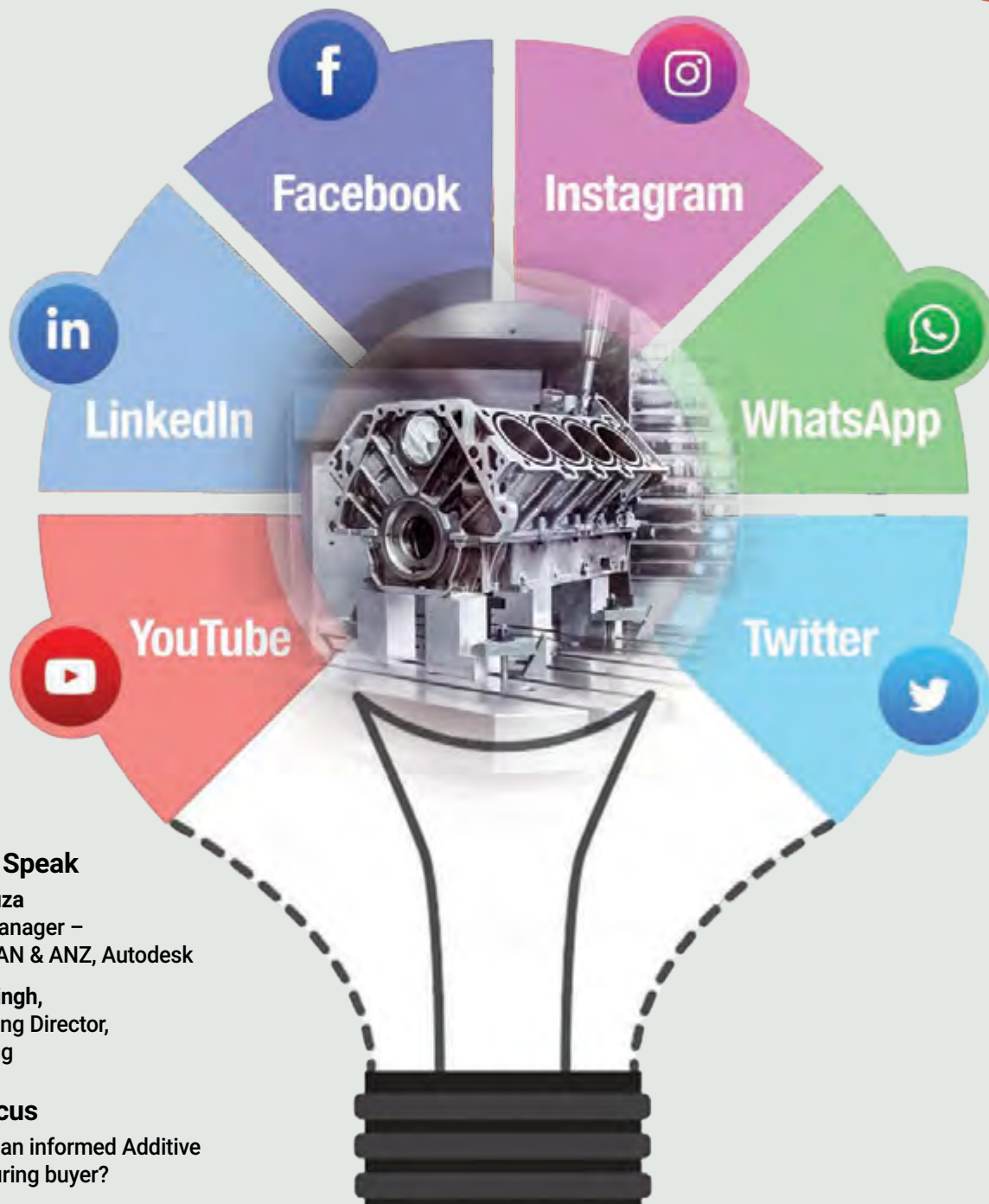


Connecting in the age of social (media)..... distancing



Leaders Speak

Arun D'souza
Country Manager –
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How to be an informed Additive
