

TAGMA TIMES

NEWSLETTER

(Technical Info. on Die, Moulds & Toolroom)

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Let's Talk Digital!



Most businesses, especially MSMEs, continue to communicate with their audience and potential customers using traditional media channels. However, with the evolving consumer demands, the response time for traditional media increases and the interaction level is almost negligible in most cases.

The Indian tooling industry comprises a large number of SMEs, which form the backbone of the Indian economy. This makes it crucial for them to globalise and understand the essence of social media. This will not only help them generate an online buzz, but also reach out to much more customers — an absolute necessity for every business in today's times.

Social media platforms like Facebook, Twitter, LinkedIn and YouTube, among others, are considered effective marketing tools today. These platforms are also one of the best ways to spread awareness about your business's offerings. Picture this, businesses in different geographies need services and want to explore the options, how will they find them? Obviously, by browsing through the internet. If you have a strong online presence and have taken the SEO seriously, they might land at your website. Further, if you have good content, there are high chances you will get yourself an inquiry. If you don't have an online presence or the website content is not self-explanatory of your services and capabilities, they will turn away. Remember the old phrase, 'The first impression is the last impression'.

Social media gives small businesses the option to choose their target audience. It is projected to be a cost-effective and powerful way to market a business. If you haven't already, now is the best time to come forward and take that digital leap. To understand the benefits of digital marketing for your business, read the 'In Focus' section. Several organisations — national and international — are helping MSMEs in their digital journey. To know more, do read our 'Corporate Focus'.

Happy Reading!



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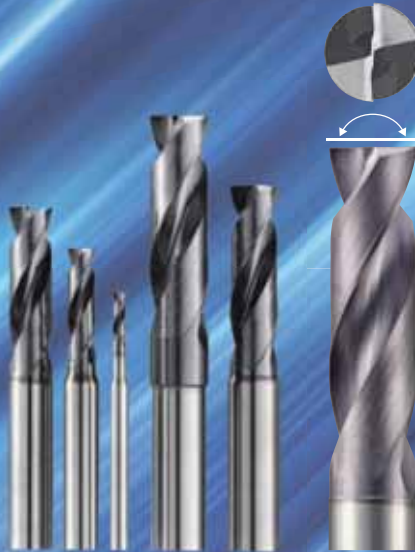
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Hole Making tools by DIJET

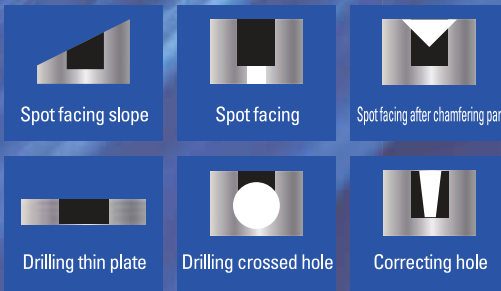
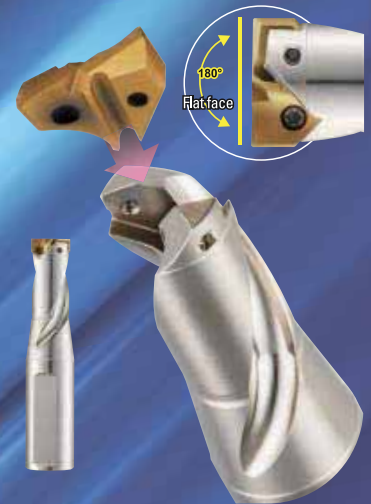
Indexable Drills Up to L/D 8



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Modern carbide end mill technology increases tool life through the reduction of heat in high-production CNC milling

HEAT is the enemy of carbide. Excessive temperature breaks down the Cobalt Binder, which holds the Tungsten Carbide in place. Hanita™ has developed a coating that gets you more time out of your tools.

Hanita Victory solid carbide end mills use a combination of pre-coat process, coating, and post-coat treatment. The pre-coat process removes any grinding damage. You can't see it with the naked eye, but it is there, and can affect the cutting-edge integrity and chip flow characteristics. This process smooths all surfaces in preparation for coating. The Victory coating is an Advanced AlTiN treatment with aluminium content, which oxidizes with high temperatures and lends itself to high-surface speed capability, and better tool life. After coating, the post-coat process creates a smooth and hard surface. This also improves the compressive strength of the coating, preventing it from flaking or wearing too soon. The cutting edge is very consistent for strength and enhanced chip flow.

Innovative edge preparation provides consistent tool life by eliminating most microchipping caused by grinding. The post-coat finish reduces the chip build-up and



improves chip flow. Combined, Victory grades increase tool life and provide higher MRR, shorter cycle times, and fewer tool changes.

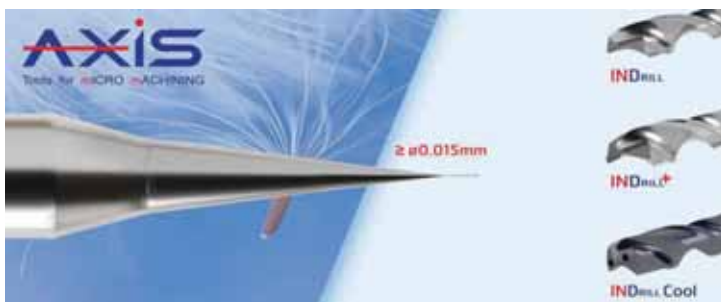
INDrill LITTLE Smart Masters... for the Smart World

AXIS mICRO Tools brings a new series of high-precision mICRO Drills – INDrills, which are small yet mighty (in performance), which are diminutive yet differentiated, which are all-purpose but are distinguishably constructed for performance.

INDrills, as we call them LITTLE Smart Masters, are crafted to deliver superlative performance vis-a-vis other makes of solid carbide micro

tools and traditional HSS tools. INDrills can ring in substantial improvements in productivity, increase tool life, higher hole quality, and substantially reduce cost per component.

The INDrill portfolio of mICRO Drills is designed and developed to serve applications cutting across sectors including general engineering, electronics, automotive, aerospace, and medical, among others.



A brief on the INDrill portfolio

INDrill, the all-purpose Quintessential Drill, is a non-through coolant drill made for general purpose applications across different industrial materials.

The smart LITTLE all-rounder

INDrill+ – The web-thinned drill with edge-prepped cutting edges and MMP superfinished flutes is a high-performance tool for applications in high-strength and difficult-to-machine materials such as titanium, stainless steel, PH steel, nickel alloys, etc.

The smart LITTLE workhorse

INDrill Cool – The four-margin construct with differentiated web taper and specially designed flute and wavy cutting edges along with MMP superfinished flutes is a high-performance drill meant for deep-hole drilling across a wide variety of materials and applications.

The smart LITTLE coolant wonder

All the tools are made from high-performance ultra-fine carbide substrate developed specifically for mICRO mACHINING applications.



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Artificial Intelligence is a kinetic enabler for growth of Indian technology ecosystem: MoS MeitY

ARTIFICIAL Intelligence is a kinetic enabler for the growth of the Indian technology ecosystem, stated Shri Rajeev Chandrasekhar, Minister of State for Skill Development and Entrepreneurship and Electronics and Information Technology (MeitY), Government of India, at the '5th ASSOCHAM Conference - Artificial Intelligence for Resilient Growth', recently organized by The Associated Chambers of Commerce and Industry (ASSOCHAM) through virtual mode.

Speaking at the event, Shri Chandrasekhar mentioned that Artificial Intelligence (AI) can be a big business for some, but for the Government of India, it means the use of AI – algorithms, layers on existing stacks to improve governance delivery, agricultural programmes, defence, security and intelligence-related programmes, revenue/tax collection as well as programmes related to law and justice. Sharing the government's approach towards AI, he added, "We will create AI, which will have built into it – the qualitative elements of risk management & ethical use."

He also highlighted three major factors that shall create tremendous momentum for the growth of AI in India. First, he mentioned about India soon becoming the largest connected nation, as the rural broadband connectivity program, 'Bharat Net', seeks to connect rural households with Internet. At present, there are around 800 million Indians using the Internet. This figure is expected to cross 100 crores over the next 2 years. Second, the 'Digital India' campaign has already positioned India as a leader in innovation in public services, Fintech, health & education, etc. Third, the accelerated digitalization of the government and the overall economy shall increase the rate of digital adoption in the country.

Shri Chandrasekhar also highlighted the proactive approach of the government in translating potential into reality. Citing the success of the world's largest technology-driven vaccination campaign, he remarked: "For decades, multiple narratives have been built around India's rich demographic dividend to highlight India's potential. However, over the last 7 years, we saw how a combination of decisive leadership and proactive policies can convert potential into reality."

"Our ambitions in 2021 are more than what they were in 2014 and significantly much more than any time before that. We have absolute clarity on these ambitions and on the road map ahead. The math of 1-trillion-dollar digital economy is clear in our minds," he concluded.

which is a 74.7% growth. Also, Artificial Intelligence is expected to add around \$15.7 trillion to the global economy by 2030, which is, at present, the combined output of both India and China put together," he said.

Mr. Agarwal also explained that Artificial Intelligence could be the source resilient growth in India. "Artificial Intelligence engines feed and generate a lot of data, so it is extremely important not only to protect and secure the data but also the rights of the citizens," he said.

Mr. Kulmeet Bawa, President and Managing Director, SAP Indian Subcontinent, stated that the pandemic has accelerated the adoption of tools like AI. "India has the potential to become a \$1-trillion digital

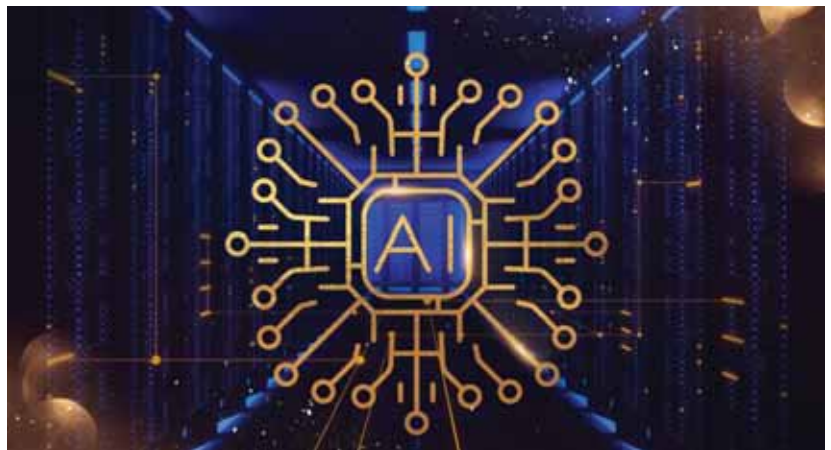


Image used for representation only. Courtesy: Envato Elements

Mr. Vineet Agarwal, President, ASSOCHAM and Managing Director, Transport Corporation of India Ltd. (TCIL), stated that the 'Digital India' initiatives have the potential to transform India digitally and would also help India become a growth leader globally. "India's digital transformation market has the potential to reach \$710 billion by 2024,

economy. There is a need to make some fundamental changes at the organisational level to help them get a competitive advantage over others," he said.

He explained that Artificial Intelligence can be effectively used in sectors like healthcare, which would give a boost to preventive healthcare segment.



