

# THE MACHINIST

ULTIMATE GUIDE TO PROFITABLE MANUFACTURING

RNI No 71129/98

Volume 15 Issue 7 • July 2020 • Rs 75

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Rajinder Singh Bhatia on the rise and rise  
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Details inside

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## COLLABORATION AND SELF-RELIANCE!

**T**he world, as we all knew it about five months back, does not exist anymore. Whether we shall return back to it, is a question that no one is ready to answer today. Yes, we have been pushed into the digital realm rather hurriedly but that is a reality that we may have to live with for a considerably long period.

The Covid-19 pandemic has been a great leveller in showing both the frailty of the human body and the resilience of the human spirit across geographical borders. While it may not have wiped out the differences, it has also shown us the power of collaboration. And we need to continue to leverage on that.

**“HUMAN BEINGS HAVE SURVIVED, SUSTAINED AND SUCCEEDED WITH INNUMERABLE DISEASES AND AILMENTS THROUGH MANY MILLENNIA. COVID-19 CANNOT AND WILL NOT BE AN EXCEPTION. A NEW WORLD ORDER DEFINITELY AWAITS US ALL.”**

When looking at the catastrophic damage around us in terms of industrial and economic downfalls resulting out of this viral outbreak, one wonders if this will ever be set right again! And therein lies the answer. Usually, I would have used the term Herculean (or to be local, Bhagirath!) to describe the task. It's going to take a lot more than that. But, the point is, it can still be set right and that is possible only through self-reliance. Each one of us will have to rebuild his and her home.

Human beings have survived, sustained and succeeded with innumerable diseases and ailments through many millennia. Covid-19 cannot and will not be an exception. A new world order definitely awaits us all. In fact, we all have to create. First by being self-reliant, and then collaborating with each other.

Editor & Chief Community Officer

**THE MACHINIST**  
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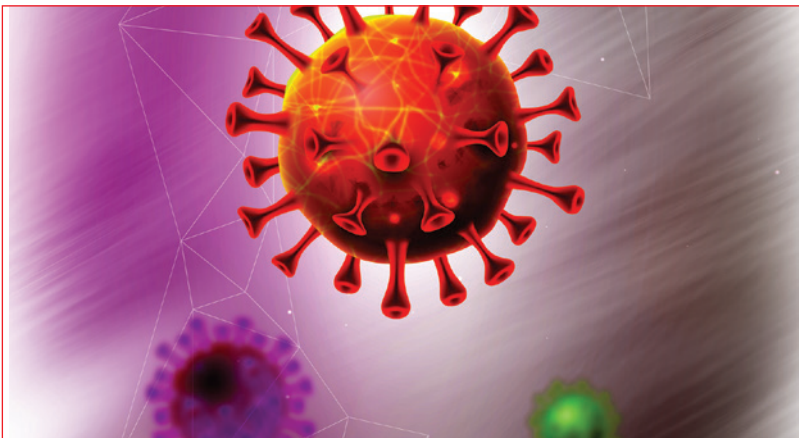
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# CONTENTS



## COVER STORY

The Future is Good! ..... **18**



## INSIGHT

Impact of Covid-19 ..... **40**

Editorial ..... 6

News ..... 10

People..... 14

Railways: Navigating the new normal ..... 30

Aerospace Updates ..... 44

Products ..... 46



## Digitisation

The key to self-reliance ----- **16**



## Cutting Tools

Towards self-reliance ----- **22**

Edge over competitors ----- **25**

Ready to bounce back----- **28**

Positive attitude ----- **32**

The market will improve! ----- **35**



## Innovation

Stamped for success ----- **24**



## Defence

Moving India's armed forces--- **26**

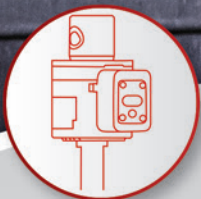
Ready for the next level----- **36**



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## India is reforming, performing and transforming: PM



**PM MODI** has stated that it is natural to link global revival and India. Speaking

said that AtmaNirbhar Bharat merges

at the India Global Week 2020, the PM said: "There is faith that the story of global revival will have India playing a leading role. I see this closely linked with two factors. The first is - Indian talent. The second factor is India's ability to reform and rejuvenate. Indians are natural reformers! Explaining the concept of AtmaNirbhar Bharat or a self reliant India, PM Modi

domestic production and consumption with global supply chains. "AtmaNirbhar Bharat is not about being self-contained or being closed to the world. It is about being self-sustaining and self-generating. We will pursue policies that promote efficiency, equity and resilience." The Indian PM also highlighted India's readiness to do whatever it can to further global good and prosperity. "This is an India that is reforming, performing and transforming. This is an India that offers new economic opportunities. This is an India that is adopting a human-centric and inclusive approach to development," he said.

## Indian & EU to renew S&T co-operation agreement

**INDIA & THE EUROPEAN UNION** have agreed to renew the Agreement on Scientific co-operation for the next five years, 2020-2025, at the 15th India-EU Summit. India EU summit meeting was led by Prime Minister Narendra Modi from India's side, while the European Union delegation was headed by European Council President Charles Michel and President of the European Commission Ursula von der Leyen at the virtual summit. With the agreement to renew adopted, both India and the EU agreed to further collaborate in research and innovation based on the principles of mutual benefit and reciprocity, as established in the India-EU Agreement on Science and Technology concluded in 2001, which expired on May 17. "Both parties are committed to launch the renewal procedure in time and acknowledge 20 years of robust cooperation on research and innovation," the joint statement said.

## Von Roll doubling capacity in India

**VON ROLL** is turning its existing plant in Bangalore into the most modern production facility for electric wire coils in India. CEO Christian Hennerkes said, "With the latest investments in India, we are strengthening our leading position as a producer of integrated and ready-to-install system components. This move makes Von Roll the only company in the electrical insulation market worldwide, which covers the entire value chain from raw material extraction to ready-to-install wire coils. This puts us in a position to design truly unique products and at the same time secure the highest quality standards." Von Roll is able to benefit from the growing outsourcing trend among major manufacturers of motors and generators. A further affirmation of this is the recently signed contract with an order value in the double-digit million range for the years 2020/2021. Sandip Ghosh, MD, Von Roll India, said, "With the latest investments, we are doubling our current capacity and successfully continuing our growth path in India."



## ReNew Power to start manufacturing in India

**RENEW POWER** has announced that it intends to start manufacturing solar cells and modules in India. The announcement was made by ReNew's Chairman and MD, Sumant Sinha at the Aatmanirbhar Bharat event held recently. ReNew Power will invest Rs1500-2000 Cr in setting up this facility which will initially have a 2GW manufacturing capacity and is in discussion with various states to set up this unit. ReNew Power's announcement to set up a manufacturing facility comes just weeks after Prime Minister Shri Narendra Modi's call to Indian companies to become "Aatmanirbhar" and is expected to support the government's mission to generate 450 GW of renewable energy by 2030. ReNew will manufacture both Solar cells and modules at the upcoming facility and endeavour to create a globally competitive manufacturing unit. The company's foray into manufacturing will not only help it in backward integration but also provide it a better control over the supply chain for critical components.

## Armed forces can directly acquire urgent equipment

Considering the security environment due to prevailing situation along the Northern Borders and the need to strengthen the Armed Forces for the Defence of Indian borders, a Special Meeting of the Defence Acquisition Council was convened on 15th July 2020 under the Chairmanship of Raksha Mantri Rajnath Singh. The DAC delegated the powers for progressing urgent Capital Acquisition Cases upto Rs 300 crore to the Armed Forces to meet their emergent operational requirements. This will shrink procurement timelines and ensure placement of orders within six months.

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## Ampere buys 74% stake in E-rickshaw company Bestway

**AMPERE VEHICLES**, a wholly-owned electric mobility subsidiary of Greaves Cotton Ltd., has announced the acquisition of Noida based E-3Wheeler company Bestway Agencies Pvt. Ltd. (BAPL) which sells E-Rickshaws under the popular ELE brand with 74% stake in the company, subject to customary closing conditions. Through this acquisition, Ampere (e-mobility arm of Greaves Cotton) will expand its presence in the fast disrupting E-Rickshaw segment to become an integrated last mile E-Mobility player with strong presence in both E-2W and E-3W. E-Rickshaw is one of the largest and fast-

est growing category of electric vehicles in India and offers clean, comfortable and cost-effective mobility to customers and also increases the daily earning potential of driver community. The company foresees rapid growth in this segment as affordable mobility needs expand in the country and as post-COVID thrust towards employment generation increases at bottom of the pyramid. In addition to B2C segment, with this acquisition, Ampere will also be able to offer a complete product portfolio to its B2B customers who have requirements for E-3W as well for both people and cargo mobility.



## Mahindra launches new tractor models in Maharashtra

**MAHINDRA'S** Farm Equipment Sector has recently introduced its new Sarpanch Plus range of tractors in Maharashtra. It includes the launch of the 575 Sarpanch Plus, an upgrade of its popular 575 Sarpanch. The new series offers models spanning multiple HP-points in the 30 HP (22.37kW) to 50 HP (37.28kW) category. The new Sarpanch Plus series will be manufactured at Mahindra's state-of-the-art manufacturing facilities across India. Speaking on the launch of the new Sarpanch Plus series, Hemant Sikka – President, Farm Equipment Sector, M&M Ltd. said, "As leaders in the Indian tractor market, we at Mahindra have always been at the forefront of introducing the latest technologies and the new Sarpanch Plus series is a step in that direction. The new series is developed to meet the evolving demands of modern farmers by providing extra power, higher back-up torque, modern styling and best-in-class ergonomics."



## Gaganyaan will not be affected by Covid-19: Minister

**UNION MINISTER OF STATE** (Independent Charge) Development of North Eastern Region (DoNER), MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh said that the launch of India's first human space mission 'Gaganyaan' will not be affected by Covid-19 pandemic and preparation are heading in the right direction. The training of Indian astronauts in Russia has now been resumed and the launch is scheduled to take place as planned, before the 75th anniversary of India's independence in 2022. Singh said, a regulatory body called 'Indian National Space Promotion & Authorization Centre' is to be established. This will help provide a level playing field to private players and encourage their participation, he said. Dr Jitendra Singh said, besides enhancing the capacity and resources of our space missions, increased participation of private players will also discourage the brain drain of talented space scientists and experts who were otherwise moving out of India in search of a break.

## Bombardier to supply for the Agra-Kanpur Metro lines

**BOMBARDIER TRANSPORTATION** has received a Letter of Award (LoA) from India's Uttar Pradesh Metro Rail



Artistic impression of the standard Bombardier Movia metro. © 2020, Bombardier Inc. or its subsidiaries

Corporation (UPMRC) to build and deliver 201 metro cars and an advanced signalling solution for the Agra-Kanpur Metro projects. For the 30 km Agra Metro and the 32 km Kanpur Metro, Bombardier's scope for the contract comprises 67 Bombardier Movia metro three-car trainsets and the advanced Bombardier Cityflo 650 rail control solution. The Letter of Award is valued at approximately INR 2051 crore (245 million euro, \$275 million US) and the customer has a provision to exercise an

option of an additional 51 metro cars. Kumar Keshav, Managing Director, Uttar Pradesh Metro Rail Corporation (UPMRC), Lucknow (India), expressed his delight at having the Bombardier Consortium as an integrated Rolling Stock and Signalling System partner for the upcoming Metro projects. He said, "Manufacturing and supply of 67 high-end state-of-the art modern trainsets of three-cars each, manufactured in Savli, India by Bombardier, shall be a feather in "Make in India" dream of India."

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## Rémi Maillard appointed as President of Airbus India



Airbus has appointed Rémi Maillard as President of Airbus India and Managing Director of South Asia region, effective September 01, 2020. Rémi, currently Head of Airbus Services, will succeed Anand Stanley who will move to Singapore as President, Airbus Asia-Pacific. Both report directly to Christian Scherer, Chief Commercial Officer and Head of International of Airbus. In his new role, Rémi will lead Airbus' business in South Asia. He will be responsible for commercial aircraft sales and business development, and he will manage Airbus' regional footprint, which includes engineering, innovation, customer support and services as well as training. He will also help progress Airbus' top defence and helicopters campaigns and boost the company's 'Make in India' programmes. As Head of Services, Rémi has been responsible for growing the Airbus commercial aircraft Services business and overseeing maintenance, upgrades, flight hour services, and training operations with a focus on creating value for customers and enhancing their operational performance. "Rémi has rich experience in the Airbus organisation and is the right person to take on the lead of the company in India and South Asia - a region that is both a key growth market as well as a resource base for us," said Christian Scherer, Chief Commercial Officer, Airbus and Head of Airbus International.

## Frank Petznick to replace Karl Haupt at Continental



Frank Petznick (49) will take over the management of the Advanced Driver Assistance Systems business unit at Continental and become a member of the Management Board of the Autonomous Mobility and Safety business area on August 1, 2020. The electrical engineering graduate will follow Karl Haupt (63), who is leaving the company on July 31, 2020 after almost seven years at the helm of the business unit and over 36 years company service. Petznick, who already joined the technology company on July 1, has many years of experience in both the automotive and automotive supplier industries. Most recently as a member of the Electronics Executive Board at Hella, he was responsible for the global Automated Driving Product Center. He started his career in 1998 at Volkswagen as a project manager and later as a project leader for electronic systems. In 2003, he moved to development service provider Bertrandt, where he worked for five years in various management positions in the field of electronics and infotainment.

From 2008 onwards, Petznick held managerial roles at Hella on a regional and global basis, located in Shanghai (China) and Berlin. The new head of the business unit will bring many years of experience with innovative, new technologies in the fields of electronics and sensor technology to Continental.

## Pavan Shetty quits as Director Porsche India

Pavan Shetty, Director Porsche India has resigned from his position on July 1, 2020 due to personal reasons. In the interim, Ashish Kaul – Head of Sales, Porsche India will assume responsibility for day-to-day operations at Porsche India and will report directly to Gurpratap Boparai – Managing Director Skoda Auto Volkswagen India for Strategic initiatives. An announcement on the permanent replacement will be made in due course of time.

## Hitachi Vantara appoints Gajen Kandiah as new CEO

Hitachi Vantara's board of directors announced that Gajen Kandiah has been appointed chief executive officer, effective July 13, 2020. Toshiaki Tokunaga, currently CEO and chairman of the Board of Hitachi Vantara, will transition responsibilities to Kandiah through Oct. 1, 2020, after which Tokunaga will remain as chairman. "I am proud of the tremendous progress Hitachi Vantara has made in the past year to augment our world-class digital infrastructure business with new digital solutions and service offerings," said CEO and Chairman Toshiaki Tokunaga, Hitachi Vantara. "Thanks to strong internal development, strategic acquisitions, and the integration with Hitachi Consulting, we have added the capabilities we need to guide our customers from what's now to what's next. Gajen Kandiah has an impressive track record in rapidly scaling digital businesses. He is the perfect CEO to help Hitachi Vantara, its partner ecosystem and our customers further accelerate their success."