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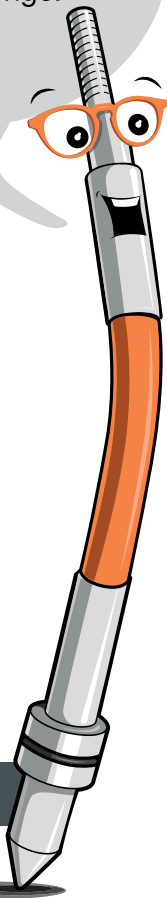
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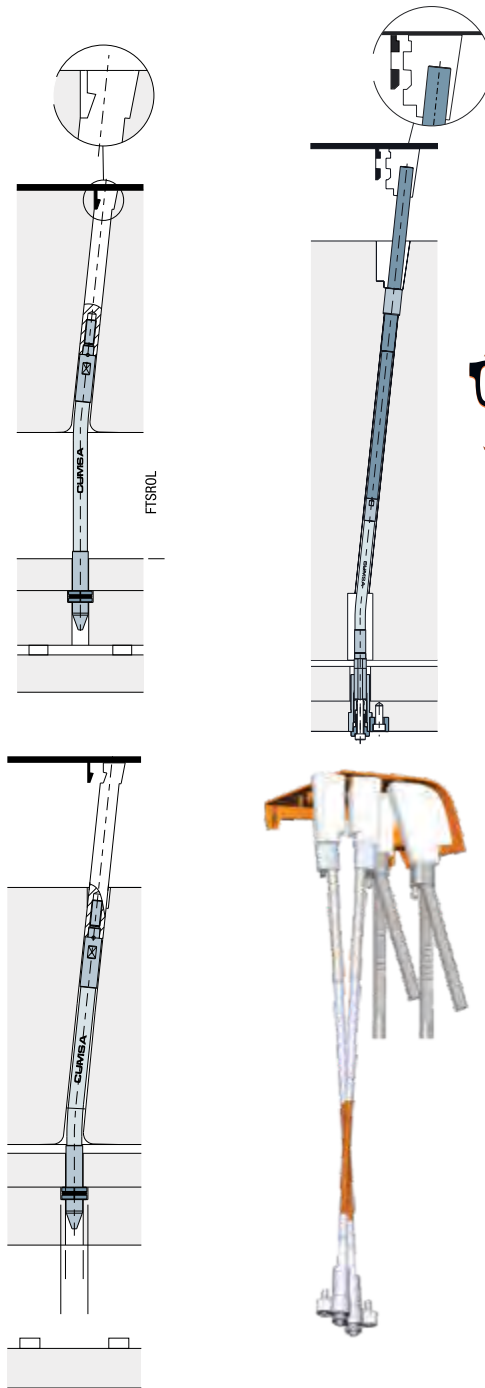
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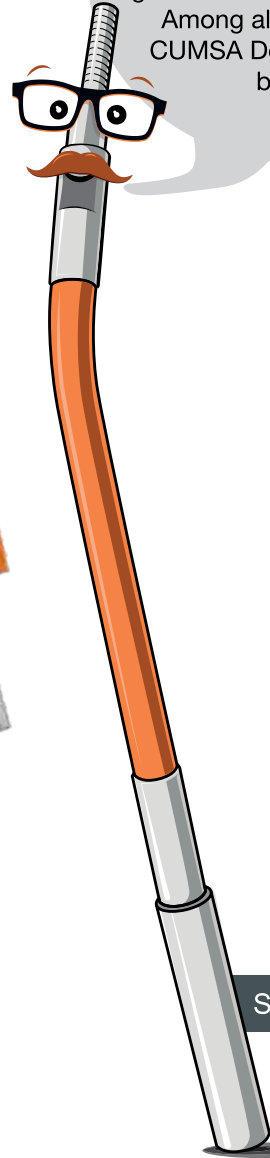


