

THE ECONOMIC TIMES

POLYMERS

Vol. 21, Issue 5 • December 2020 - January 2021 • Rs 75

GROWING WITH PRIDE
THE RISE OF
GOURAV LUMINARIES

NETTING IT RIGHT
GTFL'S APPLICATION
FOCUSED STRATEGY

SCALING UP DREAMS
DEMAND PUSHES
RUBBER INDUSTRY

PLAYING IT
RIGHT

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SAYS FUNSKOOL INDIA'S CEO R. JESWANT





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The quiet warrior

World War C – Humanity’s fight against the Covid-19 pandemic is very much on. And it is likely to go on into the major part of 2021. As we enter the new calendar year, I think it is important to reiterate and emphasise on the role played by a quiet warrior in this combat! Whether it includes essential personal protective equipment like masks, face shields, gloves and body covers, or whether it includes medical devices & equipment, medicine packaging, syringes and even vials that carry vaccines, this quiet warrior has proved to be one of the strongest allies for the human race in every battle against Covid-19. Of course, I am referring to the wonder (but often chastised) material called plastics. Has the pandemic helped us to change the world’s perspective towards this material? I don’t think so! While the advantages and benefits of plastics were always known, the focus in the last decade or so has been primarily on the harm that plastic litter has caused to our environment. So, it is not surprising that the conversation about the negative impacts of plastics still crops up with every wave of the ocean that brings ashore plastic waste.

“Remember, the foremost antagonist is plastic waste. If we can take care of this villain, our warrior will come home victorious! All hail the Quiet Warrior!”

While we will soon win World War C (hopefully!), the fight to wipe out the negativity associated with plastics will still be on. Therefore, it is important for the industry to stay focused, stay united and stay strong in this long-drawn battle. Remember, the foremost antagonist is plastic waste. If we can take care of this villain, our warrior will come home victorious! All hail the Quiet Warrior!

Editor & Chief Community Officer

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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 one more energy-efficient, compact-sized, mid-tonnage, two-platen injection moulding machine with PLATINA series....



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making plastics
a sustainable solution

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UFlex to double its aseptic liquid packaging plant capacity

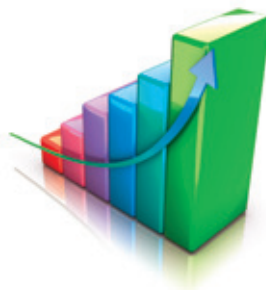


UFlex Limited has announced to double its aseptic plant's production capacity from 3.5bn to 7bn packs per annum, in Sanand, Gujarat. The capacity expansion will be completed within the next 10 months approximately. The expansion is in response to the new contracts and increasing demand for the company's aseptic packaging laminates. Driven by a strong and healthy order book and consistent market growth, this initiative doubles the production capacity and will allow creating company's expanding operations team by adding more workforce, which will

strengthen the company's expansion plan. Ashwani Kumar Sharma, President & CEO, Aseptic Liquid Packaging Business, UFlex Ltd., said, "Asepto expansion is part of the growing need for aseptic packaging and I am excited that our team and state-of-the-art facilities we have are well-positioned to respond to the increasing demand for our services and innovative technology in aseptic packaging. Despite the pandemic, we have continued to deliver services without a pause and carried on with innovative thoughts to deliver expected results from our customers."

BASF India Limited Q2 revenues up by 15 percent

BASF India Limited, on a standalone basis, registered sales of Rs. 23,958.0 million for the second quarter, which ended on September 30, 2020, as compared to Rs. 20,743.3 million in the corresponding quarter of the previous year, representing an increase of 15 percent. The Company reported Profit before tax (before exceptional items) of Rs. 1,087.5 million as compared to profit before tax (before exceptional items) of Rs. 140.8 million in the prior-year quarter. For the half-year which ended on September 30, 2020, the Company registered sales of Rs. 41,655.0 million, as compared to Rs. 36,880.8 million for the corresponding period of the previous year, an increase of 13 percent. Profit Before Tax (before exceptional items) stood at Rs. 709.5 million for the half-year, compared to Profit Before Tax (before exceptional items) of Rs. 316.4 million for the corresponding period of the previous year. Profit After Tax (after exceptional items) stood at Rs. 3,818.3 million in the second half of 2020, compared to Profit After Tax (after exceptional items) of Rs. 105.2 million posted in the corresponding period of the previous year.



Maxxis Tyres eyes 5 percent market share in Tamil Nadu

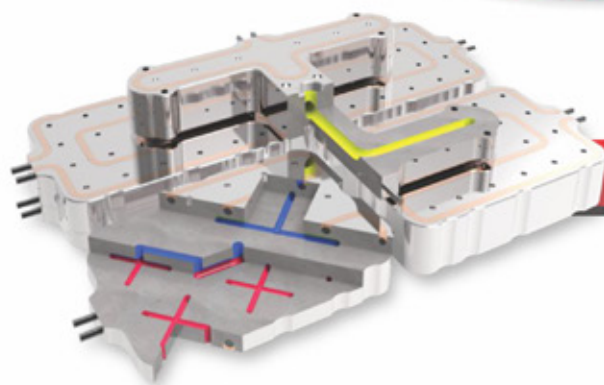
Maxxis India plans to earn five percent market share in Tamil Nadu by 2021. Tamil Nadu is one of the fastest growing two-wheeler market for Maxxis in India. To fulfil this target, Maxxis will focus on the top level tyre dealer showrooms to promote the range of high quality tyres both for the scooter and motorcycle segment. The company will also strengthen the current channel partners and dealer network with a focus on engaging customers oriented towards performance & quality. Commenting on the business plan, Bing-Lin Wu, Marketing Head, Maxxis India said, "The year 2020 marks five years of Maxxis in India. We are happy with the progress we've made so far. It is time for us to take the next leap and with the product quality and durability, we would like to focus on the premium end of the market. Maxxis is most preferred by quality conscious customers and we plan to capture five percent of the tyre market in Tamil Nadu by 2021."

Government bans non-BIS helmets

The Two Wheelers Helmet Manufacturers Industry has welcomed the recent notifications by the government regarding inclusion of protective helmets for Two-Wheeler Riders under compulsory BIS certification and the publication of the Quality Control Order (QCO). The proposal had long been going back and forth for mandatory certification for years now; A Committee was formulated as per the directions of the Supreme Court Committee on Road Safety for considering lighter helmets in India suiting the country's climatic conditions and that for ensuring compliance amongst citizen to wear the helmets. The Committee comprised of various experts, including expert doctors from AIIMS and also from BIS.

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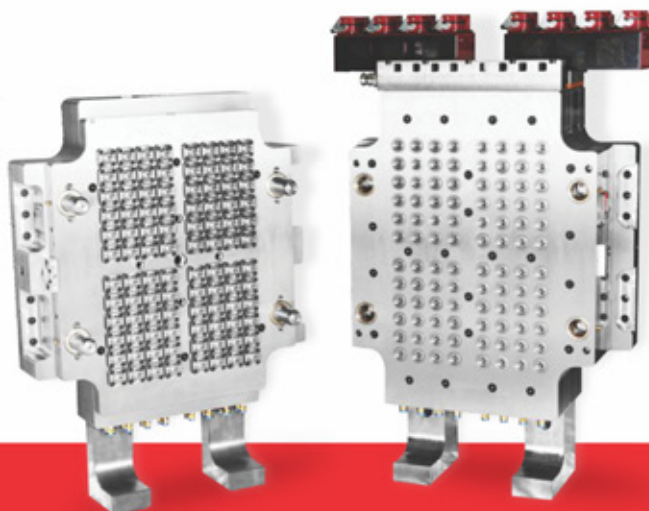
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Hèrmosa sets up manufacturing plant in Rajasthan

Rajasthan based home decor Design Studio Hèrmosa has set up its state-of-the-art facility set to manufacture furniture and home decor pieces. Located 25 km from Kota, Rajasthan, it is spread 200,000 sq. ft. Commenting on the new move, Pranjal Agrawal, CEO Hèrmosa Design Studio adds, “My vision for Hèrmosa as a hundred per cent Made in India brand, has always been to give our customers in mini metros and towns premium designs with durability at affordable prices. The Hèrmosa Wonder factory was set up keeping in mind industry 4.0 so we can deliver to mass consumers without hampering the quality. This is a proud moment, as Hèr-



mosa products come to life through the hands of the best designed, most skilled artisans, advanced technology and mindfully sourced raw materials. The factory will help support our growth goals of Rs.75 crore to Rs.100 crore growth in the next three years from E-Comm, Exports and Co-living integration projects.”

Lubrizol and Grasim Industries Limited join hands



“This alliance will help us better serve our customers in India and South Asia, as well as support the Indian economy,” said Arnau Pano, VP, Lubrizol Advanced Materials, South Asia.

investment to supply resin to its existing compounding plant in Dahej, Gujarat, Lubrizol becomes the only company in India with end-to-end CPVC capability. “This alliance will help Lubrizol better serve our customers in India and South Asia, as well as support the Indian economy,” said Arnau Pano, VP, Lubrizol Advanced Materials, South Asia.

To meet growing demand for chlorinated polyvinyl chloride (CPVC) pipe and fittings in India, Lubrizol Advanced Materials and Grasim Industries Limited have entered into a definitive agreement to manufacture and supply CPVC resin in India. Once commissioned, this near 100,000 metric-ton state-of-the-art CPVC plant at Grasim’s site in Vilayat, Gujarat, will be the largest single-site capacity for CPVC resin production globally. The project will take part in two phases, with the first phase of production expected to be operational in late 2022. To further support the local market, Lubrizol will make additional investments in the coming years to expand its existing CPVC compound plant in Dahej, Gujarat and establish a local innovation center as demand continues to grow. With this

Government initiative to boost employment

The Union Cabinet, chaired by the Prime Minister Narendra Modi, has given its approval for Atmanirbhar Bharat RojgarYojana (ABRY) to boost employment in formal sector and incentivize creation of new employment opportuni-

ties during the Covid recovery phase under Atmanirbhar Bharat Package 3.0. Cabinet has approved an expenditure of Rs. 1,584 crore for the current financial year and Rs.22,810 crore for the entire Scheme period i.e. 2020-2023.

Huhtamaki PPL is now Huhtamaki India

Huhtamaki PPL Limited, one of the leading providers of flexible packaging and labelling materials, has been renamed as ‘Huhtamaki India Limited’ with effect from November 12, 2020. This rebranding enables Huhtamaki India to take advantage of Huhtamaki’s global brand reputation and goodwill while shaping a clear understanding of its reach and offerings, among customers and partners, by geography. It will help the organisation’s value-chain experience one identity and impression of Huhtamaki, irrespective of geographical location. The renaming will cause no change in the ownership of Huhtamaki India or in the nature of its business.

Nextchem and Indian Oil sign circular MoU

Maire Tecnimont S.p.A. has announced that NextChem, the Group’s subsidiary dedicated to green chemistry and technologies for the energy transition, and Indian Oil Corporation Ltd. (IndianOil), have signed a Memorandum of Understanding for the development of industrial projects using NextChem technologies to foster the industrialization of the circular economy in India. The projects will be focused on plastics recycling, producing biofuels from renewable feedstock and circular fuels and chemicals from non-recyclable waste. Under the agreement, Indian Oil and NextChem will jointly explore integrated opportunities for the valorization of the waste by utilizing Nextchem’s technologies for plastic waste Up-cycling and Waste-to-Chemicals solutions. NextChem, relying on the historical and solid presence of the Maire Tecnimont Group in India, will guarantee the technological solutions and the best know-how for project development and execution.



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LohiaCorp



BASF breaks ground for production plant in Germany

BASF has broken ground for its new cathode active materials production plant in Schwarzheide, Germany. In an online event, the company celebrated this milestone together with customers, politicians and partners. The new plant is part of BASF's multi-step investment plan in the European battery materials market and will use precursors from the company's previously announced plant in Harjavalta, Finland. Construction has already started in August in Schwarzheide and the plant



is scheduled for a 2022 start-up. This new plant for cathode active materials will be equipped with world leading process technology and enable

the supply of around 400,000 full electric vehicles per year with BASF battery materials. BASF's innovative cathode materials increase the performance of batteries, promoting the success of climate-friendly mobility. "We support our customers and want to capture the growth opportunity in the fast-growing electric mobility market with our investments in battery materials in Europe," said Dr. Martin Brudermüller, Chairman of the Board of Executive Directors of BASF SE.

Michelin Group and Pyrowave join forces

PPyrowave and Michelin have agreed to industrialize an innovative plastic waste recycling technology. The Canadian firm Pyrowave has announced a joint development agreement with the Michelin Group. Through the Pyrowave-developed technology, it is possible to generate recycled styrene from plastics found in packaging, insulation panels and/or household appliances. This recycled styrene is an important monomer*: it is used in the production of polystyrene and synthetic rubber for tires and a large number of consumer products. The scientific breakthrough behind Pyrowave technology helps recycle plastics using microwaves. Unlike current thermal processes, this unique technology enables the recycling of plastic waste into high-quality raw materials using electricity – the energy form currently providing the highest decarbona-



tion potential. It also provides higher yields, while being more accurate than conventional technologies, to replace virgin raw materials from oil and gas. The joint development agreement between Pyrowave and Michelin will result in the implementation of new value chains in the circular plastics economy. Redesigning new packaging or manufacturing new products from recycled plastics in the automotive, electronics or tire sectors will become possible.

Lanxess expands black pigment capacity

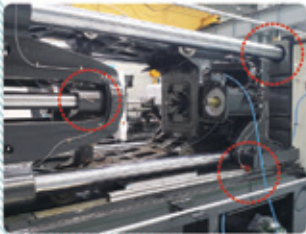
Lanxess has expanded its capacity for black synthetic iron oxide pigments at its Krefeld-Uerdingen site by more than 5,000 metric tons per year. "The increased demand from the construction industry, in particular for our unique black pigments to color concrete, can be even better met with the debottlenecking measures that

have now been completed," says Holger Hüppler, head of the Inorganic Pigments business unit at Lanxess. The company is thus continuing the systematic expansion of its production capacities for synthetic iron oxide pigments. Lanxess is the only supplier worldwide to produce these pigments using the Laux process.

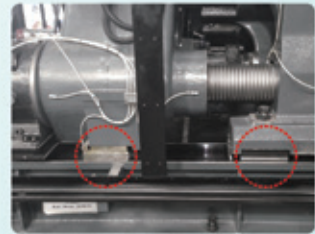
Sidel and Elettric80 enter strategic alliance

Sidel and Elettric80, have started a strategic alliance to provide comprehensive services ranging from production to warehouse, distribution centre and logistics management for beverage and food, home and personal care (FHPC) producers. Both companies will act as a one-stop source, allowing producers to become more flexible, safe and sustainable with Smart Factory tailored solutions. Sidel and Elettric80 have paired up their know-how in state-of-the-art packaging and highly automated and integrated intralogistics solutions to help producers stay competitive and meet the demands of the market worldwide. Monica Gimre, CEO at Sidel Group: "For Sidel, it is a principle to always listen to our customers. A strategic alliance with Elettric80 is our approach towards achieving our goal of providing A to Z services to our customers, including intralogistics solutions. We are happy to be in a partnership with a company that shares the same values as we do, and I believe that the synergy and great teamwork between us will bring added value not just to our customers, but also to ourselves by opening space for learning and innovation together."

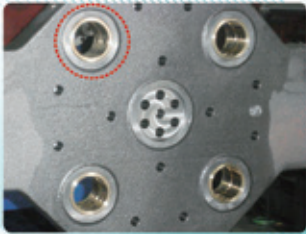
BUSHING & PLATE FOR INJECTION MOLDING MACHINE



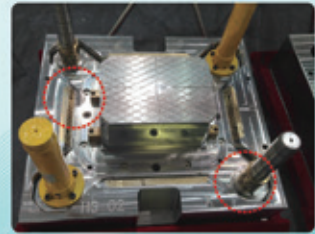
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DSM and Neste announce strategic partnership

Royal DSM has announced that it will start a strategic partnership with Neste to enable the production of high performance polymers. This enables DSM and its customers to reduce the carbon footprint of their own products whilst supporting the industry to transition to a circular economy. In the new strategic collaboration, DSM Engineering Materials will start replacing a significant portion of the fossil feedstock used to date in the manufacture of its high performance polymers portfolio with feedstock produced from recycled waste plastics and/or 100 percent bio-based hydrocarbons. These polymers are used, for example, in the automotive, electronics and packaging industries.

Over the short term, the collaboration aims to replace several thousand tons of fossil feedstock in the production of polymers with alternative, sustainable feedstock: bio-based and waste plastic based hydrocarbons. Shruti Singhal, President DSM Engineering Materials said: “We have a long history of delivering tangible proof points of our commitment to sustainability. As a next step we are going to even further reduce our footprint and will offer a full alternative range of our existing portfolio based on bio-



and/or recycled-based materials by 2030. Together with our upstream partner Neste and other value chain partners we're ready to drive our industry forward, seize the sustainable opportunities ahead, and deliver on our purpose of creating brighter lives for all.”



