- Mamata grabs againe 'The Economic Times Best Brands in Plastics and Polymers 2020'
- The company bagged numerous Star Performer Awards for Export Excellence
- Mamata manufactures Fully Automatic Back Seam Sack Maker with all inline Forming, Gusseting, Glueing, Cutting and Stitching. Maximum speed of this machine is upto 100 sacks per minute
- In Plastindia 2018 exhibition, Mamata started the trend of recyclable pouch making by demonstrating Stand up pouch maker from PE film.
- Introduced Ultra High speed side seal machine with speed up to 450 CPM
- Mamata manufactures world's fastest zipper bag maker
- Mamata manufactures world's fastest flower/candy sleeve bag maker

amata has come a long way since 1989, from being the first Indian company to introduce Bag Making Machines with microprocessor controls. Today, with the installed base above 4900 machines in more than 88 countries, Mamata is a leading manufacturer and exporter of Plastic bag / Pouch making machines globally.

The Flexible Packaging / Converting Markets are ever changing. Cost competitiveness while addressing change quickly without compromising the quality and versatility is the key to success for our customers.

At Mamata, people have always designed systems that are fit for today's market needs and capable to see the road ahead, transform the course and win the race for its customers. The company's philosophy of providing machines with improved flexibility, operator friendliness and greater productivity has given its customers a vital edge in today's competitive market.

Mamata provides Total Flexible Packaging Solutions under one roof starting from Blown Film Plants to Converting Machines to





#### www.mamata.com



Packaging Machines. The company manufactures Bag Making Machines, Pouch Making Machines, Wicketers and Packaging Machines. Mamata Extrusion Systems Pvt. Ltd., a sister company of Mamata Machinery is specialized in manufacturing of Multilayer Film Plants (up to 9 Layers).

Mamata operates from its brand new state-of-the-art facility spread over 21,500 Square Meter area. In house electronics design and production facility, Well equipped Design infrastructure, fully equipped paint shop, installed capacity to produce over 250 machines a year are few of the aspects.

Mamata uses cutting edge servo technology, coupled with its





Mamata is fully committed to become top leading company globally for supply of equipment solutions for Flexible Packaging Industry. Mamata has demonstrated great leadership and produced innovative packaging solutions for global market, adding highest value to their products and lowest cost of ownership to the client's operations.

Focused approach to customer's needs and modular, flexible and versatile design of machines allowed our customer to compete globally and grow effectively in today's competitive market.

Mamata is committed to the Green Technology and always has worked on eco-friendly, energy efficient and of course cost efficient products. In line with this, Mamata has various machines for making recyclable packaging such as PE & BOPP Lap Seal Pouches, PE Stand up Zipper Pouches, BOPP Laminated PP woven sacks, etc. in the product range. Using state-of-the-art technology to develop and manufacture machines and offer excellent cost to value equations to market is key moto of Mamata.

Apurva Kane Sr. Vice President Mamata Machinery Pvt. Ltd.

immense experience of processing variety of films to offer machines which can process sustainable recyclable materials to produce not only simple bags but even complex stand up zipper pouches and even pouches with spouts!! Mamata is dedicated to develop new converting technology which reduce costs and allow our customer to get future ready with capability to process newer recyclable films.



# **SETTING STANDARDS**

#### THE FH-HOT RUNNER MOULD

The FH-Hot runner mould is a further step towards standardisation in the hot runner sector. The complete mould structure, including the hot runner manifold, is created individually with just a few clicks and shipped with only one order in the usual high quality after a short time.

The FH hot runner mould allows the customer to independently configure different standardised types of hot runner manifolds. We also offer the matching manifold plate with the recess already made for the configured hot runner manifold. This results in considerable time and cost savings. The gap between inquiry and concrete offer is closed.



eusburger is the market leader in the field of high-precision standard parts and helps its customers achieve sustainable success along the entire value chain. With Meusburger, customers are able to efficiently manufacture moulds and dies as well as jigs and fixtures in the shortest lead times and with consistent high quality.

Meusburger supplies over 22,500 customers in 82 countries worldwide. The product range includes 96,000 items from high-precision standard parts to hot runner and control systems. Offers and services are continuously adapted to the needs of the customers. This makes Meusburger the reliable global partner for making moulds, dies, jigs and fixtures.

