

## “India has drawn the plan to become a ‘Global Manufacturing Hub’”



**Stephan Itter, CEO, LÄPPLE AG, FIBRO (a Member of LÄPPLE Group)**

standard parts for die & mould. Then just within the span of four years, we expanded our facility to a manufacturing unit for rotary tables in 2017. The CAGR of FIBRO India is more than 22 per cent. Whatever we manufacture in India, is for the global market. This indicates our commitment to the Indian market.

The requirement of standard parts in Asia differs from that of European markets. As such to meet the local customers' requirements we started manufacturing those standard parts like guideposts, wear plates, etc., especially for local customers. The aerial CAM units are vital components in standard parts which were being imported till 2018. We took the initiative to localise some of the fast-moving CAM units. As a result, today we are manufacturing a very large range of CAM units not only for Indian markets but also for the global market.

Similarly, we are the first one to manufacture CAM-driven Rotary Tables in India for the automation sector. This has been very well received and appreciated by our customers in India. We have plans to expand our operations in India. In fact, not only for us but we have plans for our other group companies as well to

set up manufacturing facilities.

**With the 'going local for global' movement growing in India, how is your organisation working on contributing to it?**

>>>As of now, 45 per cent of whatever is produced by us in India, is being exported out of India. We will keep adding new products in both the verticals and standard parts as well as in rotary tables for global markets. We have created the infrastructure at our India set up for sourcing engineering, development & manufacturing to meet the global requirement. Let me add to it, as it is not only an assembly unit but even the raw material is also procured from the local market.

**Demand for customisation and niche products with a personal touch are on the growth. How is your company working on meeting evolving customer demand in real time?**

>>>Since we have established the design centre in India, it is relatively easy for us to customise the product for a specific customer. We have quite a few customised

standard parts for specific automakers. We do stock such parts based on the customer's forecast for quicker delivery to the customer. Even for Indian customers as well we are customising standard parts as well as rotary tables.

**With normalcy setting into the Indian manufacturing sector as well as the global market, what do you envision the metal cutting & forming growth to be like? Further, how does your organisation plan on being a key contributor to the sector, especially in the Indian market?**

>>>The current pandemic taught many things to the whole world. So, the global manufacturing sector also learnt a few lessons. To everybody's surprise, India could handle the situation successfully in a very short time. As a result, the world has shifted its focus to India. At the same time, the Indian government has taken initiatives inviting multinationals to put up manufacturing units in India. As I understand, the Indian government has drawn the plan to make India a 'Global Manufacturing Hub' taking the Indian economy from \$3 trillion to \$5 trillion by 2025. We are closely watching this development and certainly, we would like to contribute in a smaller way to this growth.

Today we are manufacturing a very large range of Cam Driven Rotary Tables for India as well as for the Global Market.

**How important is the Indian market for your company from a global business perspective? Can you elaborate on a few of your innovations that have seen an uptick in the Indian market?**

>>>FIBRO is a part of the global LÄPPLE Group which has the distinction of having an experience of over 100 years in 2019. LÄPPLE Group has been closely associated with all European auto manufacturers. FIBRO India was established in 2008 and we built our own manufacturing unit in 2013 for making

## Our member companies are in expansion mode



**Ravi Raghavan, President, IMTMA**

The Advanced Machine Tool Testing Facility (AMTTF) set up in Bengaluru tests the performance, and safety of machines and develops solutions in enhancing the efficiency and performance of machines. During FY 2020-21, AMTTF carried out around 350 assignments serving more than 70 customers.

**With the rapidly evolving market, where do you envision discrete manufacturing in the next five years?**

>>>Machine tools are key to augmenting various discrete manufacturing sectors such as automobiles, defence, railways, electronics, and white goods, among others. Following the reopening of the economy during the post-pandemic period things gained momentum driven by pent-up demand for services as well as the announcement of various government schemes including PLIs. Consumption and

production have been moving northward, overall, we have seen a growth of around 15 - 20 per cent in terms of consumption and production of machine tools. The industry is in a relatively comfortable zone when compared to what it had been in previous years. India is being favourably looked upon by various nations for doing investments and setting up industrial units. When it comes to exports, the industry was long considering smaller nations which isn't the scenario today.

Many of our member companies are doing business with advanced nations by supplying good machines besides meeting the unique requirements of customers, even from a technology perspective. Given these, we expect a growth rate of 20 per cent CAGR in terms of consumption of machine tools and an 18 - 22 per cent growth in domestic production.

**What are some of the technologies in discreet manufacturing that you envision will revolutionise the sector?**

>>>Going by the recent trends multiple technologies are driving the advancement of discreet manufacturing. Some of these include artificial intelligence and machine learning, advanced robotics, additive manufacturing, especially hybrid machines, laser-based technologies for cutting, welding, metrology

applications, cyber-physical systems, digital twin, precision machines, self-monitoring and self-diagnostic intelligent machines, multi-tasking machines, etc.