CONTINENTAL AG APPOINTS NIKOLAI SETZER AS CEO

The Supervisory Board of Continental AG has recently appointed Nikolai Setzer (49) as new Executive Board chairman until March 2024, effective December 1, 2020. He succeeds Dr. Elmar Degenhart (61), who, as already announced, is stepping down from his position for health reasons, with the consent of the Supervisory Board, effective November 30, 2020. “Continental is in the process of transforming into a technology and software company that, together with vehicle manufacturers, is laying the foundation for the sustainable mobility of the future. Nikolai Setzer has our utmost trust and confidence. The Supervisory Board is certain that he will push forward with and successfully shape this transformation,” explained Prof. Wolfgang Reitzle, chairman of Continental’s Supervisory Board.

PRABHAKAR KADAPA MOVES ON FROM PSA-AVTEC POWERTRAIN

Prabhakar Kadapa, MD & CEO, PSA-Avtec Powertrain Pvt. Ltd. (PAPPL) has decided to move on from PAPPL to pursue other interests in life. Kadapa played a key role in the creation of the PSA-Avtec Powertrain JV and setting the system for the on-going business and the future roll-out of the major programs for the PSA-Avtec Powertrain project. Groupe PSA has thanked Prabhakar Kadapa for his invaluable contribution towards the PSA-Avtec Powertrain JV and wishes him & his family the very best for the future.



ULTIMAKER APPOINTS JÜRGEN VON HOLLEN AS CEO

Ultimaker, the global leader in professional 3D printing, has appointed Jürgen von Hollen as Chief Executive Officer, replacing Jos Burger, who will retire and join the Supervisory Board. This change will be effective on January 1, 2021. Jos Burger joined Ultimaker in 2014 and transformed the company from a start-up to a global player in the 3D printing industry. According to the most recent findings from the UK market intelligence firm CONTEXT, in the first half of 2020, strong demand from work-from-home scenarios allowed for Ultimaker to ascend to the top two position in global 3D Printer hardware shipment revenues. Ultimaker leads the Professional Price Class printer segment in the first half of 2020 with a 40 percent market share of hardware revenues. Jürgen von Hollen,

brings extensive international experience and a wealth of leadership in fast-growth technology industries.



SHEKAR VISWANATHAN RETIRES FROM TOYOTA KIRLOSKAR MOTOR

Toyota Kirloskar Motor (TKM) has announced the retirement of Shekar Viswanathan effective November 30, 2020. He led TKM as the Vice Chairman and Whole-time Director for over seven years. Shekar Viswanathan superannuates after an illustrious career of over 20 years with TKM and the Toyota Group in India. His long tenure and career advancement at Toyota clearly manifests the company’s commitment to its people and its well curated career growth plan for individuals within the organization.

During this time, Viswanathan helped build TKM in India since joining the Board of Directors in 2008 as the Whole-time Director and as the Vice Chairman and Whole-time Director since 2013. He also helped strengthen the Toyota Group companies in the

country, as the former director of Toyota Kirloskar Auto Parts and Deputy Managing Director of TG Kirloskar Automotive during his career. Besides, his knowledge of the industry and financial services he has had the distinction of holding leadership positions in prestigious industrial associations like FICCI, CII, SIAM, ACMA and BCIC.



CASTROL INDIA APPOINTS DEEPESH BAXI AS NEW CFO

Castrol India Limited has announced that Deepesh Baxi will succeed Rashmi Joshi as Chief Financial Officer (CFO) and Wholetime Director, as she steps down from her current position on 31 December 2020. Deepesh who is currently Financial Controller for Castrol’s businesses globally will take up the role and join the Board on 1 January 2021. Rashmi will move to another leadership position in bp after having served Castrol India for seven years as CFO and Wholetime Director. Rashmi and Deepesh will work together between now and the end of December to ensure a seamless transition. Deepesh is a Chartered Accountant with over two decades of industry and consulting experience, having spent the last 18 years in various roles within bp.

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WATERS CORPORATION APPOINTS PEARL S. HUANG TO BOARD OF DIRECTORS

Waters Corporation has announced that Dr. Pearl S. Huang, President and CEO of Cygnal Therapeutics and venture partner at Flagship Pioneering, has been appointed as a Director of Waters Corporation, effective January 1, 2021. “We are pleased to welcome Pearl to the Waters Board of Directors,” said Dr. Flemming Ornskov, Chairman of the Board. “Pearl is a distinguished executive with significant scientific expertise in the discovery of biologics, small molecule and nucleic acid-based therapies, as well as a proven track record in drug discovery and the development of clinical trials. We look forward to benefitting from Pearl’s perspectives and believe she will add even greater value to Waters’ distinguished board of scientists and business leaders.” “Pearl brings a tremendous blend of scientific expertise, global experience and an entrepreneurial spirit that is vital for Waters as we look to grow our product and services footprint in both pharmaceutical and clinical laboratories around the world,” said Dr. Udit Batra, CEO and President, Waters Corporation. “We are very fortunate to have Pearl join us and I look forward to working with her on our journey ahead.” “Waters holds an essential position as a pioneering innovator whose products and services enable essential innovation in the life, food and materials sciences,” said Dr. Huang. “I’m honored and excited to work with the Board as well as Udit and the leadership team to leverage my experience to help Waters pursue opportunities for growth in the burgeoning pharma and biopharma industries.”



QUEST GLOBAL APPOINTS DR. CLAUDIA SÜSSMUTH DYCKERHOFF

QuEST Global announces the appointment of Dr. Claudia Süßmuth Dyckerhoff, Senior Advisor, at McKinsey & Company to the Board of Directors as an independent non-executive director. In this role, Claudia will advise the QuEST leadership across key aspects of the business, from strategy to operational performance, partnerships, and corporate governance. Claudia is also serving as a non-executive director of Ramsay Health Care, an international hospital operator based out of Australia, and she is a member of the Risk Committee. She is also serving as a board member of Hoffmann-La Roche and Clariant and a member of their Corporate Governance & Sustainability committees and Compensation Committee, respectively. Claudia has more than two decades of healthcare domain expertise, focusing on advising healthcare companies in Europe, the United States, and Asia. She started her career with McKinsey in 1995 in Switzerland and became a Senior Partner in China, leading the Asia Health Services and Systems sector within McKinsey. Claudia, who has been with the company for 21 years, moved into a Senior Advisor role within McKinsey in March 2016 when she started to work on global boards. Beyond that, she is also serving on the boards of two start-ups in Asia’s healthcare space. Ajit Prabhu, Chairman & CEO, QuEST Global, said, “Claudia brings invaluable experience working with organizations in the healthcare sector and an excellent track record of helping them with growth strategies, business development, and identifying valuable growth opportunities.”



MAHARASHTRA BOY WINS VOLKSWAGEN AWARD

The Volkswagen Group presented its ‘Best Apprentice Award 2020’ to honour its best apprentices from all over the world in recognition for their outstanding performance and professional competence. Avinash Taur from Maharashtra was conferred with the certificate of Best Apprentice 2020 in Mechatronics from India at the 20th edition of the annual event held virtually. The coveted award was bestowed on 51 best apprentices from 19 countries by Volkswagen Group CEO Herbert Diess, Works Council Chairman Bernd Osterloh and Group HR Director Gunnar Kilian. The apprentices were adjudged based on their performance in the Volkswagen Academy’s Dual Vocational Training, excellence in their examinations as well as Social Skills. Gurpratap Boparai, MD, Škoda Auto Volkswagen India Private Limited said, “I am very happy to see one of our apprentice win Volkswagen Group’s coveted Best Apprentice Award 2020, and congratulate the graduating batch for their outstanding performance throughout the Dual Vocational training program of the Volkswagen Academy.”

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Making India a global hub

The Union Minister of Law and Justice, Electronics and Information Technology and Communications, has stated that there is a robust future for the manufacturing of electronics and smartphone sector in India.

The Union Minister of Law and Justice, Electronics and Information Technology and Communications, has stated that there is a robust future for the manufacturing of electronics and smartphone sector in India. “We have come a long way from the just two factories in 2014 to 250 manufacturing factories today. By proper scaling of the manufacturing, the sector alone can contribute \$1 trillion towards fulfilling the dream of achieving the \$5 trillion economy,” said Prasad. About six lakhs direct jobs have been created by the sector so far. He made this statement at the ASSOCHAM Foundation Week in a session- “Digitalization roadmap to support growth of the Indian economy” organized by The Associated Chambers of Commerce and Industry of India (ASSOCHAM).

Speaking about policies, he said that the right policies make a mark difference in the output and growth of the sector. “The production Linked Incentive Scheme (PLI) that we introduced to the sector during the Covid pandemic, attracted top five global players to India as expected by us. And also the top five companies in India will be able to perform better. I am confident that these companies together will be managed to produce mobile phones and accessories worth Rs.10 lakh crore in the next five years,” said Prasad. He informed that out of that the exports figure would be Rs 7 lakh crore and the sector will generate employment of 9 lakhs jobs directly or indirectly.

Talking further, about the future of electronics manufacturing in India, he said that by 2025 the country



would be able to manufacture one billion phones, 50 million televisions, 50 million hardware including Laptops and tablets and other accessories. “The idea is to make India a global hub of mobile manufacturing as India has talent, innovation, and potential to be so,” he added.

Clearing the governments stand on data management and security, Prasad reiterated that data is going to drive the future of the world and data management, data innovation and data refining are going to be the important businesses in the future. About data security he said that India stands firm on the decision that data from the citizens should be used with the consent of the person and without it. “It is the fiduciary’s responsibility to use the data for the purpose for which it is been taken and not otherwise,” he warned. “India should not compromise on its data sovereignty. As India is an emerging economy and there would be fierce competition to get hold of the data. Indian’s, therefore, should be able to utilize their creative minds to have edge and power play in this emerging data economy sector, and establishing India as a global player in the world” he stated.

Prasad also spoke at length about inclusive digital India powered by technology and the role it played

during the lockdown. “The aim is to empower an ordinary citizen to digital technology by the homegrown, low-cost technology and truly achieve inclusiveness.

Dr. Niranjana Hiranandani, President ASSOCHAM said, “The areas of emerging technologies offer a dual opportunity for us in India. On the one hand, there is an opportunity for India to emerge as a leader in the design and development of products and services in new and emerging technologies. On the other hand, the application of advanced technologies has the potential to create improved access for Indian companies to global markets, new employment opportunities and efficiency improvement.”

Deepak Sood Secretary General, ASSOCHAM, “COVID-19 has upended the global economy, businesses, and the way of life for people. Amidst these trying times, technology has turned out to be a savior in keeping people connected and businesses operational. The crisis led to many physical dependencies being replaced by digital infrastructure, as sectors transformed business models. Adopting emerging technologies helped companies continue operations and cater to their customers at a time when lockdowns, social distancing, and other safety measures, hampered traditional methods.”

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Scaling up dreams!

Domestic demand for finished rubber products has picked up well and the order books are looking good, says **V.T. Chandrasekharan**, President – All India Rubber Industries Association (AIRIA)

By Niranjan Mudholkar

Can you give a brief overview of the overall rubber goods industry in India?

Rubber goods find their applications in almost every equipment, be it automobiles, aircrafts or rockets & satellites which are launched into space. Rubber products play an important role in healthcare equipment and pharma products as well. Rubber is also widely used in sports goods. Without a good rubber seal, an engine would cease to perform and without good anti-vibration dampers, the best of the cars would not give us a comfortable ride. Like tyres, every rubber product is critical to the application it is put into and hence needs to be of the best quality to guarantee efficient performance. Though most of the rubber parts are small and get seated in between two parts, almost always not being visible, the efficiency of the equipment is closely related to the quality of the rubber part present there.

India is one of the largest pro-

ducers of natural rubber while the rubber product manufacturing industry is the fifth largest consumer of natural and synthetic rubber put together. Currently, the government policies with regards to the rubber industry have been largely drafted to support the farmers involved in growing natural rubber. The other raw materials like synthetic rubber, carbon black, fabric and rubber chemicals are also subject to various anti-dumping and safeguard duties there by increasing the overall input raw material cost as compared to our competitors in the neighbouring countries. This has caused great hardships for rubber product manufacturers to compete both in the international and domestic markets. The industry is subjected to a classic case of inverted duty structure. The industry employs more than half a million people directly and many more indirectly. In spite of all the hurdles being faced, the industry has been growing at a rapid pace. Future

predictions are that the industry would grow at a CAGR of 5.2 per cent. Favourable changes in government policies will help the industry grow a much higher pace.

How has the Covid-19 pandemic impact this industry and how is it dealing with the same?

India has more than 6,000 units, majority of which are in the MSME segment, making automotive components, tyres, footwear, adhesives, sports goods, cables, belting and hoses etc. Post lockdown, the sector had initially faced problems in getting critical inputs like polymers which are mostly imported. As on date, there is a severe shortage of synthetic rubber like Poly butadiene rubber, Styrene butadiene rubber and Nitrile rubber. Also, there is acute shortage of carbon black and the prices have skyrocketed in the last few weeks. Domestic demand for finished rubber products has picked up well and the order books are looking good. We may reach 80 percent of the normal production by the next quarter. The demand for an alternative supplier for rubber products other than China has also augured well in the industry. Many of the industry colleagues have informed that there have been export inquiries from customers in Europe and USA. At this juncture, easy availability of raw material, softer interest rates towards capex spending and some favourable government policies will act as a catalyst for the industry's future growth.

What have been the key challenges in terms of resuming operations after the lockdown?



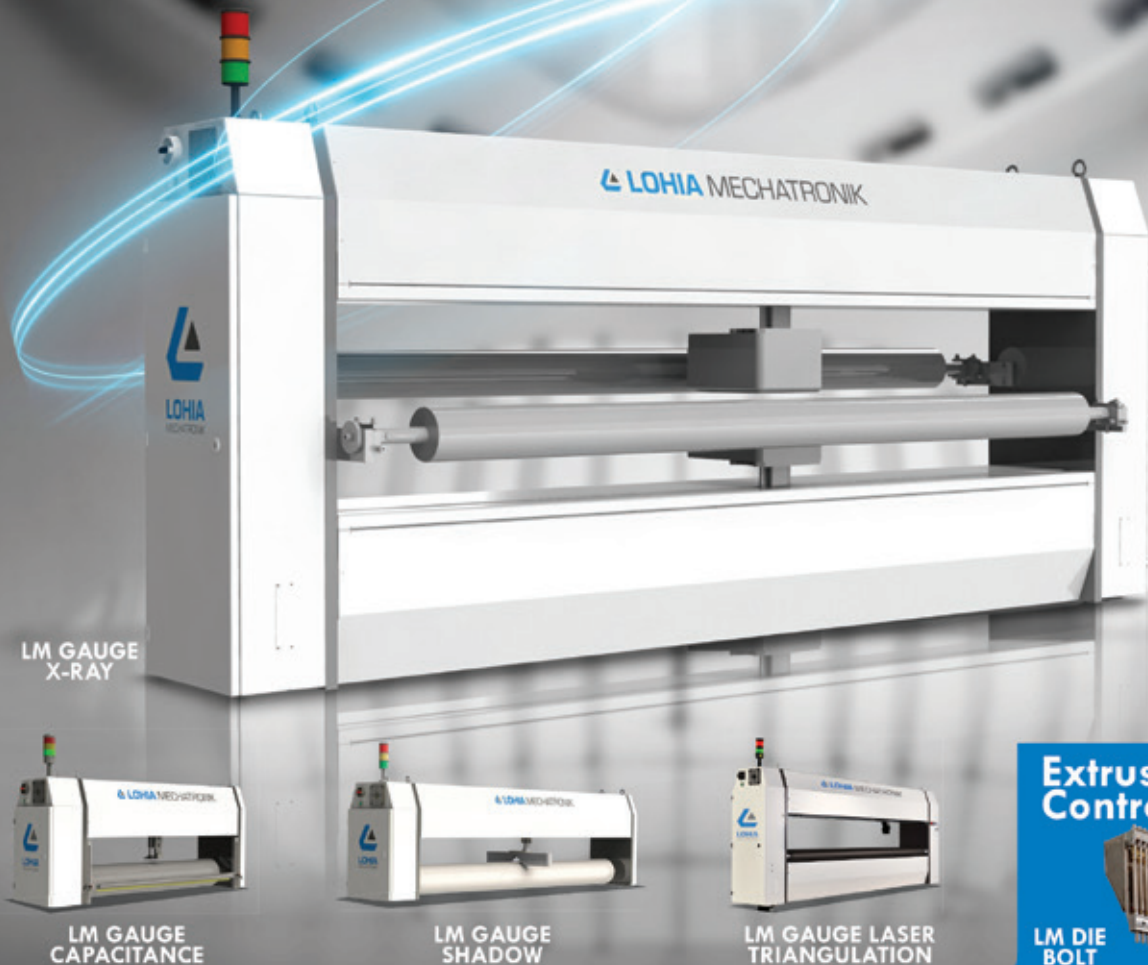
“FUTURE PREDICTIONS ARE THAT THE INDUSTRY WOULD GROW AT A CAGR OF 5.2 PERCENT. FAVOURABLE CHANGES IN GOVERNMENT POLICIES WILL HELP THE INDUSTRY GROW A MUCH HIGHER PACE.”