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HIGH  
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By Shyam Motwani

## THE KEY TO SELF-RELIANCE

Digitisation gives a prompt boost to productivity, allowing projects to move faster and helps manufacturers to aim for more aggressive deadlines.


**D**igitisation is the new currency that can transform the face of manufacturing processes across the world. Manufacturers who are fast in adopting digitally advanced practices are gaining a competitive advantage by exploiting emerging technologies. Digitisation gives a prompt boost to productivity, allowing projects to move faster and helps manufacturers to aim for more aggressive deadlines. Given our country's focus on being self-reliant, we need to quickly develop manufacturing capabilities that can help in the fast delivery and product cycles. Digitisation can help in increasing the pace at which manufacturing activities are performed. Not only this, it also helps in reducing the time for new product introduction and innovation.

There are various factors that have led to this overhaul in the sector, a few being constantly changing consumer preference and new regulations and advances in information technology. Smarter processes like digital twinning, predictive maintenance, and modular design, etc., are contributing the fast adoption of Digitisation. Further on, technologies like internet of things, cyber physical systems, artificial intelligence, big data and cloud computing, will find their application now more than ever. All of this effectively combined with the conventional manufacturing processes and best practices will give rise to smart factories under the framework of Industry 4.0. Smart factories maintain a high output pace, lower the cost and solidify the company's role in an ever-changing market to respond to demand. For example, IoT can help machines to interact with each other, predicting any halt in manufacturing and thus decreasing human intervention redirecting them to more meaningful jobs.

**Creating a digital supply chain:** Supply Chain 4.0 can also help in making companies more flexible and efficient. Companies need to rethink their supply chains and adopt the new technologies that will help in increasing their productivity. The application of the Internet of Things, the use of advanced robotics, and the application of big data can all lead to this. For example, placing sensors to track the goods, creation of networks among processes and automation can help in analysing these processes and can significantly improve efficiency and customer satisfaction

Artificial Intelligence and Machine Learning can be used to understand consumer behaviour and design products accordingly. During a crisis such as the current coronavirus pandemic, a smart factory can be run and accessed remotely with minimal human intervention at the site. While adopting such advance technologies, companies should also be mindful of equipping the manpower with necessary skills and knowledge. This is essential to provide them with a stable employment and requisite livelihood benefits. They can also be trained to operate and manage these smart factories which will involve robotics and software applications.

Augmented Reality (AR) can further be leveraged to increase the efficiency of operations by reducing production downtime. For instance, through AR, a professional sitting anywhere around the world can guide a technician present on the ground on various issues related to machinery and operations. It can also help in reducing errors and can be used to train the workers on the plant floor, remotely. A single plant head can help managing multiple plants through the help of AR. It can play a major role in product design and development as well. Conceptualisation, prototyping, and traditional design thinking can be very lengthy and resource-intensive processes. Through AR, one can give an overview of the actual product being designed and constructed on a real-time basis. This can provide insights and direction that would eliminate the trial and error and resources spent in actual manufacturing of prototypes.

But we have to take the first steps to start thinking digitally. This will help in giving real-time insights and transform businesses in India. 

*The author is EVP and Business Head, Godrej Locks and Architectural Fittings & Systems*



*"Once simple processes are digitised, then additional technologies like machine learning, artificial intelligence, Internet of Things, digital twins, and a comprehensive, complete digital strategy can emerge."*



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By Niranjana Mudholkar

## THE FUTURE IS GOOD!

With a comprehensive portfolio catering to some of the mega programs, Bharat Forge's Defence & Aerospace division is ready to further enhance the scope of its work and contribute towards a self-reliant India, says its President and CEO, **Rajinder Bhatia**.



"We have a portfolio which spans across Artillery Guns, Protected Vehicles, Air Defence, Ammunition, Small Arms and Defence Electronics. Now we are expanding ourselves into marine products, especially on propulsion systems and also on small jet engines."

**Bharat Forge entered the aerospace sector about five years ago. So, are you happy with the progress made so far with this division?**

Aerospace is a tough sector to be in; it takes a long time for any OEM to change their supply partners. So under the circumstances, I would say we have made reasonably good progress. Most of this would also depend upon what is happening on the Indian side of the programs. If you take a look at the aerospace business, there are two segments we are operating in - one is to get into the supply chain of the large and active OEMs. We have successfully partnered with three OEMs and we are now in advanced talks with a fourth OEM to get into their supply chain.

The second part of the aerospace business revolves around systems and larger platforms. Now, take a look at the program, Kamov 226T. We have already signed a large collaborative arrangement with the Russians and there is also a possibility of supplying very important items out of that program by us; but unless the program takes off, I cannot start the supply. And these are not components; these are subsystem level or system level supplies. Secondly, we are actively pursuing the program of NUHunder strategic partnership model. Now, unless this program reaches a certain level, I cannot ramp up my business. So, these are some of the factors but over and above I think the future is reasonably



bright. And I think that growth has been reasonable in this segment. It could have been better but I think we are on the right track and it is doing well.

**How has the Covid-19 outbreak affected the operations of Bharat Forge Defence and Aerospace and how are you dealing with the same?**

In the month March 2020, we started to see the signs. The lockdowns had begun and a little bit of impact started showing. Most of the impacts were on the invoicing which was supposed to be done in the last quarter and which happens in March. As you know for a large number of defence and aerospace contracts, March becomes an extremely important month. And a lot of new revenue gets invoiced in that month which got a hit. And, this was invoiced in the next financial year.

Then in April it was a complete shutdown. Towards April end, there was slow resumption on work, when the government announced relaxation in the rules of lockdown, but it has been mostly virtual.

In the month of May and June, the business started to grow. A lot of operations moved to digital and virtual format. The government also showed a lot of flexibility. In fact, one large and two midsize contracts were finalised during this period on virtual platforms with government agencies, which was a very positive development. I think COVID is taking us towards a new

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A lot of operations moved to digital and virtual format. The government also showed a lot of flexibility. In fact, one large and two midsize contracts were finalised during this period on virtual platforms with government agencies, which was a very positive development.

normal and the new normal is going to be far more dependent upon virtual meeting, work from home rather than purely physical activity as it was before.

The second part was our response to the Prime Minister's call towards Atmanirbhar Bharat and also COVID related products. We were able to ramp up one of our small acquisitions in Hyderabad to start making N95 and N99 masks, and they are doing a good job with that. We are also working on a ventilator technology and are expected to come out with a product shortly, which will be a world-class product. We recently launched an AI-based health and monitoring system which is called HRMS. And I think that is one very successful system based on artificial intelligence where-



in it can detect and inform violations for not wearing masks, not maintaining social distances, body temperature, and many other activities.

But if you ask me, whether the pandemic has impacted our revenues, of course, it has. The first quarter has been badly impacted. We have begun with 50 percent to 60 percent of our working efficiency and hope to see further improvement, but the impact has been there in the first quarter.

**How has the overall product portfolio of Bharat Forge Defence & Aerospace evolved over the years? Can we expect further enhancements in near future?**

Over a period we have created a very large portfolio. We have a portfolio which spans across Artillery Guns, Protected Vehicles, Air Defence, Ammunition, Small Arms and Defence Electronics. Now we are expanding ourselves into marine products, especially on propulsion systems and also on small jet engines. So what we have created over the last period of about eight to nine years is a reasonably large portfolio and we are quite happy.

With regards to adding new products, we are looking at marine products and aerospace subsystems. These are the products that will come into our portfolio. We also are trying to ramp up our portfolio of protected vehicles, these are specialist vehicles which offer small arms or glass protection of areas to certain degrees.

**What are some of the key projects that you are working on currently for the Indian Armed Forces?**

There are number programs in different segments - in the artillery segment we are working on the ATAGs program, which is a state-of-the-art weapon platform, best in class in the whole world. This is our prime focus for which we are working as an industry partner to the DRDO. We have also developed other five or six different types of artillery systems, which are lightweight, some are mounted, and some are ultralight. And we are hopeful that all these will come very handy to our



armed forces in the near future.

The second area where we are doing quite well is on the protected vehicles. We have already supplied armoured personnel carriers to the Indian Army for UN Mission; we are exporting them to Sri Lanka and some other neighbouring countries. So, we are looking at some traction on the protected vehicles. We are also participating in one of the largest defence programs being undertaken which is IAF's CIWS program and trials for which are going to commence in the next few months. We are also participating in Indian Navy's NUH program (under SP model). We are also working on Armoured Troop Carriers and various types of ammunition.



If you take a look at the aerospace business, there are two segments we are operating in - one is to get into the supply chain of the large and active OEMs. We have successfully partnered with three OEMs and we are now in advanced talks with a fourth OEM to get into their supply chain.

We are also evaluating small arms, marine defence, and radars. So, the portfolio is very large with some of the key programs and some mega programs. I think the future is good

**Would you like to share some information about the overall manufacturing capabilities and capacities of the defence and aerospace segment at Bharat Forge?**

One different thing is that these facilities are not just for Bharat Forge but also for the entire of the Kalyani group of companies. We have had a focus on two ends, one on the technology side, where we established four technology centers - two in Pune, one in Hyderabad and one in Bangalore. Bangalore and Hyderabad are purely focused towards defence and aerospace solutions. The ones at Pune are Kalyani Centre for Technological Innovation and Kalyani Centre for Manufacturing Innovation. These two cut across the complete portfolio for Kalyani group companies including Bharat Forge,

and which we are doing in all other sectors.

Secondly, coming to the manufacturing infrastructure, we have created facilities at Hyderabad, Pune, Satara and Mysore. And we are now in the process of setting up in a new facility in Jejuri, on outskirts of Pune. It will be a complete manufacturing set up which should come into steam in another year.

In terms of manufacturing capabilities on the mechanical side, we have the best technology available both in terms of metallurgy, metal forming, and machining. We are now also setting up manufacturing facilities and competencies for defence electronics to include microwave and RF seekers.

**I understand that earlier this year at the defence Expo, you announced some certain strategic collaborations with some foreign partners. So what's the progress on that went?**

The collaborations are going on very well. One of the large collaborations which we had announced is progressing well. Some of the other collaborations on small arms and other segments such as vehicles, are progressing well too. But COVID has played a bit of a spoilsport because physical meetings have totally dried up; people are not able to travel. We are hoping that things get back to normal and required impetus will be provided. Hopefully, we should be able to announce another joint venture by the end of the year.

**How happy or satisfied are you with the policies of government of India? And do you think the defence production policy 2020 will be significantly better than the previous version?**

Firstly, let me tell you on the policy front there would not be any complaints. The government has come out with very vibrant policies which are encouraging the private industry to be part of Defence industrial base in the country. The one issue which may come up is the operationalisation of policies as that is where the delay takes place. In terms of the policy, the most landmark policy was issued in 2018, which was called Defence Production Policy 2018. It is on the website of the government of India, on the Make-in-India site. It was one of the most forward-looking policies ever made. It provides clear targets for exports and domestic production, and we need to compliment the government for that. There has been a major shift in the policy framework. All this policy framework is very positive. But there is a need for improvement on the implementation/operationalisation of these policies. At the end of the day, for any industry to prosper, what you need is proactive policies and implementation which is not delayed.

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And we are now in the process of setting up in a new facility in Jejuri, on outskirts of Pune. It will be a complete manufacturing set up which should come into steam in another year.

Hopefully, things are moving in the right direction.

**Would you like to share some information about the exports of Bharat Forge defence and aerospace?**

The exports could be identified in two parts. Firstly, we have the components and subsystem level exports, which could be undertaken as part of the supply chain of global OEMs. Now, this has been going on and has improved a lot. If you see the government figures on the export, figures are much better than the last three four years. They are improving and we are part of it. We are exporting to Israel, we are exporting to Europe, and some other companies across the globe. But these are at component level. The real Atmanirbhar Bharat of our honourable Prime Minister will come in existence when we are able to supply platforms and systems as exports. We need to make that as our target when we are able to supply tanks, ships, guns and other ammunition all over the world. That is the time when the Atmanirbhar Bharat and self-reliance would come into existence. Within our portfolio's we have certain systems which are finding a lot of traction. We are finding traction from the Middle East and some neighbouring countries. This is a slow process and it cannot happen overnight. Soon the Indian industry will be able to do large exports to the neighbouring nations or to the countries where we have a diplomatic relationship. The government target is of achieving over \$5 billion exports in the next five years, so is not farfetched if all the

things fall in place and operationalization materializes. With all of this, we are looking at a reasonable growth in exports. The current growth is approximately 10 percent to 12 percent per year. But we want quantum growth, then we will be able to export systems outside the country.

If you take a look at the sectors that can contribute to Atmanirbhar Bharat, Defence and aerospace are the prime sectors. There is a great amount of opportunity and interest from the government and private industry. These sectors can create multiple jobs opportunity and in true sense can make India Atmanirbhar.


**Are you happy with the overall defence and aerospace ecosystem that we have in this country?**

The defence and aerospace sector is an interesting sector, where most dependencies are on the MSMEs and the tier-one as well as tier-two suppliers. These suppliers in the country have been under stress because they are generally not having enough capital to sustain in trouble times. The pandemic has added to the stress; the government has now come up with new reforms to support these businesses.

The biggest challenge in this area is the availability of capital. We are trying to support some of our vendors by giving them orders, by trying to ensure that payment terms are easier. But this is one area where the government will have to be proactive. It has shown some concern in this for the last few months. We, at our end, are supporting some of our vendors. So we have already put a strategic stake in some of the companies. Buying a reasonable stake but not taking management control in the company helps them with capital. This is what is required in terms of boosting capability.

Personally, I don't think there is anything that is lacking in the country. But in terms of their ability to survive tough times, it is not there. Their business is not mature where they have order books which can last for years. They are still dependent on orders and it is still hacksaw kind of a demand for them. So, I think we need to support them. But in terms of capability, I don't think there is anything is lacking.

**The Government of India has recently opened up the space segment for the private sector. Do you think you would be getting into this segment as a natural extension of what you're already doing with defence and aerospace?**

Most certainly. We have already started bidding for some of the programs. And at the component level for high technology components we are already a supplier. We do have plans to be into it in a bigger manner, and we are looking at that. 