**How is your association working on becoming a key contributor to the metal cutting & forming sector? Can you detail a few strategies?**

>>>Machine tool builders, academia and user industries are working in tandem to develop products. The industrial robot being built in the Advanced Manufacturing Technology Development Centre (AMTDC) at IIT-Madras is a classic example. Many other similar projects (especially for building next-generation machines) are under various phases of development at AMTDC.

Along similar lines, the Advanced Machine Tool Testing Facility (AMTTF) set up in Bengaluru tests the performance, and safety of machines and develops solutions in enhancing the efficiency and performance of machines. During FY 2020-21, AMTTF carried out around 350 assignments serving more than 70 customers.

A first-of-its-kind exclusive machine tool park in Tumakuru in Karnataka (TMTP) connects the domestic and international OEMs and supply chains to set up manufacturing facilities for building machines under the Make in India and Make for

World initiatives. IMTMA has also constituted task forces for addressing the requirements of auto and emerging sectors such as electronics, furniture, renewable energy, etc. The Association is not only offering machines but also offering sector-based solutions.

**In your opinion, what are the key factors currently driving the metal cutting & forming industry? What are the challenges that the industry will have to overcome to become a global powerhouse?**

>>>Many of our member companies are expanding their capacities and soon we may have higher capacity than the requirement. In terms of technology, there was a gap, but now companies are working towards bridging it. The industry is also hiring people with the right skills. Of course, there will be gaps in high technology big size machines which will be in need going forward due to the development of industries in the domestic areas, for example, railways, ports, infrastructure, etc.

**What is your association's business outlook for 2023?**

>>>IMTEX 2023 is happening after a gap of four years and the machine tool industry is eagerly waiting to connect with user industries. This will set the tone for alleviating business to new heights in the coming quarters. Most of our member companies are full of orders and are actively looking to increase their market share.

## “AI & ML Promise New Levels Of Efficiency And Process Security”



**Thierry Wolter, Member of the Executive Board, CERATIZIT Group**

**What are some of the technologies in metal cutting and forming that you envision will revolutionise the sector?**

>>>Digitalisation is at the core of the revolutions we see today. Tool monitoring and control systems, in combination with advanced sensors, offer much more transparency for machining processes and can significantly increase process efficiency and reliability through real-time analysis and adjustment of process parameters. And that is already without the use of AI, ML and digital twins. As soon as the use of AI and ML catches on, they promise new levels of efficiency and process security.

is still worth living on for future generations. That is why our vision is to be the leader in sustainability for the hard metal and cutting tool industry by 2025.

In the first phase, we will focus on reducing our carbon footprint. In order to reduce it quickly and drastically, we will begin with three key 'levers'. One crucial factor will be to increase the proportion of raw materials that stay in the production chain to over 95 per cent. In addition, we will be switching to green electricity and green hydrogen. The first milestone in the implementation of the new strategy is to reduce our carbon footprint by 35 per cent by 2025. For the second stage, we are planning further measures to achieve a reduction of 60 per cent by 2030.

However, the most ambitious goal is to be 'net zero' by 2040 - a goal is taken from the Paris Climate Agreement, set for 2050. It undoubtedly is a huge challenge to reduce carbon emissions by 75 per cent across the whole value chain by 2040. But thinking of future generations, we don't see any alternative options and are looking forward to also playing our part with innovative products and a wide range of services for our customers.

**How is your organisation working on becoming a key contributor to the metal cutting & forming sector with sustainability as a focus? Can you detail a few strategies?**

>>>Customer centricity and the development of innovative solutions have always been at the core of what we were doing. We always wanted to help our customers to become more efficient. But that is no longer enough. As a company, we see it as our responsibility to treat sustainability as a top priority and we must do our part to ensure that this planet

**cutting & forming industry? What are the challenges that the industry will have to overcome to become a global powerhouse?**

>>>CO2 reduction is not only very important for us but is becoming more and more important throughout the entire industry. Considering this, increased efficiency and digitalisation are becoming even more important, as they are essential tools to further increase the sustainability of production processes.

Another challenge is the constantly changing requirements of the industry, to which we as tool suppliers have to adapt in the shortest possible time. Beyond that, the machining of difficult-to-machine materials continues to be a driving factor.

**What is your company's business outlook for 2023?**

>>>We've seen clouds on the horizon for a while now. We don't know yet what exactly to expect but it is clear that we will see some kind of downturn in the economy. We have done our homework in the past years and optimised our structures after several company takeovers. These restructurings in combination with our digitalisation initiatives and our committed employees make me confident we will come through the impending bad weather in good shape.