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The rubber goods industry is a very labour intensive sector. Migrant labourers those who left for their native villages during the lockdown had not reported for work as the industries started opening up. Initially, this stood as an impediment for the sector's daily operation. Things are normalising on this front and hopefully we will be able to run our factories to full capacity in the near future. The other biggest issue has been cash flow. Most of the rubber industries that are SMEs and cater to Tier I as well as Tier II companies in the automotive sector. They have been coerced to extend longer credit periods for business sustenance. On the other hand, our raw materials being either commodities or oil derivatives have to be purchased paying spot money. This has strained our regular cash flow. Fortunately, the schemes announced by the government like the ECLGS and CGTMSE have been a great relief for the industry. I am hopeful that things would turn better gradually with the unlock phase already underway.

What are some of the major changes that the industry needs to bring with regards to the working environment and culture in the New Normal?

In the new normal, concern for the workers' health & safety have added a new dimension to the work culture at the factories. Maintaining proper social distancing and providing a clean and safe environment for daily working has added new challenges. As soon as the unlock was announced, our association (AIRIA) had given guidelines to its members on the work procedures to be adopted at the shopfloor and it is heartening to note that they have been following it in the right spirit and vigour. It's been a few months since the factories have opened up and none of our members have reported shutting down of their operations due to



“FORTUNATELY, THE SCHEMES ANNOUNCED BY THE GOVERNMENT LIKE THE ECLGS AND CGTMSE HAVE BEEN A GREAT RELIEF FOR THE INDUSTRY.”

Covid issues. There are certain areas where we have been benefited due to the new work culture as well. Earlier our sales and marketing team would have to regularly visit our customer. These days most of the meetings are being held online and it saves us a lot of travelling time. More work is being achieved with the same work force. Even meeting with our export customers are being held online and they are happy to be in touch with us from the comforts of their homes. As the 'work from anywhere' culture becomes the new normal, organisations are realising the positive impact of this culture.

How is business evolving for the rubber industry post the lockdown?

Even before lockdown, the general business environment had slowed down. Post lockdown, the OEMs were initially sceptical about the buying power of their customers and were hesitant to place regular orders.

As the festive season was approaching, they started placing more orders and we could see the order books swelling up. We are keeping our fingers crossed and pray that the same trend continues into the last quarter as well. It will be good to end the financial year on a positive note. On the export front, we are seeing a lot of opportunities coming our way. There is a clear shift in the choice of customers from Europe, USA other countries to source products from manufacturing centres other than China. We should be quick to grab all of them. This would require entrepreneurs to take bolder decisions and invest in capex to cater to the larger needs of such customers. Softer interest rates on capex loans and relaxing of DP norms at this juncture will go a long way in setting the industry on a growth trajectory.

Which industry sectors do you see driving the growth for the rubber industry in India?

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AIRIA's membership spectrum includes manufacturers of tyres, rubber parts for automotive components, belts & conveyors for the mining sector, defence, aerospace, household goods, food industry, medical and pharma sector, auto and cycle parts, footwear, adhesives, sports goods, cables, hoses and other Industrial Rubber goods. So, in a way, an overall growth in all these industry sectors drives the growth for the Indian rubber goods industry.

With sustainability becoming a key pillar for all the businesses, what is the Indian rubber industry doing on this front?

The Indian rubber industry depends heavily on import of raw materials for manufacturing various rubber products. The industry has been pushing its raw material suppliers to increase their manufacturing capacities so that we are not dependent on imports for our sustenance. Recycling of end-of-life rubber products and reusing it in the manufacturing of rubber parts is also an area where rubber technologists, scientists and the academia have been working hard. We are pretty confident that with kind of efforts going on in the research & development of rubber recycling, in the near future every gram of rubber produced will be reused and the industry can become carbon neutral.

The Covid-19 pandemic has also accelerated the adoption of digitalization and automation across the manufacturing sector. What has been the trend as far as the Indian rubber industry is concerned?

The rubber industry displays certain

needs which are characteristic of global innovation. High labour intensity, very high energy consumption and low value density when compared to other peers in the manufacturing sector such as the fabrication industry, necessitate the rubber industry to adopt digitalisation. The other major industry challenges are regional regulations and environmental protection laws. This presents unique challenges for the industry to ensure sustainability and relevance. With the overlap of distinct technological revolutions, Industry 4.0, the digital economy and the additional regulatory changes - the industry is at the epicentre of new age manufacturing processes, with innovation and renovation becoming key for organisations to sustain and navigate through these changes. The industry is in the cusp of adopting AI & ERP systems which will help in improving production scheduling, increase productivity per machine, provide accurate traceability and managing inventories to improve profits.

There is a growing anti-China sentiment across sectors. While there is definitely an opportunity for Indian manufacturers to produce substitutes of Chinese imports, there are many challenges as well. How can the Indian rubber industry evolve further to compete not just with the Chinese but also other global competitors?

The anti-Chinese sentiments across the world have rendered as a growth catalyst for the Indian rubber industry. Given the situation, South East Asia still remains the best choice for manufacturing rubber products due to proximity of basic raw materials like rubber. Given the current trade

friction between the western world and China, India stands a better chance to be recognised a reliable partner for manufacturing of rubber goods. Many industry colleagues have seen greener shoots in the export market with the global auto, defence & aerospace industry looking for manufacturing and supply partners in India. The push by the government of India to source Indian products under the “Atmanirbhar Bharat” scheme has also pushed some foreign companies to partner with their Indian counterparts for manufacturing of rubber goods. We need to act swiftly and seize the opportunity with both hands. Swift changes in policy matters which have been hurting the rubber industry coupled with bolder investments in capex and R&D by manufacturers will help us realise a strong demand for Indian rubber goods.

What are your views about initiatives like ‘Make in India’ and ‘Atmanirbhar Bharat’ in the context of the Indian rubber industry?

The country's rubber goods industry is fully capable of achieving our Prime Minister's dream of an “Atmanirbhar Bharat”. It requires a multi-pronged approach. In short term, rationalisation of import duties on finished goods and reduction in the duty structure for the sector's raw materials will enable the sector to garner greater international orders. Long term strategies should involve setting up of upstream industries for manufacture of all kinds of raw material need by the rubber sector and avoid dependence on imports. Modernisation of manufacturing processes which will include adoption of industry 4.0, AI and in-depth market outreach will enable the industry to scale greater heights.


What measures do you think are required from the Government of India to enable the industry to

cope with the challenges better and then grow to the next level?

There is a long list of proposals which the industry has been seeking from the government for its growth:

1. A long-standing demand of the industry has been to set right the inverted duty structure and allow access to raw materials at competitive prices.
2. Relook at the FTAs signed with various countries which are allowing import of cheaper finished products & making the domestic industry price uncompetitive.

“IN THE NEAR FUTURE EVERY GRAM OF RUBBER PRODUCED WILL BE REUSED AND THE INDUSTRY CAN BECOME CARBON NEUTRAL.”

3. Overall reduction on interest rates towards capex and working capital which will enthuse the promoters to take bolder decisions and expand manufacturing capacities.
4. Setting up a separate fund for modernisation and investments in R & D activities to boost the manufacturing capabilities of the industry.
5. Allocate funds for up-skilling of labour and setting up training institutes across the country to make available a skilled work force for the industry.
6. Relaxation of statutory compliance norms under various acts so that the MSMEs are not overburdened with filing of various forms & returns.
7. Compliance of PCB norms for MSME should be in line with definition of MSME norms and the whole industry should not be bracketed under one classification.
8. Last but not the least, reinstallation of DFIs to look into industrial financing so as to enable and support local entrepreneurs in scaling up their dreams and make India self-reliant. 

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Continental India collaborates with Universities

Continental is engaging with top engineering institutions in India for cutting-edge research and to build competencies on niche ADAS functionalities that paves the way towards automated driving. In the last few years, Continental has forged partnerships with several academic institutions, including Indian Institute of Technology Delhi (IIT-D), Indian Institute of Technology Madras (IIT-M), International Institute



of Information Technology Bangalore (IIIT-B), Indraprastha Institute of Information Technology Delhi (IIIT-D), among others, for collaboration in this rapidly evolving technology area. Continental India is currently conducting pioneering research in scenario perception (especially enhancing safety towards pedestrians, bicycles, and animals) with on-road protection from pothole and speed bumps.

Hitachi ABB, Ashok Leyland and IIT Madras collaborate

Hitachi ABB Power Grids in India (listed on the stock exchanges as 'ABB Power Products and Systems India Ltd.') has announced the signing of a Memorandum of Understanding with Ashok Leyland and the Indian Institute of Technology Madras (IITM) for an e-mobility pilot. The triumvirate will run an electric bus (e-bus) pilot to support sustainable in-campus commuting by IITM's students and staff. The e-bus, which will incorporate Hitachi ABB Power Grids' innovative flash-charging technology – Grid-eMotion™ Flash, will be provided by India's largest bus manufacturer, Ashok Leyland. IITM will host the infrastructure required to operate the flash-charging system for the e-bus. "We need to have all hands on deck – industry, academia and policymakers to develop a strong and reliable local ecosystem to support the Indian electric vehicle (EV) revolution," said N Venu, Managing Director, Hitachi ABB Power Grids in India.

Faurecia Automotive Seating starts new facility in Pune

Faurecia Automotive Seating (FAS), a global leader in automotive industry, has started the new manufacturing facility in Pune. The new plant is strategically located at the industrial hub of Chakan offering technologies for a safe, smart and comfortable on-board experience in complete seat, ventilation system and seat structure for front and rear seats. This is the third manufacturing facility of FAS in addition to plants at Chennai and Manesar. The New FAS plant is equipped with a state-of-the-art shopfloor 5600 sq m having the latest technologies like tube end forming and laser welding. This facility will integrate the mechanisms produced at FAS Manesar and deliver the seat frames; manual & power; to customers like Volkswagen, Skoda, Jeep and Ford. FAS can offer solutions from their innovation portfolio to create personalized experience for the end user. The plant has a production capacity to support an annual volume of 300,000 cars for the domestic market. Sandeep Waykole, FAS Business Unit Director said that it is a new beginning for FAS which is now capable of supporting Customers with the all upcoming market demands in India.



Piaggio India to manufacture the Aprilia SXR 160 soon

Piaggio India will soon commence the production of Aprilia SXR 160 at its Baramati plant, with the aim to launch the new premium scooter in the Indian market. The Aprilia SXR 160 was first unveiled at the Auto Expo 2020. Designed in Italy for India, SXR 160 incorporates Aprilia's latest global design language and will offer high premium experience. With its launch, the SXR 160 is set to create a new category in the premium scooter market. It is equipped with a high performance 160 CC BSVI, three valve Fuel Injection



clean emission engine technology, that produces high power and torque to provide a great riding experience. Diego Graffi, Chairman and Managing Director, Piaggio India said, "As promised at the Auto Expo 2020, we are gearing up for the production of Aprilia SXR 160 in India and unfolding a new chapter for the scooter industry. With its highly innovative design, the SXR 160 is set to create a new unmatched experience of premium style, high comfort and best in class performance."



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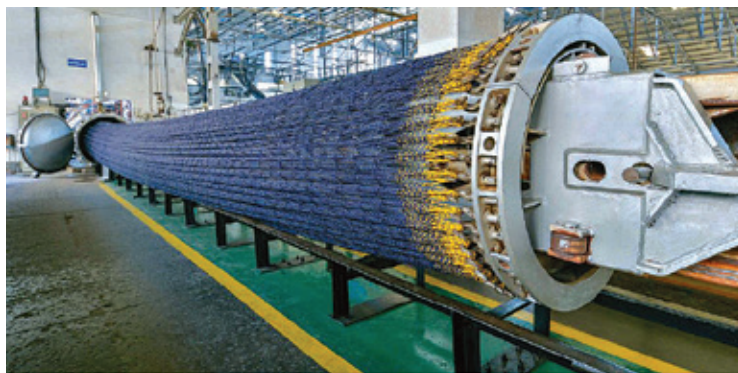
Netting it Right!

Application focussed solution provider strategy is certainly helping the organisation to serve the customers better and thereby have better margins, says Shujaul Rehman, CEO, Garware Technical Fibres Ltd (GTFL)

By Niranjan Mudholkar

It has been a while since Garware-Wall Ropes Ltd. was rebranded to Garware Technical Fibres Ltd. (GTFL). How has this rebranding helped the organisation so far?

All the stakeholders have acknowledged and appreciated our rebranding as we reached out to all of them in an appropriate manner and explained the rationale of our wide product portfolios addressing different applications and thereby the rebranding reflects our true being. This has helped us in our positioning as an innovative and application focused company. Further, the core values of GWRL are being taken



forward and further strengthened. Overall it has been a smooth sailing. The new branding also resonates well with the cutting edge solutions that we are currently providing to the modern age challenges across multiple applications in technical textiles.

The plastics & polymers industry has been going through a very dynamic phase due to various reasons including the impact on environment. How has been GTFL been responding to this change as a responsible player?

We are developing products which are more eco-friendly in nature and thereby in our own way working towards better environment. Some of our most successful recent launches like V2 have helped end users do away with copper compound coatings and SNG in domestic market have led to lesser fuel consumption thus helping towards more sustainability. Bulk of GTFL products are polypropylene and high density polyethylene based which are 100 percent recyclable. The micro plastics release from both of these materials is very minimal.

How has been the Covid-19 pandemic impacting GTFL both in terms of business as well as operations? How are you dealing with the same?

Business in Q1 was deeply impacted due to the COVID19 induced lockdown. Manufacturing and sales came to a standstill across the country. In Q2, we were able to register significant top and bottom line growth with good demand across both domestic and international business. Approximately 80 percent to 85 percent of our businesses like global aqua culture, marine fishing, protected cultivation space in agriculture is linked to food consumption which is approximately US\$ 310 to US\$ 315 billion industry opportunity wherein the scope for our differentiated value solutions is better appreciated and accepted.

GTFL has also transitioned from being a price player to being an organisation focused on customer oriented innovation. Has this helped you grow better?

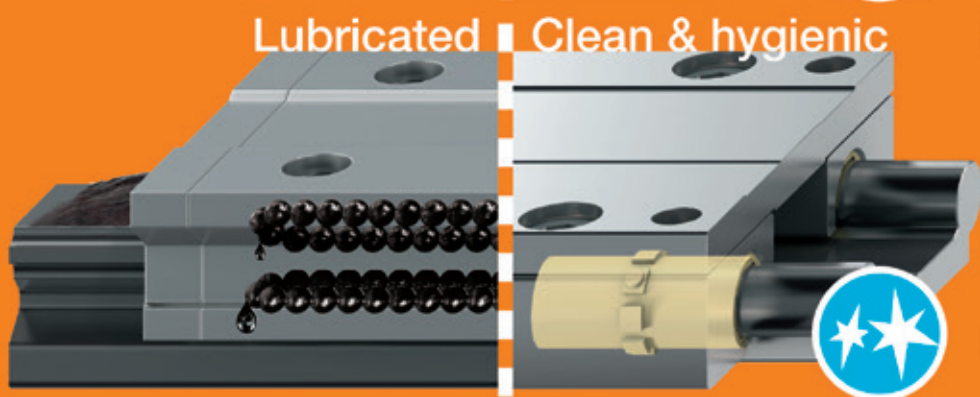
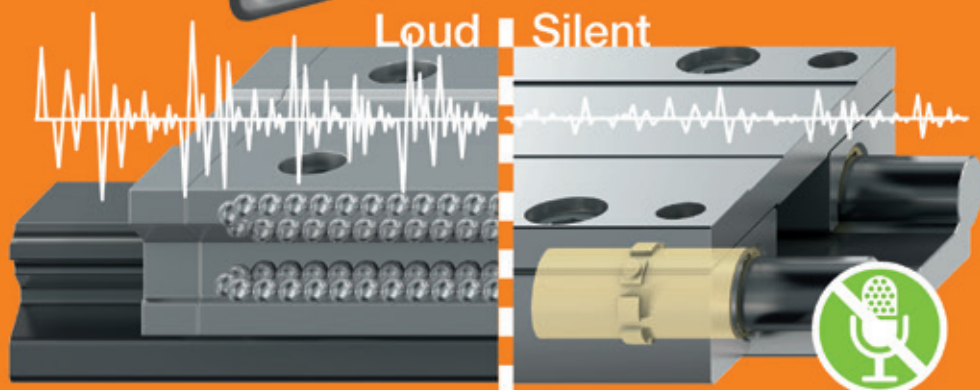
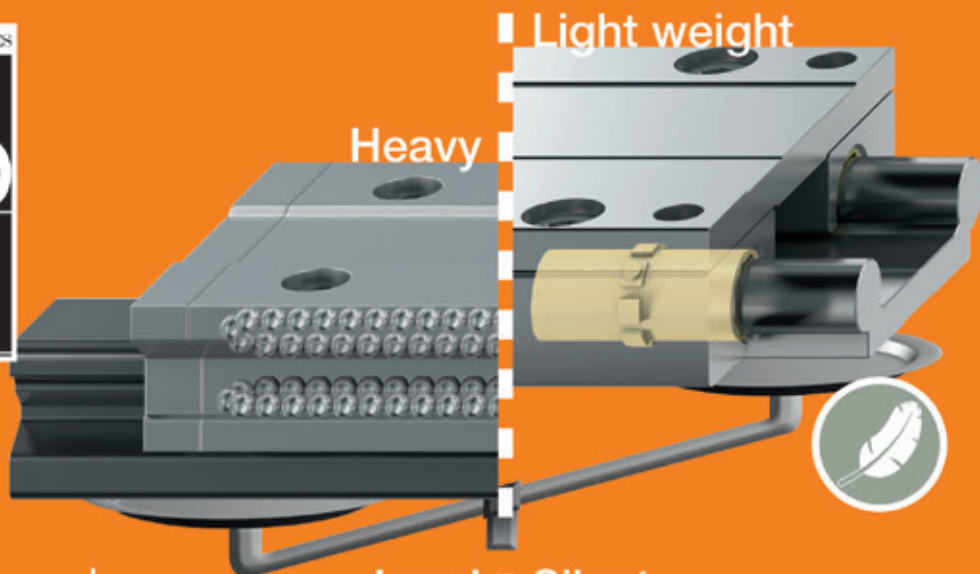
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provider strategy is certainly helping us to serve the customers better and thereby have better margins. In different business segments across India, we do enjoy a price premium of 15 to 20 percent over competition. For example, our fishing nets being light in weight result in fuel saving. Our agriculture shade nets facilitate enhanced produce yield and quality and thereby generating higher revenue for the farmers.