By Niranjana Mudholkar

## TOWARDS SELF-RELIANCE

Cutting tools industry would play important role in achieving India's dream of 'Atamnirbhar Bharat', says **Ravi Prem**, Chief Operating Officer, Forbes & Company Limited

### How would you analyse the cutting tools industry's performance over the last one year in India?

Cutting tools industry plays very significant role in metalworking in India in various manufacturing sectors and would play important role in achieving India's dream of 'Atamnirbhar Bharat'. We believe that in these competitive times, all those companies who strategically addressed the themes of innovation, improved upon the concept of Total Cost of ownership (TCO), made new designs and products available to customer and had a responsive and agile supply chain to support the end customer retained their competitive edge. Overall, the year was not an easy one, and was made difficult with the onset of Covid19 in the first quarter of calendar year 2020.

### How did your organisation fare in comparison with the rest of the industry last year?

We were conscious of our dependencies on the automotive sector and the potential impact it could have on us. We therefore tried to re-define our markets by segmentation at market and consumer level during the last year. Like others, we have also been impacted during the last financial year because of automotive slowdown. We are also looking at innovation, new designs, and a better supply chain as measures of improvement and we are confident of our recovery in the current year.

### How has the Covid-19 outbreak affected your business?



Our focus is to enhance performance of existing designs and develop new engineered solution for new materials.



We are also looking at innovation, new designs, and a better supply chain as measures of improvement and we are confident of our recovery in the current year.

COVID 19 has brought us many unique challenges which otherwise one would have thought in normal circumstances. The impact is prevalent across the industry, but differs marginally from state to state. Activities in the last fortnight of March to end of June, 2020 were at around 35 percent to 40 percent of the general plan. New employee safety measures also had to be put in place and are getting embedded as a process. From a customer perspective, new marketing and sales techniques have come into play, which include focus on digital ways of communication in a big way. Communication has improved a lot technologically and we believe that these changes will remain permanent.

**With concepts like Industry 4.0, Smart Factories and Digital Machining, customers today are demanding technological advancements. How are you helping your customers on this front?**

We have initiated this process some time back and are fully equipped to meet customer demand on high level of industrial automation and digital machining. This

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We have initiated Industry 4.0 some time back and are fully equipped to meet customer demand on high level of industrial automation and digital machining. This is a challenge every day and we have taken all steps to remain ahead of competition on this front.

is a challenge every day and we have taken all steps to remain ahead of competition on this front.

**Many cutting tools players are today supporting customers through a well-equipped technology centre. Tell us about your initiatives in this regard.**

We are very happy to state that we are one of leading tools producer in India with exports to developed nations under our own Brand TOTEM, which is a well-recognised and respected brand. We have a state of art centre at Waluj, Aurangabad equipped with test beds & computer aided engineering technology. We are proud to be one of the first in many product developments in our product portfolio in some segments. Our

focus is to enhance performance of existing designs and develop new engineered solution for new materials. With rapid technology advancements and evolution in material sciences there is a constant need to come up with products which will keep us with the customers machining requirements, be it complex application, better tool life and cycle time reduction. We have made significant investments in technology and will continue to do so in the future along with talent infusion.

**Your outlook for the year ahead?**

We will be able to predict the future only after India is able to fully control the Covid19 pandemic. As on date, there are still some concerns, though we as a country have performed better on this front as compared to many other countries. Subject to the above, India being a consumption economy, and also being very resilient economy backed with a strong domestic demand, we believe that the overall industry performance will be close or near to the performance of last financial year. 🇮🇳

## BERNHARD MAIER RESIGNS AS ŠKODA AUTO CHAIRMAN

**B**ernhard Maier is stepping down as Chairman of the Board of Directors on 31 July 2020 after almost five years of leading Škoda Auto. Bernhard Maier began his professional career in 1984 at Nixdorf Computer AG. From 1988 to 2001, Maier held various management positions at BMW AG in Germany and abroad. Among other things, he was project manager for international brand strategy. In 2001, Maier took over as Chairman of the Board of Management of Porsche Deutschland GmbH, and in 2010 was appointed Board Member for Sales and Marketing at Dr. Ing. h. c. F. Porsche AG. In this role, Maier radically modernised the trade and sales organisation. Under his leadership, the international trade organisation expanded significantly, and

worldwide customer deliveries tripled. In November 2015, Bernhard Maier was appointed Chairman of the Board of Škoda Auto a.s. Key aspects of the company's reorientation within the framework of Strategy 2025+ were the areas of electromobility, digitalisation and connectivity, new mobility services and the implementation of a broad-based product campaign for the brand. Under Maier's leadership, Škoda introduced new, important models such as Kodiaq, Karoq, Kamiq and Scala, developed the Enyaq iV, the first model designed purely as an electric vehicle, increased sales to approx. 1.3 million vehicles per year and achieved record figures for sales and operating profit.

The Chairman of the Board of Management of the Volkswagen Group and Chairman of the Škoda Auto Supervisory Board Herbert Diess thanked Bernhard Maier for his outstanding performance in the Volkswagen Group, most recently for the Škoda brand: "Bernhard Maier is one of the most experienced automotive managers in the Volkswagen Group. In his role as Chairman of the Board of Škoda Auto, he has made an extraordinary contribution to enhancing the brand's profile. His years at Škoda are among the most successful in the company's 125-year history. I would like to thank Bernhard Maier for this and almost two decades of particularly successful years, first at Porsche and then at Škoda."



"In his role as Chairman of the Board of Škoda Auto, Bernhard Maier has made an extraordinary contribution to enhancing the brand's profile. His years at Škoda are among the most successful in the company's 125-year history."

**Herbert Diess**, Chairman of the Board of Management of the Volkswagen Group & Chairman of the Škoda Auto Supervisory Board

## STAMPED FOR SUCCESS

A global automotive OEM has launched a stamping-type plating machine that significantly reduces environmental impact and transforms plating process.

**G**lobal automotive major Toyota Motor Corporation (Toyota) has developed a world's first (as of May 2020) stamping-type plating technology that uses a polymer membrane (solid electrolyte membrane), through which metal ions can pass, to apply plating, like a stamp, only to areas requiring plating. The technology is used in the plating process for forming copper, nickel, and other metal coatings on substrates in the process of manufacturing electronic parts. Toyota has also announced a collaboration with Mikado Technos Co., Ltd. and Kanematsu Corporation to manufacture and sell, and therefore expand the use of, new plating machines based on this new technology.

This new stamping-type plating machine eliminates the need of a dipping process where parts to be plated are completely immersed in multiple baths of plating solution, which is required in the most common plating process at present. As a result, waste solution can be dramatically reduced to about one-thirtieth and CO<sub>2</sub> emissions to about one-third, which contributes to a significant reduction in environmental impact. The technology also reduces plating time and process footprint.



The technology is used in the plating process for forming copper, nickel, and other metal coatings on substrates in the process of manufacturing electronic parts.

Toyota decided to launch the stamping-type plating machine, which is expected to deliver these outcomes, and expand use to many companies in a range of industries, not just to its business partners in the production of Toyota automobiles, to help reduce the impact on the environment and provide other benefits. Specifically, Toyota is providing its patents and expertise to vacuum press manufacturer Mikado Technos, which has incorporated its own technologies to develop and manufacture a stamping-type plating machine for



**Stamping-type plating machine. Two machines installed on one bed. Each machine measures approx. 1x1x2 m (wxdxh).**


sale through Kanematsu.

Over the next two to three years, Toyota hopes to sell the stamping-type plating machine for use by a number of companies as a test machine for verification and evaluation purposes. Then, from 2023 or 2024, with the aim of achieving widespread use, it will expand sales more broadly for use by general users as a full production machine.

Toyota announced the Plant Zero CO<sub>2</sub> Emissions Challenge as part of the Toyota Environmental Challenge 2050, an initiative to contribute to the creation of a sustainable society, which is one of the SDGs. The Toyota Group will work together to fulfil this challenge, adopting stamped plating

machines within the Group and steadily reducing the amount of CO<sub>2</sub> it emits during its production processes.

The newly developed stamping-type plating machine has a head, with the upper part filled with solution, and a solid electrolyte membrane, through which metal ions pass, mounted to the tip of the head that is pressed against the area to be plated. This structure enables the solid electrolyte membrane, which is mounted to the tip of the head, to be pressed against only that part of the substrate that requires plating. When the electric current flows, a metal film (plating) is applied, like a stamp, only to the area in contact with the membrane.

In the conventional plating process, however, substrates are completely immersed in solutions of copper, nickel or other plating metal and the metal film (plating) is created when the electric current flows. Multiple large baths for dipping the complete substrates are required for this and substrate washing processes before and after plating. Large amounts of plating solution must also be used because the complete substrates have to be immersed in the baths, which means that large amounts of plating solution must also be discarded (wasted) after use. The entire plating process, including the equipment for removing toxic substances released into the air and for treating large amounts of waste solution, can be extensive. 

Source: Toyota



By Niranjan Mudholkar

## EDGE OVER COMPETITORS

Since we cater to a niche segment, our drilling and boring products are well accepted there and we did not face any major hurdles last year except few price competitiveness challenges, says **Keshav Khurana**, Executive Director, Wohlhaupter India Pvt. Ltd.

### How would you analyse the cutting tools industry's performance over the last one year in India?

The cutting tool industry has seen much ups and down last year. While there were some companies which were investing and had good projects resulting in volume purchase of cutting tools, there were many other manufacturers who were facing recession and sale of cutting tools to them was low. Overall the tools industry had a flat result.

### How did your organisation fare in comparison with the rest of the industry last year?

We had a growth in 2019 over 2018 when compared to the industry. Since we cater to a niche segment, our drilling and boring products from AMEC and Wohlhaupter are well accepted there and we did not face any major hurdles last year except few price competitiveness challenges.

### How has the Covid-19 outbreak affected your business?

Like every other company, the Covid-19 outbreak has affected our business too. There has been almost a month of complete lock-down and then later a slow movement of affairs did affect us too. The market situation is still uncertain as Covid cases are still on steep growth day by day! It's really challenging to visit cus-



tomers' premises for detailed interactions.

### With concepts like Industry 4.0, Smart Factories and Digital Machining, customers today are demanding technological advancements. How are you helping your customers on this front?


We have software and apps for the customers to be knowledgeable about our technology. Machinist Tool app and Solution Hub app are very popular app among our associates and various customers. Our ToolMD is a perfect on-line application to design an assembly with our

part codes. Advancements in digital boring tools with our 3E technology at a rapid pace as compared to competitors is our plus point.

### Many cutting tools players are today supporting customers through a well-equipped technology center. Tell us about your initiatives in this regard.

We have been running live Demo for our worldwide customers with lot of technical information every week through our parent company Allied Machine & Engineering, USA. We have an office in Delhi, India equipped with tools for our customer to see. We also have a complete overhauling and repair center for boring tools, which gives us a better edge over competitors. Our service team can handle the delicate overhauling of the boring tools just like a heart surgery!

### Your outlook for the year ahead?

Market situation is really unpredictable. It's too early to comment on the year ahead! It is a wait and watch game; economic recession and the careful approach of manufacturing industries are expected. But we still have plans to reach our customers and associates to help them by sharing our technical skills and innovative products to meet their local as well as global competitive challenges. Hoping that this Covid-19 evades away soon from every one's place and all should stay healthy and fit! 



"We still have plans to reach our customers and associates to help them by sharing our technical skills and innovative products to meet their local as well as global competitive challenges."

By Niranjan Mudholkar

## MOVING INDIA'S ARMED FORCES

Ashok Leyland's special application vehicles have been performing faultlessly in altitudes varying from sea level to over 5,500 meters above sea level and in temperatures ranging from -40 degrees Celsius to +55 degrees Celsius, says **Nitin Seth**, COO, Ashok Leyland

### Can you give us an overview of the Defence business at Ashok Leyland?

Ashok Leyland has been the largest supplier of logistics vehicles to Indian Armed Forces. Following the solid foundation for Nation's future in mobility solutions, Ashok Leyland has established the Defence products for Nation's security. In the early 1970s, Ashok Leyland made a humble beginning through the supply of logistic vehicles to the Indian Armed Forces. In late 90's the development of the futuristic 'Stallion 4x4' has greatly contributed to the modernization of the logistics of the Indian Army. Following this, Ashok Leyland's Stallion 4x4 has grown to a 75,000 strong fleet and this has become the veritable backbone of logistics operations making Ashok Leyland the largest supplier of logistics vehicles to the Indian Army.

The Company took the onus of providing manufacturing know-how by entering into a transfer of technology agreement with the Ordnance Factory Board under Ministry of Defence, Government of India and has continuously supported it with product improvements, value additions, warranty support, product up-



grades and future interactions/ tie ups for other range of vehicles.

### Tell us about your manufacturing capabilities and capacities.

Ashok Leyland, flagship of the Hinduja group, is the second largest manufacturer of commercial vehicles in India, the third largest manufacturer of buses in the world, and the tenth largest manufacturers of trucks. Headquartered in Chennai, nine manufacturing plants gives an international footprint - seven in India, a bus manufacturing facility in Ras Al Khaimah (UAE), one at Leeds, United Kingdom and a joint venture with the Alteams Group for the manufacture of high-pressure die-casting extruded aluminium components for the automotive and telecommunications sectors, Ashok Leyland has a well-diversified portfolio across the automobile industry.

### Tell us about your R&D activities.

Ashok Leyland is focused on mobility solutions in defence. We have a state-of-the-art Technical center near Chennai, perhaps the best in this part of the world, where we develop indigenous solutions for all mobility requirements of Indian Armed Forces, DRDOs and Ordnance Factories. We are the only vehicle man-



"In 2010, the Indian defence market for high mobility vehicle was opened to private sector and Ashok Leyland took this opportunity in the developing these vehicles, which have successfully been inducted into the armed forces after the extensive evaluation."

manufacturer in India who has indigenously designed, developed and manufactured engines beyond 350 HP. We also have a dedicated R&D team of over 100 Engineers who work only on defence specific requirements like All-wheel drives ranging from 4x4 to 12x12, Transfer cases & Drop Box, Centralised Tyre Inflation systems, Self-Recovery Winches, Armouring solutions, Turrets, Gun Mounts, Suspension Lock etc.

**Ashok Leyland has been a manufacturer of repute of mobility solution for the Armed Forces for decades. Have you also considered diversifying into other defence products like guns, battle tanks, and missiles?**

In 2010, Indian Defence market for high mobility vehicle was opened to private sector and Ashok Leyland took this opportunity in developing high mobility vehicles i.e. Super Stallion 6x6, 8x8 & 10x10 configurations. These vehicles have successfully been inducted into the armed forces after the extensive evaluation.