Highest quality products are top priority at Meusburger. That's why we use only the best materials and carry out an in-house hardness test and spectral analysis for all of them. The stress-relieving heat treatment of all steel grades in one of our three furnaces which is standard at Meusburger also creates the best conditions for reduced plate warping of the products during machining.

## meusburger

#### www.meusburger.com



The subsidiary Meusburger India Pvt Ltd. already exists for over five years. As local service is an important topic at Meusburger, the field sales as well as the internal sales employees are on site in India.

#### **Product portfolio**

Meusburger's high-quality standard parts in combination with the short lead times are the ideal basis for mould making. The product portfolio ranges from mould bases with a large selection of pre-drilled and non-drilled plates, special mould bases and oneof-a-kind hot runner moulds, to products in the field of hot runner and control systems, versatile standard bars and the matching components.





"At Meusburger we offer high quality products within short lead times. With our more than 55 years of experience in working with steel we have extended our product range throughout the years to become the perfect global supplier in mould, die and jigs and fixture construction. Meusburger stands for professional and high-quality service in 82 countries. We have sales managers on site who are looking forward to working together with our customers in India. Our goal is to build up a good relationship with our customers and become their partner."

Sujith Kumar Managing Director Meusburger India Pvt Ltd.

Meusburger's high-quality products also form the perfect basis for die making. The wide range includes standard die sets with or without pre-drilled holes, standardised die sets for stamping and forming, progressive dies and products for the modular concept as well as transfer and large dies - everything that is necessary to work with long-term success.

Just as it is for mould and die making, the consistent use of standard parts can also lead to considerable savings in cost in machine and jig construction. A comprehensive range of standard plates and customised special plates as well as a large selection of standard elements and standard bars form the reliable basis for all areas of application. A selection of 30 material grades in total can be perfectly matched to the customer's projects.

In addition to the wide range of products for mould and die making as well as machine and jig construction, Meusburger's wide range also includes customised machining solutions. Thanks to state-of-the-art production warehouses, short lead times are also guaranteed.

Over the years, Meusburger has optimised its product range for its customers and is regarded as a reliable full-range supplier in mould, die and jigs and fixture construction. Customers receive everything from a single source, from standard parts to hot runner and control systems.



## RELIABLE, CONSISTENT AND SUSTAINABLE

#### FOCUS ON R&D & \_\_ TECHNOLOGY

At Soltex, research and technology upgradation is paramount. We constantly strive to stay ahead of the curve and set industry benchmarks. Products created at Soltex are designed with utmost precision and care to ensure the most sustainable performance for customers and the environment.

Soltex translates the precision from it laboratories to mega scale compounding machines which have the capability to reproduce results time and again to constantly comply with strict product consistency and performance. All facilities are designed and equipped with engineers who ensure that every stage in the production process is in complete sync with all aspects of the product being manufactured to ensure flawless performance for our valued customers. Lean management processes have been developed to ensure zero rejection, zero wastage and 100 percent on time deliveries for our valued customers. All facilities follow clean and ethical management practices. oltex Petroproducts Ltd is a leading producer of masterbatches and compounds. At Soltex, we believe in extreme precision and consistency. The company is focused on research and innovation and at each juncture the paramount focus is to solve problems for the customer with the help of cutting edge technology.

Soltex has five manufacturing locations in operation across India with an installed capacity of 120,000. We deploy state-of-the-art technology at all our facilities to help serve our customers with great speed and efficiency. Soltex has launched eco-friendly bio compounds, which are fully compostable in nature. Called Bio Fill, these bio compounds can be used in multiple applications such as mulch films, mouldings and garbage bags and straws.

#### **Bio Fill**

Bio Fill is a high quality and versatile bio plastic from Soltex. Basically it is a finished compound which is compostable and at the same time biodegradable. The product exhibits good printability and heat sealing properties.





www.soltexpetro.com



Bio Fill can be used in applications such as plastic films for organic waste bags, fruit and vegetable bags, carrier bags, agricultural films etc. It can be also used for compostable packaging solutions such as paper-coating, shrink and cling films, foam packaging as well as injection moulding and thermoformed products.