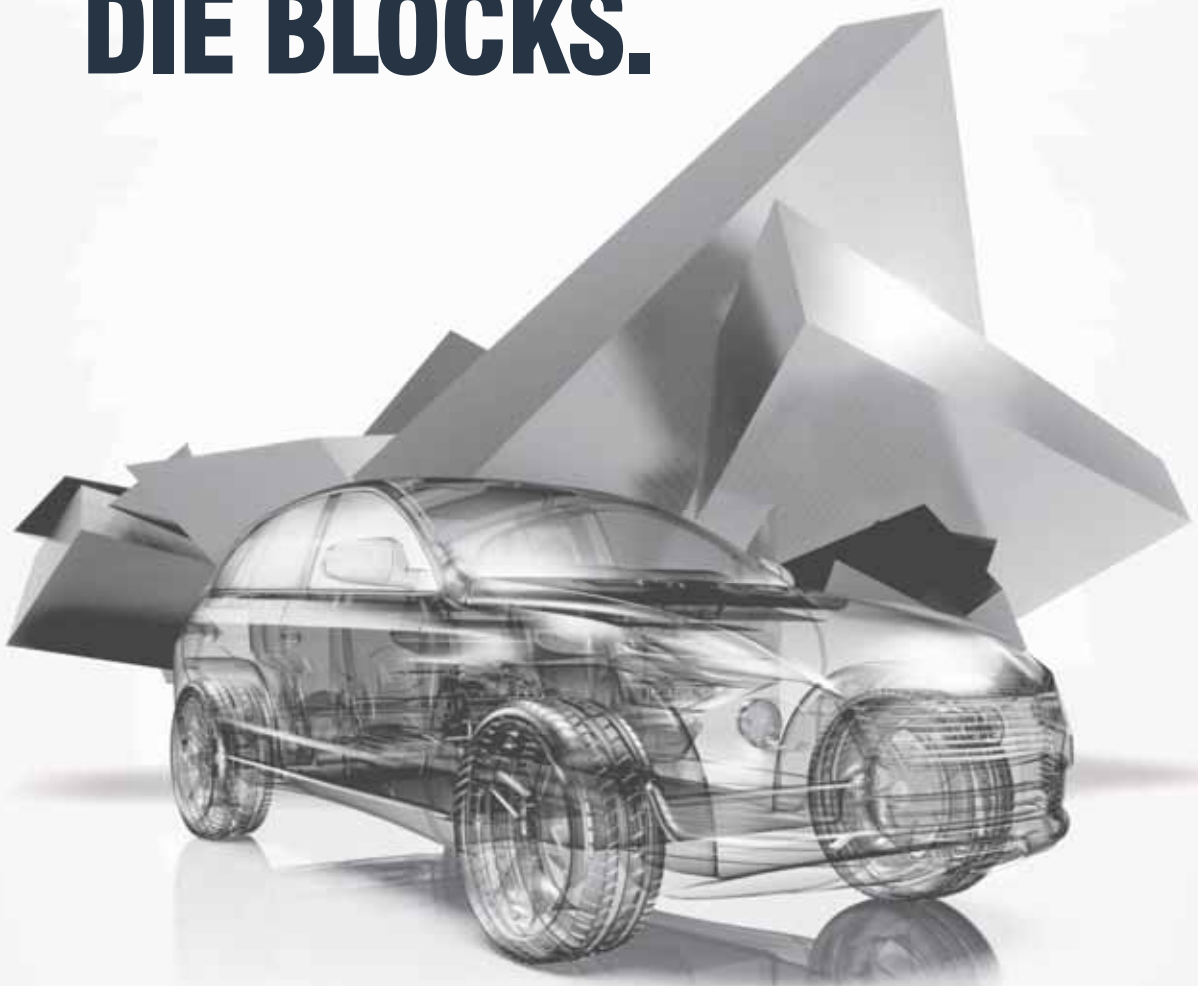
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Alstom inaugurates new components manufacturing facility in Coimbatore

ALSTOM, a global leader in sustainable and green mobility solutions, inaugurated its new components manufacturing facility in Coimbatore, in the presence of Emmanuel Lenain, Ambassador of France to India and Alain Spohr, Managing Director, Alstom India & South Asia. This is the largest components manufacturing facility in Asia and is dedicated to improving industrial efficiency in manufacturing components for various prestigious national and international projects.

This new site is spread over a total area of 15 acres and has an installed capacity of 2.1 million hours, which will offer a higher degree of production diversity & complexity – integration & testing of tractions, auxiliary convertors, cubicles, driver



desks and rolling stock looms. The site will create 10,000 direct & indirect jobs and currently has a gender diversity rate of 20%.

The Coimbatore site currently delivers not just to Alstom's Indian sites, but also to major sites across five continents, namely, Asia, Australia, Europe, North America and South America.

Spohr said, "Our presence in Coimbatore dates to the 1970s and since then we've grown multifold. The opening of this

facility is a testament of our commitment to the government's flagship 'Make in India' & 'Aatmanirbhar Bharat' initiative. With our enhanced capabilities and a team of talented and dedicated employees, we are proud to be a catalyst in India's manufacturing-led growth story. We have been the preferred mobility partner on various Indian projects and are keenly looking forward to becoming a leading supplier of components across Alstom's sites globally."

Lenain said, "French companies are fully committed to 'Make in India' and speeding ahead on the back of strong bilateral relations between the two countries. It is heartening to see India's manufacturing prowess powering global mobility. I salute the efforts and investments made by Alstom over the years in India towards building a strong base of sustainable mobility solutions and high localization, while creating a positive impact on the people and communities."

Government signs contract for procurement of two Fixed Base Full Mission Simulator for Jaguar Aircraft from HAL for IAF

THE government has signed a contract for the procurement of two Fixed Base Full Mission Simulators (FBFMS) for Jaguar Aircraft from HAL for IAF with five years Comprehensive Annual Maintenance Contract (CAMC) at a combined total cost of INR 357 crore. These simulators would be installed at Air Force Stations Jamnagar and Gorakhpur.

Under the 'Aatmanirbhar Bharat Abhiyan', India is continuously growing in its power to indigenously design, develop and manufacture advanced

cutting-edge technologies and systems in the defence sector. The manufacturing of FBFMS by HAL will



give a further push to the 'Aatmanirbhar Bharat' initiative and boost indigenization of defence production and the defence industry in the country.

The commissioning of the first FBFMS with associated equipment shall be completed within 27 months from the contract at Air Force Station Jamnagar and the 2nd FBFMS shall be completed within 36 months from the contract at Air Force Station Gorakhpur.

With the procurement of these simulators, IAF will enhance the quality of flying training to higher standards by exposing the pilots to various contingencies in the entire operating envelope, including simulation of advanced long-range weapons.

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Shri Narayan Rane emphasizes on important role of MSME sector in job creation and expanding manufacturing base

UNION Minister for MSME Shri Narayan Rane said that the MSME sector plays a significant role in terms of job creation and expanding the manufacturing base. Recently speaking at the North East MSME Conclave in Guwahati, he said currently, the sector consists of over 6 crore units employing over 11 crore people and is a seminal contributor to the economic growth with over 30% of contribution to GDP and over 49% of overall exports from India.



integral role in the development of the Indian economy.

Ministers from the State Governments of North Eastern States, who attended the conclave, also emphasized that such conclaves will help the region in its efforts towards encouraging entrepreneurship and enhancing competitiveness of the sector in the changed economic scenario. This would also help in developing an understanding about the schemes implemented by the Ministry of MSME as well as initiate a dialogue with the State Governments and other stakeholders that would help in better planning and execution of policies for the sector.

Shri Rane said India can develop only when we develop the North-east and it is also the topmost priority of the Ministry of MSME. He also stated that the correlation between the Indian economy and the MSME sector's performance has never been

more aligned. This would continue to grow even closer in the upcoming years. The Minister said given the impact of MSMEs on our economy, it is imperative that a push is given to promote entrepreneurship amongst the youth and allow them to play an

Union Minister launches Special Credit Linked Capital Subsidy Scheme for Services Sector

ON the second day of the MSME North East Conclave, Union Minister for MSMEs, Shri Narayan Rane launched the Special Credit Linked Capital Subsidy Scheme (SCLCSS) for the services sector in the presence of senior officers of the Ministry of MSME at Guwahati. The scheme will help in meeting the technology-related requirements of enterprises in the services sector and has a provision of 25% capital subsidy for procurement of plant & machinery, and service equipment through institutional credit to the SC-ST MSEs without any sector-specific restrictions on technology upgradation.

Shri Rane also felicitated SC/ST Entrepreneurs of the North-eastern region and urged the youth to take up entrepreneurship to become job givers rather

their journey to become successful entrepreneurs. He emphasized that inclusive growth of MSME sector is complete only with the contribution

programmes implemented by Ministry of MSME, especially for marginalized sections of the society, are helping the region to realize its full potential.



than job seekers. He assured the youth that no stone will be left unturned by the Ministry of MSME in

from North-East. He stated that favourable policies of the Government of India and different schemes/

Shri Rane also awarded certificates to the successful trainees of the NSIC Training Center, Guwahati, and visited the stalls of SC-ST entrepreneurs at the Exhibition Centre supported by Ministry of MSME. He stated that such activities provide an opportunity to MSME entrepreneurs, especially women and SC/ST entrepreneurs, to showcase their skills/products and create new opportunities for growth and attain self-reliance.



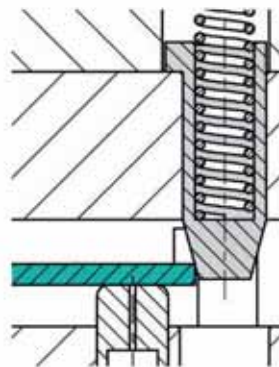
BLOCK-SHAPED STRIP POSITIONER, SPRING LOADED

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SIDBI joins hands with Google to help MSMEs

SMALL Industries Development Bank of India (SIDBI), the principal financial institution engaged in the promotion, financing and development of Micro, Small and Medium Enterprises (MSMEs) has entered into a collaboration with Google for having a social impact lending programme with financial assistance of up to INR 100 lakh at competitive interest rates targeted at micro enterprises.

This one-of-a-kind programme with Google brings a corpus of USD 15 million (approximately INR 110 crore) to micro enterprises as a crisis response related to COVID-19 to reinvigorate the MSME sector in India. The collaboration envisages a loan programme targeted at micro enterprises (having turnover up to INR 5 crore), with loan sizes ranging between INR 25 lakh and INR 1 crore, being implemented by SIDBI. Major focus under the programme shall be on

enterprises run by women entrepreneurs, with suitable interest rate concession also envisaged for such enterprises.



Shri Sivasubramanian Ramann, IA&AS, Chairman and Managing Director of SIDBI, said, "Today, we feel proud that SIDBI's efforts in reviving the sector are backed by a strong collaboration with Google, a public spirited and conscientious partner. This one-of-a-kind program brings a corpus of INR 110 crore to small businesses and crisis response related to COVID-19 to reinvigorate the MSME sector in India. This also marks SIDBI's launch of a paperless journey to its customers from onboarding to the disbursal stage. With renewed hope in making a full and vital economic

recovery, we look to this collaboration to enhance our efforts in expanding the sector's access to credit and are very eager to see the constructive impact we can achieve together."

Shri Sanjay Gupta, Vice President & Country Manager, Google India, said, "We have had a longstanding commitment to enable India's small businesses in leveraging the opportunity provided by digital so that they scale, innovate and reach new customers through a range of tools, services and products that is especially designed for them. Right at the outset of COVID-19, we launched a series of efforts that responded to the fact that these businesses have been disproportionately impacted by the pandemic. In joining hands with SIDBI, which has a deep understanding of the growth needs of this large and dispersed ecosystem, we're pleased to expand our support to these enterprises."