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The major issue is dealing with multiple agencies during manufacturing and supplying vehicles. Discussions are going on with MOD for streamlining the process.

This range of Super Stallion is now being considered for battery command post, radar installations, missile platforms apart from already approved as common gun tower (field artillery tractor) and as mobility platform for multi-barrel rocket launchers. The Indian sub-continent with its diversity and complexity of terrains and conditions provide the ideal proving ground and Ashok Leyland's special application vehicles have been per-

//

The Company took the onus of providing manufacturing know-how by entering into a transfer of technology agreement with the Ordnance Factory Board under Ministry of Defence, Government of India.

forming faultlessly in altitudes varying from sea level to over 5,500 meters above sea level and in temperatures ranging from -40 degrees Celsius to +55 degrees Celsius.


**Tell us about the various programmes that you are currently working on with the Armed Forces?**

We are working on all mobility solutions 4X4, 6X6, 8X8, 10X10 & 12X12 with the armed forces. Various applications includes multi barrel rocket launchers, prime movers for equipment's, troop carriers, recovery vehicles, fire tenders, mine protected vehicles, and bullet proof vehicles.

**At present, what are the different challenges faced by the defence manufacturing sector in India? What more can the government do to improve the situation?**

The major issue is dealing with multiple agencies during manufacturing and supplying vehicles. Discussions are going on with MOD for streamlining the process. And also usually uncontrolled situations like Pandemic and other policy related matters put many activities on hold.

**Tell us about the exports business of the defence division.**

We have supplied the defence vehicles and kits in 4x4 and 6x6 category to several countries across the world and especially Africa, SAARC, UAE, and Thailand. 

## DR. ANDREW PALMER CMG JOINS OPTARE BOARD

Ashok Leyland's subsidiary, Optare Plc, has announced that after a long association with Optare Plc, John Fickling is stepping down as Chairman due to personal reasons. In his place, Optare is delighted to announce the appointment of Dr Andrew Palmer as Non-executive Chairman. Commenting on the developments, Dheeraj Hinduja, Chairman, Ashok Leyland, said, "The next phase of Optare's growth is centred on expanding our electric vehicles business in the UK and many new markets. To help guide in our mission to become a global leader in this segment, I am happy

to announce that Dr Andrew Palmer will be taking the position of Non-Executive Chairman. With his impressive wealth of experience and innovative approach, I am confident that under Andy's Chairmanship we will see Optare moving to a higher growth trajectory soon." Dr. Andrew Palmer is a world-renowned automotive leader, having led transformations at two of the global vehicle brands, Nissan and Aston Martin. This role builds on Dr. Palmer's established relationship with Optare's parent, Ashok Leyland, where he has been a non-executive member of the Board since 2015.

By Niranjana Mudholkar

## READY TO BOUNCE BACK

The cutting tools industry is also starting to come back to its pre-lockdown numbers, though it may take another couple of months to fully return, says **Gautam Ahuja**, Managing Director, Dormer Pramet India.

### How would you analyse the cutting tools industry's performance over the last one year in India?

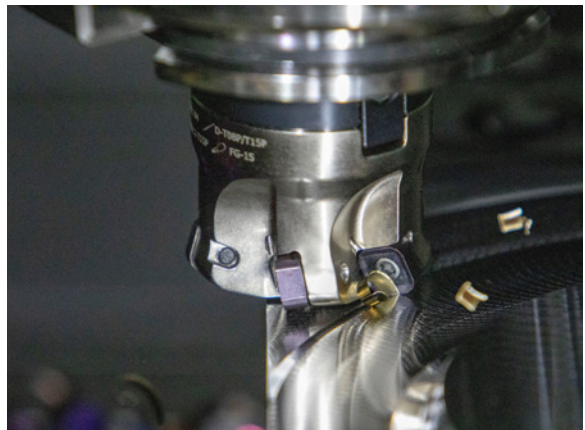
The cutting tools industry in India is mainly dependent on the automotive industry, and less on others, such as general engineering, aerospace, energy, defence and railways. The automotive industry was on a high in 2018, but since then it has seen a negative growth. Now in 2020 and, following the recent lockdown, the industry and economy have taken a significant blow.

However, we see some green shoots after the pandemic, with the tractor and cycling industry achieving high growth rates in June 2020. Thus, the cutting tool industry is also starting to come back to its pre-lockdown numbers, though it may take another couple of months to fully return. We hope the festive season will be the turning point and the cutting tools industry should be in a positive growth rate by then.

### How did your organisation fare in comparison with the rest of the industry last year?

Like many in our industry, 2018 was a good year for Dormer Pramet. Then we saw that most companies experienced a negative growth in 2019, influenced by a global slowdown. However, our indexable brand Pramet continued to perform well in the market, thanks to the dedication and hard work of our whole team.

We were growing at a very good pace this year too and then the sudden COVID-19 lockdown happened



and threw everything out of gear. However, we are positive about the market in the future, and the Honourable Prime Minister's push towards Atmanirbharta will give a boost to the industry and economy in India.

### How has the Covid-19 outbreak affected your business?

The COVID-19 global pandemic brought a sudden halt to our industry and there was no previous precedence on how to tackle it. The lockdown in March lasted for around six weeks and generally everybody lost some top line. However, this is a time to stay safe and improve our skills and prepare for the future. The lockdown has shown a lot of benefits on the environment, with the pollution at very low levels, the rivers are cleaner and hence aquatic life is improving. Thus, there is a positive side to it as well.

### With concepts like Industry 4.0, Smart Factories and Digital Machining, customers today are demanding technological advancements. How are you helping your customers on this front?

There is a big focus on automation in our production processes right now, with investments being made to help us become more flexible. This will help support fluctuations in the market and enable quick reactions to changing demand levels, as well as increasing output, making the process more efficient and improving



"We are positive about the market in the future, and the Honourable Prime Minister's push towards Atmanirbharta will give a boost to the industry and economy in India."

quality. New machines have been installed across our Sumperk and Sao Paulo production units, with more to follow.

However, our transition into Industry 4.0 is not confined to just complex machinery, but how customers get their tools and thus the procurement chain is also being digitalised. How can technology be used to support customers in finding, selecting, buying and getting the right tool digitally? That's what people are looking at. The B2B industry is shifting towards eCommerce and this has a lot to do with the increase of young talent in the sector, everything is happening on the internet and we see rapid growth in this area.



We hope that during the festival time in October to November, the economy should be back to its pre-lockdown figures, although there may be an overall shift in the buying pattern of consumers, due to changing needs.

**Many cutting tools players are today supporting customers through a well-equipped technology center. Tell us about your initiatives in this regard.**

Access to our Experience (XP) Center in the Czech Republic may currently be restricted to outside visitors, but this does not mean people are unable to view the facility. Utilising the digital tools available, customers can still tour our training and R&D facility through the XP Virtual website.


This virtual 360-degree walk-through of our XP Center offers customers a great alternative and interactive journey. Visitors have access to an extensive range



of solid round tools and indexables, grouped by ISO material suitability. In addition, a wide range of product videos, presentations, brochures and catalogs are available to view and download at different stages.

Hopefully we will be able to welcome customers back to the XP Center in person soon, but for now, they can experience a digital view from the safety of their own home!

#### **Your outlook for the year ahead?**

Sales in 2020 for most companies will be quite changeable, with a good start, followed by a drop in April, and then a gradual recovery. We hope that during the festival time in October to November, the economy should be back to its pre-lockdown figures, although there may be an overall shift in the buying pattern of consumers, due to changing needs. We see 2021 with a lot of promise, and that growth rates aim to be one of the highest in our recent past. The Indian manufacturing industry should be moving at a good pace, and the world will be looking at our country as a major manufacturing destination. 

## UNIVERSAL ROBOTS PARTNERS WITH PHILLIPS MACHINE TOOLS INDIA

In an effort to boost productivity and help manufacturers emerge from the pandemic stronger than ever, pioneer and leading collaborative manufacturer Universal Robots (UR) joins hands with Phillips Machine Tools India, part of Phillips Corporation, the world's largest Haas factory outlet. Together, they are all set to offer machine shops a safe, user-friendly solution to optimize uptime and enable significant advantages to manufacturers in India. This is an extension of the existing partnership between

the two companies in the USA, which was first announced in August 2019. The distributor agreement between Universal Robots India and Phillips Machine Tools India will ensure the rapid deployment of cobots with Haas CNC machines to help manufacturers staffing issues and stay competitive in this time of uncertainty. It will further offer affordable solutions to new and existing manufacturers and drive them to push the envelope by adopting flexible automation and increase overall productivity.

By Niranjan Mudholkar

## NAVIGATING THE NEW NORMAL

As we resume operations at our sites in a phased manner, we have a robust preparedness plan in place. We have relooked at our internal policies to suit it to the current situation and have mapped all possible touch points with due caution, says **Alain Spohr**, Managing Director, Alstom India and South Asia



Alstom's 'Made in India' electric locomotive manufactured at the Madhepura facility. This was recently inducted into Indian Railways



India will emerge as one of the preferred centres for manufactured products going forward, so the country must now focus on strategic execution.

### How has the global pandemic impacted your industry and your approach to people?

The pandemic has put a severe strain on the Indian manufacturing industry, which contributes almost 15 percent of the GDP. Reeling under the impact of COVID-19 and the subsequent lockdown, Indian manufacturing industry virtually came to a standstill across the country a few months ago.

However, the Government has taken due cognizance of the situation to enable manufacturing industries to function with reduced capacity and necessary safety guidelines. As we resume with partial withdrawal of the lockdown, the functioning of Railways and Metros becomes critical more than ever to ensure safe movement of people. Our teams are working with cus-

tomers to help them resume operation and we are confident of honouring all our customer commitments.

As we talk, all our four factories in the country are functional and we have started deliveries of the electric locomotives to Indian Railways from our Madhepura facility. All our sites are maintaining high levels of hygiene and sanitation processes as per government guidelines. Employees who are currently remotely working will continue to do so, until it gets safer to get back to offices.

### What are some of the key challenges you've faced in the current scenario and how do you plan to overcome them?

The pandemic has presented us with a host of unique challenges demanding us to be quick and agile. While most of our employees began working from home, it was critical to keep the multi-generational workforce motivated. In order to safeguard the mental and psychological wellbeing of our employees, we have instituted a flexible work culture and introduced initiatives to support remote working.

Even during these unprecedented times, Alstom in India is honouring the commitment made to all its new recruits, by onboarding them as per agreed timelines. Adapting to the new normal and leveraging technology, Alstom has transformed its onboarding and induction process and made it 100 percent virtual. From induction to integration, the process enables Alstom teams to collaborate and engage with new employees seamlessly.

In the past three months, we have welcomed ~280 new team members, and will continue to do so till we get back to working from our offices.

### What is your strategy post the lockdown for your business and people? What do you think about life after COVID-19? How are you preparing yourself and your employees for the same?

As we resume operations at our sites in a phased man-

ner, we have a robust preparedness plan in place. We have relooked at our internal policies to suit it to the current situation and have mapped all possible touch points with due caution.

Apart from providing logistical support, we are also ensuring all the safety measures are being taken across sites and offices. This includes mandatory use of masks, temperature screening at entry points and PPE kits for service staff, etc. As a safety measure, most employees from our Madhepura factory are provided with accommodation within the company township. All sites are disinfected periodically.

Measures are being taken to exercise social distancing across all common areas and shop floors and to reduce seating capacity at office floors. Further, we are disinfecting the shop floor at regular intervals in addition to fumigating the entire premises weekly. Along with this, our shuttle buses are also being disinfected before every trip.

Quarantine rooms are being arranged at each office/ site. An emergency vehicle is also kept on standby across all our offices and factories.

We have also been working with our customers to ensure that their businesses are up and running effectively post the lockdown. Our commitment to the workforce and customers will continue to remain our priority as we navigate this period.

#### Can you share some trends that you see becoming a norm post the lockdown?

This period of lockdown has accelerated digital adoption across industries and has brought forth innovative ways of working. The new normal will be defined by digital engagements with a focus on flexibility.


We did witness the benefits of leveraging technologies to enable all our employees who were not constrained by systems and processes to work remotely during the lockdown. In fact, digital tools were effectively used to organise workshops/ trainings, meetings, brainstorming sessions etc., to help employees stay con-



**“As a safety measure, most employees from our Madhepura factory are provided with accommodation within the company township. All sites are disinfected periodically.”**

nected and comfortable. Thus, we see a massive adoption of digital solutions in the days to come, especially post lockdown as well.

#### Your message for the Indian manufacturing industry?

Owing to the extraordinary circumstance, the manufacturing industry is facing a roadblock. However, we remain cautiously optimistic that things will improve in the coming months. Industrial trends such as digitalisation and automation have presented the industry with robust alternatives to circumvent traditional supply chain issues that industries face. Added to this, the able guidance of the government on the way forward will ensure that the Indian manufacturing industry can charter a steady growth path over the coming years. India will emerge as one of the preferred centres for manufactured products going forward, so the country must now focus on strategic execution. 

## IMTMA COORDINATING WITH GOVT. TO HELP MSME MEMBERS

The Indian Machine Tool Manufacturers' Association (IMTMA) is working with the MSME Ministry to help Indian manufacturers qualify for World Bank tender. Recently, the Ministry of Micro, Small and Medium Enterprises (MSME) with a view to modernize Tools Rooms and Training Centers had floated a tender with the assistance of the World Bank to acquire CNC Machines, Measuring Instruments and Accessories. Indian machine tool

manufacturers had bid for this tender. However, none of the Indian machines offered were selected due to some minor deviations from the tender specifications, while international vendors were selected. In this context, IMTMA is working closely with the Ministry of MSME and other government departments requesting a reconsideration of the offers submitted by Indian manufacturers, who are members of IMTMA. It is hoping that its request will be considered.

By Niranjana Mudholkar

## POSITIVE ATTITUDE

All the agencies are doing their best to bring the situation is under control; once done then the outlook for the future is bright, says **Ramakant Reddy**, Managing Director, LMT Tools India Pvt. Ltd.

### How would you analyse the cutting tools industry's performance over the last one year in India?

The cutting tool industry has faced the impact of factors affecting its main customer segment; that is the automotive industry. Introduction of BS-VI vehicles, impact of Covid-19 on customer's buying, likely introduction of EVs, and reluctance to buy diesel cars due to environmental reasons are the factors which have affected the automotive industry and thus has impacted sales of cutting tool manufacturers. The business was lower on YOY basis for all.

### How did your organisation fare in comparison with the rest of the industry last year?

LMT Tools specialises in products for different industry segments. We have solutions for Gear Cutting, Aerospace, Die Mould, critical operations of automotive components, threading, plastic & composites etc. This spread helped us to do better even in challenging situations.

