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ET POLYMERS

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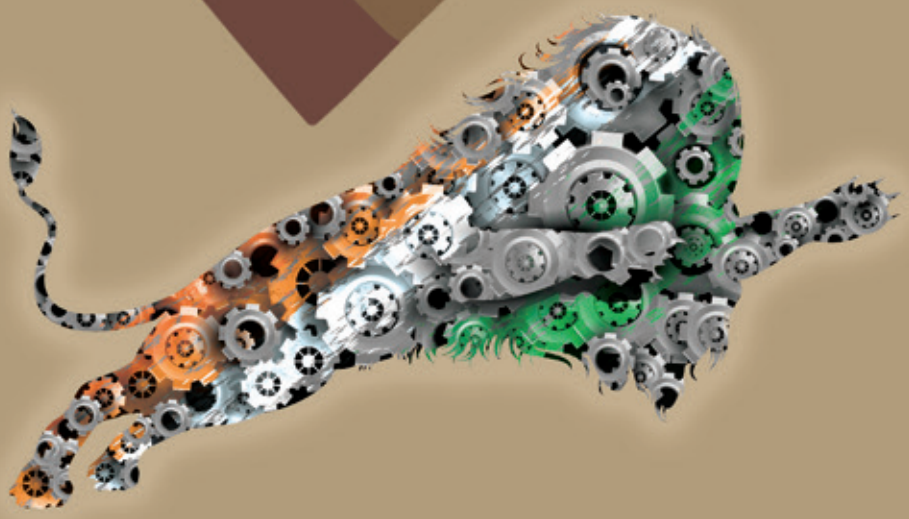
Spotlight
ExxonMobil™: Advancing Innovation in Plastics Manufacturing



Global Supply Chains
Charting a transparency-driven future for global supply chains

Festival of Manufacturing 2.0

Here's what you can expect

With the first edition being a resounding success, FOM 2.0 is set to map a blueprint for the Indian manufacturing industry through the lens of Make in India.

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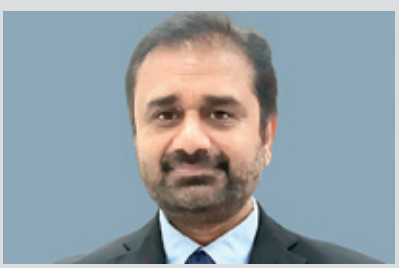

Atmanirbhar Bharat Has Pushed India To Be The Best In The World

Through this article, a positive change in the mindset of the companies in the Indian manufacturing sector is uncovered. Further, it reveals how India is leading the way in green manufacturing practices.

By Anantshree Chaturvedi, Vice Chairman & CEO, Flex Films International

The Indian economy is riding a crest, and a big reason behind this bullish sentiment is the renewed vigour witnessed in the manufacturing sector on the back of the Make in India initiative. This initiative aims to make India the most preferred global manufacturing destination, and going by the progress made on the ground, I must say that it has acted as a massive catalyst. The Make in India initiative has provided stakeholders with the impetus to boost productivity and, in the process, galvanised the sector's ability to churn out compelling growth narratives.

Anantshree Chaturvedi, Vice Chairman & CEO, Flex Films International

Having been involved in the manufacturing ecosystem for nearly four decades, I can see the transformation in mindsets as we continue to chart new goals on the economic front. From the days of being shorn of easy access to capital and technology, the stakeholders have now achieved the twin goals of producing world-class products and achieving scale without compromising on the basic tenets of the manufacturing processes.

The clarion call of Atmanirbhar Bharat has given companies in the manufacturing sector a new-found belief that they can compete with the best in the world. With ingenious strategies and a resilient workforce, the sector has been powering economic growth and will continue to do so with greater steam going forward.

In these volatile times, the Indian economy has stood out for its remarkable growth and continues to exhibit strong fundamentals as the country charts its path ahead to claim its rightful place at the global high table. Coming off a deadly pandemic, the Make in India initiative has helped the country deftly tackle the debilitating impact, and the reform-for-growth agenda of the government has paid dividends.

The introduction of the Production Linked Incentive scheme in 14 sectors, continuous liberalisation of the FDI regime, and ramping up of digital infrastructure have bolstered the sector's rapid ascension, providing a template for the rest of the world to emulate. As is the norm with time, the manufacturing sector too has undergone several cyclical changes and withstood numerous curveballs, displaying resilience and adaptability.

With sustainability being the main focus area now, policymaking has also been attuned to ensure the environment does not have to bear the brunt of growing and billowing manufacturing prowess. A delicate balancing act is needed, and India has shown it is well-positioned to make this transition.

Recognising the delicate balance between economic growth and environmental responsibility, India is leading the way in green manufacturing practices. From adopting renewable energy sources and implementing cleaner

INDIA IS NOW WELL AND TRULY EMBEDDED IN A TECHNOLOGY-POWERED MANUFACTURING ECOSYSTEM THAT PUTS SUSTAINABILITY AT THE CORE OF OPERATIONS.

production processes to reducing waste and promoting resource efficiency, Indian manufacturers are actively integrating sustainability into their core operations. This commitment sets India apart in the global arena, solidifying its position as a responsible and environmentally conscious industrial leader.