Greaves Electric Mobility opens its largest EV production facility in Tamil Nadu

GREAVES Electric Mobility, the E-Mobility arm of Greaves Cotton Limited and a market leader in the E-2W and E-3W segments, inaugurated its largest EV production facility in Ranipet, Tamil Nadu. The 35-acre plant built to preserve the green terrain surrounding the site is located in the Industrial Centre of Tamil Nadu and will serve as an electric mobility hub for both domestic and export markets.

The plant is part of the INR 700 crore investment roadmap announced by the company to expand its growing share in the Indian electric vehicle market. The new manufacturing plant is also in accordance with flagship initiatives of the government such as 'Make in India' and 'Aatmanirbhar Bharat' to promote indigenous capabilities in manufacturing. The Ranipet plant will have a capacity to produce 120,000 units by the end of this fiscal year and

gradually ramp up to 1 million units in the near future.

Shri Thangam Thenarasu, Hon'ble Minister for Industries, Government of Tamil Nadu, said, "Electric Mobility is gaining momentum and we are fully committed to offering every possible support to the automobile industry here. More factories like of Greaves Electric Mobility will uplift the community and it is absolutely wonderful to see how the company has employed the majority of women workers in the plant. To make India the world's manufacturing hub, we must prioritise upskilling and creating jobs for our female workforce."

Nagesh A. Basavanhalli, MD and Group CEO Greaves Cotton Limited, said, "We are focused on building affordable, reliable and dependable electric two-wheelers for commuters across the country, which aligns with our

purpose of decarbonizing last-mile transportation for a better planet. This EV megasite will help us meet the rising needs of discerning customers and fleet purchasers in the last mile mobility market as we expand our capacities to produce a million EVs a year in future."

Ms. Pooja Kulkarni, IAS, MD and CEO, Guidance Tamil Nadu, said, "This new facility is a testimony of the industry-government partnership in positioning Tamil Nadu as the EV Capital of India. We are delighted to welcome Greaves Electric Mobility to this flourishing ecosystem. The skilled workforce from Ranipet and surrounding region will immensely benefit by being a part of this future of mobility facility. This facility will further strengthen the ecosystem with a wide pool of technical personnel, strong R&D capabilities, ancillary auto components, and manufacturing experience.

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Godrej Tooling enhances its R&D investment to grow its portfolio in the Electric Vehicles sector

GODREJ & Boyce, the flagship company of the Godrej Group, has recently announced that its business Godrej Tooling has created a range of advanced automotive dies. This is in light of the Indian automotive industry opting for stricter fuel norms and increased electrification. With the industry rapidly shifting gears towards the adoption of Electric Vehicles (EV) in India, it has necessitated the development of new engines, battery boxes and high-precision sheet metal parts. In response to the same, Godrej Tooling increased its investment by 10% Y-o-Y on R&D towards their portfolio of tools and dies with a special focus on the EV industry.

To meet the burgeoning demand for modification and replacement of automobile components in the

modern Electrical Vehicle, Godrej Tooling has made a head start by developing advanced dies. They have further increased their budget on R&D initiatives to grow their portfolio in this sector and reduce the dependency



on import parts. Godrej Tooling has also increased its capabilities with the addition of cutting-edge technology in 3D printing and additive manufacturing to develop high-precision dies for components

with complex geometry in order to meet higher functional standards. The business already has 1 patent and 1 copyright in overall dies.

Pankaj Abhyankar, Senior Vice President and Business Head, Godrej Tooling, said, "The growing focus of the private and public sector on EVs has made it imperative for the automobile industry, and particularly suppliers, to adapt to the ecosystem. As one of India's leading tool rooms, we have adopted a robust approach, allowing us to be agile to take on electric mobility covering all aspects in stimulation, design assembly and production. Godrej Tooling has a longstanding reputation of being future ready and the introduction of advanced automotive dies implies our readiness to remain ahead of curve."

Tata Motors to raise \$1 billion in its passenger electric vehicle business at a valuation of up to \$9.1 billion from TPG Rise Climate

TATA Motors Ltd. (TML) and TPG Rise Climate have recently entered into a binding agreement whereby TPG Rise Climate, along with its co-investor ADQ, shall invest in a subsidiary of Tata Motors that will be newly incorporated. TPG Rise Climate, along with co-investors, shall invest INR 7,500 crores in compulsory convertible instruments to secure between 11% and 15% stake in this company, translating to an equity valuation of up to \$9.1 billion.

The new company shall leverage all existing investments and capabilities of Tata Motors Ltd. and will channelise the future investments into electric vehicles, dedicated BEV platforms, advanced automotive technologies, and catalyse investments in charging infrastructure and battery

technologies. Over the next 5 years, this company will create a portfolio of 10 EVs and in association with Tata Power Ltd., catalyse the creation of a widespread charging infrastructure to facilitate rapid EV adoption in India.



N. Chandrasekaran, Chairman, Tata Motors Ltd., commented, "I am delighted to have TPG Rise Climate join us in our journey to create a market-shaping electric passenger mobility business in India. We will continue to proactively invest in exciting products that delights customers while

meticulously creating a synergistic ecosystem. We are excited and committed to play a leading role in the government's vision to have 30% electric vehicles penetration rate by 2030."

Jim Coulter, Managing Partner, TPG Rise Climate, and Founding Partner, TPG, commented, "We are excited to partner with Tata Motors on their mission to lead the electrification of passenger mobility in India. There is significant momentum around India's EV movement, supported by the government's vision and policies, as well as growing consumer demand for greener solutions. The investment aligns with TPG Rise Climate's focus on decarbonized transport and builds on TPG's long history in India."

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Micro, Small and Medium Enterprises (MSMEs) are the growth engines of the economy. To thrive in these challenging and demanding times, they need to look for ways to create an impact. And, what better way to do so than by exploring the option of digital marketing? Digital marketing has the ability to help small businesses reach out to the global marketplace, become visible to a much larger customer base, and generate far more leads, which could convert into business opportunities. While the digital space has a lot more to offer, the question you need to ask yourself is...



Image used for representation only. Courtesy: Envato Elements

Are you part of the digital revolution?

Kimberley D'Mello

If you are a small business, like a Small and Medium Enterprise (SME) or a Micro, Small and Medium Enterprise (MSME), you, most likely, have been using the tried-and-tested formula of getting orders from clients. To promote your business, you probably depend on traditional methods, such as printing advertisements about your company's products/ services, or advertising about them outdoor, or even using word of mouth to spread information.

It's not out of the ordinary for businessmen to believe that if you offer a good product or service, customers will eventually find their way to you. After all, these methods have, for years, helped businesses earn revenue. But what if there was a more effective way to turn profitable? What if there was a way where you could expand your reach from the local market to a global market? These mindboggling questions have paved the way for the emergence of digital marketing.

In Focus

But... What is digital marketing?

Digital marketing, which is also referred to as online marketing, comprises the promotion of products and services to potential customers by using digital communication channels. The digital communication channels include: social media, emails, web-based advertising, text messages as well as multimedia messages.

According to Investopedia, "Digital marketing is the use of the Internet, mobile devices, social media, search engines, and other channels to reach consumers. Some marketing experts consider digital marketing to be an entirely new endeavor that requires a new way of approaching customers and new ways of understanding how customers behave compared to traditional marketing."

COVID-hit India rides the digital wave

As already earlier established, digital marketing can help entrepreneurs widen their reach and connect with customers across the globe. This key takeaway has proved to be valuable at a time when the pandemic-hit global economy is struggling to get businesses back on track.

In 2020, a CRISIL survey had revealed that the adoption of digital sales channels among micro and small enterprises (MSEs) increased significantly since the COVID-19 pandemic struck. The survey gauged "the changes in the level of usage of digital channels – including of online aggregators, social media platforms and owned websites – by micro and small enterprises (MSEs) after the pandemic".

The survey stated that about 60% of the respondents adopting digital selling said it helped them weather the pandemic-induced stress, while the rest said it boosted sales. These respondents were also more positive about their near-term business situation compared with those that didn't take the digital route.

"About 29% of the MSEs surveyed were using digital sales channels such as online aggregators/ market places, social media, and mobile marketing before the pandemic struck. That number has shot up to 53% among small enterprises and 47% among micro enterprises as of November [2020]. Despite their limitations, micro enterprises are not very far from small enterprises in digital adoption. Also, many more are now saying they will take the digital route soon. This underscores the fact that increasing digitalisation enlarges the footprint of MSEs, helping them tap newer markets and improving their access to credit," the survey quoted Bhushan Parekh, Director, CRISIL.

The survey covered 566 micro and small enterprises with an annual turnover below INR 25 crore. A good 45% of these were micro enterprises, or those with a revenue of less than INR 5 crore. The remaining were small enterprises with revenue in the INR 5-25 crore range.

Of the 566 entities, 41% were manufacturing units across nine industries (auto components; chemicals; engineering and capital goods; food and food products (unbranded); gems and jewellery; leather and leather goods; metals and mining; pharmaceuticals; and textiles). The remaining 59% were service enterprises across 11 industries (commercial services and supplies; real estate; diversified consumer services; healthcare providers and services; human resources; IT/ITeS; logistics; media; power & utilities; professional services; traders; and travel and hotels).



Image used for representation only. Courtesy: Envato Elements

The benefits of going digital

"According to a recent study, 88% of micro and small enterprises have found that internet and social media helps them get increased exposure for growing into the market. Internet as well as social media have caused an unprecedented shift in the way business is done today. The explosive growth of social media sites is overwhelming proof that this arena is ideal for connecting with existing customers and engaging with prospects. Few excellent insights enable to get an organisation on the path to social media success. The necessity of communicating with customers through online channels and the role that social media could play in both obtaining and retaining customers is huge," stated the National Institute for Micro, Small and Medium Enterprises, an organisation of the Ministry of MSME, Government of India, on its website.

Let's understand how digital marketing can benefit MSMEs:

► **Building your brand:** Very often, you, as an MSME, have undertaken projects for many renowned companies but are unaware of how you can promote your abilities and capabilities. Alternatively, you may be equipped with all the necessary infrastructure but do not know how to spread the word around. In these scenarios,

digital marketing can prove to be an effective tool to demonstrate your proficiencies and build your brand.

- ▶▶ **Visibility:** The internet is a great tool if you're looking to highlight your company's products and services. By sharing your story on the internet, you can showcase what your company is capable of with a much larger audience. Higher exposure can not only give you greater visibility, but it can also increase your chances of becoming a preferred choice for potential customers.
- ▶▶ **Widen your reach:** Traditional marketing methods can, at the most, give you access to a local customer base, whereas digital marketing can offer you a wider audience. As the world goes digital, most will already have access to the internet. Communicating using digital marketing channels, will make it easier for you to target national as well as international customers. Besides, digital marketing campaigns are easy to formulate and offer you the flexibility you are looking for.
- ▶▶ **Real-time connection with customers:** Digital marketing provides scope to interact with targeted customers in real time. It will offer you valuable insights on what your potential customers are looking for. This will guide you on the strategies you need to formulate for your next steps as well as build a good rapport with your potential customers. However, your ability to handle their queries will determine the fate of your business.
- ▶▶ **Pricing perks:** As an entrepreneur, it is quite normal to worry about pricing, especially if you are unsure of whether digital marketing is a cost-effective method. Those who have employed digital marketing firms vouch for its cost effectiveness, as it gives you the option to negotiate on the pricing.
- ▶▶ **Improved conversion rate:** The leads generated from inquiries, the actual number of subscribers, and the quantity of product sales, are some of the key points that measure a business' success. If you put in the efforts to build on these but are unable to convert these into business opportunities, your efforts will be in vain. Digital marketing strategies can optimize on conversion by using tools such as Search Engine Optimization (SEO), social media marketing, and email marketing, among others.
- ▶▶ **Better your revenue:** Higher conversion rates generated by effective digital marketing can result in profits for your business in terms of better revenues. All you need is the right digital marketing strategy, as it can make a significant difference and help your business grow. By consulting a digital marketing firm, you can

understand and learn about ways to improve your own brand revenue.