### How has the Covid-19 outbreak affected your business?

Due to COVID-19 there was no production for some time as almost all manufacturing plants were closed. Subsequently, the production started but the volumes were much lower than capacity. All this resulted in loss of sales /reduction in sales. However, our wide prod-



"The tool industry is still at the beginning of the road to the Smart Factory. But manufacturing without intelligent tool systems that collect and exchange process data will soon be unimaginable – the

advantages for process reliability and productivity are so great!"



A solution for digitized production: the electronically adjustable fine boring tools from LMT Tools enable automatic compensation for cutting edge wear

### LMT Tools Intelligent tools with automatic wear compensation:

The advantages of intelligent tool systems become clear when fabricating holes with tight tolerances. "A certain degree of wear takes place at the cutting edges during machining, and this means that the hole diameter created changes. To stay within the required tolerance range, this unavoidable cutter wear must be compensated for with the aid of controllable cutters," LMT Tools has therefore fitted its fine boring tools with cutting elements that undergo automatic adjustment using electronic components. This means that the edges can be set digitally with absolute precision and – if required – any wear that arises can be compensated for fully automatically. Actuators under every cutting edge allow the user to carry out compensation at each individual cutter with accuracy measured in microns – and independently of the neighbouring cutter. "The hole is measured after the machining. The result of this measurement decides whether the cutter has to be adjusted and, if yes, by how much and in which direction,"

uct spread helped us to overcome the situation to some extent.

**With concepts like Industry 4.0, Smart Factories and Digital Machining, customers today are demanding technological advancements. How are you helping**



**your customers on this front?**

The tool industry is still at the beginning of the road to the Smart Factory. But manufacturing without intelligent tool systems that collect and exchange process data will soon be unimaginable – the advantages for process reliability and productivity are so great! With its intelligent tool systems, LMT Tools is underlining its reputation as the technological leader in this sector, and supplies efficient, individual and innovative solutions for smart production processes. Unimagined improvements in performance can be achieved in this way, lifting production to a new level in the age of Industry 4.0.

**Many cutting tools players are today supporting customers through a well-equipped technology centre. Tell us about your initiatives in this regard.**

At LMT Tools we have a concept of Centre of Competence, and we have set up one in In-



We have solutions for Gear Cutting, Aerospace, Die Mould, critical operations of automotive components, threading, plastic & composites etc. This spread helped us to do better even in challenging situations.

dia, in this matrix structure of sales and product specialists who form the centres of competence, we aim to ensure a right blend throughout the sales process. The sales engineers or sales teams are well qualified to identify the opportunities and the likely pains the

## EVoline: Tangential rolling head with sensor for force measurements


In addition to the fine boring tools with wear compensation, LMT Tools is developing smart rolling systems for the manufacture of external threads. The EVoline tangential rolling heads are fitted with a sensor for force measurements which continuously supplies data for more efficient tool use. The sensor is installed in rolling head arms and uses a wire strain gage to measure the forces occurring during the rolling process. The standard curve is measured as the tool is run in, and saved on a chip as a benchmark for the subsequent rolling processes. “By referring to the standard curve we can very quickly establish whether the process is running smoothly. The stored data therefore supplies important information for optimizing the rolling process.”



**Electronics for the Smart Factory: The EVoline tangential rolling heads from LMT Tools are fitted with a sensor for force measurements which continuously supplies data for more efficient tool use.**

customer is facing then the specialists from centres of competence would step in to give the right solution and therefore, the customer is able to quickly see the benefits and features which we have - both from the knowledge and the product – by this approach we have been able to deliver greater value to our customer.

**Your outlook for the year ahead?**

COVID -19 has impacted customer's confidence and they are very cautious in spending. This has also led to current situation in manufacturing. It is anybody's guess when this will be over. The dates vary from Q4-2020 to Q2-2021. All the agencies are doing their best to bring the situation under control; once done then the outlook for the future is bright. 

## ANOTHER FUNDING SCHEME TO HELP THE MSME SECTOR

Minister of MSME Nitin Gadkari has launched the Credit Guarantee Scheme for Sub-ordinate Debt (CGSSD) which is also called “Distressed Assets Fund–Sub-ordinate Debt for MSMEs”. As per the Scheme, the guarantee cover worth Rs. 20,000 crore will be provided to the promoters who can take debt from the banks to further invest in their stressed MSMEs as equity. It was being felt that the biggest challenge for stressed MSMEs was in getting capital either in the form of debt or equity. Therefore, as part of Atmanirbhar Bharat

package, on 13th May, 2020, Finance Minister had announced this scheme of sub-ordinate Debt to the promoters of operational but stressed MSMEs. After completion of necessary formalities including approval of CCEA and consultation with Finance Ministry, SIDBI and RBI among others, the scheme was formally launched recently by Gadkari from Nagpur. This Scheme seeks to extend support to the promoter(s) of the operational MSMEs which are stressed and have become NPA as on 30th April, 2020.

Announcing



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**A virtual conference  
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The 'Fire' Chat - Chinese companies in India

Clean Bowled! - Hygiene & Cleanliness on the shopfloor

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Industry Presentations

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By Niranjan Mudholkar

## THE MARKET WILL IMPROVE!

Although there is uncertainty in the market, we are equipped and ready to serve our customers, says **Anil Kumar**, Managing Director, Ceratizit India Pvt. Ltd.

### How would you analyse the cutting tools industry's performance over the last one year in India?

The cutting tools industry is affected by the slowdown in Indian economy as well as Global economy. Situation has worsened due to COVID-19. Some segments which are major consumers of cutting tools are adversely affected like automotive, aerospace etc. Indian cutting tools market has also got seriously affected due to this and most of them had a degrowth.

### How did your organisation fare in comparison with the rest of the industry last year?

Ceratizit Group had major acquisitions in past few years. Under the Ceratizit umbrella, four brands - Ceratizit, Komet, WNT and Klenk, with a large range of 100,000 products served our customers well. However due to the economic conditions we were also affected to some extent.

### How has the Covid-19 outbreak affected your business?

COVID-19 has affected our business to a certain extent. Automotive industry is seriously affected, and we are majorly dependant on that sector. However with our large range, we are supporting customers in medical, aerospace, defence and other sectors. We are also supporting manufacturers and OEMs engaged in producing ventilators in such tough times.



### With concepts like Industry 4.0, Smart Factories and Digital Machining, customers today are demanding technological advancements. How are you helping your customers on this front?


We offer complete machining solutions to metal cutting industry including Industry 4.0 solutions. We offer 'ToolScope' a monitoring and control system, which continuously records signals from the machine that are generated during the production process. This data is visualised and used to monitor and adjust the machine. It offers a wide range of apps like Process monitoring, Tool wear monitoring, Adaptive feed control, Collision detection, Machine condition monitoring, Tool change log, Machine data analysis & Quality documentation. Users of this system have experienced reduction in cycle times of up to 15 percent, increase in process security of up to 25 percent and, increase in tool life of up to 30 percent. It has stopped machine damages and has been very helpful in preventive machine maintenance.

We offer Boring bars with "Bluflex technology", precision boring head with integrated high-contrast OLED display and Bluetooth low-energy wireless technology for connecting to all common Bluetooth-compatible smartphones from Android 4.4 and iOS 10. We are in touch with customer digitally/through electronic media attending to their requirements.

### Many cutting tools players are today supporting customers through a well-equipped technology center. Tell us about your initiatives in this regard.

Ceratizit Group has four plants in India. At our head office in Bangalore, we have a fully equipped, state of the art 'Technical Center' with dedicated machines for demonstration of tools as well as a dedicated team to conduct training programs for our customers, channel partners and new recruits on a regular intervals.

### Your outlook for the year ahead?

We are sure that the market will improve in near future, but it may take few months to reach the earlier levels. Also, there is uncertainty due to COVID19. People have to get used to New Normal. However, we are equipped and ready to serve our customers. 



By Niranjana Mudholkar

## READY FOR THE NEXT LEVEL

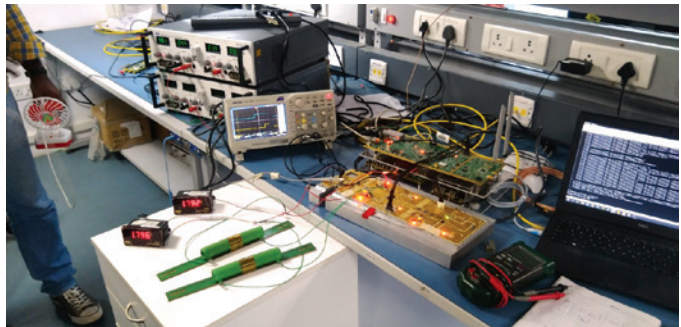
Saankhya Labs is betting big on the growing indigenous defence market says **Parag Naik**, its Co-Founder and CEO.

**Saankhya Labs was established in 2006. How's been the journey since then?**

Saankhya Labs was founded in 2006 as a semiconductor company for communication systems. We spent our early years developing SDR architecture and launched the first set of chipsets using this SL1000 and SL9000 architecture in 2012.

Using these chipsets, in the later years, we developed several products including Flexible receivers and Transmitter modules, UHF Radios, Satcom solutions, etc.

The year 2015 was a momentous year. Indian Space Research Organization (ISRO) and Saankhya Labs signed an MoU for MSS and under the partnership, a host of ground communication systems were developed. The solutions include SAMRAT, the world's first S-Band Satphone, Critical National Asset Tracking solutions, Vessel Tracking terminals for coastal security, and portable broadcast receivers. In December 2018, Saankhya Labs launched the Next-Generation SDR Chipsets - SL-3000 and SL-4000. These fully programmable software-defined chipsets are used in wide variety of applications, including 5G broadcasting solutions. Our long-range wireless communication solutions include Fixed Wireless Access radios which are used in South Korea, South Africa, Rwanda, Zimbabwe, USA and the UK.



Currently, Saankhya is focused on developing a wide variety of 5G solutions that will redefine the wireless communication landscape of the future.

During our 14 year journey, we have had the support of several angel and strategic investors.

**What kind of defence communication products does your company design and manufacture for the Indian armed forces?**

The Defence Procurement Procedure DPP-2016 for the first time introduced a new category -Buy Indigenously Designed, Developed and Manufactured (IDDM) products. Being the most favored category, Saankhya Labs has focused its synergies to deliver more secure, reliable communications solutions to defence and paramilitary forces. Saankhya Labs is the only Indian company to offer system solutions powered by its own award-winning, indigenously designed Software Defined Radio (SDR) chipsets. With all the intellectual property rights created and owned in India, Saankhya's solutions are one of the most secure communication systems with maximum indigenous content.

Saankhya Labs offers a variety of terrestrial and Satcom solutions for narrowband and wideband applications. A non-exhaustive summary of Saankhya's product portfolio is provided below:

**Manpack SDR:** Saankhya Labs has jointly bid for army's manpack SDR RFID in partnership with Cyient Limited. The tactical radio is India's first, 100 percent indigenously designed, developed, and manufactured software defined radio (SDR) for secure military communication. The manpack SDR supports military



The Covid-19 period has been like a 'Nuclear Winter' for many startups. We also thought that this will be a period of long hibernation. Fortunately, that has not been the case for the wireless communication sector.

In fact, during this period, we have closed far more deals than in the corresponding period last year.

communication over VHF/UHF frequency band in MANET environment. The SDR is powered by a Saankhya's fully-programmable SDR-baseband chipsets. A suite of custom waveforms developed in-house from the ground-up, ensures the highest level of ComSec and TranSec security

**Navsampark Radio Communication Solution:** Navsampark is an indigenously developed end-to-end wireless communication solution that consists of Shaurya Base Station Radio and Jayant CPE Radio. The system delivers reliable, scalable, secure and long-range wireless connectivity and coverage in tactical battlefield areas, deserts, rural and semi-urban environments. The On-The-Halt (OTH) connectivity is provided over a UHF band.

The radios support both Line-of-Sight (LoS) and Non-Line-of-Sight (NLoS) operations. Navsampark can work in both Point to Point (P2P)



eraging the phone's display, keypad, mic/speaker and GPS. Compact and lightweight, SAMRAT is a low power consumption device. It provides a highly secure mode of communication and offers excellent redundancy in no mobile network coverage areas.

SAMRAT was developed as part of our Strategic MSS Technology partnership with ISRO.

**Navdoot Vessel Tracking System:** Navdoot is a two-way Mobile Satellite Service Terminal that enables real-time tracking and monitoring of Deep-Sea Fishing vessels via Satellite transponders fitted on sub 20-meter mechanised (trawler) boats. Navdoot strengthens coastal security by enabling tracking, monitoring and better co-ordination amongst all the maritime security agencies. The network offers an accurate assessment of traffic and assists the multi-layer

security apparatus to identify and distinguish unregistered boats, a key requirement in the assessment of 'friend or foe' in deep sea. For the fishermen, Navdoot is a life-saving equipment thanks to its SOS feature. During exigencies, the fishermen can seek help via SoS aiding the search and rescue teams to reach the exact location. Apart from routine ship-to-shore and shore-to-ship communication, it provides weather alerts and preferred fishing zone information to fishermen.

**Sat IoT and Asset Tracking Solution:** Saankhya Labs has designed and developed a portable, low power Satcom terminal that can be used for a variety of applications including Satellite-based IoT network and asset tracking. These are small form factor terminals that can be installed in military vehicles like tanks, APCs etc. They are capable of providing real-time location of defence assets. They can also use satellite links to establish a two-way, secure communication between the assets and the central command.

**Lehar Portable Broadcast Receiver:** Lehar is a portable, USB powered, handheld S-Band, DVB-S broadcast receiver. It can be connected to any host device such as a PC/Laptop or mobile device. It supports audio, video and data reception. Lehar has an inbuilt patch antenna that receives ISRO's GSAT -broadcast signal over S-band. The demodulator based on Saankhya's patented Software Defined Radio (SDR) chipset demodulates the signal and an application installed on the host system decodes the transmitted content and displays it on the device.



The 'Make in India' initiative of the Government of India has given a boost to private players in the defence space. The Government of India aims to make India a leading defence export country. Saankhya Labs will be happy to export our communication systems to friendly countries.

and Point to Multi-Point (P2MP) topologies. They can communicate across a range of up to 20 KMs and provide high-speed data connectivity up to 24 Mbps

**Wireless Surveillance for perimeter security:** Navsampark Radios can be used for wireless surveillance and perimeter security when used in a Point-to-Multipoint (P2MP) configuration. Infrared detectors, motion sensors and cameras are installed in the perimeter areas. Data from these sensors is transmitted to a central command via the Navsampark solution, over a secure UHF band.