Products extruded from Bio fill are just as high-performing and strong in use as regular plastics. A garbage bag can take the same load as its polyethylene counterpart. The product properties are de-





The vision of our organisation is to add value with great precision and innovation. Driven by constant innovation and research, at Soltex we promise to meet our customer demands, and provide the best balance between quality and cost effectiveness. Our state-of-the-art masterbatch manufacturing facilities at Mumbai, Daman, Silvassa, Kolkata and Uttaranchal are equipped with the latest machinery and research centers to provide you unmatched quality products and makes us India's leading masterbatch manufacturers.

**Geet Chadha** Director Soltex Petroproducts Ltd.

signed such that the products are only fully biodegrade in compost after usage.

Its special chemical structure can be biodegraded by microorganisms and their enzymes. Under the conditions of an industrial composting plant – respective temperature, high moisture, defined oxygen content – biodegradation takes 12-15 weeks offers various product grades that meet the following, international and national standards and regulations for industrial composting.

This can be used to produce shopping bags or organic waste bag. – House hold wastes and food waste can be collected hygienically and then turned, together with the bag, into compost. Undesirable odour and pest infestation are prevented. It has got good wet strength; liquid from teabags or the remains of fruits or seeds do not leak through. So, there is no more laborious scrubbing of the organic waste bin.

#### THE ECONOMIC TIMES



#### EXTRUSION

Carbon Black masterbatch

Long Glass Fibre

# **STEERING A NEW WORLD**

#### GPVC – GLASS FIBRE PVC

STEER has developed Glass Fibre reinforced PVC pipes in onestep-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. TEER 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 49 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 ap plications 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 the patented Fractional Geometry





Technology in STEER's products differentiates the company from the rest. The company has won several awards in the last 27 years. With the fractional lobed invention, STEEL transformed the corotating 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, STEEL has deployed 825 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 G9 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 dissipation per unit mass of material. The ability to process material has

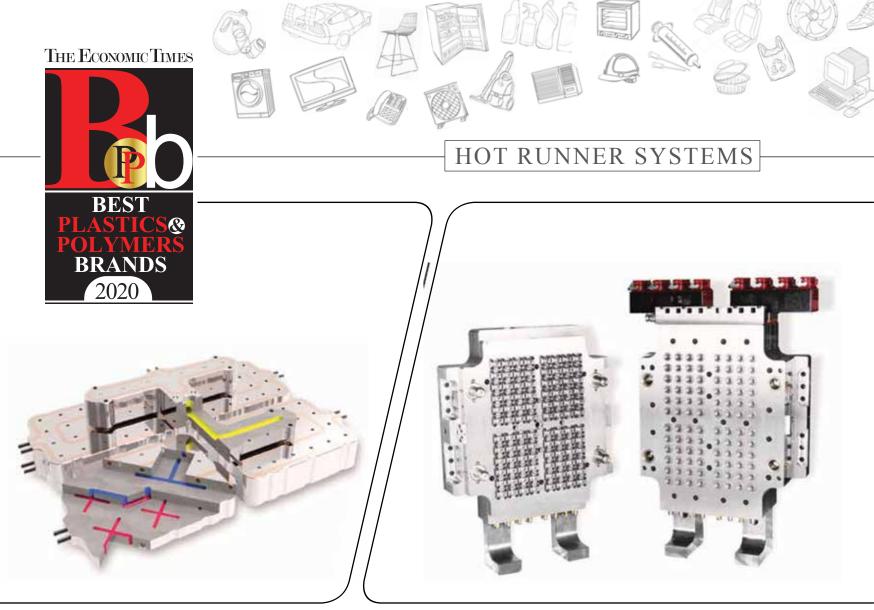


"STEER embarked on a journey to create technology platforms that challenge traditional methods in improving performance characteristics of plastic products. We are in the business of transforming materials physically and chemically by combining them. We realise that all materials, one way or the other, 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

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 devolatisation 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 un equal 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 its Application Development Centres. Its other offerings include turnkey projects, refurbishing, and technical services.



## **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

udo 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.





#### 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-





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.