- ▶▶ **Better ROI for your investment:** Undoubtedly, digital marketing can provide a better return on investment (ROI), as compared to the returns you would earn using traditional marketing methods. Traditional marketing methods can be costly and offer vague results. However, digital marketing methods can help you track and monitor your progress. The sooner you are able to ensure that your efforts are generating leads, the faster you will realize your ROI.



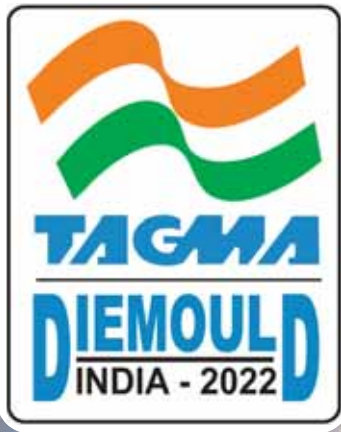
Image used for representation only. Courtesy: Envato Elements

- ▶▶ **Your business will survive online:** Digital marketing will prepare you for the internet of things (IoT) by helping you interconnect with the online ecosystem. Promoting your business online will help you connect with the right kind of audience as well as attract the right kind of traffic you seek on your website, thereby ensuring your business survives the test of time.

Are you connected?

As technology assimilates into our lives, the benefits of opting for digital channels to promote a business seems promising. In April this year, a PTI News report quoted Micro, Small and Medium Enterprises Minister Nitin Gadkari saying that digitalisation across areas like marketing and manufacturing will play a critical role in the development of small businesses in the country. He also emphasised on the need for technologies that can help expand economically viable MSMEs. "Digitalisation in MSMEs is the most important subject... digitalisation is a solution by which we can make our system transparent and time bound," he had said.

The minister also noted that marketing is an important arena for MSMEs and a number of small companies that have started marketing online are seeing excellent results, added the news report. Digital marketing is here to stay and is set to revolutionize the way MSMEs do business. However, MSMEs need to keep an open mind and explore digital avenues if they want to remain profitable in the long run. 🌈



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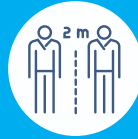
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MSMEs get a digital boost

Going digital has become the norm for companies to survive. Some prominent national and international organizations have taken measures to help MSMEs progress in their digital journey. Let's take a look at their contributions.

CII enables Indian MSMEs to access global markets with SAP's Global Bharat

To pave the way for Indian MSMEs to access global markets, CII recently partnered with SAP to take the Global Bharat Program to its members. "With this initiative, CII members will get access to global marketplace, support in skilling their workforce to increase their readiness and relevance in evolving environment and commence on their digital transformation journey with SAP. By providing access to over 6400 MSME direct members and over 2 lakh indirect membership from 298 national and regional sectoral industry bodies, CII's purpose is to equip MSMEs with digital technologies that will further them to create demand for their products and transact globally. With the Global Bharat Program, CII members can access SAP Ariba Discovery network, register themselves as suppliers for free, get sales enquiries and sell their products worldwide," stated a press release issued by CII.

The press release quoted Mr. Shreekanth Somany, Chairman, CII National MSME Council, as saying: "The pandemic has affected the way businesses used to function, pushing organizations to adopt and rely on technology to stay relevant in the market. Our purpose of collaborating with SAP and bringing in Global Bharat program for our members is to help them to the best of our ability in finding a solid footing during these unprecedented times. We truly believe that this initiative will help our Indian MSMEs to transform themselves digitally and empower them to take their business to the global level."



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Meesho: Founded in 2015 and headquartered in Bengaluru, Meesho enables small businesses and individuals to sell products online through social media channels such as WhatsApp, Facebook and Instagram. In August 2020, Meesho also partnered with fintech start-up Klub to provide financing solutions for MSMEs. Interestingly, Meesho recorded 750% growth in user base last year during its flagship festive sale event alone, with 60% demand driven by tier 4+ markets including remote locations in the country.

Alignbooks: Established in September 2016, Alignbooks is a cloud-based accounting software designed to help MSMEs automate their invoicing system. So far, the firm has serviced over 30,000 MSMEs in India and processed over 15 lakh invoices for customers. Alignbooks has also released an offline version of its software to cater to the population with limited internet in rural areas.

Tradeindia: Set up in 1996, with a mission to help SMEs go digital, Tradeindia is India's largest online B2B platform that connects buyers and suppliers. The company also provides payment protection plans (TI Pay), Collateral Free Loans (TI Lending) and Logistics (TI Logistics) and is the first company in the country to provide e-commerce and solutions for booking domains, SSL, Adword, SMO and FB Promotion to SMEs.

Locus: Founded in 2015, Locus uses machine learning & proprietary algorithms to automate complex supply chain decisions. In April 2020, the firm launched a free tool 'QuickStart', which is a self-serve lite version of the product suite designed to help MSMEs improve their supply chain during the pandemic.

Source: ibef.org

Amazon sets up first 'Digital Kendra' in Surat

According to a PTI News report, Amazon India recently launched its first 'Digital Kendra' in Surat, Gujarat, as part of its commitment to digitise 10 million Indian MSMEs by 2025. Amazon Digital Kendras are brick-and-mortar resource centres that will provide MSMEs information about the benefits of e-commerce and help avail third-party services such as shipping and logistics support, cataloguing assistance, digital marketing services, and GST and taxation support to start their digital journey.

Speaking at the launch, Amit Agarwal, Senior VP and Country Head, Amazon India, had said: "The seller base was new to digital, they didn't have the skills to go online yet and on the customer side, the majority were using mobile phones to access the internet for the first time, and transactions are primarily cash... The company has focused on enabling sellers to reach customers across India and globally, and has

made significant investments in technology, logistics, delivery infrastructure and digitising payments that collectively helped more customers and businesses to come online."

In January 2020, former Amazon CEO Jeff Bezos had announced a USD 1 billion (over INR 7,000 crore) investment in India to help bring small and medium businesses online and committed to exporting USD 10 billion worth of India-made goods by 2025. The investment, he had said, would also be utilised to digitise 10 million MSMEs and traders across India, including manufacturers, resellers, local offline shops, and brands. As part of this effort, Amazon was to establish 100 digital centres throughout India, added the news report.

Meta launches 'Grow Your Business Hub' to strengthen small enterprises in India

According to a PTI News report, Meta (formerly Facebook) announced the launch of 'Grow Your Business Hub' in November. It aims to provide information on relevant information, tools and resources at one place for MSMEs. This will help them meet their business goals based on their growth journey. The announcement was made at the inaugural edition of 'Grow Your Business Summit', an event focused on the growth agenda of India's Small and Medium Businesses (SMBs). "Every month, millions of small enterprises in India (15 crore on WhatsApp alone) use Meta's different apps to start their online journey and grow their business. The global reach of these small enterprises is increasing due to Facebook and Instagram," a statement said. More than 300 million people are liking or following the Indian Small Enterprises page on Facebook, stated the news report.

Also, according to an earlier PTI News report, in 2015, Facebook had set up an SME Council to help small ventures from various industries share feedback and discuss ideas around leveraging technology to grow their enterprise.

Google partners with Zoho, Instamojo, others to help SMBs go digital

In 2020, Google India partnered with companies like Zoho, Instamojo and others, to help small and medium businesses (SMBs) build their digital presence and navigate through the challenging economic environment. Google has also partnered with Dunzo and Swiggy to fast track the on-boarding process, with both partners committing to provide additional support to small businesses to start accepting orders online and enable delivery logistics, stated a PTI News report.

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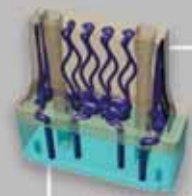
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"Today, the need to go digital is a necessity and SMBs are hard-pressed to digitise fast. We need to do everything we can to handhold millions of small businesses in their digital-transformation journey and support business recovery during the current crisis," Shalini Girish, Customer Solutions Director at Google India, told reporters in a virtual briefing.

Google India is also investing in efforts to scale its outreach to help small businesses learn to use digital tools in local Indian languages. As part of this effort, Google has worked closely with FICCI to drive an industry-wide skilling program, which has already trained 1.2 million individuals, added the news report.

Walmart Vriddhi brings a digitally enhanced learning experience to train MSMEs

MSMEs can embark on a digitally enhanced entrepreneurial journey through the Walmart Vriddhi Supplier Development Program. "The journey features interactive online training experiences and personalized mentoring, with access to resources and experts to support growth. This supports the goals of Digital India by providing MSMEs with the tools to adopt new technologies to expand their business," stated a press release issued by Walmart.

"The Walmart Vriddhi Program was launched in December 2019 with the aim to empower 50,000 Indian MSMEs to 'Make in India' for domestic and global supply chains. Following the COVID-19 outbreak, the program was reshaped to emphasize digital experiences, and this allowed it to be rolled out to more MSMEs. In the future, it will offer a mix of digital and in-person training, mentoring and network experiences via physical Vriddhi Institutes when conditions are favorable," informed the press release.

"The e-institute-based Vriddhi Program provides MSMEs an easy-to-use interactive learning experience through online modules with a blend of teaching and assessment tools. Participants receive personalized feedback through virtual classrooms, formal assessments and one-on-one advisory sessions. To prepare MSMEs to sell through new online and offline channels in India and abroad, the program will also offer advanced training that includes personalized mentoring and the opportunity to work with service providers and peers," added the press release.