**Samrat S-Band Satphones:** SAMRAT is a two-way S-Band Satellite Mobile Radio Terminal (Satphone), supporting voice, data, short messaging and geolocation services. It is a Satsleeve that is designed to fit as an add-on to any 5.5" Android phone, transforming it into a Satphone. It operates via a user-friendly app, lev-

### How are you contributing to 'Make in India' and 'Atmanirbhar Bharat'?

Saankhya Labs' contribution towards India's indigenisation and self-reliance in defence manufacturing started well before the Make in India initiative took shape. Saankhya Labs is recognised for its pioneering work in wireless communication systems based on its SDR Chipsets and has been awarded more than 65 patents, along with several international and national awards. As India's first vertically integrated fabless semiconductor and systems company, Saankhya Labs offers solutions to the telecom, broadcast, defence and satcom industries.

Saankhya Labs has created a niche for itself by building an enterprise that is focused on innovation and transformative wireless communication solutions. Saankhya's indigenously designed, developed and manufactured (IDDM) systems offer the unique added advantage of full Intellectual Property Rights (IPR) residing in India.

We are betting big on the growing indigenous



We are also very active in standardisation efforts through active participation in 3GPP (through TSDSI, India's telecom standards organisation). We try to offer some of our IPR to benefit of the world at large through these standardisation activities.

defence market. The 'Make in India' initiative of the Government of India has given a boost to private players in the defence space. Saankhya Labs has been making indigenous products and solutions for the defence forces for a long time, even before the "Make in India" initiative. We are committed to delivering indigenously designed, developed and manufactured highly secure, reliable communication systems to the defence forces.



### Are you also collaborating with other OEMs?

Saankhya Labs has a tie-up with Cyient Ltd. We have jointly developed a Man-pack SDR for the armed forces.

### What kind of manufacturing facilities and capacities does



### Saankhya Labs have?

Saankhya Labs is a wireless equipment OEM (Original Equipment Manufacturer). We design and develop the complete wireless communication equipment. We outsource the actual manufacturing activity to EMS (Electronic Manufacturing Services) partners, while our

in-house manufacturing team guides and manages the overall manufacturing process with the EMS. This in-house team manages various activities related to manufacturing of equipment, including procurement of components, special manufacturing considerations for sophisticated communication systems, design of manufacture test setup and process and complete quality assurance of the manufactured product. The team also takes care of special certifications for regulatory requirements such as TEC, FCC (Federal Communications Commission of USA). In fact, Saankhya is the only Indian OEM that has manufactured FCC certified outdoor telecom equipment.

### Tell us about your R&D activities.

Our core strength lies in our R&D capabilities. Most of our products are in deep technology areas such as semiconductors and wireless communication systems, which require many years of R&D experience. We are pioneers and innovators and have a strong IP ownership. Our pioneering work includes the production of the world's first Software Defined Radio (SDR) Chip, Cognitive Radio Access Network (RAN), which is a technology that is beyond the current 5G network and 5G broadcast technology which is an innovation that brings Broadcast and Broadband networks together.

We are also very active in standardisation efforts through active participation in 3GPP (through TSDSI, India's telecom standards organisation). We try to offer some of our IPR to benefit of the world at large through these standardisation activities.

### Do you also serve the exports market? If yes, please tell us briefly about the same in terms of the geographical footprint, industries served and share in your overall revenues in terms of percentage.

Saankhya Labs has customers all across the globe. Our UHF based Fixed Wireless Access solutions are undergoing customer trials in countries across the world including South Korea, New Zealand, South Africa, Zimbabwe, UK and USA. Leading broadcasters in US are using our 5G Broadcast Solutions. We are currently in talks with leading telecom operators in US to export our 5G NR Solution.

The Government of India aims to make India a leading defence export country. Saankhya Labs will be happy to export our communication systems to friendly countries.

#### How's been the business in the last one year?

We have seen good growth. In the last one year, we have grown more than 50 percent of our revenue and accordingly, we have increased our employee count as well. In the last one year, we have seen some significant business wins with some large customers such as the railways in India, a large telecom operator in the US and so on, that could pave the way for continued growth. We expect to continue this momentum in the future as well.

#### How has the Covid-19 outbreak impacted your business and what have been the key learnings from the same?

Even before the lockdown began, we had redesigned our workplace at short notice and asked our staff to WFH. The majority of our staff have been able to effectively work from home during the lockdown using lap-

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The conditions are right; both in terms of changing technology trends in Open RAN based 5G networks as well as changing geopolitical scenarios around the globe. We will capitalise on these.

tops, VPN connections and video conferencing facilities like Google Meet. However, being a semiconductor and electronics company, access to hardware and labs is essential for some of our employees to function effectively. We are now redesigning the support infrastructure to address this subset of our employees. We are continuously improving our process to enable smooth and effective WFH.

The Covid-19 period has been like a 'Nuclear Winter' for many startups. We also thought that this will be a period of long hibernation. Fortunately, that has not been the case for the wireless communication sector. In fact, during this period, we have closed far more deals than in the corresponding period last year.

This is mainly because of a groundswell towards transition to a digital-led economy. The Govt's initiatives like Digital India, JAM (Jandhan, Aadhar, Mobile) along with social distancing and stay at home norms due to Covid 19 have led to a larger growth in technologies like video conferencing, Online Education, OTT platforms etc. This has helped us to have a



softer landing in these times.

#### What are your expectations from the government for your industry?

The wireless communication industry is extremely critical for India's growth. The Covid-19 pandemic and the recent clash with China have highlighted the fact that India has to be "Atmanirbhar" in this field.


With global supply chains disrupted, and fear of data being stolen by foreign entities there is no doubt that these risks can be mitigated with a homegrown ecosystem.

Recently the government has announced many measures to boost the Electronics Manufacturing industry and MSMEs. This is a welcome move by the Government of India, and will definitely provide a much-needed booster shot to the sector.

The government can do more build the indigenous ecosystem by focusing on supporting R&D and innovation, in addition to manufacturing. For companies like ours, this will go a long way in aiding us, as we continue to develop innovative and technology-driven solutions locally which can be exported globally. This will also be in line with the Government's Atmanirbhar Bharat plan.

#### Where do you see Saankhya Labs in the next two years?

We see ourselves as a major Indian OEM for the global telecom market in the next two years. The conditions are right; both in terms of changing technology trends in Open RAN based 5G networks as well as changing geopolitical scenarios around the globe. We will capitalise on these. We are quite focused on the next leg of our journey as a mainstream Telecom OEM and see the next two years as critical.

Until recently, Saankhya was primarily focused on operating in a few niche wireless communication technologies. Going forward, we will focus on mainstream 3GPP based telecom products for 5G and beyond. We have already embarked on the journey to develop products for 5G, and the next two years will see increased revenues in that area. We will focus mainly on 5G and Satcom and we are confident of growth. 

By Dr. Pranjal Kumar Phukan

## IMPACT OF COVID-19

The economic state of affairs remains highly fluid, and ambiguity about the length and depth of the health crisis-related economic effects are powering discernments of risk and unpredictability in financial markets as well as with corporate decision-making.

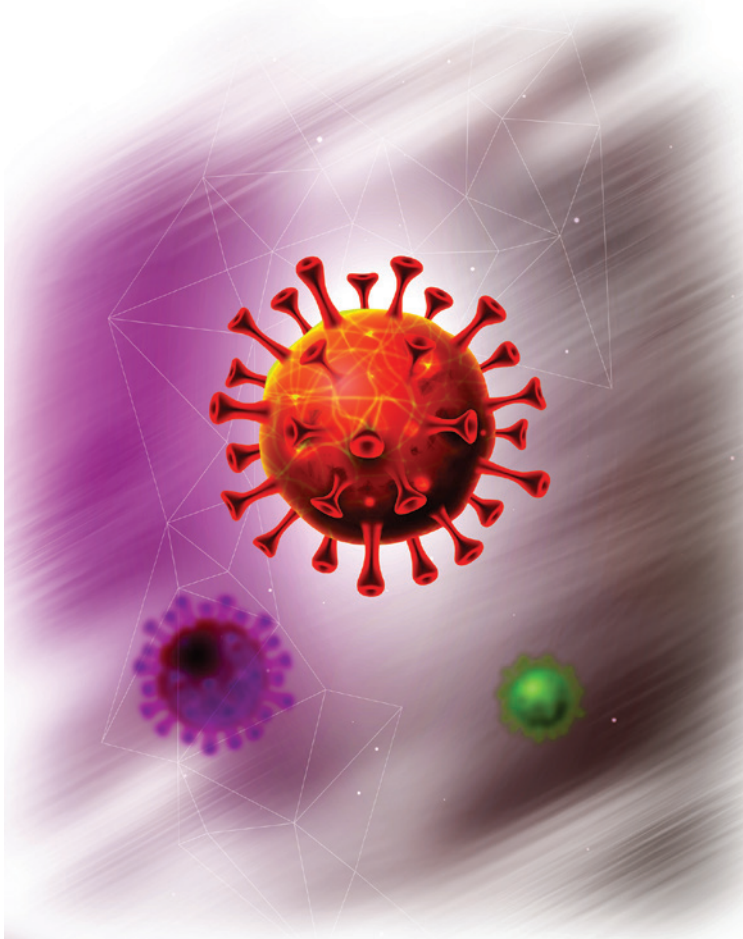
**T**he World Health Organization (WHO) officially declared the Covid-19 eruption as a pandemic on March 11, 2020, the highest level of health emergency. A mounting list of economic pointers proves that the outbreak is adversely affecting the global economic growth on a scale that has not been experienced ever since the global financial crisis of 2008-2009. Global trade and GDP are projected to wane sharply through the first half of 2020 as global

pandemic is upsetting a broad band of international economic and trade happenings from services generally to tourism and hospitality, medical supplies, other global value chains, consumer electronics, financial markets to energy, transportation, food, and a range of social activities etc. The health and economic catastrophes could have a predominantly negative influence on the economies of developing countries that are guarded by limited financial resources and health systems could quickly become burdened.

The economic state of affairs remains highly fluid, and ambiguity about the length and depth of the health crisis-related economic effects are powering discernments of risk and unpredictability in financial markets and corporate decision-making. In addition to it, suspicions regarding the global pandemic and the efficacy of public policies envisioned to limit its spread are adding to market volatility. Moreover, compounding the economic situation is a historic drop in the price of crude oil that imitates the global decline in economic activity, projections for disinflation and adds to the decline of the global economy through several channels.

International Monetary Fund (IMF) projected that the global economy could decline by 3.0 percent in 2020 before growing by 5.8 percent in 2021; global trade is estimated to fall in 2020 by 11.0 percent and oil prices are anticipated to fall by 42 percent (table refers below). This forecast assumes that the pandemic weakens in the second half of 2020 and that the restraint measures can be upturned speedily. The IMF also specified that many countries are facing a multi-layered crisis that contains a health crisis, domestic economic crisis, dwindling external demand, capital outflows and a downfall in commodity prices. In combination to above, these several effects are interrelating in means that make anticipating problematic.

Moreover, foreign investors have drawn an estimated \$26 billion out of developing Asian economies and more than \$16 billion out of





India which is an increasing concern of a major economic slump in Asia. However, China, India and Indonesia are expected to experience small but optimistic rates of economic growth in 2020. The IMF also contends that recovery of the global economy could be feeble than projected as a result of persistent ambiguity about possible infection, lack of confidence and perpetual closure of businesses and swings in the behaviour of firms and households. The viewpoint was grounded on progress being made in U.S-China trade talks that were anticipated to roll back some tariffs and an increase in India's rate of growth.

It is pertinent to note that two parallel global crises viz., health crisis and an economic crisis are overpowering the world. The essential public health response to the Covid-19 pandemic is setting in motion a globally harmonised economic recession leaving no apparent robust engine of global growth. The philanthropic di-



**"The government will focus on gathering jittery demand for essential goods while non-essential businesses will focus on recuperating their receivables/ outstanding money payable from debtors."**



According to the World Bank's estimation, India is likely to grow 1.5 per cent to 2.8 per cent and IMF anticipated a GDP growth of 1.9 per cent for India in 2020 as the global economy is affected by the COVID pandemic.

mension of these two associated events is captivating the majority of mankind into unexplored waters. The composite crisis threatens to overpower health care systems and government policies. The policy reaction will define the human toll of the virus; the length and sternness of the recession; and economic, social and environmental growth towards accomplishing the Sustainable Development Goals (SDGs) thereby placing a large accountability on policymakers.

In the prevailing situation, liquidity is likely to stay tight as the cost of borrowing in real stipulations will soar upwards. This is regardless of central banks' efforts to lessen interest rates and also banks and financial institutions will be under huge pressure as the apprehension of NPAs, liquidation and bankruptcies augment multi-fold. The government will focus on gathering jittery demand for essential goods while non-essential businesses will focus on recuperating their receivables/ outstanding money payable from debtors. Further to that, fresh strategic alliances or business partnership

will not materialize during this period. Recently as per an industry survey jointly conducted by industry body FICCI and tax consultancy firm Dhruva advisors and took responses from about 380 companies across sectors and it is understood that businesses are grappling with 'incredible ambiguity' about their future. According to the survey made, Covid-19 is having a 'deep impact' on Indian businesses and over the coming month's jobs are at high threat because firms are looking for a number of reduction in manpower. Additionally, it is added that by now Covid-19 crisis has caused an unparalleled collapse in economic activities over the last few weeks. FICCI said in a statement that the survey evidently highlights that if not a substantive economic package is announced by the government right away, there could be an enduring harm of a large section of the industry which may mislay the opportunity to come back to life again.

#### IMPACT ON INDIA'S ECONOMY

Covid-19 will have a large impact on the Indian economy and in respect to India; the argument can be bifurcated into two parts viz., India's financial system and its stock markets. The revival of the fundamental economy will be sluggish and it will take approximately two years for normalcy to come back across sectors. Even as the overall economy might take a beat because of the government lockdown, some sectors are placed to see enormous growth in the post-Covid era like FMCG, B2C focused lenders, gold-dependent companies, food retail and pharmaceutical companies etc.

Although, stock markets have a mind of their own which are formed by the collective emotions and intelligence of millions, they are often twisted and are not the best indicators of the fundamental economy. Stock markets will have a strong revival not due to the fundamentals strength but owing to global liquidity which is accessible for almost free. Moreover, availability of debt capital will be in short supply in India at the same time as equity capital will be available in plenty over a period of time.