India is now well and truly embedded in a technology-powered manufacturing ecosystem that puts sustainability at the core of operations. Data analytics, robotics and automation, and cybersecurity are some of the areas in which manufacturing processes are getting accustomed, and it is not easy to seamlessly integrate the various age-old business processes into a cloud-based operating system, but Indian manufacturing units are on the way to achieving efficiencies of scale by embracing technology wholeheartedly.

Buoyed by decisive policymaking and an ecosystem that fosters inclusive growth, excellence, and innovation, India is well poised to become the manufacturing hub for the world, and it won't be a surprise if it surpasses the growth metrics far before projected timelines. The onset of Industry 4.0 is also expected to provide further ammunition to the manufacturing arsenal and propel India's status as a global manufacturing powerhouse.

With a solid foundation laid by the Make in India initiative, a few years down the line, I am confident we will look back on this period and acknowledge the rapid strides made by the Indian manufacturing sector. We have displayed to the world the enormous potential of Indian companies and foreign investors who realised long ago that India is an outlier in an increasingly volatile world. We have also shown that desired results can be achieved through astute policymaking, resolute leadership, and the unflinching determination of citizens.

INDIA IS WELL POISED TO BECOME THE MANUFACTURING HUB FOR THE WORLD, AND IT WON'T BE A SURPRISE IF IT SURPASSES THE GROWTH METRICS FAR BEFORE PROJECTED TIMELINES.

As India embarks on this transformative journey, it's crucial to highlight its prowess in packaging exports. India has emerged as a leading exporter of stringent and high-quality food and beverage packaging solutions. This not only strengthens India's position in the global market but also underscores its commitment to providing innovative and reliable packaging solutions to meet international standards. The packaging sector, a critical component of the manufacturing landscape, further contributes to India's growing reputation as a reliable and high-quality manufacturing hub.

The success of Make in India lies not just in policy initiatives and technological advancements but also in the unwavering determination of a nation on the rise. With the collective will of entrepreneurs, investors, policymakers, and skilled workers, India is poised to claim its rightful place as the world's next manufacturing hub. The onset of Industry 4.0 will further fuel this momentum, propelling India towards a future where Make in India is synonymous with quality, sustainability, and cutting-edge innovation. The Make in India initiative has not only sparked a transformative journey but also ignited a collective resolve to catapult India to greater economic heights.

igus introduces flange bearings with a predictive maintenance system

igus, a leading provider of innovative motion plastics, has launched a generation of igubal spherical bearings featuring an integrated predictive maintenance system. Engineered to eliminate costly breakdowns in heavy-duty fixed flange bearings, these new two- and four-hole flange bearings leverage cutting-edge technology to provide real-time condition monitoring.

Traditionally, unforeseen faults in fixed flange bearings have led to expensive breakdowns in machines and vehicles. However, with the introduction of the new igubal series, this challenge is set to become a thing of the past. These bearings, crafted from lubrication-free, high-performance plastic, are now equipped with miniature wireless sensors that enable predictive maintenance and condition monitoring.

How do these Industry 4.0 bearings work?

igus integrates an abrasion sensor into the polymer spherical ball, featuring a thin circuit board close to the running surface and a battery for cable-free power supply. Wear interrupts the conductor paths of the circuit board, signalling that a certain level of wear has been reached. The sensor transmits a digital signal via a long-range network (LoRa), a wireless standard known for its energy efficiency. The i.Cee switch cabinet module receives the signal, and the associated software analyses the data, determining the level of abrasion. Over time, the sensor itself wears away layer by layer, parallel to the bearing's running surface, continuously sending signals that provide insights into the bearing's condition.

The Société National des Chemins de Fer Luxembourgeois (CFL), Luxembourg's national railway company, is the first pilot customer for these intelligent fixed flange bearings. Currently in the prototype phase, these bearings have already proven their worth in a 200-metre washing system used to clean local and long-distance trains daily. Gearbox malfunctions on the washing trolley, causing costly system failures in the past, have been mitigated by replacing lubricated standard ball bearings with networked spherical balls from igus. The high-performance plastic spherical balls resist corrosion and chemicals and enable low-friction, maintenance-free dry operation.

Uflex showcases innovative product offerings in Q3 FY24

In the third quarter of fiscal year 2024, UFlex Limited introduced a multitude of innovative products across its business verticals. The company also achieved notable recognition by winning multiple awards and securing patents in the quarter ended December 31, 2023.

Packaging Films Business

B-INM-M, Superior Barrier Metallised BOPP Film: This film stands out as a premier choice for various packaging needs. Inline-coated and metallised, it offers an exceptional oxygen barrier (OTR) of less than 01 cc/m2/day and boasts an excellent moisture barrier (WVTR) of less than 0.1 g/m2/day. With superior metal bond strength and cost-effective attributes, it is engineered for recyclability. It finds application in a multitude of sectors, including dry beverages, chips and snacks, health and beauty care sachets, detergents, and confectionery products.