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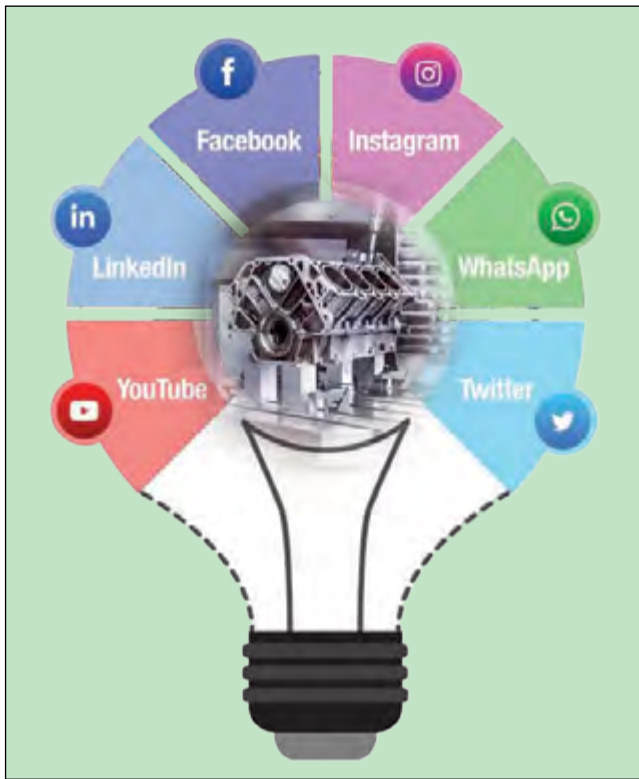
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Get Set Go... Digital

Dear Readers,

Progressing towards the digital world has been one of the most talked-about activities that we have been talking about for the last couple of years. It was considered to be one of the most important activities for any business, but the times have changed. Looking at the current COVID-19 situation, it has come to the point where we need digitization for survival. The social distancing norm has propagated the need for social media more than ever before.

A report, by Google-KPMG, stated that digitally engaged SMEs have the potential to grow twice in comparison to their offline counterparts. Further, social media has enabled small businesses to unlock new markets. It makes this more important for our toolmakers as most of them are SMEs with a minimal or no online presence.

The world is online, your vendor and partners are online, and the customers are looking for vendors online. If you haven't made the transition yet, it's high time to consider the digital move.

Indian tool makers must adopt the digital channels to reach out to new markets and enhance their visibility in the industry. The June edition of the TAGMA Times focuses on the importance of Social Media and some interesting tips. Apart from this, read the insights shared by prominent leaders about the business condition in the current situation.

Also, know more about the current state of the industry, read some impressive customer success stories, and get industry updates.

Stay safe.

Nishant Kashyap

Editor
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Government launches another funding scheme to help the MSME sector

INDIA'S distressed MSME sector got another push from the government with the launch of a Credit Guarantee Scheme to help the country's Micro, Small and Medium Enterprises.

Union Minister Nitin Gadkari rolled out a subordinate debt scheme to provide ₹ 20,000 crore guarantee cover to two lakh micro, small and medium enterprises. This also entails a sub-debt facility to the promoters of those operational MSMEs that are distressed or have become non-performing assets (NPAs) as of April 30, 2020. It also guarantees cover to the promoters who can take debt from the banks to further invest in their stressed MSME units as equity.

"It was being felt that the biggest challenge

for stressed MSMEs was in getting capital either in the form of debt or equity. Therefore, as part of Atmanirbhar Bharat



package, on May 13, 2020, Finance Minister (Nirmala Sitharaman) had announced this scheme of sub-ordinate debt to the promoters of operational but stressed MSMEs," a statement from the Ministry of Micro, Small & Medium Enterprises said.

The scheme was launched in Nagpur after securing approvals from the Cabinet Committee on Economic Affairs and consultation with

the finance ministry, SIDBI and the Reserve Bank of India (RBI).

Under the scheme, promoters of the MSMEs will be given credit equal to 15% of their stake (equity plus debt) or ₹ 75 lakh,

whichever is lower. In turn, promoters are liable to infuse this amount into the MSME unit as equity. This is expected to enhance the liquidity and maintain the debt-equity ratio. In this sub-debt scheme, 90% of the cover will be given while the rest 10% falls on promoters concerned. The payment of the principal amount will be under moratorium for seven years. Maximum tenure for repayment will be 10 years. "It is expected that this scheme would provide much-required support to around two lakh MSMEs and will help in reviving the economic activity in and through this sector. It will also help in protecting the livelihoods and jobs of millions of people who depend on them," the statement said. To avail this scheme, promoters can visit any scheduled commercial banks.

Govt opens doors for private sector participation in space activities

THE government is hopeful that the space sector can play a major catalytic role in the technological advancement and expansion of the state's industrial base. The Union Cabinet recently approved far reaching reforms in the space sector aimed at boosting private sector participation in the entire range of space activities. The decision taken by the Cabinet, which was chaired by Prime Minister Narendra Modi, is in sync with the PM's long-term vision of transforming India and making it self-reliant and technologically advanced.