Can you take us through GTFL's R&D activities and how it has been spinning out innovations in the field of technical fibres?

We have a good R&D team and talent with quite a few doctorates and polymer + textiles expertise in the team. The R&D team interacts with the users and understand their pain points and then arrive at a differentiated solution. We go through the GATE concepts with 'Voice of Customer' as the pivot of all our initiatives. We have now 19 granted patents.

Which are the different industry sectors that you serve at present and how do these sectors contribute to your business in terms of revenue in percentage?

Our synthetic cordage sector contributes approximately 85 percent of the revenues and the balance 15 percent stems from Fibre, Industrial Products & Projects.

Would you be also looking at newer sectors to further de-risk the business and enhance growth?

We are looking at options which are in line with our core competencies like polymer extrusion technology, manufacturing strength in polymer based products as well as our wide distribution network in India across different business segments. It would be of immense help to overseas players trying to establish foot prints in India which is distribution oriented



with differentiated products catering to marine fishing, aqua culture, and industrial segments like safety, protected cultivation farming in agriculture and so on.

GTFL has received the largest sports goods and sport nets exporter award from the Sports Goods Export Promotion Council. Tell us about this achievement.

It is a matter of great pride to us as our product solutions meet the user need and the exacting global standards in various sports being played in advanced and developed countries like USA, UK, France, Italy and so on. Our business associates do plan well in advance considering the transit time and at the same time we are also improving on the turnaround time.

GTFL prides itself on being the pioneer of synthetic cordage in India. Can you elaborate on this further and explain why this is so important?

In the early life of our organisation, we were instrumental in converting natural fibre products to synthetic products like polypropylene ropes and high density polyethylene twines in Indian fishing industry. We gained experience and forayed in to other industrial applications. Our quality products were the torch bearers in the respective industry. The market support and the user acceptance of our products is very much the energiser and hence the importance considering our role of a catalyst.

What kind of manufacturing footprint does GTFL currently have?

We have large manufacturing facilities in Maharashtra (Pune & Wai) with implementation of LEAN principles as the fulcrum. Our Wai manufacturing facility is a Silver award category recipient – India Green Manufacturing. We continue to expand in a modular way given the nature of business and manufacturing process.

What is V2 Technology and how is it better than other relevant technology in the market?

V2 is a patented product which has the unique anti-fouling properties which the aqua culture fish farmers find it very useful. This not only reduces their cost but also enables avoiding copper compound coatings which could be toxic. It also to a certain extent takes care of environmental issues.

What is your take on PM Modi's vision of 'Atmanirbhar Bharat Abhiyaan' (Self-Reliant India Campaign) in the context of your industry?

It is indeed a laudable initiative. It would help both the Indian agriculture and fish farmers. It would also facilitate a better livelihood and thereby improve their standard of living and go for better farming methods to have higher yield and better quality produce. We are dominant player in Indian marine fishing and protected cultivation farming.



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Playing it right

The industry is just evolving in India and the recent focus on promoting domestic manufacture of toys will go a long way in faster development of the market in India, says **R. Jeswant**, CEO, Funskool India

By Niranjan Mudholkar

While you have recently taken charge as the CEO of Funskool India, you have been associated with the organisation for almost two decades. How would you briefly analyse the evolution of Funskool in the last twenty years?

We have been operating since 1987. We started off as a joint venture with Hasbro Inc., a US multinational and remained so for nearly thirty years. We continue to represent several toy majors but over the last few years we have also successfully built many brands of our own. Our export business has also grown exponentially and while emerging as a major sourcing destination for many international companies we have also simultaneously been successful in establishing a presence for our own brands in several markets outside India as well.

“THE DOMESTIC INDUSTRY WHICH IS BARELY US\$ 450 MILLION AT RETAIL IS 0.5 PERCENT OF THE WORLD TOY INDUSTRY WHICH IS ESTIMATED AT AROUND US\$ 5 BILLION. WITH AT LEAST 25 PERCENT OF THE WORLD’S CHILDREN IN THE AGE GROUP OF 0 TO 12 YEARS BEING IN INDIA, THERE IS TREMENDOUS SCOPE FOR THE INDUSTRY IN FUTURE.”



What have been your priorities, after taking charge as the CEO? It must have been quite challenging to take up this responsibility at a disruptive time like we are going through right now!

Yes, it has been quite a challenge! With a complete lockdown in April and almost the whole of May, our peak selling summer vacation period ended up as a total wash out! However our team has successfully emerged out of the extremely trying period thanks basically to the exports business which has remained quite robust since June. The domestic business too has been picking up. From a disastrous start to the financial year, we can proudly say that the business is now firmly back on track! The experience gained in fighting the odds should be valuable for our team in future.

How did Funskool deal with the Covid-19 pandemic and what kind of key learnings are you taking ahead from the same?

The pandemic and the subsequent lockdowns surely did catch us unawares just as we were entering into the peak selling period. It has been customary to launch several new products during this period and we were ready with a slew of new products and brands. Plans had to be shelved and we focused more on maximising exports. Most malls remained closed till June and even after reopening, footfalls continue to be low and products like toys which are really discretionary have been hit more than some other categories. With lower footfalls, this category which is high on impulse purchases, has been hit badly. Ecommerce has been the silver lining and with parents and children confined indoors there was good demand for board games and puzzles. However, the spurt in demand of games and puzzles did not convert to sales in April and May as unlike in the developed



“OUR EXPORT BUSINESS HAS ALSO GROWN EXPONENTIALLY AND WHILE EMERGING AS A MAJOR SOURCING DESTINATION FOR MANY INTERNATIONAL COMPANIES WE HAVE ALSO SIMULTANEOUSLY BEEN SUCCESSFUL IN ESTABLISHING A PRESENCE FOR OUR OWN BRANDS IN SEVERAL MARKETS OUTSIDE INDIA AS WELL.”

overseas markets Ecommerce retailers too were not allowed to deliver non-essential products till late May. Funskool's wide distribution network and our strong presence in Mom & Pop stores helped us survive the onslaught of the pandemic. Exports for the first time registered higher numbers than even the domestic business and was the real saviour during this turbulent period.

How was the last fiscal in terms of business numbers, and what kind of target are you looking at for the ongoing financial year?

We could be below last year numbers in our domestic business but if the current trend is maintained in exports as well as the domestic business we should get closer to last year's turnover before the end of the year. We have grown substantially over last year in the July-September quarter and hope to maintain the trend for the rest of the year.

Give us an overview of Funskool India's overall manufactur-

ing strength with regards to its geographical spread, capacity and capability.

We have three large manufacturing units, one in Goa and two in Ranipet, Tamil Nadu. We are now seriously considering a fourth plant adjacent to our third plant in Ranipet. We manufacture a wide range of products in wood for exports as well as for the domestic market in one of our plants in Ranipet. The second plant in Ranipet is almost totally dedicated to exports. The Goa plant is the largest and meets most of our domestic requirements while also catering to export needs. In addition to wooden toys, we manufacture plastic moulded toys, board games, puzzles, arts & crafts products and several others at our three plants. We expect manufacturing activity to pick up in future thanks to the new initiatives from the government in promoting India as a hub for toys!

How important is the role of innovation in toys manufacturing? Tell us something about Fun-



skool's R&D activities and New Product Development?

The toy industry is entirely driven by innovation and we have a large team of product design and development professionals working out of our Chennai office as well as from our Goa factory. We churn out 50-60 new products every year during normal times but with recent curbs on imports likely to result in a dearth of imported products in the market we are planning to increase new product launches to over 100 from next fiscal. Many new products designed and developed in house by us have found good acceptance in overseas markets and that has given an added impetus to the new product development process.

Several Indian manufacturing segments like automotive and pharma are at the forefront when it comes to the implementation of Industry 4.0 tools like digitisation and automation. Where does the Indian toy manufacturing sector stand in this regard, and what is Funskool doing on this front?

Toy industry is clearly labour inten-

sive and this gives us an advantage in exports due to lower labour costs in India. With a small domestic market, short production runs are the order of the day but we are also making significant investments in automation. We have attained a higher level of automation in our exports lines which have bigger runs.

Tell us something about your exports business in terms of markets served, product portfolio, volumes and share in overall revenues.

Many of the larger toy companies of the world source products from us. Products manufactured at our plants are therefore on the shelves of retailers across the world. What gives me greater happiness is the fact that our own brands are also beginning to make a presence in global markets. Today, our own brands are sold in several markets in the USA, Europe, Africa and the Middle East. Our brands will have a stronger presence worldwide as the domestic market expands which will justify larger investments in design and development of new products which have world wide appeal.

“IF THE CURRENT TREND IS MAINTAINED IN EXPORTS AS WELL AS THE DOMESTIC BUSINESS WE SHOULD GET CLOSER TO LAST YEAR’S TURNOVER BEFORE THE END OF THE YEAR. WE HAVE GROWN SUBSTANTIALLY OVER LAST YEAR IN THE JULY-SEPTEMBER QUARTER AND HOPE TO MAINTAIN THE TREND FOR THE REST OF THE YEAR.”

Your Goa plant has recently received the BIS certification for electric toys. How important is this development, both from Funskool’s perspective as well as from the overall industry’s point of view?

Our Goa plant was the first in the country to receive BIS certification for both electric and non-electric toys. Our Ranipet plant was the first in South India to obtain the license for non-electric toys. Our products manufactured in all our plants were already compliant with all the stringent international quality standards. Acquiring the BIS certification is an extension of our commitment to manufacturing high quality toys in India.

Prime Minister Modi is probably the first Indian PM to highlight the significance of the Indian toys manufacturing industry. What is required to fulfil his vision of developing India into a global toy manufacturing hub – both with regards to the industry’s efforts as well as the push required from the government?

With the BIS certification being made mandatory, it will help the industry to compete with international manufacturers and become the export hub as envisioned by our Prime Minister. The domestic industry which is barely US\$ 450 million at retail is 0.5 percent of the world toy industry which is estimated at around US\$ 5 billion. With at least 25 percent of the world’s children in the age group of 0 to 12 years being in India, there is tremendous scope for the industry in future. The industry is just evolving in India and the recent focus on promoting domestic manufacture of toys will go a long way in faster development of the market in India. A major advantage of this recent initiative would be that domestically manufactured toys would make it more affordable for Indian kids to play with international quality toys! 🎮

Are you in this list?



The Industry

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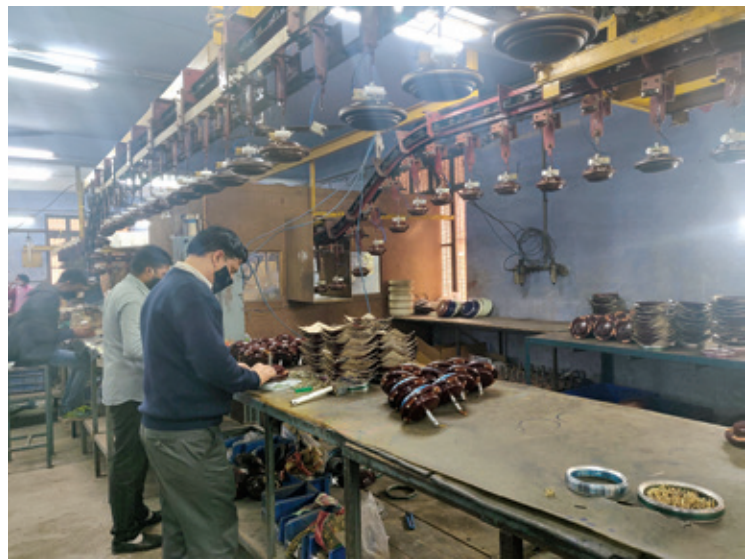
Growing with pride!

Although the current market share of Gourav Luminaries (P) Ltd is very insignificant, the Company is growing at more than 28 percent YOY basis while the market is growing at 11.8 percent. With every passing day, Gourav is increasing its market share, says its CEO, **Gaurav Khanna**.

By Niranjana Mudholkar

Having started its journey in 1991, Gourav Luminaries (P) Ltd is about to complete a milestone of three decades. How would you describe the journey so far?

We have come a long way from one-room/one product to five manufacturing units/five product categories. In 1991, it was my father 'Sri Prem Khanna' who started Gourav Luminaries. At that time, he himself used to make 'chowkatti' with his two hands. It was his brilliant business acumen, impeccable work ethics, unshakeable determination and hard work that laid a strong foundation. Today, it is me and my brother who have the shared responsibility to take this organisation to its next milestone. Gourav has established itself as a brand that takes immense pride in lighting up middle-class homes in tier 2 cities with its affordable and reliable products. We are focused on being environmentally conscious not only through our energy efficient products, but also by taking



conscious steps to cut e-waste and reduce plastic at the organisation level. We have also been strengthening our community voice to support women through our social-media initiative – DeshKaGourav. We have got the boxing legend Mary Kom as

our brand ambassador to mark this new chapter.

We deeply value all our partners, associates, teammates and, most importantly, the customers who believed in us and continued to support us through all these years. We are grateful for everyone who walked with us to make this 30-year old magnificent journey possible.



“OUR CURRENT LABOUR AND MIDDLE MANAGEMENT WORKFORCE COMPRISES OF 45 PERCENT WOMEN. WHILE, WE DEFINITELY ARE LOOKING TO INCREASE THIS NUMBER TO 55-60 PERCENT BY NEXT YEAR, WE ARE ALSO LOOKING TO ON-BOARD MORE WOMEN EMPLOYEES IN UPPER MANAGEMENT IN KEY DECISION-MAKING ROLES.”

What is your analysis of the Indian electricals industry? Where do you think Gourav Luminaries (P) Ltd stands in terms of market position?

Covid-19 outbreak has posed some very serious questions to entire electrical industry. We have major supply-chain challenges, the raw-material is becoming unaffordable, workforce is disrupted, and even the markets are shifty and unpredictable

at the moment. Covid has intensified the battle for electrical industry. As an industry, we need to set our priorities straight – local manufacturing!

If we look closely at the electrical industry, India is one of the largest LED-consuming country in the world. But the LED business is largely dependent on China. If we have to turn the COVID crises into an opportunity, we have to reduce our dependence on China. Localisation is also important to avoid supply-chain disruptions in the future. The need is to set up grounds up LED manufacturing in India. However, this can't happen without strong government policies supporting this. Government should also take steps to make slabs of import tariffs for finished and imported products, and components. This will help reduce the stress on the industry. Moreover, we also need to strengthen our electrical components segment to support manufacturing. Though India has an excellent die casting capacity, the electrical components market has immense scope. It would also be interesting to see some of the industry giants collaborating towards remedying this.

Gourav Luminaries is focused on middle-class segment in the tier 2 cities of India. We make products that are trusted for their quality and easy on the pocket.