Compiled by Kimberley D'Mello

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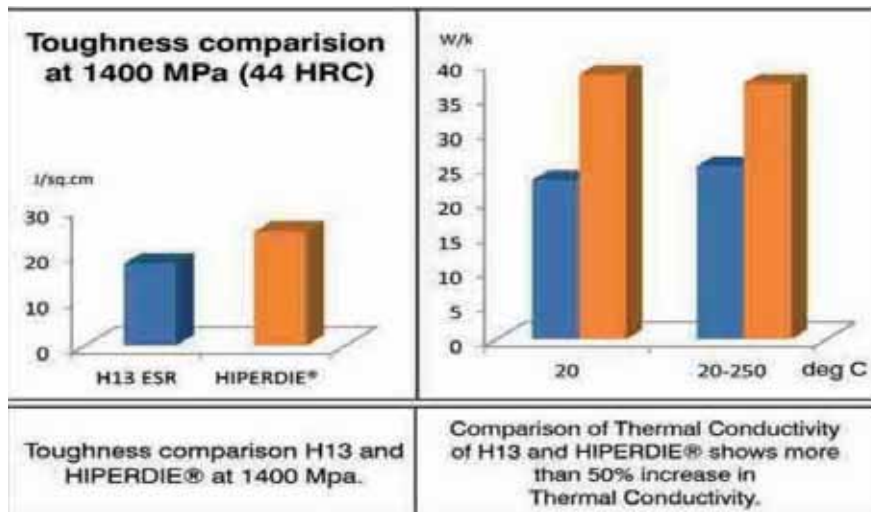
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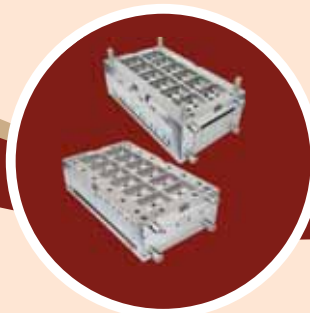
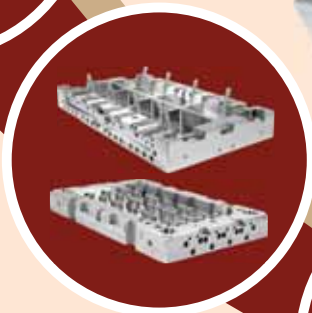
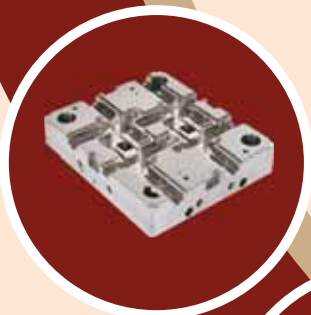
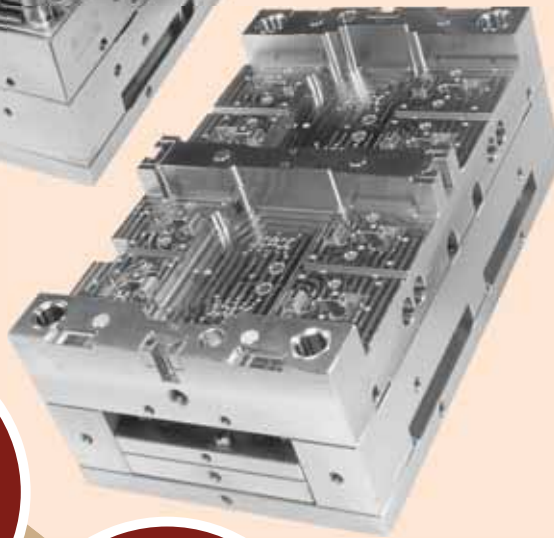
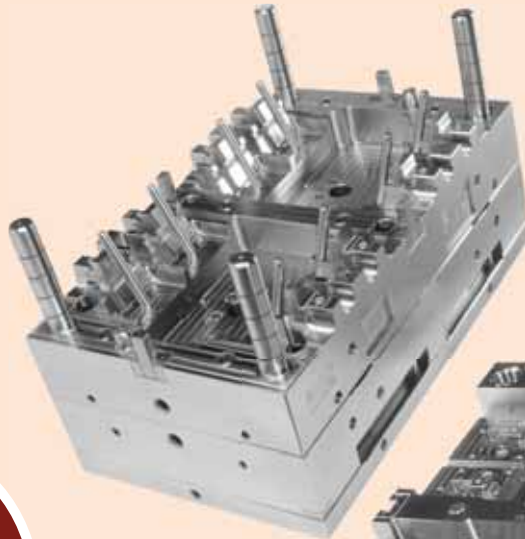
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‘ACMA and TAGMA must start working closely to help our members’



“We are open to organizing events, meetings, and delegations for TAGMA members, where component members can chart out their expectations in front of toolmakers, which can generate business for toolmakers. We can also organize a buyer-seller meet for our members, which will be beneficial for both the industries. I am sure all the component manufacturers and OEMs want Indian toolmakers to grow because when any industry is uplifted in the value chain, it has a greater impact on the whole industry,” says **Vinnie Mehta, Director General, Automotive Component Manufacturers’ Association (ACMA)**, during a conversation with **Akshay Kalyanpur, Director, Sridevi Tools, and EC Member, TAGMA India, and Nishant Kashyap.**

Tool Talk

Q ACMA has undertaken quite a few activities over the past few years. How have ACMA's activities contributed towards helping the Indian auto component industry during the pandemic?

ACMA, a well-established association, was set up in 1959. We have not just survived all these years, but have also helped the industry grow to a world-class level. Regarding ACMA's activities, I will focus on the recent past. The last two years have been very challenging for all of us. We have all been working from home and most activities have been converted into virtual ones.

Before the pandemic, we used to organize one international delegation or participate in a business exhibition at least once a month. This proved to be very helpful for Indian companies to get the much-needed global exposure. The global pandemic made this difficult. However, during the pandemic, we went out of our way to help our member companies stay connected with customers. We transformed ourselves digitally and undertook every possible initiative to help the industry remain connected with their customers and the government. This resulted in an overall confidence booster for our members during this challenging time defined by uncertainties related to the economy and business. We organized several virtual events and webinars to ensure they remain connected with their customers, understand their demands, and learn about the changes that the pandemic will bring about.

Let me give you a better understanding of how we operate. We operate based on a five-pillar model. This comprises:

- ▶ The first is business development. Under this, we organize exhibitions, such as Auto Expo and Auto Mechanica, along with business delegations to various countries every month.
- ▶ The second is related to government regulation and government advocacy. Like any other association, we constantly engage with the government to share our views, challenges, and demands. Presently, we are working on PLI Scheme-related activities.
- ▶ The third is mentoring. As you already know, we run some cluster programs. Over the years, we have helped nearly 1200 companies transform into world-class factories.

- ▶ The fourth is engaging companies with newer segments of the industry, such as start-ups. This is a very strategic initiative.
- ▶ The last pillar is media. We are fairly active on social media and provide continuous information through our PR activities.

Q That's very interesting. Do you see any emerging trends in the global automotive industry versus the Indian automotive industry? How will they impact the auto component industry?

Well, an industry's shape is determined by the regulatory framework it operates in. Globally, along with safety, you will find significant focus on climate change issues, which include global warming, and pollution control, among other elements. These factors are pushing the global industry towards achieving carbon neutrality.

Energy security has also gained prominence and is beckoning the industry towards electric mobility. At this juncture, there could be other possible solutions like the use of hydrogen technology. Electric mobility has various variants such as pure battery-electric mobility, hybrid mobility; there are many shades. But the main point is that globally, the industry is moving towards reducing its carbon footprint, making the industry much safer and improving the user experience.

This has a clear reflection on the Indian industry as well. The policy direction from our government is also almost similar to this because we are a signatory to the Paris convention and therefore, we have to reduce our carbon footprint. Also, the government has given a clear directive (the UNECE norms) that India will follow; albeit, with a phase lag. This is because, firstly, our country is not in that state of readiness as a developed country is, and secondly, we fine-tune these regulations to suit Indian needs because the driving condition in India is not the same as that in Europe. So, when you see a transition from BS-4 to BS-6 it's nothing but a variant of Euro-4 to Euro-6. Similarly, we are going to be tightening our common average fuel efficiency (CAFE). All this is a consequence of the UNECE norms' framework.

Besides, in India, there is also a significant push towards electric mobility. While the UK and Europe have declared 2040 and 2030,

respectively, as their target year to go fully electric, India does not have a target year yet.

Having said that our emission norms are becoming increasingly stringent and the government is tightening safety norms. The vehicle that you see today is so much superior and safer than those manufactured five years ago. The government is now talking about introducing six airbags to make it safer. We have already brought in antilock braking systems (ABS), we are talking about electronic control stability systems and so, there's a lot of focus by the government on safety. This is very encouraging because with these norms, in some sense, you are making the Indian product at par with global products and therefore, it opens another opportunity for Indian component manufacturers and toolmakers to export.

Q How will the emergence of EVs impact component and tooling suppliers?

At a landscape level, one can view it as a huge opportunity, or a threat to some extent. It depends upon how soon companies adapt or transform themselves with the emerging trends. However, I believe it is not a threat, but an opportunity. You see, in India, there is a lot of excitement among the 2-wheeler and 3-wheeler EV markets. When it comes to EVs, globally, governments have incentivized and that's why it could sustain till now. For the last three months, India has recorded sales of 15,000 to 20,000 2-wheelers and 3-wheelers per month. In the next five years, EVs will have a 10% to 15% market share in the 2-wheeler industry, while for the 3-wheeler industry, it will be about 50% of the market. For passenger vehicles, however, it will be about 5% and for commercial vehicles (excluding buses) it would remain minuscule.

With these statistics, for now, I do not see a reason for the conventional auto component industry to panic, as we will still have lots of ICE vehicles on the roads. However, this does not mean that we should not gear up. Five to ten years down the line, the volumes will be very large when it comes to electric mobility, and the tipping point can come a little forward if the battery prices drop. This means, we have to prepare for the future.

I will explain with an example. Say, by 2030, if the car volumes are 10 million and, at that point, say if 30% of that market comprises electric vehicles, you still have 7 million conventional units. That's a lot more than what we have today. So, there is no need to panic. Also, the conventional industry is transforming. It

will witness changes in the product mix in terms of safety, fuel efficiency, and new materials usage. So, transformation at the component and tooling levels will be needed and companies must gear up for that.

Therefore, component and tooling suppliers will need to enhance their capacity and capabilities. They will need to upgrade their factories and use modern technologies and methods such as Industry 4.0 and any IT tools that can make them more efficient, help them in predictive maintenance and increase transparency.

In today's time, the customer demands transparency and efficiency. So, you cannot continue with the same old methods. There has to be some transformation at the shop-floor level. Also, OEMs and companies, who want to de-risk their supply chain and operations, are now actively looking for domestic suppliers. This is time for Indian tooling suppliers to rise to the occasion and grab the opportunity.

The other aspect that needs to be focused upon is skilling. Skilling manpower will be critical because they will need to understand the industry's changing dynamics and develop solutions accordingly. Going forward, companies will need to invest more in skill development.

Q After the transition to BS-6, which resulted in a surge for tooling businesses, what's next on the cards?

The government's focus is clearly on localization. We have been working hard on the PLI scheme that the government is going to announce. The department of heavy industry has announced a PLI scheme for auto and auto components, but it is yet to announce the technologies to be incentivized. This should be done soon. The key criteria, of course, is that those technologies need to be advanced technologies and one of the underlying factors is that those need to be localized. So, when you talk about newer technologies to be localized, like the one that we had in BS-6, I'm sure this will be a significant opportunity for our tooling industry too.

Q What are the growth opportunities that this PLI scheme will offer?

There are three defining schemes from the department of heavy Industries for the automotive industry. The first one is FAME-2, which has an allocation of about INR 10,000 crore. The second scheme is the PLI scheme for batteries, which promotes the localization of batteries and related components. The government has allocated



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around INR 18,000 crore for this scheme. The third scheme, which was just announced, is the PLI scheme for auto components and related technologies, which have received an allocation of about INR 26,000 crore. If we add the incentives given to the industry by these three schemes it amounts to INR 54,000 crore, which is a significant amount. This is going to generate huge business for domestic players in the component industry, which will positively reflect on the tooling industry.

Q Localization is the buzzword among automotive OEMs. How can ACMA and TAGMA work together to reduce the dependency on imports of tools and components?

Around six months ago, we conducted a study together with SIAM on localization and realised that our import content, whether it is component industry, vehicle industry, or the aftermarket, overall was to the tune of about INR 175,000 crore. Of that, the import of tools and dies are around INR 7800 crore. So, we believe that a significant amount of tooling can be localized. OEMs have set a target for themselves to significantly reduce the dependence on imports.

I'm wondering why we never did this earlier, but ACMA and TAGMA must start working closely to help our members. We are open to organizing events, meetings, and delegations for TAGMA members, where component members can chart out their expectations in front of toolmakers, which can generate business for toolmakers. We can also organize a buyer-seller meet for our members, which will be beneficial for both the industries. I am sure all the component manufacturers and OEMs want Indian toolmakers to grow because when any industry is uplifted in the value chain, it has a greater impact on the whole industry.

Q Major global auto manufacturing countries have a strong domestic tooling industry. India, however, is an exception, as a significant portion of the tooling demand is still met through imports. How can India overcome this situation?

Imports are not good for the industry and companies do not want to import either. The exchange rate, distance, etc., add to the risk, time and cost and impact the industry's competitiveness. However, sometimes, OEMs ask the component industry to import some tools from certain suppliers only or when they don't

find capacity and capability in the country.