Incidentally, India is among a handful of countries with advanced capabilities in the space sector. "With these reforms, the sector will receive new energy and



dynamism, to help the country leapfrog to the next stages of space activities," reads a press communiqué issued by the Prime Minister's Office recently. This will not only result in an accelerated

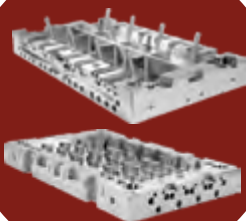
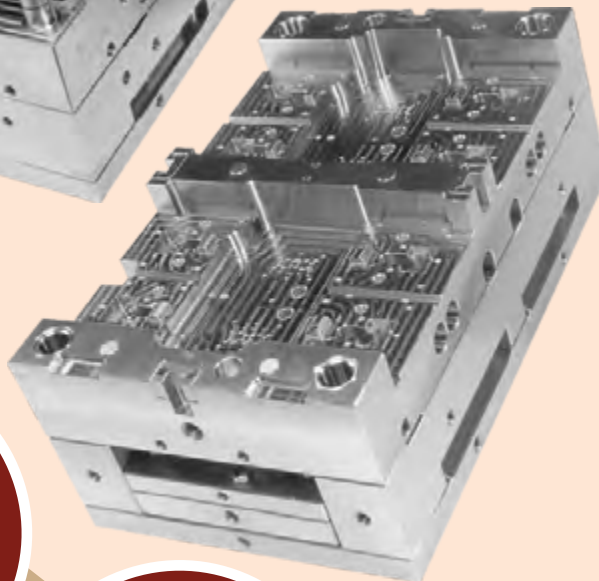
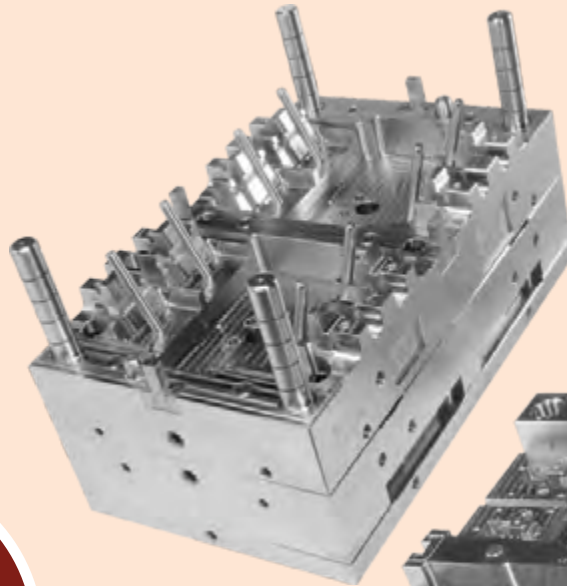
growth of this sector but will enable the Indian industry to be an important player in the global space economy. With this, there is an opportunity for large-scale employment in the technology sector and India becoming a global technology powerhouse, the note said.

These reforms are expected to allow ISRO to focus more on research and development activities, new technologies, exploration missions and human spaceflight programme. Some of the planetary exploration missions will also be opened up to the private sector through an 'announcement of opportunity' mechanism, said the government.

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Ease of Doing Business is the Route to India's Mission of Self-reliance: CII

WITH more outcome-oriented action on Ease of Doing Business, huge momentum to India's domestic and overseas investment can be imparted at a time when self-reliance is being strengthened, stated the Confederation of Indian Industry (CII). CII outlined eight areas where strong measures in mission mode can help to boost the economy.

"While many policies have been announced for a facilitative investment climate, effective translation into ground-level outcomes will help investor perceptions and further boost confidence. We believe that taking the ease of doing business route can unlock huge potential at a time when the world is seeking new investment opportunities," said Mr Chandrajit Banerjee, Director General, CII.

Central and state governments have introduced a plethora of reforms across the various areas of doing business, which have contributed to India's leap of 79 positions from the 142nd rank (out of 190 economies) in 2014 to the 63rd rank in the latest Doing Business Report of the World Bank. Sustaining this reform momentum can drive new investments including from overseas, stated CII.

CII identified immediate and medium term measures in 8 areas for EODB that can

reduce costs and time for making the Indian industry competitive.