How has the Covid-19 outbreak affected Gourav Luminaries (P) Ltd and how are you dealing with the same?

We faced multiple hurdles, from supply-chain to financial, to unexpected rise and fall in demand. But with sheer determination, strategy and persistent efforts of the team, we were able to turn all challenges into the opportunities to grow and our last quarter results speak for themselves. We were able to retain our labour workforce as we supported



“WE ARE FOCUSED ON BEING ENVIRONMENTALLY CONSCIOUS NOT ONLY THROUGH OUR ENERGY EFFICIENT PRODUCTS, BUT ALSO BY TAKING CONSCIOUS STEPS TO CUT E-WASTE AND REDUCE PLASTIC AT THE ORGANISATION LEVEL.”

them through the tough period of March to May by paying them salaries, providing food and shelter. With the support of GECL funding, we were not only able to pay our suppliers on time but also procure raw materials well in advance, which enabled us to keep our factories in productions. With the help of Social media marketing strategy, we were able to add more distribution partners, which helped us to drive the sales. Though we missed our first quarter targets, we are still very confident of posting at least 28 percent YOY growth.

What kind of business numbers are you looking at for the ongoing fiscal in terms of turnover and growth?

We are focusing on strengthening our distribution channel in North India - Punjab/Haryana/Delhi/Rajasthan and UP. Our number of channel partners has increased by 20 percent in last 6 months and we shall be able to post a bare minimum of 28 percent YOY growth. We are

looking to double our current sales in next two years and increase our market share in North India & North-East India before we explore central part of India. We are also looking add small home appliances as a new product category in coming one to two years.

Tell us about the various product categories that Gourav Luminaries (P) Ltd has presence in and what would be your market share in India in these respective segments?

We currently manufacture and distribute – LED Lights, Modular Switches and Switchgears, and Ceiling Fans. With help of 218+ distributors, we touch around 18,000 retailers in North and North –East India on regular basis.

Our current market share is very insignificant however we are growing at more than 28 percent YOY basis while the market is growing at 11.8 percent. With every passing day, we are increasing our market share.

Tell us about Gourav Luminaries



“WE HAVE MAJOR SUPPLY-CHAIN CHALLENGES, THE RAW-MATERIAL IS BECOMING UNAFFORDABLE, WORKFORCE IS DISRUPTED, AND EVEN THE MARKETS ARE SHIFTY AND UNPREDICTABLE AT THE MOMENT. COVID HAS INTENSIFIED THE BATTLE FOR ELECTRICAL INDUSTRY. AS AN INDUSTRY, WE NEED TO SET OUR PRIORITIES STRAIGHT – LOCAL MANUFACTURING!”

(P) Ltd's manufacturing capabilities and capacities as well as its overall manufacturing footprint.

We have dedicated manufacturing facility for each of our product category - led lights, modular switches, switchgears and ceiling fans. We have four state-of-the-art manufacturing units in Sahibabad Industrial Area. We use latest machinery and comply by BIS as well as ISO standards to ensure high quality, low price products. Our annual capacity of LED lights, Switches, Switchgears, and ceiling fans is 2.4 million, 6 million, 3.6 million and 1.2 million units, respectively.

Give us an overview of your exports business.

Indian market provides us a huge opportunity to serve and grow. We are completely focused on the do-

mestic Indian market currently.

As a second-generation entrepreneur, what is your vision for the organisation and where do you see it five years down the line?

We are transitioning from a traditional company into a new-age organisation with a distinguished vision. Our new logo represents our evolution into an environment-friendly and socially conscious organisation. We, at Gourav Luminaries, constantly thrive to bring happiness with our products to as many houses as possible, and are conscious of what message we send out to the world, and how we impact the planet Earth. The way forward for the brand is going to be a testament to the power of local, made-in-India products.

Our vision is to craft an ecosystem to enable efficient homes,

efficient India. We are on a mission to serve our customers with high-quality and low-price energy efficient electrical goods while creating maximum employment and leaving minimum carbon footprints.

Five years down the line, we see ourselves as a tech-driven umbrella organisation which not only manufactures and sell energy efficient electrical products but also encourages other women entrepreneurs to come on board and sell sustainable home products to Gourav's community.

With a female world boxing champion like Mary Kom as your brand ambassador, do you also want to give out a message of women empowerment?

Mary Kom is a legend, an inspiration, pride of India. She not only represents the dreams and determination of hard working Indian middle-class families, but also represents the spirit and power of an Indian woman. There could have been no one better to represent Gourav's vision and its commitment towards women empowerment.

Our social-media initiative DeshKaGourav is our community voice to cheer for women achievers, change-makers and trailblazers our country is proud of. It wants build a strong community that thrives on inspiration and appreciation. It's a mission is to create real on-ground impact through positive engagement on social-media as opposed to the rampant hate and negativity.

So, can we expect more women employees working with Gourav going ahead?

Our current labour and middle management workforce comprises of 45 percent women. While, we definitely are looking to increase this number to 55-60 percent by next year, we are also looking to onboard more women employees in upper management in key decision-making roles. 📍

Enabling transformation in business strategies

Global synchronisation is necessary to aid establishments redefine their supply chain competences to generate and maintain a rapid retort and suppleness creating intelligent supply environments.

By Dr. Pranjal Kumar Phukan

No country or business is invulnerable to the commotion that COVID-19 endures to cause across the globe. This pandemic characterises a very high menace to human life and forces business leaders to create important and quick pronouncements to shield and support the health and safety though trying to diminish disruption to the constancy of their business processes. Moreover, majority of large enterprises are undergoing supply chain commotion caused by the consequence from COVID-19 and they have realised an adverse impact on the business that has caused a downgrade in their growth outlook. In the short-term, supply chains desire to regulate to the instant challenge; in the extended run supply chains will never ever be the same. Global synchronisation is necessary to aid establishments redefine their supply chain competences to generate and maintain a rapid retort and suppleness creating intelligent supply environments. The determination will support organisations to reduce the perils, protect the working of global supply chains and reduce or minimize the disturbances while also acclimatizing to a “new normal.” The current disruption from COVID-19 has the latent to have long-lasting insinuations on supply chain function and personnel in order to build flexibility and suppleness in value chains to succeed future challenges.



“ORGANISATIONS WORLDWIDE ARE NOW MOVING AWAY FROM THE OUT-DATED AND LINEAR SUPPLY CHAIN MODELS TO CONNECTED, INTELLIGENT, SCALABLE, CUSTOMISABLE AND NIMBLE SUPPLY LINKAGES.”

Moving ahead

By way of adoption of exponential technologies, organisations worldwide are moving away from the out-dated and linear supply chain models to connected, intelligent, scalable, customisable and nimble supply linkages. First adopters and innovative companies are shifting to dynamic and united networks that deliver an incessant flow of products, services, information and analytics for decision making. Traditional organisations are growing their supply chain functions to encounter increasingly volatile consumer preferences. Although the level of emerging technology adoption and use cases are comparatively less in India, it is only a matter of time before supply chains across industries would be reimaged, upgraded and disrupted.

Assisted by synchronised development and integration of the digital and physical technologies, Industry 4.0 is renovating the way supply chains operate across geographies as it integrates and extends digital connectivity within the context of the physical world in enterprises and

supply networks. Generally, supply chain professionals accomplished the “four Vs” (volatility, volume, velocity, and visibility) as they endeavoured to augment results across a series of objectives that contain total cost, service, quality and backing for innovation. These traditional primacies are not likely to change but going onward, supply chain decision architects are likely to be able to achieve advanced levels of performance with supply chain competences developed in a non-linear setting.

Evolving supply chain styles

For instance, companies address challenges associated to demand volatility, scattering and cost pressures, Digital Supply Networks (DSN) are ever more in focus as they offer an opportunity to exponentially increase efficiency and efficiency in the supply chain, optimise cost and attain end to end visibility. The fourth industrial revolution would therefore be compelled largely by DSNs where machines are anticipated to enhance human performance and as part of this alteration, implementa-

tion of the connected products, customers and supply chain and operations would be determined by a vast network of cyber-physical systems. (Sourced from *Next-Gen Supply Chain – Deloitte published in www2.deloitte.co*).

DSNs once wholly implemented can cause a paradigm move in the operational delivery for most industries and companies. Innovators and market leaders would endeavour to achieve operational digital equivalence and arrangement of the right capabilities in the right way within their operating model which would require a shift from the tradition functioning models to insight-driven and supply operating models with the customer at the core. (Sourced from *Next-Gen Supply Chain – Deloitte published in www2.deloitte.co*).

Organisations are returning to their planning processes which have always been a challenging and stimulating process free of scale and scope. Nevertheless in the current age of information and connected networks, these challenges have become even more frightening. Even though few leading companies have matured to an integrated business planning model, majority still depend on traditional operational models to meet business requirements. Presently the planning cycles hang on to regular monthly meetings and follow a progressive approach to supply and demand planning. In today's vibrant environment, this unbending structure is ineffective to precisely respond to unexpected changes in de-



mand and supply. The globalisation of the business setting and increasing difficulty in the value chain has made precise forecasting even more challenging and thus plummeting the effectiveness of traditional planning cycles.

Objective

Companies in order to come across today's challenges successfully and alleviate future risks need to consider shifting to a fundamentally new collaborative supply planning process. The next generation planning model that is developing is expected to be a really collaborative effort connecting real-time data gathering and analysis, improved decision making and is possibly to move away from unbending IT systems to highly supple and customisable cloud based platforms. This has the potential to deliver the organisation with customisability, platform for collaboration, speedy simulation and scenario planning and incessant monitoring of KPIs through role-based dashboards.

Augmenting the supply chain with real-time visibility supports in altering business operations and

providing understandings needed to operate swiftly, accurately and more efficiently. Moreover, companies are exploring the norm of block chain for real-time visibility of the supply chain and to confirm trust and genuineness in the dealings across the chain. Innovation and advanced technologies are critical to company and their competitiveness as they distinguish businesses and help them flourish amongst global competi-

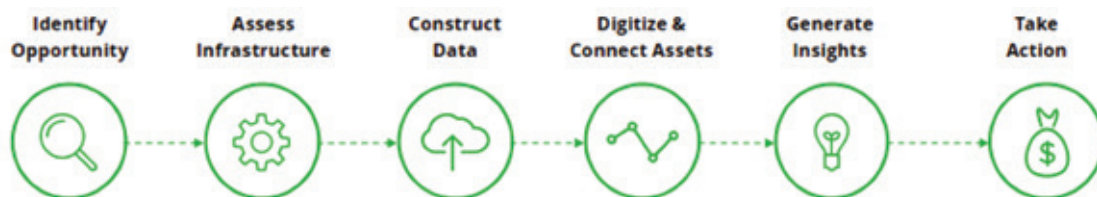
tions by creating premium products, processes and services that capture higher margins.

By way of an emphasis on sustenance and reducing environmental impact, companies are progressively identifying the need to embrace a green supply chain which is now assimilated into the entire value chain activities including product design, material sourcing & selection, manufacturing processes, delivery of the final product as well as end-of-life management of the product after its useful life. Green supply chain supports in improving the performance of the process and the end products according to the requirements of environmental regulations agency. Supplementing this is the circular supply chain, which is about taking seeming waste materials/ returned goods and turning them into products which can be resold.

Digitally supported Supply Chain

The significant differentiator in the world of information and analytics would be the usage of smart sensors which through its computing abilities have strengthened substantially, thereby enabling data processing and analysis at or near the source ("edge computing") and reducing the amount of data that moves between the device and platform. The fast-tracked exchange of physical-turned-

“FIRST ADOPTERS AND INNOVATIVE COMPANIES ARE SHIFTING TO DYNAMIC AND UNITED NETWORKS THAT DELIVER AN INCESSANT FLOW OF PRODUCTS, SERVICES, INFORMATION AND ANALYTICS FOR DECISION MAKING.”



digital information can exponentially upsurge the range of opportunities for improved performance, higher capacity, better dependability and progressive innovation. Once companies discuss about in what way these advancements are disrupting supply chains and the way they interact with all the ecosystem partners, including customers, suppliers and other partners the key is by what method they should address information flow between the physical and digital worlds. However, there are three elements that need to be addressed by the companies:

- First, companies must establish a digital record to gather information from the physical world and create a digital inscription,
- Second, once the digital information is made, there is a digital to digital linking for sharing digital information to allow for advanced analytics and visualisations and start to make decisions,
- Third, how does that decode into movement in the supply chain system.

What is significant for organisations is to break away from the traditional direct mind set which are set in boundary conditions around regulation, infrastructure etc. However, organisations need to identify and


“IT IS ONLY A MATTER OF TIME BEFORE SUPPLY CHAINS ACROSS INDUSTRIES IN INDIA WOULD BE REIMAGINED, UPGRADED AND DISRUPTED.”

highlight discrete “proof of value” projects where these makeover (especially digital strategies) initiatives can be verified and noticeable ROI can be established. Once such implementations provide an adequate ROI, companies should position themselves to expand across the enterprise. In the process, companies should also think artistically in order to address challenges around finding, training and retaining skilled talent following a six step process as shown below.

The competitive capability is determined primarily by the competitiveness of the complete Value Chain. However, maximum industries are repositioning their Value Chains to a higher which means that they have to avoid making the similar errors they did in the past decade when some companies thought that improving only their operations performance would have been adequate

to compete. In fact, the business precedence moved from efficiency to effectiveness or to speed of innovation in many industries across the globe. Digitalising the current-existing Supply Value Chain means e-enabling all existing activities, using all possible e-digital systems and technologies.

Conclusion

The developing new business models are meaningfully altering prevailing value chains and the related operational supply chains. Moreover, supply chain re-configuration with its new and upgraded performances possibly will be the starting point and enabler of the new business model. Digitalisation is considerably changing the paradigms of existing value chains and the two calculated key drivers of these new paradigms are the “disintermediation/ unbundling” of commercial streams (e-commerce) and the “Servitisation” trend. Traditional companies have to reorganise their supply chains accordingly and they have to reshape them or even design new supply chains from scratch. 

The author is a supply chain expert based in Dibrugarh, Assam, India. He is also General Secretary, World Mathematics Association

UPDATE

OIL signs MoU with AHECL

Oil India Limited (OIL), India’s second largest National Exploration & Production Company, signed Memorandum of Understanding (MoU) with Assam Hydrocarbon & Energy Company Limited (AHECL) in Guwahati

recently. The MoU is aimed at establishing a joint institutional framework to facilitate bilateral cooperation in hydrocarbon exploration & development and marketing of natural gas in the state of Assam for mutual benefit.



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Make in India with Sustainability & Innovation

The maiden edition of The Economic Times Polymers 'PlastConEx 2020' concluded successfully on the virtual platform recently

With its very pertinent theme of 'Make in India with Sustainability & Innovation', The Economic Times Polymers PlastConEx (PCE) 2020 brought together the entire plastics value chain to determine the roadmap for growth and success. PlastConEx 2020 consisted of a knowledge based conference as well as an exhibition - both conducted virtually.

The Conference kicked off with the Opening Remarks of Niranjana Mudholkar, Editor of The ET Polymers, followed by the Welcome Address by Kailashbhai Murarka, AIPMA Committee Member, and the Welcome Note by Umesh Anand, MD, HPL Additives Limited.

PCE witnessed a high-profile CEO Panel Discussion, with top industry leaders deliberating on the event theme of 'Make in India with Sustainability & Innovation'. Mod-

erated by Editor Niranjana Mudholkar, the Panelists in this discussion included Deepak Chhabra, Managing Director, Tupperware India; Vasanth Kamath, Managing Director, Brose India Automotive Systems Pvt Ltd, and Sanjay Kapote, CEO, Manjushree Technopack Limited.

The day one of the conference programme was taken ahead by a very insightful and informative presentation by Umesh Anand, MD, HPL Additives Limited, who spoke about 'Sustainable Solutions'.

It was followed by a stimulating discussion, where the focus industry was automotive and the discussion was about the 'Future of Mobility with Plastics'. We all know that plastics are at the heart of many mobility solutions that reduce vehicle weight, increase fuel efficiency, enhance aesthetics, and make vehicles smart. The discussion was very ably moderated by B. Thej Kumar, Associate VP - Operations, Product Development and Quality, Toyoda Gosei South India Pvt Ltd. In the panel,

"WHILE THE CONFERENCE PROGRAMME AT PLASTCONEX 2020 LASTED FOR TWO DAYS, THE EXHIBITION REMAINED OPEN FOR FOUR DAYS. VIRTUAL DELEGATES MADE THE MOST OF THIS EVENT BY NOT JUST GAINING KNOWLEDGE FROM INDUSTRY LEADERS BUT ALSO BY VISITING DIFFERENT STALLS AND LEARNING ABOUT USEFUL SOLUTIONS."

he was joined by Sandeep, Waykole, Country General Manager, Faurecia Seating India; Amit Kavrie, Managing Director, Supreme Group, and Vishal Agarwal, President, Yudo Hot Runner India Pvt. Ltd.