The tooling industry needs to showcase its capabilities in front of the OEMs and also learn their expectations and challenges in sourcing tools. You need to do a survey and find out where you lag – is it quality, or delivery, or capacity?

Q Industry 4.0 is another trending topic among manufacturing professionals. How much sense does it make in a frugal market like ours? Should one wait and watch or start implementing it already?

In our kind of industry, even low-cost automation works well. The team on Pillar III at ACMA which I earlier mentioned about is working with many smaller companies to give them a lot of low-cost solutions and not necessarily embed costly sensors into everything. With low-cost automation solution, one can make a judicious call, understand how the information flows and how we can bring in transparency. The whole idea is to ensure that you have very sound control of your productivity tools. As a CEO, you should be able to get information on the dashboard about the status of your factory and machines and track the entire value chain and make effective decisions. I think it's more than enough to start with.

Q Finally, from a business perspective, what advice would you give to toolmakers?

I would advise toolmakers to:

Be debt-free: During the pandemic, when operations were halted, we saw some of the component companies facing a tough time. So, be debt-free and keep your balance sheet strong.

Have strong governance: Set up a system in the company that helps you go lean and makes you more agile.

Stay connected with the customer: It's very important for you to stay in constant touch with your customers and be part of product development and resolving challenges. Often, they need you more than you need them.

Usage of tools: The pandemic has taught us how to effectively perform many functions remotely. Use smart tools to become more productive.

Digital tools: Every function of the business has been transformed digitally. You need to be aware of such tools and adopt it as per your goals and affordability. 🌈

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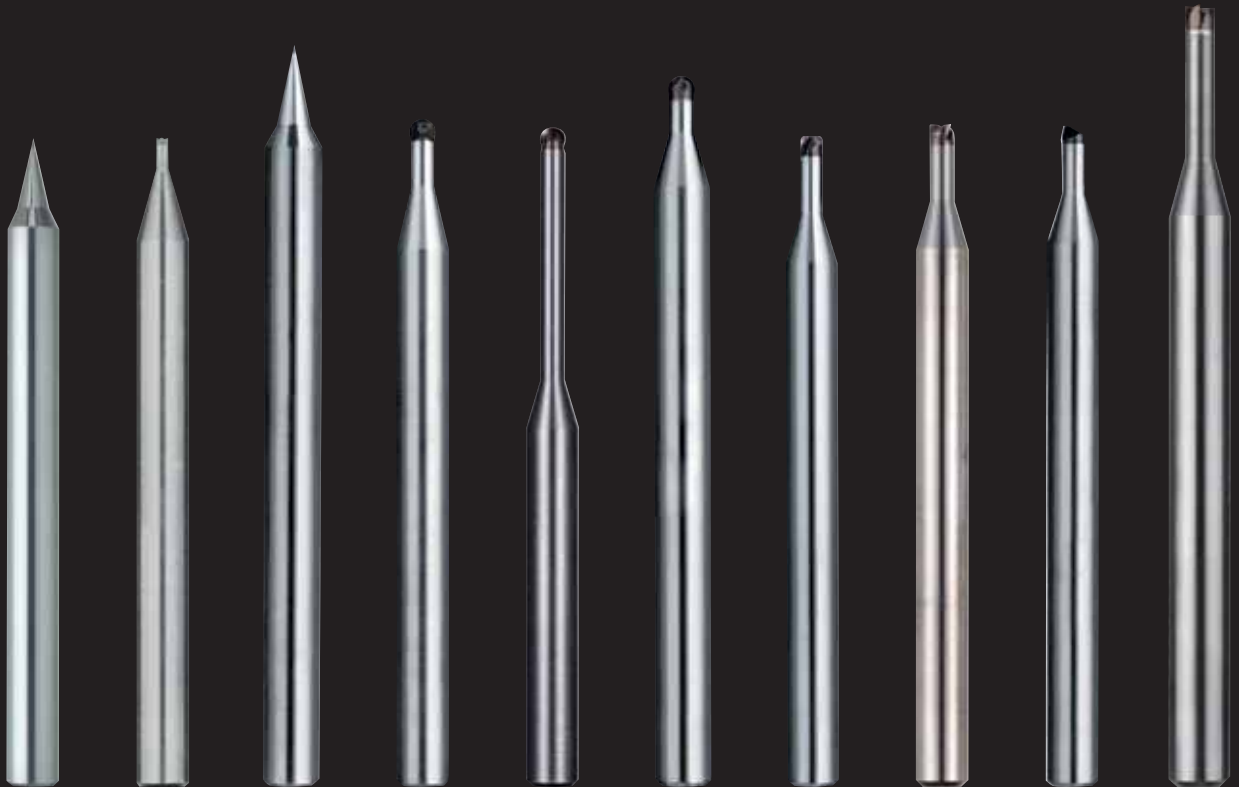
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‘The PLI Scheme is going to be a game changer’



“PLI Schemes in various industries will offer a boost to various sectors. It will definitely help toolmakers looking to diversify into other industries,” says Vishal Purohit, Director - BD, Purohit Steels India Pvt Ltd.

Amol Padhye

Q Please tell us about the Indian tooling industry.

The Indian tooling industry is growing rapidly and will continue to grow in the coming years. Toolmakers are increasingly investing in capacity upgradation and skill development, and many are setting up new tool rooms across the country. This is a very good sign for the industry. Besides this, many toolmakers are looking at diversifying. So far, most toolmakers focussed on meeting the demands of the automotive industry. But after the pandemic, toolmakers have realised the importance of diversifying into other industries such as toy making, medical, and white goods, among others. These new avenues will not only help them minimise risks, but are also good options to generate more business.

Q Currently, India imports a lot of tools. How can the country reduce its imports?

Yes, the imports are high. But there are many reasons for the same.

The first reason is that Indian toolmakers are under capacity. There are very few companies that can take large orders, which is why OEMs approach toolmakers in China, Taiwan, or Korea.

The second reason is tool steel is not made in India. There are very few tools steel grade that are produced in India. Moreover, import issue like BIS, transportation time and cost add up to the availability. We need immediate support from Government to start manufacturing tool steel in India.

The third reason is inadequate infrastructure. There is a need to increase investments in futuristic and advanced technologies to meet global expectations.

In spite of these reasons, I believe that our quality standards for final output are at par with global toolmakers. Indian toolmakers can make tools with the same precision that global toolmakers provide. What we lack is capacity and consistency; we must work on enhancing the same to reduce the imports.

Leaders Speak

Q **What are the major challenges faced by the industry?**

The manufacturing industry faces new challenge every day.

The major challenge today is the BIS issue. It has become a big hurdle for the industry. The industry, along with steel players, need to join hand and ask for government's intervention in this matter.

Second, Tool Room industry is capital intensive industry. We need better and easy finance options to support tool makers grow at a rapid pace.

Third, toolmakers do not receive adequate support from OEMs. The Indian tooling industry is highly dependent on automotive OEMs. However, these OEMs have a different policy for overseas tool rooms. They are more supportive of the foreign tool rooms in terms of payment cycles, etc.; they need to have faith in Indian toolmakers as well.

Q **How could campaigns like 'Aatmanirbhar Bharat' and PLI Scheme in various industries help the industry grow?**

These initiatives can boost domestic manufacturing output and increase the localization of goods and parts, which will have a positive impact on the Indian manufacturing industry in the long run. The PLI Scheme is going to be a game changer. PLI Schemes in various industries will offer a boost to various sectors. It will definitely help toolmakers looking to diversify into other industries.

Q **The tooling industry has been mostly catering to the automotive industry, but it has its share of uncertainties. What other sectors could toolmakers explore?**

Most toolmakers have been manufacturing parts for the automotive industry. But during the pandemic, the global automotive industry went through major changes that have generated some uncertainties. The payment cycle has been affected, which has adversely impacted the tooling business. Toolmakers, now feel that it is not favourable to only work with the automotive industry anymore. As a result, toolmakers are now looking for business opportunities in non-automotive sectors as well.

Industries such as household, industrial & rubber mould, toy making industry, medical, and the packaging industries are offering toolmakers scope for growth. Strategic sectors such as aerospace and defence are also creating good opportunities for toolmakers. Besides, consumer durables, white goods, and home appliances sectors can be explored as well.

How will the emergence of industry 4.0 and hybrid manufacturing impact the tooling industry? Industry 4.0 has a promising future and will help the industry achieve accuracy and efficiency. However, the Indian tooling industry still has a long way to go before it adopts industry 4.0. Industry 4.0 is great for mass production, where many machines and every activity need to be tracked. The Indian tooling industry is mostly driven by small teams, where human involvement is needed in all the stages. This is why, I feel, as a first step, the tooling industry can focus on enhancing capacity and efficiency, and gradually opt for industry 4.0 technologies.

Q **What short and long-term opportunities has the pandemic created for toolmakers?**

The pandemic has taught the world that dependency on one country or supplier is not ideal, and self-reliance is the way forward. When COVID-19 emerged, the global supply chain was disrupted because of the lockdown in China. In the short term, this proved to be beneficial for India, as India is the next manufacturing alternative after China. So here, Indian manufacturing companies were presented with good opportunities.

To see benefits in the long term, some immediate improvements need to be made in the country. For instance, the government needs to work on policy improvements to ensure ease of doing business in the country. Undoubtedly, there have been substantial improvements in recent years, but a lot more still needs to be done.

As an industry, we all need to collectively work upon skill development, capacity enhancement, and improvement in delivery. Once we have all these in place, nothing can stop us from becoming a global hub for the tooling business. 🌈

ORBIS utilizes M-Powered IIoT solutions to mitigate break-fix maintenance & discovers significant energy savings

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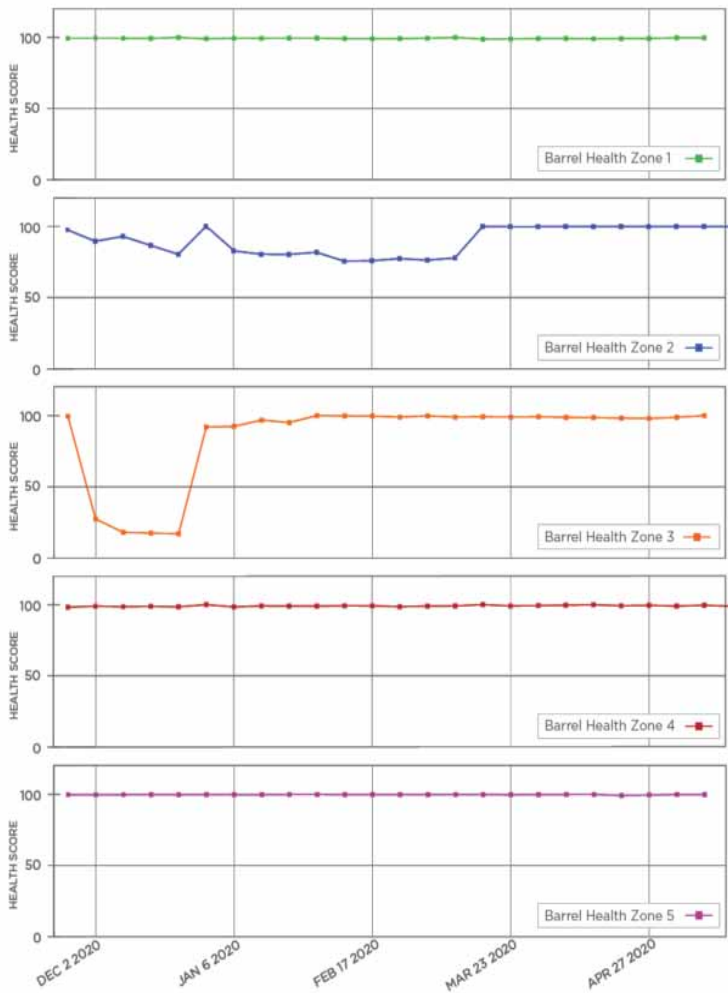
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The Challenge

Downtime is often a costly combination of people, parts, maintenance operations, and unmade products. The only alternative for decades was performing scheduled maintenance to improve machine and tool longevity to avoid some downtime events and to avert performance loss or quality escapes before they happen. Milacron's M-Powered Solutions work to monitor and maintain production by measuring the condition and efficiency of critical machinery components.