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.



## 100 Best Brands in Plastics & Polymers Industry 2020

Ace Designers Limited
Alok Masterbatches Pvt Ltd
Apar Ind Ltd
APPL Industries Limited
ASB International Pvt Ltd
Ashish Exports
Birla Carbon
Blend Colours Pvt. Ltd.
Borouge (India) Pvt Ltd
Brahmaputra Cracker and Polymer Limited
Brakes India Pvt Ltd
Branson Ultrasonics
Bry-Air (Asia) Pvt. Ltd.
BulBul Masterbatches Pvt Ltd
Chilton Refrigeration Pvt Ltd
Clariant Chemicals India
Covestro (India) Pvt Ltd
D & M Enterprises
Devu Tools Pvt Ltd
Dollplast Machinery Inc
Dow Packaging Specialty Plastics
DSM India Pvt Ltd.
E.I.DuPont India Private Limited
Econ Machinery Pvt Ltd
Electronica Plastic Machines Ltd.
Ester Industries Ltd.
Evonik India Pvt Ltd
Extrusiontech
Fine Organics
Flamingo Additives & Colourants Pvt. Ltd
GAIL (India) Limited
Gem Orion Machinery Pvt Ltd
Genn Controls India Pvt Ltd
Global Pet Industries Pvt Ltd
GMS Plastic Machinery Pvt Ltd
Gurucharan Industries
H. K. Industries
Haitian Huayuan Machinery (India) Pvt. Ltd.
HASCO India Pvt. Ltd.
Hindustan Plastic & Machines Corporation HPL Additives Ltd
HRSflow India Pvt. Ltd
Husky Injection Molding Systems
igus (India) Private Limited
Illig India Pvt. Ltd.
Indian Oil Corporation Ltd
Indo air Compressors Pvt Ltd
J P Extrusiontech Limited
Jagmohan Pla-Mach Pvt Ltd
JJ Plastalloy Pvt. Ltd.



#### Continued

Kabra Extrusiontechnik Limited
Kandui Industries Pvt. Ltd.
KBM Extrusions Machines Pvt Ltd
KK Compounding Tech Giant limited
Konkan Speciality Polyproducts Pvt. Ltd.
Kuraray India Private Limited (EVAL)
Lanxess India Private Limited
Leister Technologies India Pvt. Ltd.
Lohia Corp Limited
Luk Plastcon Limited
Mahalaxmi Pet Machines
Mamata Machinery Pvt. Ltd.
Matsui Technologies India Limited
Meusburger India Pvt. Ltd.
Milacron India Pvt. Ltd.
Moldwell Products India Pvt. Ltd.
Motan-Colortronic Plastics Machinery (India) Private Limited
N. A. Roto Machines & Moulds India
Nexthermal Mfg. India. Pvt. Ltd.
Nishant Mouldings Pvt Ltd
ONGC Petro additions Limited
Piovan India Pvt Ltd
Plastiblends India Limited
R R Plast Extrusions Pvt Ltd
Rajhans Plastic Machinery Pvt Ltd
Rajoo Engineers Ltd.
Ravago Shah Polymers Pvt Ltd.
Reliance Industries Ltd
Rollepal Engineering India Pvt Ltd
S&T Engineers Pvt. Ltd.
SABIC India Pvt. Ltd.
Sankhla industries
SBM Extrusion India
SCJ Masterbatches Group
Shibaura Machine India Private Limited
Shree RadheKrishna Extrusions Pvt Ltd
Shyam Plastics Industries
Soltex Petroproducts Limited
Solvay India
Spectalite Sustainable Materials Private limited
Steer Engineering Private Limited
Team Thermoformings & Allieds
Theysohn Extrusionstechnik India Pvt Ltd
Vasantha Tool Crafts Pvt. Ltd.
Welset Plast Extrusions Pvt. Ltd.
Windsor Machines Limited
Wittmann Battenfeld India Pvt. Ltd.
Yudo Hot Runner India Private Limited
Yuken India Limited
Yupo Corporation

Company names arranged in alphabetical order.
This is a listing of Best Brands. It does not imply ranking in any manner whatsoever.
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#### THE ECONOMIC TIMES



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