According to Dun & Bradstreet, Covid-19 has no



doubt disrupted human lives and global supply chain but the pandemic is a ruthless demand shock which has offset the green shoots of revival of the Indian economy that was perceptible towards the end of 2019 and early 2020. The revised Gross Domestic Product (GDP) estimates for India downwards by 0.2 percentage points for the fiscal year 2020 to 4.8 per cent and for the fiscal year 2021 by 0.5 per cent to 6 per cent. Additionally, it is stated that the amount of the definite impact will depend upon the severity and extent of the eruption.



**Governments, policymakers and all stakeholders require knowing where the economy is, where it aimed to be, and how much progress are in making to sustain it.**

The data of the Dun & Bradstreet survey shows that at least 6,606 Indian entities have legal linkages with companies in countries with a great number of established Covid-19 cases and business activity in the foreign markets is sluggish which implies a negative impact on the top line of these companies. Sectors that would be greatly affected include logistics, auto, tourism, metals, drugs, pharmaceuticals, electronic goods, MSMEs and retail among others.

According to the World Bank's estimation, India is likely to grow 1.5 per cent to 2.8 per cent and IMF anticipated a GDP growth of 1.9 per cent for India in 2020 as the global economy is affected by the Covid pandemic - the same as the worst recession since the Great Depression in the 1930s. In addition to it, KPMG projected that the lockdown in India will have a considerable impact on the economy largely on consumption which is the biggest constituent of GDP.

Diminution in the urban transaction can direct to a sharp fall in the consumption of non-essential goods and it can be harsh if disruption causes by the 21-day lockdown which have an effect on the accessibility of vital merchandise.

Further to above, opportunities will largely depend on how quickly the economy recovers and the rapidity at which the supply chain issues are addressed. KPMG India Chairman and CEO Arun M Kumar said that apart from providing strong safety nets for the susceptible, a focus on ensuring job stability and job creation will be essential and there is pressing need to activate resources to encourage the economy for increased demand and employment. It is expected that the path to economic revival in India will be smoother and quicker than that of many other advanced countries.

Owing to weak domestic consumption and consumer reaction, there can be a delay in investment which further appends load on the growth due to which it is difficult to ignore that in post- Covid-19 situation some economies are likely to assume de-risking strategies and change their manufacturing bases from China thereby creating opportunities for India. In terms of trade, China is the world's largest exporter and second-largest importer which accounts for 13 per cent of world exports and 11 percent of world imports. Therefore to a large extent it will impact the Indian industry as in imports the reliance of India on China is vast. It is a known fact that of the top 20 products (at the two-digit of HS Code) that India imports from the world, China accounts for a major share in largely of them.

India's total electronic imports account for 45 per cent of China and approximately one-third of machinery and roughly two-fifths of organic chemicals that are purchased from the world comes from China. For instance, automotive parts and fertilisers China's has the share of more than 25 percent in India's import. Moreover, India imports 65 to 70 percent of active pharmaceutical ingredients and around 90 percent of certain mobile phones from China. As a result, it can be understood that owing to the current outbreak of coronavirus in China, the import reliance on China will have a noteworthy impact on the Indian industry.

In terms of export, China is India's third largest export associate and accounts for in the region of five percent share due to which the impact may result in the following sectors namely organic chemicals, plastics, fish products, cotton, ores etc. It also cannot be ignored

that most of the Indian companies are situated in the eastern part of China. In addition to that, about 72 percent of companies in India are located in cities like Shanghai, Beijing, provinces of Guangdong, Jiangsu, and Shandong and in various sectors these companies work including Industrial manufacturing, manufacturing services, IT and BPO, Logistics, Chemicals, Airlines, and tourism.

It has been seen that some sectors of India have been impacted by the outbreak of corona virus including shipping, pharmaceuticals, automobiles, mobiles, electronic, textiles and so on. The supply chain possibly will affect some disruptions associated with industries and markets. According to CLSA statement, pharma, chemicals, and electronics businesses may face supply-chain issues and prices will go up by 10 percent. The statement too says that India could also be a beneficiary of constructive flows since it appears to be the least-impacted market and some commodities like metals, upstream and downstream oil companies could observe the impact of lower global demand impacting



**Stock markets will have a strong revival not due to the fundamentals strength but owing to global liquidity which is accessible for almost free.**

commodity prices. In addition to above, CII reports that GDP could fall below five percent in FY 2021 if policy action is not taken immediately.

In the third quarter (October-December) growth shall slowed down to 4.7 percent and the impact of Covid-19 will more be seen in the fourth quarter. FICCI survey illustrated that 53 percent of Indian businesses have indicated a marked impact of Covid-19 on business operations and 42 percent of the respondents said that it could take up to three months for normalcy to return. An outbreak of Covid-19 impacted the entire world and has been felt across industries. The outbreak is acknowledged as a global emergency by the World Health Organisation. In India, the three major contributors to GDP namely private consumption, investment and external trade will all get affected. World and Indian economy are attempting to lessen the health risks of Covid-19 with the economic risks and necessary measures taken to improve the situation.

## SOLUTIONS FROM THE GOVERNMENT

Similar to its counterparts across the globe, the Indian government has announced a slew of measures to prevent total collapse of the economy. Though, it is not enough as this works to aggravate some of the pain instead of countering it. These include:

Untie the purse and spend money on infrastructure development like 'Rebuild India, Rejuvenate India'.

Public sector financial institutions capitalized and pushed by the RBI to lend out low-ticket loans below INR one Crore in the form of working capital to make sure that liquidity comes back into the system.

Banking sector to pass on rate cuts induced by RBI to the borrowers.

Personal tax cuts & tax holidays for 6 – 12 months to revive consumption which will help incite economic growth.

These are not an exhaustive list of measures but these could help lessen the impact of COVID-19 on the Indian economy while stimulating growth.

## WHAT NEXT?

Numerous import-dependent countries like India have been severely affected during the corona virus pandemic. The decline in goods flowing through the global supply chain and considerable reliance on China for imported goods has led to shortages of supplies to import-dependent countries because China has already shut down many of its export factories. This has led to increase in the price of the residual stock of imported supplies already in import-dependent country which also triggered inflationary pressures on the price of basic commodities regardless of the general low demand for imports due to the coronavirus pandemic. Moreover, it was hard to find substitute imports after China's shut-down as many countries had partially or fully closed their borders which stifled international trade at the time.

Governments, policymakers and all stakeholders require knowing where the economy is, where it aimed to be, and how much progress are in making to sustain it. This underscores the importance of the stipulation of data to the public and promptly sharing established and winning practices. In this rapidly changing and complex crisis, extrapolating from the past does not inform much about the future, yet our system need to see the way forward. 🇮🇳

*The author is Honorary Director- Strategy – International Council for Technology, Management & Applied Sciences (ICTMAE). He is located at Dibrugarh, Assam, India*

## Honda Cars launches fifth generation Honda City

Honda Cars India Ltd. (HCIL) launched its much-awaited All New 5th Generation Honda City in India. First introduced in India in January 1998, Honda City has been the country's most successful mid-size sedan. Now in its 5th Generation, the City has always defined the original authentic shape of sedan in India and reinvented itself according to the needs and aspirations of its customers. The new Honda City has been developed at Honda R&D Centre located in Tochigi, Japan following extensive market surveys in India, ASEAN countries and other markets for people's driving needs and lifestyles. Speaking on the occasion, Gaku Nakanishi, President & CEO, Honda Cars India said, "Honda City has been our key pillar of business for more than 22 years, being one of the longest running nameplates in the Indian automotive history. With cumulative sales of more than 4 million units worldwide, it has provided joy to almost 8 lakh customers in India and many more aspiring to own the model.



Each generation of the City has raised the bar on design, technology, quality, driving pleasure, comfort & safety, and has come with several industry firsts or segment first features."

## Škoda Auto India brings the Rapid Rider Plus



Škoda Auto India has unveiled the Rider Plus, a new variant of its much celebrated vehicle: the Rapid TSI. Commenting on the introduction of the new Škoda Rapid Rider Plus, Zac Hollis, Brand Director, Škoda Auto India said, "Škoda Auto India recently introduced the new Rapid TSI range of products that now boasts state of the art 1.0 TSI petrol engine offering exceptional power output and excellent fuel economy. An overwhelming response from brand loyalists and auto enthusiasts from across the nation has obligated the Czech marque to push the yardstick further and broaden the Rapid range. The Rider Plus offers a compelling combination of the brand's emotive design, exquisite interiors and class leading safety features, at a very competitive price point. It is deemed to be a best seller setting the benchmark for functionality, practicality and spaciousness in its segment."

## JLR Ingenium engines cross 1.5 million mark

Jaguar Land Rover has now produced over 1.5 million Ingenium engines, as the UK manufacturer celebrates its leading facility adding a new, advanced powertrain offering. The Engine Manufacturing Centre in Wolverhampton, UK, produces the ultra-efficient Ingenium powertrain family, providing a range of clean and electrified powertrains for all Jaguar and Land Rover models\*.

The advanced Ingenium family, which includes a range of clean, refined and efficient diesel, petrol and electrified engines, are built to maximise performance whilst at the same time reducing the environmental impact and running costs for customers. Developed and manufactured in-house in the UK, Jaguar and Land Rover's all-aluminium Ingenium engine designs are modular, flexible and scalable, with common core technologies. The latest addition to the Ingenium range is the six-cylinder diesel engine, which offers enhanced performance, smoothness and efficiency, powering the new Range Rover and new Range Rover Sport.



## Hyundai launches Elantra with new diesel BS6 engine

Hyundai Motor India Ltd. (HMI) has launched the Elantra with new Diesel BS6 Powertrain options. The company offers the 1.5 l U2 CRDi Diesel BS6 with 6-Speed Automatic & Manual transmission options with this sedan. Commenting on the introduction of New Diesel BS6 Powertrains on Elantra, SS Kim, MD

& CEO, Hyundai Motor India Ltd., said, "We are enhancing customer delight on Elantra with the addition of Fun to Drive & Powerful 1.5 l U2 CRDi Diesel BS6 Powertrains. Additionally, Hyundai is also providing an improved value proposition for existing Petrol BS6 Powertrain options on Elantra."

## Lotus announces manufacturing facility in Norwich

Lotus Cars has announced that its steel fabrication (currently situated at Vulcan Road, Norwich) and lightweight structures (located in Worcester) businesses will be brought together in to one new, larger facility at Hurricane Way in Norwich with the creation of up to 125 new jobs. The investment from Lotus, which has its headquarters and sports car manufacturing in Hethel, Norfolk, further demonstrates its commitment to the region and to Norwich. The 12,300 sq m Hurricane Way factory will be converted to a new high tech sub-assembly facility to house manufacturing of the award-winning aluminium extruded and bonded aluminium chassis for the Evora, Exige and Elise Lotus sportscars, along with manufacturing of aluminium components for other global car companies. The facility will also house the



steel welding and fabrication of sub-frames, suspension components and other key parts for Lotus cars.

## Apollo Tyres commissions AP Greenfield facility

Apollo Tyres has commissioned its seventh manufacturing unit globally, and the fifth one in India, with the first tyre rolling out recently from the Andhra Pradesh Greenfield facility in the southern part of the country. Located in Chinpananduru village in Chittoor district of Andhra Pradesh (AP), this facility of Apollo Tyres is spread over 256 acres. The company will invest close to Rs 3800 crore in the Phase I of this Greenfield facility. While the capacity will be ramped up gradually in the next 12 months to 18 months, as the demand improves, by 2022, this plant will have a capacity to produce 15,000 passenger car tyres and 3,000 truck-bus radials per day. With a modular layout, the capacity at this facility can be replicated with minimal engineering efforts and with economies on investments. Commenting on the commissioning of AP facility, Onkar S Kanwar, Chairman, Apollo Tyres Ltd, said, "This ultra-modern facility is a reflection of our growth aspirations and manufacturing capabilities, showcasing some of the best practices available across the globe in tyre manufacturing. This highly automated plant uses IT-driven systems and robotics, and employs young and skilled associates on the shopfloor, mostly hired locally."

## Merger of FCA and Groupe PSA named Stellantis

Peugeot S.A. and Fiat Chrysler Automobiles N.V. have recently announces that the corporate name of the new group will be Stellantis. Stellantis is rooted in the Latin verb "stello" meaning "to brighten with stars". It draws inspiration from this new and ambitious alignment of storied automotive brands and strong company cultures that in coming together are creating one of the new leaders in the next era of mobility while at the same time preserving all the exceptional value and the values of its constituent parts. The name will be used exclusively at the Group level, as a Corporate brand. The next step in the process will be the unveiling of a logo that with the name will become the corporate brand identity. The names and the logos of the Group's constituent brands will remain unchanged.

## Land Rover to bring back Defender Hard Top

Land Rover has confirmed the new commercial Defender 90 and 110 models will restore the Hard Top name to its 4x4 family. The Defender Hard Top will be launched later this year. The Hard Top name dates back to 1950. Land Rover has experienced unprecedented global demand for New Defender 90 and 110 since its successful world premiere last September and the new Hard Top models will be the next additions to this line. Defender Hard Top shares its strong body structure and next-generation Electrical Vehicle Architecture (EVA 2.0) with passenger models. Michael van der Sande, Managing Director, Land Rover Special Vehicle Operations, said: "We will maximise the functionality and usability of New Defender's cargo area, with tough materials and clever storage solutions to ensure it surpasses the capability of any previous Defender Hard Top."



## Daimler Buses opens bus competence centre in Winterthur

EvoBus Schweiz AG has moved to Winterthur and bundles all of its entire know-how at the new site. On a working space of 20,000 sq m, the sales, admin and service operation departments will work together closely. The customer service and operating building BusWorld Home (BWH) offers a multitude of services covering an area of 45 x 115 m, all relating to buses from Mercedes-Benz and Setra. The spectrum includes specialist workshop, electrical workshop, body and paintwork repair, a diagnostic track, new vehicles preparation and different vehicle wash systems. Whether for local or regional customers or buses in transit – this comprehensive service, which is offered under the service brand name of OmniIplus, is unique in Switzerland. BusWorld Home bundles all of its entire expertise and experience, from minibuses through to touring coaches with the latest safety standards.

## EASY MOUNTING OF BALL PINS BY HAND

Effortless assembly and separation with constant holding force possible with the clip-on spherical bearing bushing from igus

Thanks to the new igubal clip-on spherical bearing bushing from igus, the M6 ball pin can be mounted easily. For this purpose, only a cylindrical bore in a ten-millimetre-thick holding fixture is required. The easy dismantling of the bushing and ball pin makes this maintenance-free novelty from the motion plastics specialist igus ideally suited for prototyping.