Case Study



Example 1.1 (above)

In *Example 1.1*, the heater band health for all barrel zones on a single machine being monitored over time.

This chart indicates decreased health began for Barrel Zone 2 in November. This event resulted in an uptick in energy use by 0.36 kWh per shot. Then, in December 2019, the decreased health of the heater band in Barrel Zone 3 resulted in an uptick in energy used by 0.16 kWh per Shot.

TOTAL PERFORMANCE IMPACT

Assuming a conservative estimate of 6¢/kWh and a cycle time of 46s, by solving the 2 issues **allowed ORBIS to save \$58.60 per day** (24-hour day of production) by proactively replacing the heater band before it fails.

Senior Manufacturing Engineer for ORBIS Corporation (ORBIS), Hank Fuller, wanted M-Powered as a solution to end this cycle. This led the ORBIS team to partner with Milacron's IIoT solution near the end of 2017 with a goal of ending unplanned downtime completely. "Everyone in the industry is striving for zero unplanned downtime and improving their machines. I've been in the plastics industry for 33 years, and this has always been a goal no matter who I've worked for or with... increase uptime and improve machinery reliability," said Fuller.

Machine data reveals a story of a drifting component and sequences that can identify unique signatures. A team comprising Milacron and ORBIS individuals began connecting individual machines and performing a basic downtime audit using the data

collected. As the original audit was established, ORBIS shared their observations from inside their facilities on the key issues causing setbacks, outages, and downtime.

From this audit, the Milacron and ORBIS team began crafting hypotheses around maintenance issues, while Milacron worked to advance predictive algorithms to determine a health score on a variety of machine components.

For each hypothesis, Milacron worked with the ORBIS team to authenticate the health score data, while connecting different devices capable of measuring other components across ORBIS machines. The first of the many studied components was heater bands.

There's no clear-cut indicator of a pending heater band failure on the machine. Heater bands are regularly overlooked, as degradation can be masked by other processing issues. Instead, manufacturers often replace bands once uptime or processing consistency is impacted. ORBIS, like many other molders, has grown frustrated by this break-fix methodology.

“That’s been the goal from day one. How do we turn the Milacron molding machines into having a check engine light like you have on your car? When a heater band is bad or when a pump is failing – I want the machine to tell me prior to that failure, so we can react in a planned manner.”

**Hank Fuller,
Sr. Manufacturing Engineer, ORBIS**

The Solution

Now, M-Powered Predictive Maintenance includes the capability to digitally track and record the health of an expanding number of machine components and signal any traces of degradation among mechanical, electric, and hydraulic assemblies of the machine.

Following the data collection advances, Milacron designed more meaningful and digestible displays to share the abundance of insights with ORBIS regarding the health of their fleet. Remote service technicians and ORBIS have a secure entry to the performance metrics of each work cell, all while receiving a “check engine light” to replace parts well in advance of potential failures.

These predictive analytics have been adopted to alert ORBIS's maintenance team through their existing work order system using M-Powered's suite of Application Programming Interfaces (APIs). ORBIS receives automatic alerts when a health score of any connected component deviates from custom parameters. Either the component is replaced, or Milacron remote technical service is contacted to help troubleshoot remotely.

“We have Milacron service technicians [who] can access our machines and look at faults in machine conditions. One of our maintenance people standing at the machine can be looking at the same inputs/ outputs, machine status... We don't have to wait for a technician to come in or physically get on the shop floor to help us troubleshoot an issue with the machine,” said Fuller.

For heater bands, ORBIS handles their own replacements across their fleet, as the bands impacted production. To end the break-fix methodology, Milacron and ORBIS discovered that decreased efficiency of barrel zones directly correlated to increased energy consumption and wear across other costly machine components, such as the heater bands in other barrel zones, screws or the injection barrel. This process assisted ORBIS in advocating their environmental commitment through actively measuring energy usage in relation to their heater band condition. This revelation has produced energy monitoring opportunities across multiple machinery components to advance energy and cost savings.

The Result

ORBIS is continuing their work with Milacron to develop predictive alerts for pending pump failures and oil monitoring with plans to roll out the alerts among their entire fleet. A combination of monitoring and proactively replacing machine components before they fail is driving ORBIS closer to their goal of eliminating downtime.

Example 2.1 shows the result of all ORBIS analytics and maintenance efforts to decrease downtime.

Not only has ORBIS experienced more uptime, they have maintained a tighter cycle time than prior to using M-Powered predictive analytics. (See Example 2.2)

The measure of total production energy across all components has likewise decreased and become more uniform after M-Powered predictive maintenance was implemented. (See Example 2.3)

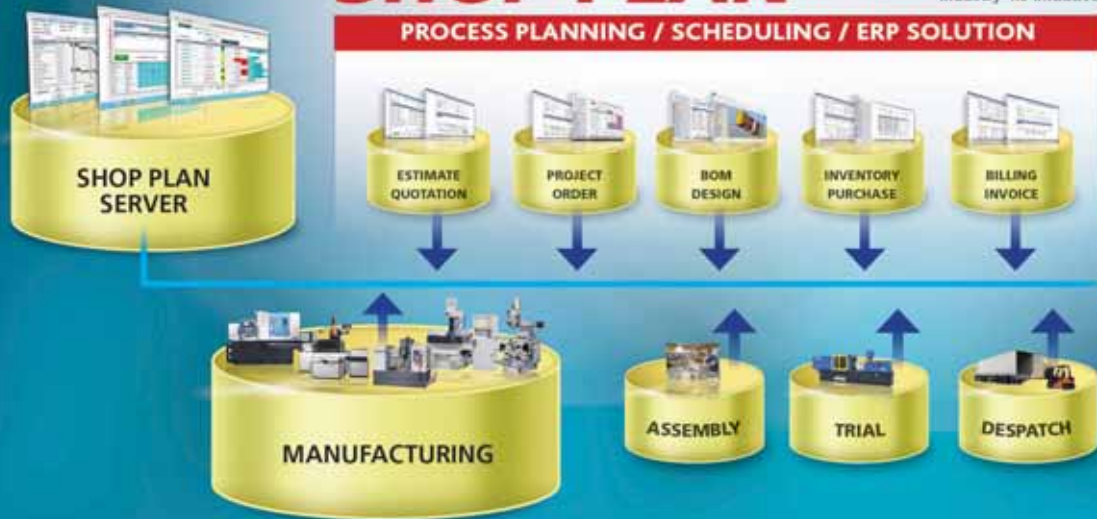
“ORBIS was the first partner that had the same vision for IIoT as Milacron... Creating an asset management program that instructs maintenance teams on what components to look at on the machine the next time it is planned to be down. Machine data provides a detailed list of tasks that need to be done and why. Not only are you preventing unplanned stops, but you are more effectively utilizing your labour and workforce. We’ve made a lot of progress and we’re still not done yet.”

**Edward Jump,
M-Powered IIoT Digital Analytics Leader,
Milacron**

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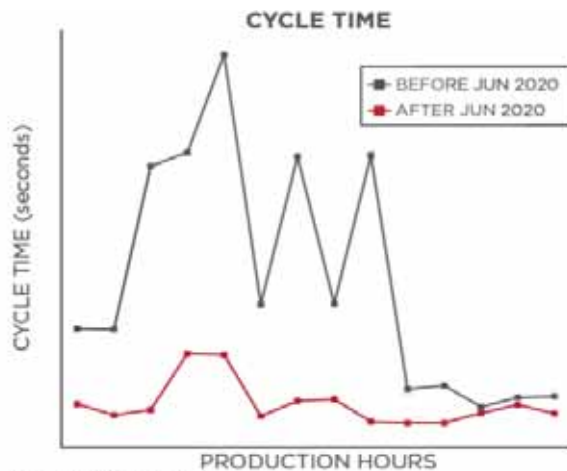
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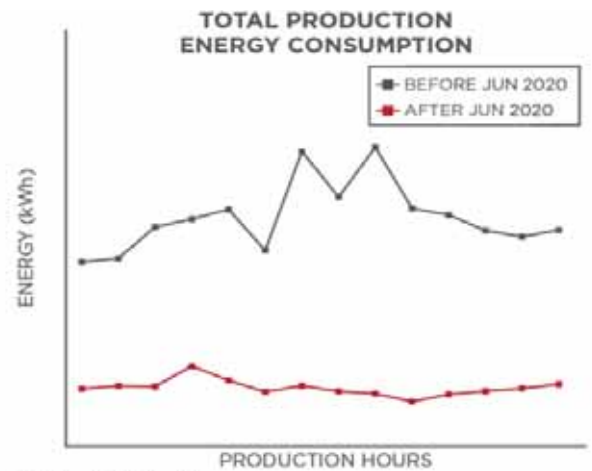
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Example 2.1 (below)



Example 2.2 (above)
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Example 2.3 (above)
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The Outlook

To drive added value for Milacron's IIoT solutions, separately from enhanced production output, energy savings, and cost reductions, M-Powered developers are working to establish a predictive part stocking program for M-Powered users. Milacron Aftermarket parts previously incorporated strategic part-stocking based on customer experiences and the duration of time between purchasing commonly failed parts.

Our next industry-leading solution on the horizon is allowing ORBIS and other M-Powered users to set their own thresholds for health degradation among connected components. When that threshold is met,

parts will be ordered and shipped automatically based on delivery lead times and planned maintenance demands to alleviate downtime and the break-fix methodology.

"We have hundreds of thousands of dollars of inventory on our shelves for spare parts. If I don't have to hold any spare parts in my inventory for our fleet of machines, I can transfer that to Milacron's spare parts knowing that machine is going to tell me before it fails, that's a huge win for my employer," said Fuller. 🌈

Article and images courtesy: Milacron LLC

Elevate Cost-efficiency of Molding Process with Raise3D's Pro2 Plus 3D Printer

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Why a Probe is the First Tool You Should Load in Your Machine's Spindle



On-machine probing is particularly critical for Mazak customer Jasper Engines and Transmissions. The shop's Mazak HCN 6800 Horizontal Machining Center processes families of engine cylinder heads, and the parts can look similar, but involve very different dimensions. For this reason, the first tool Jasper Engines and Transmissions runs is a probe that confirms a part is loaded, identifies it, and conveys that information to the machine's control, which in turn selects and runs the correct program for that particular part – virtually eliminating any risk of error.

MOULD STUDIO LLP is backed by technocrats having years of experience in the field of plastic molding, guided by Successful industrialist and innovative tool manufacturing ideas has made it successful in aligning to the demanding requirements of it's customers.