C-CPM-ML-M, CPP-metallised film: This film is tailored specifically for molasses packing, constituting a functional raw material that excels in various aspects. Recognised for its good seal integrity, this film ensures that contents remain securely enclosed, preserving freshness and quality.

The C-CBP-WG CPP film: This film stands as a functional raw material designed to meet stringent packaging demands. It ensures clear visibility and presentation of packaged goods, enhancing product appeal. With low-slip characteristics tailored for high-speed packaging environments, it ensures smooth handling and reliable performance throughout the packaging process. Primarily engineered for low ambient temperature conditions, this film finds its niche in bread packaging, frozen foods, and bakery products, where maintaining product quality and integrity is paramount.

The B-UTX ultra-high-barrier Alox BOPP film: It excels at shielding contents from gases, oxygen (less than 1 cc/m2/day), and aromas, ensuring prolonged freshness and quality retention.

Additionally, its exceptional moisture barrier (less than 1 g/m2/day) effectively safeguards against humidity and moisture ingress, preserving the integrity of packaged goods. Tailored for dry foods, beverage powders, chips, snacks, biscuits, cookies, and crackers packaging, it meets the diverse needs of the food industry, ensuring optimal preservation and presentation of packaged products.

The B-UMB-M, an outstanding barrier-metallised BOPP film: It ensures the prolonged freshness and quality retention of packaged goods. Furthermore, its exceptional barrier to aroma and migration barrier against mineral oil enhance product protection and integrity. With excellent metal adhesion, it guarantees secure bonding and durability. This film serves as a sustainable and recyclable solution, offering a chlorine-free alternative to PVDC-coated films and replacing aluminium foil while supporting eco-friendly practices.

Chemicals Business

Flexcure SF 'Nutri' for NPH (Nutrition, Pharma, and Hygiene) applications: Flexcure SF 'Nutri' series represents a new generation radical mechanism designed especially for food packaging, pharma, and hygiene applications; for a wide range of substrates like paper, paper board, Met PET board, etc. suitable for processing with all the latest generation high-speed UV sheetfed offset printing machines.

Flexgreen 'HFS Screen' coating for all packaging applications: The Flexgreen product series represents a new generation of our LED inks and coatings for various print applications. Flexgreen 'HFS Screen' coating is a free-radical chemistry-based UV LED varnish to be applied by screen printing, specially designed to print on papers, cards, and cardboard.

Marine Lam Inks (water-based reverse lamination inks): Marine Lam Inks are crafted for gravure to reverse printing applications, specifically tailored for BOPP and chemical-coated polyester films, presenting a low VOC solution aligned with the ecological demands of today's society.

FlexBon R110A and FlexBon R110C: The product is ingeniously formulated using reverse chemistry principles, where the NCO serves both as an adhesive and a hardener, accelerating the curing process. This unique approach ensures a higher crosslinking density within the polymer, resulting in expedited curing compared to conventional methods.

Flexible Packaging Business

Peelable PE Solution: A specially engineered peelable PE solution has been developed to meet the stringent demands of the food and beverage industry, ensuring both leak-proof performance and easy opening functionality.

Packaging for Savlon Hand Wash Powder: UFlex has recently forayed into the packaging of the Savlon Hand Wash Powder by ITC. The product specifications entail utilising 12 PET/30 PE white for packaging, ensuring high-quality and reliable containment of the hand wash powder.

Holography Business

HSF in lower gauge or thickness (textile grade or graphic grade) and cold foil: High-gloss hot stamping foil (HSF) works great for precise applications and defined patterns in small areas. Cold foil, on the other hand, is the perfect product for large areas, such as moderate or full coverage of sheet labels, stickers, folding cartons, etc.

Holographic Alu-Alu foil for pharma: The successful commercial launch of the product—the Holographic Alu-Alu Blister—marks a substantial leap forward in raising industry benchmarks in pharmaceutical packaging solutions.

Inovance technology to showcase its products at plastfocus

Inovance Technology India is set to showcase its products at Plastfocus, taking place at Yashobhoomi (IICC) in Dwarka, New Delhi. As a prominent participant in this international trade fair, Inovance will be offering attendees a firsthand look at a diverse range of technologies and solutions within the plastics industry.

Products on display will include servo hydraulic solutions such as the ES510 series and IS580 series; PIMM controllers such as the EP700E, ES810 series, and MVSY1 all-in-one servo; the iAction and iVenture series of IMM control systems and solutions, which comprise all the controller solutions for the machine's needs. The Electro Servo Hydraulic Solutions, which are Inovance's new launches of series ES680 and MEG20, will be showcased.

Anil Kumar, Managing Director, Inovance Technology India, says, "Our proficient technical team eagerly anticipates welcoming you to our stand at the PlastFocus Expo. With a comprehensive understanding of the industrial automation challenges encountered by plastic machinery OEMs, we stand ready to provide assistance and solutions. Feel free to drop by and meet us at Stand M16, Hall No. 2; we look forward to connecting with you."