The conference programme for day one ended on a very high-note with another power-packed panel discussion. The fantastic panellists spoke about the 3S of Packaging – Safe, Smart and Sustainable. Well, today's dynamic packaging requirements present an enormous challenge. That's because while brands are endeavouring to address safety issues, they also want to delight the customers while attaining sustainability goals. This discussion was moderated by Chakravarthi AVPS, MD & CEO of Ecobliss India Pvt. Ltd. as well as the Global Ambassador of the World Packaging Organisation. His awesome panellists included Radha Mohan Gupta, Regional Procurement Director - South Asia, Reckitt Benckiser India; Gagan Deep, Head Packaging Development, The Himalaya Drug Company Limited; Tripti Nakhare, Sr. General Manager – RA & PDD, FDC Limited; Umesh Anand, MD, HPL Additives Limited; Rakesh Kumar Sharma, Head Operations – Punjab & North India, Amul; and Amrish Chowdhary, Director strategic sourcing and operations, Mars India.

Since the first day concluded with a brilliant panel discussion on packaging, it was only apt that day two started off with an equally useful presentation on packaging. It was done by Vishal Agarwal, President, Yudo Hot Runner India Pvt. Ltd, who spoke about 'Optimising Productivity with Hot Runners in Packaging'.

The conference programme concluded with a truly 'healthy' panel discussion since the super panellists represented the medical devices and

Galaxy of Speakers at PlastConEx 2020

PlastConEx 2020 - Speakers

- **Kailashbhai Murarka**, AIPMA, Committee Member
- **Umesh Anand**, MD, HPL Additives Limited
- **Vishal Agarwal**, President, Yudo Hot Runner India Pvt. Ltd
- **Deepak Chhabra**, Managing Director, Tupperware India
- **Vasanth Kamath**, Managing Director, Brose India Automotive Systems Pvt Ltd
- **Sanjay Kapote**, CEO, Manjushree Technopack Limited
- **Sandeep Waykole**, Country General Manager, Faurecia Seating India
- **Amit Kavrie**, Managing Director, Supreme Group
- **B. Thej Kumar**, Associate VP – Operations, Product Development and Quality, Toyota Gosei South India Pvt Ltd
- **Chakravarthi AVPS**, Global Ambassador, World Packaging Organisation
- **Radha Mohan Gupta**, Regional Procurement Director - South Asia, Reckitt Benckiser India.
- **Gagan Deep**, Head Packaging Development, The Himalaya Drug Company Limited.
- **Tripti Nakhare**, Sr. General Manager – RA & PDD, FDC LIMITED
- **Umesh Anand**, MD, HPL Additives Limited
- **Rakesh Kumar Sharma**, Head Operations – Punjab & North India, Amul
- **Amrish Chowdhary**, Director strategic sourcing and operations, Mars India.
- **Abhinav Thakur**, Managing Director, Accurex Biomedical
- **Kishore Khanna**, Managing Director, Romsons
- **Dr. Jitendra Sharma**, MD & Founder CEO, Andhra Pradesh MedTech Zone (AMTZ)
- **Manish Dedhia**, Managing Director, Mitsuchem India

healthcare equipment industry. The theme of this discussion was 'In Good Health!' The increased demand for medical devices & healthcare equipment has already opened up new avenues of growth for the industry in India. At the same time, the closure of the major manufacturing hubs of critical medical equipment in China has also created a huge opportunity for Indian players, particularly in the SME segment. And the opportunities exist at every level – from design and tooling to manufacturing and testing. Abhinav Thakur, Managing Director, Accurex Biomedical, was in charge of this important discussion. He was joined by

industry leaders of great repute and calibre including Kishore Khanna, Managing Director, Romsons, Dr. Jitendra Sharma, MD & Founder CEO, Andhra Pradesh MedTech Zone (AMTZ), and Manish Dedhia, Managing Director, Mitsuchem India. The vote of thanks was delivered by Ranjan Haldar, Assistant GM, WWM-B2B. While the conference programme at PlastConEx 2020 lasted for two days, the exhibition remained open for four days. Virtual delegates made the most of this event by not just gaining knowledge from industry leaders but also by visiting different stalls and learning about useful solutions. 📍

Customer oriented engineering

While technological innovations are prevalent in most aspects of our daily life, Industry 4.0 in packaging industry makes enterprise activities to be more data driven, says **Ajay Tandon**, President - Engineering & New Product Development, UFlex

By Niranjan Mudholkar

What has been the vision behind UFlex' engineering business and how has it evolved over the years since its inception?

The philosophy of UFlex as a whole has been to be a one-stop-shop for comprehensive flexible packaging solutions. The vision of the engineering business is in line with it, by manufacturing the widely used machines to make flexible packaging materials and for packaging of products.

The growth of our Engineering Business is geared by innovation backed practice that matches the customers' packaging requirements. Our success can be attributed to unparalleled guidance from the leadership, teamed with trust and respect for people. This is accompanied by sharp focus on new product developments and continuous improvement while keeping the customer-centric approach in mind.

Tell us about your R&D activities. How important is innovation in your journey?

No industry can become or remain in leadership position for a long time without new product developments and innovations. New product developments and their introduction backed by innovative ideas will always continue to be our business focus. We consider it as one of the prime factors for maintaining our strong position in the industry. Our engineers and development team spends copious amount of time finding out and working on what could be the future needs of the customers, including working on the import



“WE HAVE ALWAYS BEEN COGNIZANT OF THE FACT THAT SUSTAINABILITY WILL BE THE WAY FORWARD FOR ANY BUSINESS TO SURVIVE AS WELL AS THRIVE.”

substitutes and creating engineering marvels. With our customers laying a lot of emphasis on products that not only offers them convenience but also improves their quality of life, the focus at our end is to improve the quality, accuracy and productivity of our machines and offer value for money. Innovations and new ideas keep us on our toes and help us grow with changing times.

In case of flexible packaging materials, key factors that get considered for innovation are strengthening of barrier properties, safety of products packed, customer convenience in handling and using the package, the attraction / appeal of the pack, embed anti-counterfeit features wherever required and above all, the technology that helps reduce Mixed Plastic Laminate (MPL) waste. In case of machines related to flexible packaging, advancements are more in the realm of overall quality, reliability, efficiency, new features, automation and machines with higher

speeds giving higher productivity, meeting the Industry 4.0 norms.

What differentiation have the machines developed by the UFlex Engineering Business brought to the plastic recycling ecosystem in India as well as globally?

Our Engineering Business is determined to develop path-breaking technologies that are all set to give an experience of convenience and enhanced efficiency to its customers. World over it has been debated whether Mixed Plastic Laminate (MPL) can be recycled. We have proved that recycling of MPL is very much possible. The recycling machine developed by the company comes with a technology that recycles all types of MPL bags, carry bags etc. homogeneously into granules without the need to separate layers of plastic films. These granules can further be converted into thousands of useful moulded products like outdoor furniture, paver tiles,

buckets, crates, flower pots and as well put to use to mould industrial items. We have been demonstrating this process and technology to different stakeholders including consumer brands and government and have got an overwhelming response from the industry to convert post-consumer waste into valuable commodities. Our plant in Noida even has a recycling infrastructure that uses many of our recycling machines doing recycling of industrial and post-consumer plastic films and laminate bags waste, collected from Delhi-NCR.

How has the Covid-19 pandemic impacted the way people perceive packaging? And how are you responding to the same?

COVID-19 had brought various industries to a screeching halt and impacted the world economy substantially. But as one would agree, during an epidemic, the consumption levels for essential commodities such as food and medicines increases due to fear-mongering and hoarding of stocks. The packaging manufacturers that cater to these essential industries of FMCG and Pharmaceuticals had to work round the clock to meet these demands. We also saw that this pandemic led to an increased demand for packaged products due to the safety and hygiene parameter that packaging brings. The upsurge in demand therefore made it essential for our business to keep up with the requirements. Similar was the situation of increased requirements of packaging and converting machines.

At UFlex, we have put in enormous efforts to contribute to the fight against this challenging situation and were able to get necessary permissions in place right at the start of the lockdown. We continued our operations non-stop to ensure constant movement of essential items' supply chain, such that there was no



“PACKAGING HAS TRULY BEEN A BELLWETHER OF THE ECONOMY AND OF CONSUMPTION IN APPLICATION FOR FOOD, SAFETY AND PHARMA DURING THESE TOUGH TIMES.”

shortage of packaging materials for packed products for public at large. All of this was backed with adoption of safety measures advised by the government.

I am happy to see that packaging has truly been a bellwether of the economy and of consumption in application for food, safety and pharma during these tough times.

How's been the ongoing fiscal in terms of business performance and how would compare it with the previous fiscal?

We are having a successful financial year 20-21 so far which is evident from our latest financial results of Q2FY21:

- The highest ever quarterly production & sales volumes at 118,470 MT & 111,645 MT
- Turnover of Rs.2234.5 crore. Consolidated revenue rose by 19.2 percent YoY.
- EBITDA: Rs.472.9 crore. 69.6 percent increase on a YoY basis.
- Net Profit jumping YoY by 136 percent to INR 221.8 crore.

Several Indian manufacturing sectors are at the forefront when it comes to the implementation of

Industry 4.0 tools like digitisation and automation. Where does the packaging industry stand in this regard, and what is UFlex doing on this front?

While technological innovations are prevalent in most aspects of our daily life, Industry 4.0 in packaging industry makes enterprise activities to be more data driven. Automation is being increasingly used to process large amounts of data, provide trends and mark out the outliers. To adapt itself to Industry 4.0 norms, Engineering Business has been launching Industrial Internet of Things (IIOT) enabled converting machines like our top of the line extrusion coating and lamination machine designed with high line speed of 400 meters per minute (mpm) to handle thin and thick laminate; solventless laminator machine and gearless CI flexo printing press with high automation level in the form of sleeves, anilox removal system and efficient ink washing system, making UFlex the first ever Indian company to offer it.

Industry 4.0 is largely about making the packaging industry sustainable with the help of technology and data. As one of the leading companies in the packaging sector across

THE COMPANY IS EXPANDING ITS GLOBAL FOOTPRINT FURTHER WITH NEW PACKAGING FILM PLANTS TO BE STARTED IN HUNGARY AND NIGERIA.

the world, we have always been cognizant of the fact that sustainability will be the way forward for any business to survive as well as thrive.

What is your approach as a machinery supplier? On an average, how many machines does UFlex install every year?

Bespoke machinery solutions have been our endeavour always and we ensure that we create or modify our machines to suit what the customers ask, without compromising on quality. Last couple of years we have been selling and installing big and small machines in domestic and export markets ranging from 350 to 400 numbers each year. This financial year 2020-21, we are targeting to install at least 450 machines.

Tell us about your overall manufacturing capabilities and capacities.

UFlex is engaged in providing end-to-end flexible packaging solutions to customers and is the only fully vertically integrated company in India in this space. Incorporated within its core business profile of flexible packaging materials and packaging films are allied businesses like Engineering, Cylinders, Holography, Chemicals and Aseptic Liquid Packaging. The company has world class manufacturing facilities for packaging business in India with installed capacity of around 1,35,000 TPA and packaging film manufacturing facilities in India, UAE, Mexico, Egypt, Poland, USA and Russia with a cumulative production capacity that stands in excess of 4,52,600 TPA. The company is expanding its global footprint further with new packaging film plants to be started in Hungary and Nigeria.

UFlex has a strong global sales and distribution network with customers in about 140 countries. We have a highly experienced leadership and management team with long association, almost since inception with a proven track record and we also employ over 8300 trained and skilled persons globally.

The engineering business has a very flexible capacity to manufacture packaging, converting and recycling machines and has a large avant-garde plant in Noida, India. It all depends on the type, size and the kind of machine orders generated. We also manufacture Aseptic Liquid Filling Machines and special purpose packaging machines that cater to both FMCG as well as Pharma customers.

What is your take on our PM's 'Make in India' initiative? What are the challenges and opportunities for your industry in this context?

The packaging industry plays a crucial role, adding value to various manufacturing sectors including agriculture, pharma, retail, FMCG, to name a few. We are proud to say that UFlex started the very first Indian aseptic liquid packaging plant in Gujarat echoing 'Make in India' vision of Prime Minister Narendra Modi. His vision of a 'Self-Reliant India' (Atmanirbhar Bharat) and

“INDUSTRY 4.0 IS LARGELY ABOUT MAKING THE PACKAGING INDUSTRY SUSTAINABLE WITH THE HELP OF TECHNOLOGY AND DATA.”

'Vocal for Local' campaign can really help boost manufacturing, and as a result, help scale our economy to newer heights. Overall, the initiatives taken are in sync with the needs of our nation. As an industry, we request the policymakers to provide an enabling environment which gives rise to the demand for locally produced commodities that can match global quality standards. On the other hand the industry and industrialists in our country should think 'big' and put up 'big' manufacturing facilities, like our neighbouring country. This of course needs to be backed up by the government to ensure infrastructure and resources being made available quickly and be affordable to compete internationally.

Also, it's high time that the packaging industry in India should have a 'Central Government recognised executive authority' that regulates the industry, which, for now, is governed by other departments. Reforms and incentives on waste management enforced by regulatory bodies are needed to balance the packaging movement and create a circular economy.

Do we have an ecosystem that is robust enough to become 'Atmanirbhar' as far as this industry is concerned?

Complying with 'Atmanirbhar Bharat', we have been creating new technologies and products that will serve as import substitutes for the industry. We are self-sufficient with very little need for outsourcing. There is tremendous opportunity; however, there are certain challenges too. Where the Indian government can help is with the improvement of infrastructure to help facilitate the packaging industry with more and better roads, bridges and utilities. This will help the industry manage the gap between supply and demand. This is where the weakness lies in the country, at least from an Indian perspective. 📍

Back in Business!

Be it medical, household, or PET, the demand for plastics is back, says **Deepak Pahwa**, Managing Director, Bry-Air (Asia)

By Niranjan Mudholkar

Would you say that the Covid-19 pandemic has been the toughest leadership test for you?

Certainly, the pandemic did have an impact on the smooth functioning of the business at first, but Bry-Air swiftly sailed through this because of many reasons – the most important being we are into diversified businesses. Because of which we did not face such a big challenge and bounced out of it quickly. Thinking on feet to establish a 24X7 service helpline for our Indian and international clients kept the flow of work steady and did not let the chain break.

Our employees were the first ones to band together and bring out the best of teamwork qualities at such a crucial time. While our leaders ensured that their teams are functioning properly given the barrier of physical distancing and once the manufacturing units were allowed to re-open by the government, it was business as usual for us.

As we speak, most of our workforce is back in the office and we the business is on full-swing, of-course with all safety measures in place to break the spread of viruses. One thing that we realised during this crisis is that the future belongs to people who can multitask, adapt, reskill, and be productive. While the uncertainty is here to stay, what's necessary is to orient ourselves to the new reality and adapt accordingly.

How did the pandemic impact your business and overall operations? How did you deal with the same?

As I mentioned earlier, the business impact was very little compared to



“PLASTICS ARE SUCH AN INTEGRAL PART OF OUR LIVES THAT IT CAN NEVER BE REPLACED OR BE COMPLETELY DONE AWAY WITH. IT IS ONE OF THE FASTEST GROWING INDUSTRY AND THE PROCESSORS WORLD OVER HAVE MADE A LOT OF PROGRESS IN THE WAY PLASTIC CAN BE USED BY VARIOUS INDUSTRIES.”

what some of the other MSMEs have faced in India. While the manufacturing and supply part of the business was set back for some time, this crisis has helped our business in more ways than one. For instance, the awareness about the dehumidification solutions is limited. However, during the pandemic as everybody was advised to stay home the smooth functioning of the warehouses, data centres, refrigeration, and other similar needs became a necessity. This resulted in increased awareness amongst various Indian and International companies about the need for having a dehumidification system in place.

Similarly, the dependency on plastic has increased during the pandemic more than ever before. From medical plastics to the industrial plastic industry is seeing a surge in demand from all sectors. Even if you see, the debate around the single-use plastic has also taken a back seat. So that is another segment that has generated a huge demand for our business too since we have a huge range of moisture control systems and solutions specially designed for the plastics industry.

How has Bry-Air adapted to the New Normal? Is it business as usual or have you made some



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major changes?

It is now business as usual and more than making operational changes from the safety and security standpoint, it is the time to being about the change in psyche of the people. The uncertainty is still there, but it is about time to learn to live around it, adapt to the new lifestyle of doing everything by ourselves, juggling many roles as most of the resources at our disposal were taken away for following the norm of social distancing, learn using technology for our benefit and make the most of what we have right now along with being conscious about the future needs of the upcoming generation.

What made you re-launch the GDS plastic dryer series now? What kind of upgrades have you introduced through this re-launch?