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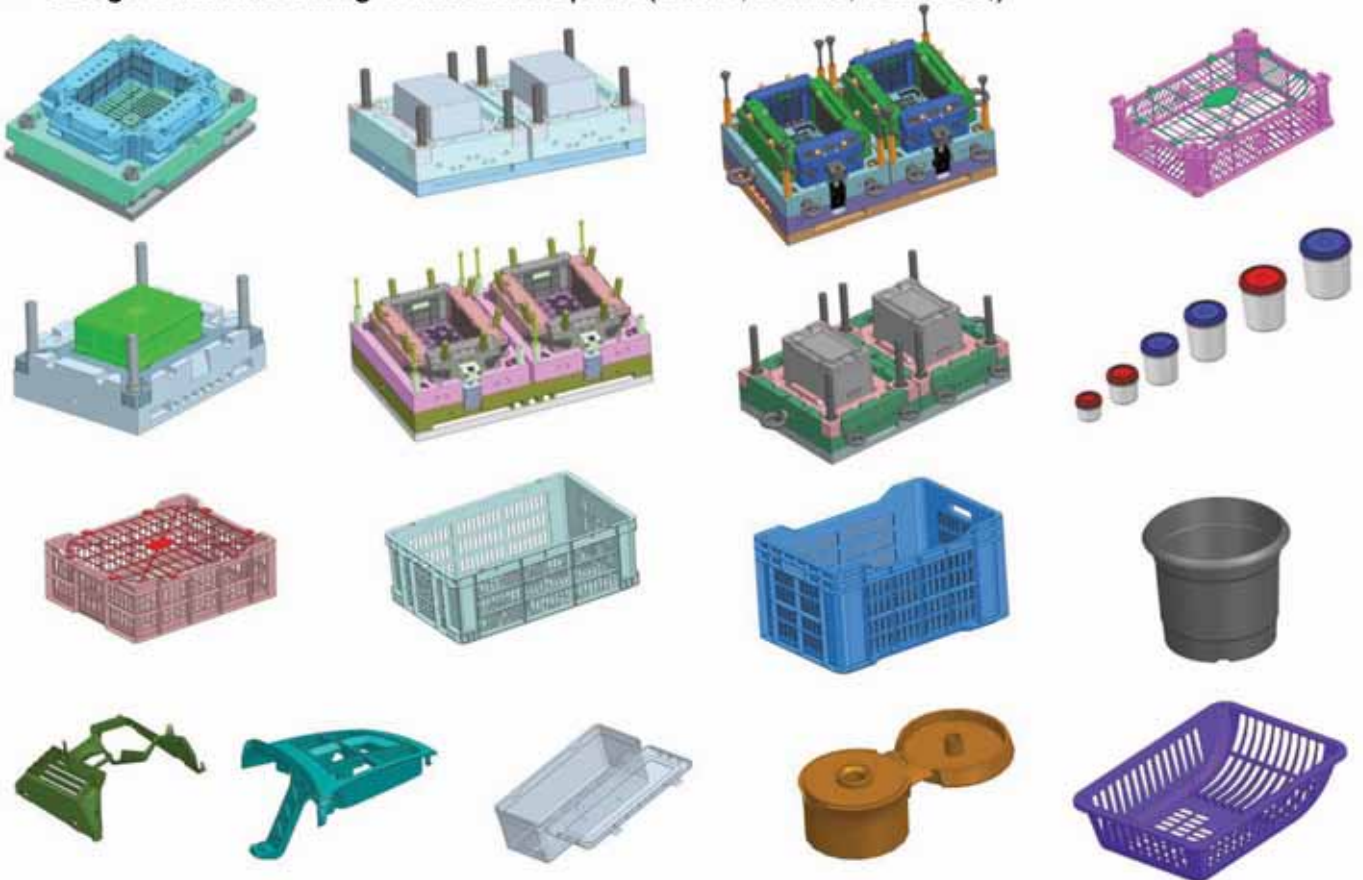
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This is just one example of the benefits of probing. Beyond ensuring a part is accurately loaded in a fixture and identifying it, shops use probing for in-process gaging to determine remaining stock or to check for thermal growth. Most importantly, however, a probe should be the first tool you load because it can make your machining processes secure and more robust – and thus help eliminate scrap.

Most shops have realized the benefits and usefulness of on-machine probing. On average, about 80% of shops use probes on milling and turning centers and multi-tasking machines. Probably one of the most common applications of a probe is for gage passes on a turning machine to check parts prior to running a finish pass. Doing so not only ensures part accuracy, but also that the finishing tool always cuts the same amount of stock, which contributes to longer tool life, allows for tighter tolerances, and reduces process variations.

In essence, on-machine probing allows shops to use their machine tool with inspection features similar to a Coordinate Measuring Machine (CMM). In fact, these two types of machines (a CMM is not a machine, should we say these two types of methodologies?) are similar in terms of how they move and position, although machine tools are much more robust. CMMs, on the other hand, must be in a controlled environment and rely on electronic compensation for their volumetric workspaces.

In many instances, machine tools can make the same measurements as a CMM, and they often can do so at less of an expense. But conversely, a shop must consider whether or not it's worth consuming machine tool time with inspections as opposed to cutting metal. Conversely, a fair number of shops have more machine tools than CMMs, thereby making inspection time a bottleneck in production.

Probing earns its keep when machining very expensive or extremely large parts. Shops can check them in a clamped state, prior to removing them from the machine tool. In these instances, the goal is to definitely not scrap the part – and checking parts prior to removing them from a machine tool can reduce number of part handlings and makes for better throughput.

Shops avoid having to transfer parts from the

machine tool to the CMM and wait for first article measurement results, which can use up hours of production time while the machine tool sits idle. This is not a good use of time unless the shop has a palletized machining system such as Mazak's PALLETECH, which would allow it to run other parts, while it waited for the CMM results.

With the growing use of on-machine probing, OEMs continue to advance and improve probe technology itself, along with probing software. With today's scanning probes, for instance, shops can "sweep" a surface, or bore, much faster than with older-style touch probes and collect huge amounts of data while doing so. This makes for more accurate measuring because the probe contacts many more points of the workpiece. For some shops, on-machine scanning probes offer an alternative to purchasing a CMM or having to send parts out for inspection.

In addition to advancements in probing technology, currently available probing software packages give shops the ability to extract data from the on-machine probing process. Today's software not only simplifies the process through canned routines, but can provide quality reports that resemble those generated with a CMM. Prior to this software, shops struggled to simply read probe data, let alone extract it for report purposes.

For this reason, Mazak developed its SMOOTH Set & Inspect software and its MAZA-CHECK control function. SMOOTH Set & Inspect streamlines the use of inspection technology for part setup, inspection or tool setting on Mazak machine tools. For 5-axis machining, Mazak's Intelligent MAZA-CHECK function measures and compensates displacements and inclination of machine rotary axes, and creates measurement programs automatically.

Although on-machine probing provides many benefits, there is one critical piece of advice to keep in mind. If you are going to use your machine tool as a CMM, you must ensure that the machine is calibrated. Plan to maintain the required metrology and have the expertise within your facility to perform such calibrations in house, rather than continuously relying on an outside vendor to do so. 🌈

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‘Credit profile of auto ancillaries to remain largely stable, despite short-term challenges’

ICRA's FY2022 growth forecasts for the auto components industry have been revised downward by 300 bps from the earlier estimates due to the impact of semiconductor shortage on domestic OE as well as exports revenues. Nevertheless, it is expected to be at 17% to 20% growth for the auto component industry in FY2022, partly aided by the low base of last year and commodity pass-through. The liquidity position remains comfortable across tier-I and tier-II players. ICRA expects the credit metrics such as interest coverage for the sector to remain comfortable in FY2022, aided by relatively healthy accruals and low debt levels.



Image used for representation only.
Courtesy: Envato Elements

Ratings agency ICRA expects a 17% to 20% revenue growth for the domestic auto components sector in FY2022, driven by domestic OEM, replacement, export volumes, and pass-through of commodity prices. The healthy volume growth would, however, come on a low base of FY2021. The growth forecasts have been revised downward by 300 bps from the earlier estimates due to the impact of semiconductor shortage on domestic OEM and export revenues. The operating profit margin (OPM) of auto ancillaries (ex-tyres) will remain lower than normal levels (FY2020). The industry's exceptionally weak performance during Q1 FY2021 due to the



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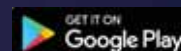
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strict lockdown, dragged last year's profit margins. Though this will result in YoY improvement in margins optically, with the operating margins expected to expand by 75-125 bps due to improved operating leverage. A possible third COVID wave and further lockdowns are downside risks to ICRA's estimates.

Giving more insights, Ms. Vinutaa S., Assistant Vice President, ICRA Limited, says, "The underlying demand remains strong, though near-term challenges on supply chain and commodity inflation persist. While sequential moderation is likely, most domestic OE segments are expected to witness healthy demand in FY2022, with preference for personal mobility and pickup in infra activity being the growth drivers. Pent-up demand and increase in economic activity will support aftermarket revenues. Part of the revenue growth would also come in from commodity pass-through. The export order book, both to the US and Europe, remains healthy. But continuation of the trend remains to be seen, given the semiconductor shortage. Over the long term, premiumization of vehicles and focus on localisation will translate into relatively stronger growth for auto component suppliers."

Players have reported healthy improvement in exports volumes and healthy order book over the next few months, which could have been even better if not for the semiconductor shortages. In the USA market, North American Class 8 trucks OEMs have continued to witness healthy order inflow. While this will benefit auto-ancillaries' dependent on healthy class 8 truck orders for the next few quarters, semiconductor shortage remains an overhang.

ICRA expects operating margins to sequentially improve in Q2 FY2022, post the loss of revenues in Q1 FY2022 and negative operating leverage, which dented operating profits. Over 85% of the entities in the sample have witnessed QoQ reduction in RM cost proportion, aided by commodity pass-through, during Q1 FY2022, which capped the decline to an extent. Operating leverage benefits and commodity pass-through to OEMs will result in better OPM, despite some production loss due to supply chain issues. However, OPM will remain below pre-COVID level of around 14% due to multiple headwinds.

In the near-term, semiconductor shortages and related supply disruptions remain a challenge. Given the fact that automobile supply chain being long and complex, OEMs and tier-1s typically follow just-in-time (JIT) inventory management practices. It

takes about six months from chip production to car production, with several tiers of suppliers in between. Our interaction with industry participants indicates that semiconductor shortage is likely to continue at least till the end of CY2021.

"The OPM of auto ancillaries (ex-tyres) will remain weaker than FY2020 levels. However, it will optically look better because of the exceptionally weak Q1 FY2021. On YoY basis, we expect the margins for our sample to expand by 75-125 bps due to improved operating leverage. Despite increase in interest expenses and lower operating profits because of the COVID 2.0 impact, the overall interest cover remains comfortable for most auto component suppliers. The interest coverage was at 11.0 times in Q1 FY2022 vis-à-vis 10.7 times in FY2021. Deleveraging and non-core asset monetization by various auto component suppliers during the FY2015 to FY2019 period has helped tide over headwinds in the industry during the last two years. Leverage of our sample of 50 auto component suppliers is likely to remain comfortable with net debt/OPBIDTA likely to remain below 1.5 times in FY2022. The auto component industry is well poised to tide over supply chain challenges. However, it remains cautiously optimistic," added Ms. Vinutaa.

Players have reported healthy improvement in exports volumes and healthy order book over the next few months, which could have been even better if not for the semiconductor shortages.

The liquidity position remains comfortable across tier-I and tier-II players. The former have utilised their cash flows from the upcycle to develop newer product capabilities and are expected to be more resilient. In terms of incremental capex, the recently announced PLI Scheme augers well for the industry. ICRA's interaction with industry participants indicates that most of them are re-evaluating investment plans. Given that most tier-I suppliers are eligible, the capex intensity is likely to increase substantially from the current estimate of 5.5%-6%. Our sample of auto ancillaries is expected to witness 60% YoY growth in capex and investments during FY2022 to INR 12,500 crore. Nevertheless, it will still remain lower than the FY2020 capex of INR 18,200 crore. 🌈

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