The new lubrication- and maintenance-free igubal clip-on spherical bearing bushing (ZCLM 06-10) from igus can be easily mounted manually. The '06' stands for a ball pin of size M6 and the '10' stands for the plate thickness of the holding fixture in millimetres. A cylindrical bore with 12-millimetre diameter, is all that you will need. "The ball pin is inserted into the bushing, then simply

"TYPICAL APPLICATION AREAS FOR THIS ARE COUPLING RODS, DOUBLE SPHERICAL BEARINGS OR OTHER SOLUTIONS FOR DRIVING CONNECTING RODS. THE NICE THING IS THAT THE DESIGNERS HAVE GREAT FREEDOM IN DESIGNING THEIR GEOMETRIES."

**THOMAS PREISSNER**, INTERNATIONAL PRODUCT MANAGER OF THE IGUBAL SPHERICAL BEARINGS DIVISION AT IGUS



The new igubal clip-on spherical bearing bushing from igus can be easily mounted by hand.

pushed until it clicks into the holding fixture," says Thomas Preissner, International Product Manager of the igubal spherical bearings division at igus, while explaining the novelty. "Typical application areas for this are coupling rods, double spherical bearings or other solutions for driving connecting rods. The nice thing is that the designers have great freedom in designing their geometries." Inside the bushing there is a spherical holding fixture for the ball pin, that securely holds it in position. igus offers the matching ball pin in galvanised or stainless steel.

### Lubrication-free solution for prototyping

Even the dismantling is as simple as the assembly! After pressing together, the latching lugs offset by 90 degrees at the bottom side of the bushing, you can pull out the ball pin together with the bushing from the holding fixture. This option is an important feature particularly in prototyping. The holding force of 120 N remains intact even after repeated assembly and separation. The clip-on spherical bearing bushing is made of the iglidur J material from igus. Like all other plain bearing products from igus, the material is self-lubricating and dry running, therefore, subsequent maintenance can be avoided. More dimensions of the igubal clip-on spherical bearing bushing are already being planned. igus provides more special solutions on request for geometries or materials of the ball pin.

For more information, contact: Nitin Prakash, Product Manager, iglidur®, igus (India) Private Limited, Email: [nitin@igus.in](mailto:nitin@igus.in), or visit [www.igus.in](http://www.igus.in)

## IGUS IS A NEW MEMBER OF THE PROFIBUS NUTZERORGANISATION E.V.

Tested chainflex Profinet cables ensure reliable data transfer in moving applications

Profinet is the world's leading Ethernet-based communication solution for industrial automation. Because even large volumes of data can be transferred quickly and safely thanks to real-time communication. In order to advance the research of Profinet technology in moving applications, igus has now joined the Profibus Nutzerorganisation e.V. as a cable specialist.

According to the results of a study by IHS Markit, Profinet is the industrial Ethernet communication system. Based on the newly installed nodes, Profinet achieved a market share of almost 30 per cent in 2018. The technology was developed by the Profibus

Nutzerorganisation e.V. (abbreviation PNO). "Due to the increasing importance of Profinet in moving applications in industry, we have now joined the Profibus Nutzerorganisation e.V. as a cable specialist. Here we want to further advance the development of the technology," says Andreas Muckes, Head of chainflex cables Product Management. "So the customer can be sure that our cable solutions always meet the current electrical requirements."

For more information, contact: Ravikumar Alloli, Product Manager - chainflex®, igus (India) Private Limited, Email: [ravikumar@igus.in](mailto:ravikumar@igus.in)

## MILLING A DEEPER PATH

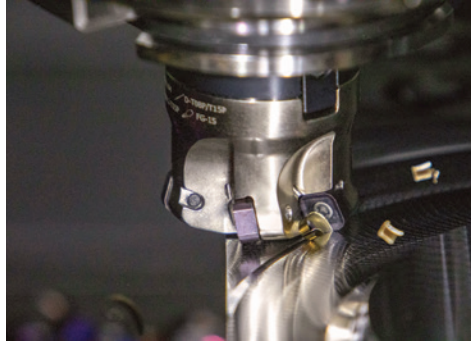
**Dormer Pramet has expanded its milling assortment for die and mold and general machining applications with several introductions.**

**D**ormer Pramet has expanded its milling assortment for die and mold and general machining applications with several introductions. This includes the new double-sided SNGX11 insert for high feed milling with up to 1.7mm depths of cut.

A strong main cutting edge ensures high levels of durability and process security – especially when machining corners inside a pocket. With eight cutting edges, the square-shaped SNGX11 also represents an extremely economical solution.

**“THE RANGE IS SUPPLEMENTED BY THE NEW SSN11 CUTTER, AVAILABLE IN DIAMETERS FROM 32 – 125MM, WITH INTERMEDIATE SIZES FOR DIE AND MOLD APPLICATIONS.”**

Suitable for copy milling, helical interpolation, ramping, progressive plunging and face milling, the SNGX11 is available in two geometries. M is for machining steel, but also hardened steel and cast iron. MM provides a smoother cut and is more suitable for stainless



**The SSN11 cutter is available in diameters from 32 – 125mm, with intermediate sizes for die and mold applications.**

steel, soft steel and super alloys.

The range is supplemented by the new SSN11 cutter, available in diameters from 32 – 125mm, with intermediate sizes for die and mold applications. All cutters feature a special through-coolant design to further improve process security and a high overhang to support deep milling up to 10xD.

Meanwhile, Dormer Pramet has added to its ADMX07

milling program with a new F geometry for finishing and semi-finishing applications. This sits alongside the existing M, FA and HF geometries and targets light machining of stainless steel and low carbon steels. Extremely suited to vibration sensitive machining, the chip breaker features a highly positive geometry with narrow peripheral land. This reduces chatter and enables a smooth cutting action without burrs on the machined wall. Significantly, it also supports lower cutting forces which not only reduces energy consumption, but also prevents work hardening, meaning increased durability and longer tool life.

The ADMX range is a universal 90° tool suitable for a variety of milling applications.

*For more information, visit [www.dormerpramet.com](http://www.dormerpramet.com) or contact your local sales office*

## LVD PLANS SERIES OF TECHNOLOGY EVENTS TO LAUNCH NEW PRODUCTS

**F**ollowing the postponement of EuroBLECH 2020, LVD announces plans for a series of Virtual Technology Events and Technology Days to be held September through November 2020 to launch and showcase new laser cutting, bending and punch press products for the sheet metalworking market. LVD Technology Events will spotlight products originally planned to debut at EuroBLECH and will offer a combination of virtual events and in-person Technology Days at its Experience Center in Gullegem, Belgium. Both the virtual and onsite events



will give attendees an in-depth look at LVD's latest advancements. The Virtual Tech Events will provide full product demonstrations, informational sessions on various metal fabricating technology and industry trends, and offer a platform for information sharing, as you would expect at a physical trade show. Technology Days at the LVD XP Center will take place with significantly smaller groups and with increased safety measures in place. EuroBLECH, the world's largest sheet metalworking exhibition, has been postponed to March 2021 in light of the ongoing COVID-19 crisis. "Without strong confidence that health and safety guidelines can be maintained in a large tradeshow setting such as EuroBLECH, we need new ways to connect with fabricators to help them discover new technologies," said LVD CCO, Francis De Bie. "As we adapt to the 'new normal,' it's more important than ever to help companies build more flexible and resilient businesses." Dates and additional details for LVD Technology Events will be announced in early August. Questions can be addressed to [events@lvdgroup.com](mailto:events@lvdgroup.com)

## INCREASE PRODUCTION SIGNIFICANTLY

### Wohlhaupter India and Allied Machine share motorsports manufacturer success with GEN3SYS® XT Pro Drill

By Deborah A. Froelich

**W**ohlhaupter India Pvt. Ltd. provides engineering, technical support, and onsite application services within India for Wohlhaupter GmbH and Allied Machine and Engineering Corp., leading manufacturers of holemaking and finishing tooling systems. Together, they recently worked with a motorsports manufacturer producing ATV suspensions from ductile iron. This material is notorious for its high abrasiveness and inconsistent hardness.

Their current tooling had to be fed at or under .005 IPR to hold the required 63 Ra  $\mu$ m surface finish. The customer was frustrated with the low



“THIS LINE ALSO INTRODUCES SEVERAL UNIQUE COATINGS. COMBINING SPECIFIC GEOMETRIES, SUBSTRATES AND COATINGS CREATES THE OPTIMAL SOLUTION FOR DRILLING CHALLENGING MATERIALS, SUCH AS THE DUCTILE IRON MENTIONED ABOVE.”

penetration rates, so they requested a test demo with the GEN3SYS XT Pro using the “K” geometry with AM440 coating designed to overcome wear from cast iron material. Allied Machine says, “This coating allowed them to spin the tool faster without losing the cutting edge to wear. The XT Pro was able to increase the penetration rate from 8 IPM to 43.7 IPM (a 446 percent improvement), all while holding the required 63 Ra  $\mu$ m surface finish.” By increasing the penetration rate, the XT Pro dropped the cycle time from 23 seconds to just four seconds, allowing the customer to increase production

significantly while maintaining the necessary surface finish.

GEN3SYS XT Pro line of high-penetration drilling products features inserts and holders designed for three specific geometries. This line also introduces several unique coatings. Combining specific geometries, substrates and coatings creates the optimal solution for drilling challenging materials, such as the ductile iron mentioned above.

The GEN3SYS XT Pro line is available for steels, cast irons, non-ferrous materials, and most recently, structural steel. The drill inserts are available in diameters ranging from 11 mm

to 35mm. The steel materials geometry (ISO class P) is ideal for low and medium carbon and alloy steels. The ISO class K geometry, according to Allied Machine, is engineered for cast and nodular iron applications and the blade’s geometry includes a corner radius for improved hole finish and heat dispersion. The addition of their multi-layer AM440 coating offers increased abrasion resistance and tool life. The ISO class N geometry excels in softer materials including aluminum, brass, and copper applications and yields excellent chip control. Its TiN coating provides the versatility to run in a variety of materials while reducing buildup.

Holders for the GEN3SYS XT Pro line feature an enhanced flute design that improves chip evacuation and an updated coolant configuration that increases coolant flow and directs coolant to the cutting zone. The holders are offered in 3xD, 5xD, 7xD, and 10xD depth-to-diameter ratios.

*For more details on GEN3SYS XT Pro high-penetration drilling systems or to schedule a free tooling consultation with a local tooling specialist, email [info.in@wohlhaupter.com](mailto:info.in@wohlhaupter.com) or visit [www.wohlhaupterindia.in](http://www.wohlhaupterindia.in)*

## SIEMENS AND SAP ANNOUNCE NEW PARTNERSHIP

**S**iemens and SAP SE have announced a new partnership that will leverage their industry expertise and bring together their complementary software solutions for product lifecycle, supply chain and asset management. Through this agreement, both SAP and Siemens will be able to complement and integrate their respective offerings in order to offer customers the first truly integrated and enhanced solutions for product lifecycle management, supply chain, service and asset management. This will enable

customers to form a true digital thread integrating all virtual models and simulations of a product or asset with real-time business information, feedback and performance data over the entire lifecycle. “Digital transformation will be critical for the manufacturing industries to increase productivity, flexibility and accelerate innovation, so companies must come together in new ways to enable the digital enterprise,” said Klaus Helmrich, Member of the Managing Board of Siemens AG & CEO of Siemens Digital Industries.





Deadline for sending  
nominations:  
3 pm, July 31, 2020

## Announcing New Category Of Covid-19 Innovation\*

Cutting Tools Partner



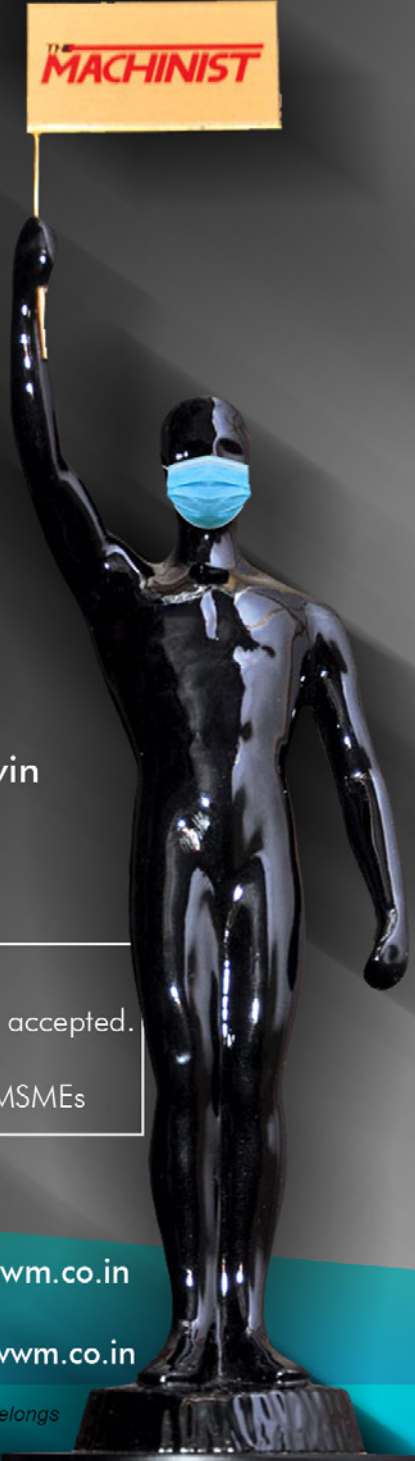
Associate Partner



Has your organisation developed  
an innovative product  
in the war against **COVID-19?**

It could be any of the following or even beyond it:

Ventilators / Sanitizers / Dispensers  
Face Shields / Visors / Masks  
Disinfectant Technology / Solution  
Social Distancing Technology / Equipment  
Testing Equipment / Kiosks  
Personal Protection Equipment  
Body Suit

If yes, then tell us about it and your organisation could win  
'The Machinist Super Shopfloor Award 2020  
for Covid-19 Innovation\*'.  


Get in touch with  
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No entry fee.  
Softcopy nomination accepted.  
Separate winners for  
Large Enterprises & MSMEs

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\* The Machinist Super Shopfloor Award 2020 for Covid-19 Innovation is an intellectual property that belongs to the Worldwide Media Pvt Ltd (WVM). It is part of 'The Machinist Super Shopfloor Awards' platform.

**Sixth Edition**



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- MACHINING EXCELLENCE • DIGITAL MANUFACTURING • HUMAN RESOURCES (HR)
- CORPORATE SOCIAL RESPONSIBILITY (CSR) • SUPPLY CHAIN • MAINTENANCE • COVID-19 INNOVATION

**FINAL DATE OF NOMINATIONS: JULY 31, 2020**

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