We launched our Green DrySmart Dryers in January at Plastivision 2020 and it got a lot of attention from the representatives of the plas-

tic industry world over. However, the on-ground marketing for the product started in February, but the COVID onslaught completely washed it away shifting the attention to the loss of human lived world over.

Our focus as an Indian manufacturer also shifted to quickly get our operations back on its feet and sail through the thick COVID cloud. Seven months later, we are in a position to go whole hog marketing GDS to the international and Indian manufacturers. More so because the plastics market is seeing a surge in demand for plastic products given the current situation at hand. Be it medical, household, or PET, the demand for plastics is back and there is no better time to market the revolutionary GDS dryer than right now. The manufacturers need it more than ever before.

Coming to why we say that GDS is ‘revolutionary’- it is because GDS is first of its kind plastic dryer which is Waterless in the truest sense. Made

after a lot of market research, GDS specifically caters to the drying needs of next generation plastic materials, GDS plastic dryer is able to deliver < (-) 40 °C dewpoint even at 70 °C return air to desiccant rotor inlet. It is a Green product which promises to deliver up to 40 percent reduction in running cost.

With GDS we have re-established its message that ‘Bry-Air knows drying best’ because here we have a product that is ideal for the processors who want energy efficient solutions with convenience and portability. Some of the ideal industries that use plastics heavily and are the best match for GDS are automobile, medical plastics, white goods, packaging, mobile accessories, sports/toy industry etc.

Give us an overview of your overall manufacturing footprint.

Bry-Air is the leader in dehumidification and is a global solution provider for humidity control, moisture removal and product drying. Our solutions are well recommended for Plastics drying and conveying, high temperature waste heat recovery and absorption cooling too. Bry-Air Dry Room solutions are critical for lithium battery production and we are today the world’s fastest growing adsorption technology group in the world. We have over five decades of experience in applications, manufacturing, engineering and R& D in the field of dehumidification and environment control solutions, with subsidiaries in China, Malaysia, Brazil, Nigeria and Switzerland, and an associate plant in the USA.

With installations in over 85 countries in almost every industry and supported by a robust sales and service network worldwide, Bry-Air touches people’s lives round the clock. Bry-Air is one of the flagship companies of the Pahwa Group, where innovation in technology and business processes is the driving phi-

losophy.

To stay ahead of the curve, Bry-Air also has full-fledged R&D centre that is recognized by the Department of Science and Technology, Government of India and is undoubtedly one of the finest in the industry. Bry-Air has filed many international patents and several of them have been granted. The Group has filed 123 international patent applications in 13 new technologies (since 2007), of which 52 patents have been granted/allowed already.

The plastics industry has been going through really tough times for environmental reasons. However, the pandemic seems to have given it a new lease of life. What is your opinion?

Plastics are such an integral part of our lives that it can never be replaced or be completely done away with. It is one of the fastest growing industry and the processors world over have made a lot of progress in the way plastic can be used by various industries. From your baby's toys, to your favourite bag of munchies, your mobile phones to your cars; it is all made of high end plastic. In fact, if you see now the whole debate on the ban on single-use plastic is hardly to be seen anywhere. Because agree or not, plastic as a product in itself has evolved and come a long way in past decade or more.

Plastics are widely used in medical devices like disposable syringes, intravenous blood bags, optical and dental products, MRIs, heart valves, contact lenses, prosthetic devices, and many more medical products. Medical-grade plastics are used more and more in medical devices for their high performance, light weight, and lower costs. Its growth has also transformed the market with medical plastics replacing other materials such as glass, ceramics wherever applicable.

The overall global market for



“THE OVERALL GLOBAL MARKET FOR MEDICAL PLASTICS IS EXPECTED TO REACH US\$28 BILLION IN 2020. DURING COVID-19 OUTBREAK, INCREASED REQUIREMENTS OF PERSONAL PROTECTIVE EQUIPMENT (PPE) HAVE BOOSTED THE CONSUMPTION OF STANDARD PLASTICS SUCH AS MEDICAL-GRADE POLYPROPYLENE AND POLYETHYLENE.”

Medical Plastics is expected to reach US\$28 billion in 2020. During Covid-19 outbreak, increased requirements of Personal Protective Equipment (PPE) has boosted the consumption of standard plastics such as medical-grade polypropylene, polyethylene, and drive market demand. We believe this demand will only grow in the coming future along with the need for environment control solutions to be able to produce best quality plastic products.

What are your views about initiatives like ‘Make in India’ and ‘Atmanirbhar Bharat’? What are your expectations from the Government in terms of providing a boost to your industry?

Bharat has always been *AtmaNirbhar*. Today's self-reliant Bharat movement is a positive step in the direction of rekindling the manufacturing set up in India, however, there was some-

thing called an import substitution programme in 1970s that refrained companies from importing anything unless you had got a certificate to ensure the particular product was not manufactured in India. Only then could you apply for an import license and then could import the item. If there was an indigenous item available one would not get a license to import it. Similarly, there was a very strong movement and encouragement by the government that we're calling today self-reliant.

Then with the end of license Raj and initiation of economic liberalisation government scrapped the import licenses which unfortunately swung the pendulum to the extreme by opening the floodgates to imports. Before the bureaucracy could the big mistake they made with the duty structure after liberalisation, it was too late. Its ultimate result was that people had a very great

incentive now to import a whole product. But certainly, the Indian manufacturing industry went from one extreme to another, the localisation thrust was totally lost overnight in 1991, and today we are here in 2020, the present government with our Prime Minister appealing for Making in India, Vocal for Local and Atmanirbhar Bharat – it is all that the same we were doing earlier, but a welcome move to inspire the country to achieve what we have lost over time.

In the HVAC&R industry, Bry-Air is leading with an example of how Make in India is not only a phrase but is truly of part of what we do every day. At Bry-Air, Atmanirbhar Bharat and Make in India are a reality since last 55 years. Talking of our latest GPS dryer which is made in India completely with pride for the rest of the world. Over the course of almost 6 decades, Bry-Air has practically become the only Indian player in the HVAC&R industry whose products are equally sought after in the international markets, as they are in the Indian market.

Leading companies in plastic industry from Europe and North America have partnered with Bry-Air for selling in-line moisture minder is a testimony to our products that are truly world class and made in India.

Tell us something about your exports business in terms of revenue shares, products exported and markets catered to.

With Desiccant at its core, in relation to air, the Pahwa Group is a group of knowledge based and technology driven companies offering advanced environmental control solutions to a wide array of companies. Bry-Air and DRI are flagship companies of Pahwa Group. On one hand is Bry-Air that offers moisture control solutions for a wide array of applications, whereas on the other hand is DRI... Desiccant Rotors

“HAVING MULTIPLE OPTIONS WITH REDUCED DEPENDENCY ON A SINGLE SOURCE, FOR INSTANCE, AND THAT TOO AIMED AT FURTHERING LOCALISATION IS AN OUTCOME OF THE POST-COVID AFTERMATH. IT IS THERE TO STAY AND BENEFIT INDIAN ECONOMY AND HAVING SAID THAT, THE BUSINESS OUTLOOK IS DEFINITELY POSITIVE.”

International which is a fast growing Indian HVAC&R company with global footprints providing end to end solution for fresh air treatment, Green Buildings & Evaporative Cooling Solutions.

The other group companies include Delair India that specialises in designing, engineering and manufacturing of Compressed Air and Gas Drying Systems – Refrigeration & Adsorption type and TDS that provides short term humidity, temperature control, drying and water damage restoration solutions on rental basis.

Our range of products find application in all industries and has installation in over 85 countries including South East-Asia, China, CIS countries, Indian subcontinent, West Asia, Middle East and Africa including South Africa & Australia as well as USA and Japan. The product range is backed by the latest technologies, strong R&D, world class test facilities and a team of highly trained engineers.

Together with DRI, and other group companies, the Pahwa Group employs a strong team of over 1400+ persons in six continents and has 13 manufacturing units. The core strength of all the group companies is concentrated in desiccant and desiccant-based technologies. The Group has filed 123 patents applications worldwide on 13 new technologies, since 2007, out of which 52 patents granted / already allowed for energy smart technologies and has set up nine state-of-the-art test labs

to give the cutting edge to our R&D and product offerings.

What was your overall turnover in the last fiscal and what kind of numbers are you looking at for the ongoing fiscal?

In the year gone by, the overall growth has been slow – the reasons being the uncertainty created in the market due to the pandemic and its direct impact on the economic slowdown. We are definitely looking at recovery slow, but steady. However, last year the group turnover was Rs.400 crore approximately.

Do you see the Indian economy bouncing back to its pre-2019 state? What's your business outlook for the next 15 months?

The economy is recovering and we have started seeing the initial signs of it already. Whether or not it will bounce back to pre-COVID levels is yet to be seen. Typically, even if the economy recovers over the course of the next few months, we will still be lagging behind in terms of our percentage growth for this financial year. On a brighter note, the pandemic has also made India and the world realise a lot of things that were amiss otherwise. Having multiple options with reduced dependency on a single source, for instance, and that too aimed at furthering localisation is an outcome of the post-COVID aftermath. It is there to stay and benefit Indian economy and having said that, the business outlook is definitely positive. 📍

Building on a legacy with pride

The debate shouldn't be about more or less packaging. It should be about how we make packaging smarter and more sustainable; packaging that considers the environmental, social and governance aspects of sustainability.

By Dr. Arup Basu

Legacy is a wonderful word. It is deep, evocative and long-lasting. And it acquires a far greater meaning and purpose when it stays sincerely focused on today while responsibly marches towards tomorrow. Take for example the organisation I work with. Our legacy perfectly captures our shared history and our future in India. While we celebrate our global organisation's 100th birthday (and it is 85 years since our Indian business was first formed), we are all set to march forward as we change our name (to Huhtamaki India Limited). But we have neither forgotten our Indian heritage nor Nordic heritage, and we look forward to a bright future here in India.

Challenges

Today, humanity faces many common challenges. By 2050 the world's population will surpass nine billion, with an estimated 1.6 billion in India. To feed everyone food production will need to increase by 70 percent. By 2030, 40 percent of Indians will live in urban environments resulting in increased demand for packaged food. But as we know, the food ecosystem already has a significant impact on the world around us



with 25 percent of global greenhouse gas emissions coming from food systems and one-third of food produced lost or wasted. If food loss and waste was a country it would be the third largest emitter of greenhouse gas emissions. Simply put this is where well-designed packaging can help for example by preserving food in an edible condition for longer. It is why we are committed to protecting food, people and the planet. We ensure that our packaging enables food availability everywhere and allows food to be transported both affordably and at low carbon emissions.

Food safety

And we should not forget that food safety remains a key concern, indeed microbial contamination of food products is still the main cause

of foodborne illnesses. Nearly 600 million people globally fall sick and 420,000 die each year because of foodborne diseases. That results in the loss of 33 million healthy life years. Our packaging can improve food safety by alleviating bacterial contamination. But, just as with all innovations, there are challenges to be dealt with. Each year over eight million tonnes of plastic packaging escapes into the oceans and recycling rates across the globe remain pitifully low. And there is the paradox. On the one hand society wants to see fewer materials used, less packaging waste and less litter. On the other hand, it wants safer products, less food waste and a longer shelf life.

More smart and sustainable

I would argue that this discussion is a distraction. The debate shouldn't be about more or less packaging. It should be about how we make packaging smarter and more sustainable; packaging that considers the environmental, social and governance aspects of sustainability. As an organization, we support the UN Global Compact and the Sustainable Development Goals and have an ambitious 2030 sustainability agenda. For example, within 10 years we will be carbon neutral in our production, using 100 percent renewable electricity across our global operations. In India, we have already made a good start, installing solar PV systems in a number of our sites e.g. Daman, Guwahati and Silvassa. In addition to sustainability, innovation is at



“AND THERE IS THE PARADOX. ON THE ONE HAND SOCIETY WANTS TO SEE FEWER MATERIALS USED, LESS PACKAGING WASTE AND LESS LITTER. ON THE OTHER HAND, IT WANTS SAFER PRODUCTS, LESS FOOD WASTE AND A LONGER SHELF LIFE.”

the heart of our 2030 strategy and we have committed to having 100 percent of our products designed to be recyclable, compostable or reusable by 2030. Again, in India we are making good progress through our Blueloop innovation platform.

Working together

But we recognise that no-one can address the challenges of sustainability alone. Business, policymakers and consumers must work together to shape a sustainable future. To achieve this, we believe we must build a shared and common understanding of sustainable development that considers the environmental, social and economic balance. It is this shared understanding that will underpin fact-based conversations that drive evidence-led decision-making and avoid unintended and damaging consequences.


We are already collaborating with others to improve resource efficiency and address the gaps in

“BUSINESS, POLICYMAKERS AND CONSUMERS MUST WORK TOGETHER TO SHAPE A SUSTAINABLE FUTURE. TO ACHIEVE THIS, WE BELIEVE WE MUST BUILD A SHARED AND COMMON UNDERSTANDING OF SUSTAINABLE DEVELOPMENT THAT CONSIDERS THE ENVIRONMENTAL, SOCIAL AND ECONOMIC BALANCE.”

the circular economy, for example around recycling systems. We are working with our customers through schemes which collect used plastic packaging for recycling or conversion to electricity, which itself acts as an enabler for business activity and creates jobs, improving well-being across India.

Being grateful

We have also gone further. Just weeks ago, as part of its centenary commitments, the Huhtamaki Group donated INR 52 million to fund a project that aims to stop the flow of plastic into the Indian Ocean

from the Mithi River in Mumbai. The Mithi River Project is a global partnership between the United Nations Technology Innovation Labs (UNTIL), VTT Technical Research Centre of Finland, RiverRecycle and Earth5R. The project uses emerging technologies to collect plastic waste and seeks ways to valorize it by turning it into valuable fuels, chemicals, bio energy and fertilisers. 

The author is Executive Director, Huhtamaki India, President, Flexible Packaging Business segment and Member of the Global Executive Team, Huhtamaki Group

UPDATE

Virtual International Tooling Summit concludes successfully

TAGMA recently organised the first-ever Virtual International Tooling Summit to help toolmakers find their way through these challenging times. Union Minister Nitin Gadkari; MSR Prasad, Distinguished Scientist & Director General - Missiles and Strategic Systems (MSS), DRDO; and several other prominent personalities of the tooling world graced the two-day virtual event. They offered insights about the tooling industry, which were very well received by the 500+ professionals, who marked their presence virtually from around the world. This event turned out to be an eye-opener that guided toolmakers to find opportunity in adversity. “The tooling industry is like the heart of the manufacturing industry. It has immense economic importance. We cannot dream of having a strong manufacturing industry without a robust tooling industry,” said Gadkari at the inauguration speech of the first-ever Virtual International Tooling Summit. The ITS, which is India’s largest die and mould gathering, is organised every year by the Tool and Gauge Manufacturers Association (TAGMA).

In his welcome note D K Sharma, President, TAGMA India addressing more than 500 professionals from across the globe, who participated virtually, said, “The current pandemic has taught us a lot. For instance, adopting digital is no longer an option, but more of a compulsion. The first-ever virtual ITS is the result of such learnings.” He also highlighted the challenges that Indian toolmakers face and spoke about their expectations from the government and OEMs. The welcome speech was followed by the launch of the ‘Tooling Industry Report’ by the Union Minister. The ‘Tooling Industry Report’ was prepared by TAGMA in association with Nomura Research Institute India Pvt. Ltd. It provides comprehensive details about the Indian tooling industry. The event’s Guest of Honour, MSR Prasad, mainly discussed the current activities and plans of the defence ministry. He also spoke about the huge opportunities available for toolmakers in the defence sector. The theme for this edition of the virtual ITS was ‘Tooling Self Reliance in India and New Frontiers of Growth’.

Blockchain traceability project

A blockchain supply chain transparency provider has recently launched a project with a car manufacturer and its material suppliers to enable the traceability of plastics on blockchain and to ensure that the use of sustainable materials in the cars can be proven.

Circularise, the blockchain supply chain transparency provider, as part of the Startup Autobahn innovation program, recently launched a project with Porsche and its pioneering material suppliers – Borealis, Covestro and Domo Chemicals – to enable the traceability of plastics on blockchain and to ensure that the use of sustainable materials in Porsche cars can be proven. By digitizing materials Circularise was able to create a digital thread through the whole supply chain, enabling material traceability, tracking the CO2 footprint and other sustainability metrics like water savings.

Getting information from supply chains has always been a challenge. Not only because of the inherent complexity of the supply have chains and the multitude of suppliers, but also due to concerns around trusted, privacy and confidentiality. That is why blockchain is offering such a fitting solution to transparency challenges in supply chains. “We believe transparency should not come at the cost of reduced privacy and confidentiality. That is



why we developed our patent pending technology for creating verified statements on public blockchains without revealing any underlying sensitive data. While this raw data is very valuable in a B2B setting, consumers demand a more distilled and interactive version. We are proud to present exactly that in collaboration with Porsche and some of their pioneering suppliers,” says Mesbah Sabur, Founder, Circularise.