Increased efficiency and digitalisation are becoming even more important, as they are essential tools to further increase the sustainability of production processes

**With the rapidly evolving market, where do you envision the metal cutting and forming industry in the next five years?**

>>>The global economy continues to grow, so there is a trend towards a need for more cutting tools. Of course, there are shifts. For example, the automotive industry's demand will decrease in the next few years due to the shift to e-mobility, as the machining volume for e-cars is smaller than for combustion engines. But there are also opportunities opening up in other areas, so I expect continued growth overall.

## 2022 & Beyond: Analysing Trends In Metal Cutting & Forming Industry

The machine tool industry forms a core part of India's manufacturing sector. With Industry 4.0 taking shape in manufacturing, there has been a growth in productivity and overall ergonomics which posits as the top factor forming the Indian market growth. Further, the rising number of SMEs and MSMEs, combined with growing demand for better, customised products and strict evaluation criteria, is promoting the market growth. According to an IMARC report, the Indian machine tools market is expected to grow at a CAGR of 11 per cent between 2022 - 2027.

**Is India Ready?**

Ravi Raghavan, President of IMTMA, during a panel discussion at the Economic Times Metal Cutting & Forming Series 2022, suggests that the Indian machine tools industry is expected to grow into a Rs 9,500-10,000 crore market in 2023. He further adds that it will probably be crossing the highest-ever production by a good margin and will only continue to go northward. While the market is expecting a prominent boost, the real question is if India is ready for it. Raghavan explains, "Today, we are very seriously looked at as a competition by many of the advanced countries, so our member companies have sent really good machines to some advanced countries. We are not in that state where we were, maybe a decade ago, where export meant that we would send machines to smaller countries."

While there are gaps to fill in the supply chain, companies need



to focus on improving from an aesthetic and workmanship perspective.

**Additive Hindering Subtractive?**

Technology has been progressing at a rampant pace, and it's no dice that the automotive industry has been a quick adapter of it. One such technology, additive manufacturing, is now being used extensively in the automotive industry for micro-manufacturing with the accuracy required. However, the real question is whether additive manufacturing will take a bigger piece of the automotive industry. "Additive manufacturing, I don't think will take the pie from the machining industry. Of course, it has a user in the automotive industry," mentioned Navid Talib, COO, Hero Eycles. Currently, additive manufacturing technology is majorly used in making jakes, fixtures, etc., mostly for things like small kaizens and improvements which have a quick turnaround time. Another area where additive manufacturing is being used largely is in the manufacturing of spare parts, like building a robotic arm. The die & mould industry is, however, taking the technology to the next level at a much cheaper cost.

Adding to how additive manufacturing could be a boon more than a competition for the machine tools industry, Vivek Naniwadekar, Executive Director, Fibro India, mentioned, "It is too premature

to talk about additive manufacturing's impact on the manufacturing sector, however, it'll be a complement to the machine tools industry." He continued, "It is certainly not going to replace a particular operation, however, it could be used for manufacturing spare parts or manufacturing the last-minute rush components and be used on one's die and mould."

However, TK Ramesh, Managing Director, Micromatic Machine Tools, believes, "Over time, from a production perspective, you would have a vertical milling machine, which would also have an additive head, which could add something and then from the accuracy perspective, do a light machining cut. So, hybrid machining is perhaps expected to happen from the production perspective." The automotive industry is a major user of metal cutting in India, however, it is only one of the users in a more mature market. "Additive hybrid machines will come in, and there will be some precision activities or complex activities that would go to additive," adds Ramesh and continues, "Regular CNC machines, like what happened between conventional to CNG's for automotive, will go to more day-to-day issues and use. So overall, it'll change, and I think some kind of an adaptation will definitely come. Technology obsolescence will happen, but I don't think that will be a very significant part."

**Changing Technology, Changing Industry**

The machine tool and cutting tool industries have always moved

in synergy. Vikas Bharadwaj, Sales Director, Ceratizit India, ascertains, "All the cutting tool companies have a very good engagement with the machine tool builders and there's a constant exchange of ideas and constant exchange of needs discussing their expectations and challenges." He adds, "The domestic market for the cutting tool has been growing in line with the domestic machine tool. Their imports used to be a very high percentage in the past but almost every company has set up their manufacturing here. They use technology transfer, which has helped us make things competitive and bring technology to the doorstep of the machine builders to show what the future looks like, which will continue further as well."

**Becoming A Responsible Leader**

While industry opportunity grows, and business flourishes, it will be pivotal to be responsible leaders who prioritise organisational sustainability.

Companies today have started adopting sustainability seriously. Plants today are working towards functioning plants on renewable energy. "We use more solar, more renewables, and more conserved water. Most of us are net zero on water consumption. So, all these which probably were being used at an advanced level, all of us were doing for last many years definitely, but that has now picked up internationally. People are thinking in these directions, and you can see those in the plans today," Raghav signed off.