Porsche has a large number of suppliers providing parts to its cars but it doesn't stop the company looking for more information about the

materials that go into its cars. According to Antoon Versteeg, Project Lead Innovation Research at Porsche, “We need to know more details on the parts and materials being used in our products, which means information on production processes deep down the supply chain, statements of recycled content and more. With the help of Circularise, as well as with the help of their partners we were able to trace for a number of specific cases plastics from raw material production to the final car.”

A number of suppliers who can deliver sustainably produced materials for the automotive industry were involved in this project to realise the final outcome. Each batch of material was digitized on the blockchain receiving a digital copy called digital twin. The digital twin carries all relevant information regarding the batch, such as its environmental footprint and origin. This digital thread created transparency between project partners leading to an improved supply chain collaboration.

This also offers great advantages to the material manufacturers. According to Thomas Nuyts, Director of Global Product Management at Domo Chemicals, “as leader in the production of sustainable polyamides, we at Domo can only gain by making the supply chain more transparent. By tracking our materials, we will make a huge step ahead in supporting the automotive industry in its sustainability challenges. Be-

“WE NEED TO KNOW MORE DETAILS ON THE PARTS AND MATERIALS BEING USED IN OUR PRODUCTS, WHICH MEANS INFORMATION ON PRODUCTION PROCESSES DEEP DOWN THE SUPPLY CHAIN, STATEMENTS OF RECYCLED CONTENT AND MORE.”

Antoon Versteeg, Project Lead Innovation Research at Porsche


sides providing recycled solutions from current sources we also aim to enlarge this loop and find new raw materials for our products to meet the mobility needs of today and tomorrow.”

However, the companies cannot simply create a digital twin. First, the batch of materials needs to be audited by an independent third party to verify that the material and related claims are true. “Verification is essential. Even with a supply chain involving blockchains we want independent auditors for our system. And this is how we gain the trust and confidence of all our value chain members. Several years from now, after these systems are in place on a wider scale, things will have been standardized. For now, it’s still early days. Auditors and certifications are essential to ensure that no one can engage in greenwashing. But we really need to pick up the pace as we keep moving towards more circu-

“A NUMBER OF SUPPLIERS WHO CAN DELIVER SUSTAINABLY PRODUCED MATERIALS FOR THE AUTOMOTIVE INDUSTRY WERE INVOLVED IN THIS PROJECT TO REALISE THE FINAL OUTCOME. EACH BATCH OF MATERIAL WAS DIGITIZED ON THE BLOCKCHAIN RECEIVING A DIGITAL COPY CALLED DIGITAL TWIN.”

larity,” says Christopher McArdle, Borealis Vice President Polyolefin Strategy and New Business Development.

Once the materials are digitized, the parties along the supply chain can now update the digital twin mimicking the physical supply chain and reflecting the manufacturing processes along the lifecycle of the product. Due to Circularise’s “Smart Questioning” technology this process can happen while preserving everyone’s privacy regarding their identity and business relations and protecting confidential information.

Burkhard Zimmermann, Head of Resin, Digital Transformation & Sustainability at Covestro’s Polycarbonates segment: “For us, it is really important to share information and be more transparent while maintaining confidentiality. For instance, the material composition is of competitive advantage so we would never share that openly. Here, Circularise helps us to maintain this confidentiality and only disclose the information needed from raw material producer to recycler. And with that, we can close the loop.” 

UPDATE

India’s EV market to grow at CAGR of 44%: IESA

India Energy Storage Alliance (IESA) released its 2nd annual “India Electric Vehicle Market Overview Report 2020-2027” for the India Market. The report covers the present scenario and forecast of electric vehicle (EV), EV batteries and the public charging infrastructure market in the country. Besides, it covers updated revenue and unit sale details by various EV segments, charging infrastructure types, EV battery potential and the present stage of EV components market in India. There is a detailed chapter on Central and State-level EV policy analysis and offers a competitive analysis of EVs and EV battery suppliers. The report provides an insight into the EV battery market, its sales figures by EV segments.

Battery capacity (GWh) and revenue (INR Cr) forecast till 2027. Besides, EV components such as – motors, power electronics and battery management systems and their market are also covered. The EV sales in India stood at 3,80,000 in 2019-20, and the EV battery market stood at 5.4GWh during the year. In the base case scenario, the EV market is expected to grow at CAGR of 44% between 2020-2027 is expected to hit 6.34-million-unit annual sales by 2027. The annual battery demand is forecasted to grow at 32% to hit 50GWh by 2027, of this, 40+GWh will be on lithium-ion batteries. The estimated battery market potential is \$580 million in 2019 and is forecasted to grow to \$14.9 billion by 2027. The

electric two-wheeler (e-2W) market took up the highest share in 2019-20. Currently, low- and medium-speed e-2W (up to 40 kmph) with conventional lead-acid batteries are dominating the market as they are already at par in terms of upfront cost with Internal Combustion Engine (ICE) vehicles. Secondly, high-speed segment with Li-ion batteries is also gaining momentum slowly. With more companies getting FAME-II certification in 2020, sale of high-speed e2Ws is also expected to increase rapidly in next two years. Going forward, for the exponential growth of this segment, the market is demanding for quality two-wheelers, which can compete with ICE vehicles in terms of both cost and performance.

Design freedom with 2-component 3D printing

Two filaments can be joined together in a single production step to form a lubrication-free and highly stable component

Prototypes, spare parts, tools and small batches: 3D printers of the Cologne-based plastics specialist igus now also produce components with various filaments. Different material properties can be easily combined in this 2-component 3D printing. For example, 3D printing can be used to produce components that require both special rigidity and high wear resistance. This gives companies more freedom and flexibility in design.

3D printing has become a serious alternative to machining processes such as turning and milling in industry. 32 per cent of industrial companies already used the technology in 2019, twelve per cent more than in 2016, according to a study by the industry association BITKOM. And the demands of users are increasing. "In recent years, more and more designers have asked us whether it is possible to produce components from several plastics, using 3D printing, in order to achieve special properties," says Tom Krause, Head of Additive Manufacturing at igus. The solution is Two-component printing (2K). This allows tribo-filaments to be combined with carbon fibre-reinforced filaments. The customer not only receives a particularly low-wear component, but also one that is extremely resilient.

Two-component printing (2K): There are hardly any restrictions from a geometric point of view.



More freedom and flexibility in design: with 2-component 3D printing, different material properties can be easily combined. (Source: igus GmbH)

temperatures of the filaments differ greatly and no material fusion is possible. In this case, designers can create a form-fit connection such as a dovetail, which connects two areas made of different plastics.

"In the past, this flexibility was impossible in 3D printing."

The filament portfolio includes lubricants and high-performance polymers with fire-retardant, hygienic and antistatic

"WITH 2-COMPONENT PRINTING, THE USER BENEFITS FROM A MATERIAL MIX. IN THE PAST, THE INDIVIDUAL PARTS COULD ONLY BE PRINTED OUT AND PUT TOGETHER ONE AFTER THE OTHER. NOW IT'S MUCH EASIER AND FASTER."

Tom Krause

"We have now expanded our 3D printing service to include two-component printers (2K), which can work with two different printing materials offering more flexibility in product development. The 2-component printers work with the FDM process. The two molten plastics each flow through a separate pressure nozzle. The 2-component printers can switch between materials at any time during printing, and they merge at the transitions. "There are hardly any restrictions from a geometric point of view," Tom Krause makes clear. "The materials can enclose themselves, intertwine and alternate in layers." An exceptional case only arises if the melting

properties, amongst others. Tom Krause: "With 2-component printers we have the possibility to combine the specifications of two filaments in one component." One example of a 2-component printed part is a gripper element for a machine that screws on lids in the food industry. The body consists of an iglidur filament, which guarantees robustness and wear resistance. The surfaces, on the other hand, are made of a flexible material that provides slip resistance. "With 2-component printing, the user benefits from a material mix," emphasises Tom Krause. "In the past, the individual parts could only be printed out and put together one after the other. Now it's much easier and faster."

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"WE HAVE NOW EXPANDED OUR 3D PRINTING SERVICE TO INCLUDE TWO-COMPONENT PRINTERS (2K), WHICH CAN WORK WITH TWO DIFFERENT PRINTING MATERIALS."

Tom Krause, Head of Additive Manufacturing at igus

More Laboratories Access to Mass Spectrometry

Direct MS system quickly analyzes samples requiring minimal prep or expertise to help improve operational efficiencies and competitiveness

Waters Corporation has introduced the new RADIANT™ ASAP™ System, a novel direct mass detector engineered for non-mass spectrometry (MS) experts to conduct fast and accurate analyses of solids and liquids with minimal sample prep. The RADIANT ASAP System's high-quality, simplified and rapid operation, compact design, and powerful software capabilities for real-time data visualization offers advantages and numerous test case scenarios for laboratories across

a multitude of industries, including pharmaceuticals, forensics, food & beverage, chemicals & materials, and academia.

"As competition among laboratories grows, lab professionals are being challenged to provide quality results and shorten sample turnaround times," said Gary Harland, Senior Director, Product Management at Waters Corporation. "Direct MS analysis offers the versatility, ease-of-use, speed and reliability that today's labs need to stand out among the pack. RADIANT ASAP overcomes many of the barriers to entry associated with traditional mass spec systems, empowering seamless deployment in existing lab environments and enabling those with minimal LC-MS training to obtain accurate results quickly."

Breaking Down the Barriers

Engineered using proven and robust single quadrupole MS technology, and combined with a dedicated Atmospheric Solids Analysis Probe (ASAP) source, the Waters™ RADIANT ASAP System achieves results in seconds after a sample is loaded into the system. Gaseous analyte molecules are ionized by N₂ plasma, guided into the instrument and sep-



| The Waters RADIANT ASAP System is a novel direct-from-sample mass detector engineered for non-mass spectrometry (MS) experts to conduct fast and accurate analyses of solids and liquids with minimal sample prep. (Photo: Business Wire)

arated by their mass-to-charge ratio. Users obtain real-time sample classification and quality assessment in less than a minute, without the need for a chromatographic separation, conserving the time and resources traditionally lost to sample preparation.

Ryan Francis, Instrument Specialist - Drugs, at Eurofins Forensic Services (Teddington, UK) worked alongside Waters' scientists and scientists at the National Measurement Laboratory at LGC (Teddington, UK) to evaluate the Radian ASAP System. "We worked with the beta model of the Radian ASAP and quickly found that it was a robust tool for the categoric identification and screening of substances," Ryan says. "It really shows how far companies like Waters and the scientific community as a whole are pushing the envelope to deliver techniques that are both fit-for-purpose and reliable."

The RADIANT ASAP System is compatible with a variety of Waters software solutions, including OpenLynx, MassLynx™, IonLynx™ and LiveID™. Notably, Waters has released the latest iteration of its LiveID Software, LiveID 2.0, in conjunction with RADIANT ASAP. Offering an intuitive, modern in-

terface and easy-to-interpret results, LiveID Software continues to offer model building capabilities for classifying samples and determining their authenticity. LiveID Software now also offers real-time spectral library-matching for identifying sample compounds by matching their spectra with reference library spectra stored in the software.

Broad Application Use Cases

The RADIANT ASAP System's automated set-up, stream-

lined workflow, and easy operation with minimal training offers laboratories a flexible tool to meet rising demands without sacrificing on analytical performance. Notable applications include:

- Pharmaceuticals, to provide easy access to mass spectral data for instantaneous assessment of reaction progress and the identification of purification fractions;
- Forensics, to empower the rapid, confident identification of illicit drugs against a library of known compounds;
- Food and Beverage, to improve food integrity by verifying product authenticity and safety, adulteration, or degradation by suppliers and regulators;
- Chemicals and Materials, to streamline quality control and product development workflows such as material release testing or formulation performance testing; and
- Academia, to supply academic laboratories with a robust and reliable solution for teaching and method development.

Engineered by Waters in Singapore, the RADIANT ASAP System is now available worldwide from Waters. For more information, visit www.waters.com

Precision analysis of complex chemical compounds

Waters collaborates with Dr. Sunghwan Kim of Kyungpook National University

Waters Corporation (NYSE:WAT) has formally expanded its long-standing, collaborative relationship with Dr. Sunghwan Kim of Kyungpook National University to further explore the use of Waters' cutting-edge ion mobility spectrometry (IMS) in the investigation of compounds in complex mixtures.

Identifying unknown chemicals in complex organic media at the molecular level has become an important but difficult research topic in modern analytical chemistry. For example, crude oils are immensely complex organic mixtures and have a high degree of variance at the chemical level. Characterization of the chemical complexity of oil is helpful not only to maximize profit, but to make petroleum products more efficient as well.

"We are thrilled to deliver the first Waters™ SELECT SERIES™ CYCLIC IMS™ in South Korea to Dr. Kim's state-of-the-art laboratory at Kyungpook National University," said David Curtin, Waters' Vice President for APAC. "Together we will further explore difficult analytical challenges, such as oil analysis, while leveraging our collective expertise and revolutionary innovation."

Characterization of oil's chemical complexity prior to refining is difficult, but necessary to maximize the quality of petroleum products. Approximately 90 million barrels of oil are produced per day, representing more than \$3 billion in daily value* (*source: US Energy Information Administration), so even marginal improvements to the chemical characterization process can have



| Waters SELECT SERIES CYCLIC IMS System

significant financial benefits for refineries.

Over the last 10 years, Dr. Kim has been working to develop an analytical scheme to identify chemicals in complex mixtures and believes that Waters' CYCLIC IMS System can make a major contribution to resolve this difficult analytical problem.

"The CYCLIC IMS is an innovative instrument by which researchers can use their imagination to design and perform novel experiments that has not been possible with other existing instruments," said Dr. Sunghwan Kim. "The novel information from this innovative instrument can provide a key to complete the build-out of our analytical scheme."

While the performance of previous Ion Mobility ToF Mass Spectrometry techniques has been useful for structural characterization of crude oils, the approach has been

limited by the ion mobility resolution of these devices. The unique design of the CYCLIC IMS utilizes a novel travelling wave ion mobility device arranged in a cyclic fashion, allowing a selectable level of IMS resolution by choosing the number of IMS cycles, and is delivering previously unattainable levels of gas phase separation.

Recently, Dr. Kim published a paper with Waters researchers on utilizing CYCLIC IMS to tackle both the complexity and isomer problems of crude oil characterization. In this study many of the chemical components differed by less than 0.1Da, and CYCLIC Ion Mobility allowed the detection and separation of these, as well as clean MSMS spectra for the individual components.

"The data obtained from utilizing Waters' CYCLIC IMS clearly demonstrates that the novel CYCLIC ion mobility-mass spectrometer is a powerful instrument that can provide never-before-seen tandem mass spectra of individual compounds in crude oil," said Dr. Kim. "Furthermore, it has the potential to reduce the need for long LC or GC separations prior to MS analysis, reducing overall analysis time and increasing throughput."

In addition, as part of their collaboration, Dr. Kim and Waters will also work to characterize complex advanced materials used in high technology products, such as those found in electronics. In this fast-moving field of smart materials, the structural purity of these finely tailored molecules dictates the ultimate performance of the materials and even subtle changes in organization of side chains, functional units or macro-molecular assemblies can lead to batch-level failures, or even potentially dangerous products. The use of CYCLIC IMS in process development will allow detection of erroneous molecules that could not be seen before.

"TOGETHER WE WILL FURTHER EXPLORE DIFFICULT ANALYTICAL CHALLENGES, SUCH AS OIL ANALYSIS, WHILE LEVERAGING OUR COLLECTIVE EXPERTISE AND REVOLUTIONARY INNOVATION."

David Curtin, Waters' Vice President for APAC.



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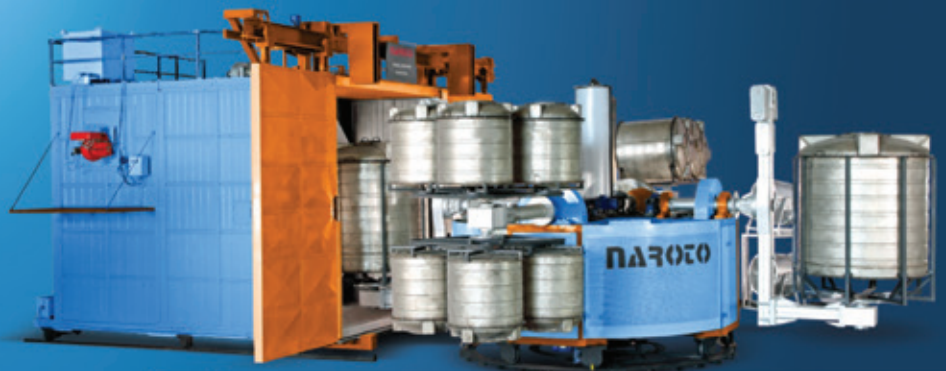
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