CII prioritised effective implementation of Online Single Window System as the first step towards strengthening EODB. Regular monitoring by the Chief Secretary of a state, time bound approvals and single interface should be implemented in all states. Currently, only 21 states have implemented this system. For a business entity, there should not be any

other point of interface with the government, other than the SWS.

Two, simplifying property registration and acquisition of land is critical. The industry should be permitted to buy land directly from farmers with deemed approval after 30 days. Digitization and integration of land records and single online portal with integrated information can help in titling.

Three, compliances for labour regulations could be speeded up at lower costs. The states can follow the example of Uttar Pradesh by exempting the industry

from select labour laws for 3 years. The applicable limits under Industrial Disputes Act 1947, Factories Act 1948 and Contract Labour (Regulation and Abolition) Act 1970 must be raised immediately by the states, stressed CII.

Four, at a time when India is seeking deeper overseas engagement, it is critical to ensure a quick and low-cost trade facilitation mechanism. The SWIFT system needs to bring on board all Partner Group Agencies. The Risk

Management System, Port Community System, and Authorized Economic Operators need to be strengthened, including through automation and digitization.

Five, enforcing contracts is a challenge due to insufficient commercial courts and infrastructure. CII suggests major digital reforms such as virtual court proceedings, e-filing, and work from home to speed up court deliberations. The Alternative Dispute Resolution institutions can be expanded in all parts of the country with arbitration and mediation centres. Over the medium term, judicial

capacity must be enhanced with specialized commercial courts at High Courts and District Courts.

Six, synchronized joint inspections, computerized risk-based inspections, and differentiated inspection requirements for low-risk industries can reduce the inspection burden on companies, noted CII. Self-certification and third party certification can be extended, as in Telangana where companies with good track record in the medium-risk category are permitted self-certification. In the medium term, an online Central Inspection System for labour, fire, lift, electricity, boilers, etc. is required.

Seven, MSMEs need a special helping hand, according to CII, and should be exempted from approvals and inspections for 3 years under state laws while following all the rules. The self-certification route can be used for renewal and approvals for MSMEs with good track record.

Eight, India's high logistics costs impact its competitiveness. This will require medium term action such as increasing the share of railways and waterways in transport, improving first-mile and last-mile connectivity and reducing port dwell time. Cross subsidization of freight should be rationalised, said CII.



Confederation of Indian Industry

Press Statement by President ACMA in light of Import Congestion

IT is understood that import consignments from China are being subjected to one-hundred percent manual inspection resulting in inordinate delays in clearance. Explaining the complexity of the automotive value chain and the need for permitting clearance of imports, Deepak Jain, President, ACMA remarked, "The auto component industry in India is committed to the 'Atma-nirbhar vision' of our Hon'ble Prime Minister. The entire automotive value chain in

the country is around USD 118 billion of which import of auto components is USD 4.75 billion, 4% of the total auto industry turnover. Some of the



items imported from China are critical components such as parts of engines and electronics items for which we are

yet to develop domestic competence. The automotive value chain is a highly complex, integrated and interdependent one; non availability of even a single component can, in fact, lead to stoppage of the vehicle manufacturing lines. Post the lockdown, production in the component industry is gradually picking up in tandem with growth in vehicles sales. It is therefore in the best interest of the industry and the economy that any further disruptions are best avoided."

HP India 3D prints 1.2 lakh ventilator parts in 24 days

PC and printer major HP recently announced it has 3D printed 120,000 key ventilator parts in flat 24 days for 10,000 ventilators, thus enabling frontline workers and healthcare providers in India respond better to the challenges of COVID-19 pandemic at hospitals.

HP India partnered with Redington 3D in India to successfully produce 120,000 ventilator parts like inhale and exhale

connectors, valve holders, oxygen nozzles and solenoid mounts for AgVa Healthcare that is producing the world's most economical ICU ventilators. As part of this initiative, 12 categories of parts were 3D printed to manufacture 10,000 ventilators that are being deployed across the country for the treatment of COVID-19 patients.

"The successful execution of the AgVa Healthcare project is a testament of

the capabilities of HP's 3D printing technology and how it can remove the limitations of designing by producing complex products in short time," said Rajat Mehta, Country Manager, 3D Printing and Digital Manufacturing, HP India Market. Globally, more than 2.3 million parts have been produced using HP's 3D printing technology in battle against COVID-19. To date, HP and partners have produced more than 2.3 million 3D printed parts worldwide.

Bombardier Transportation Extends Successful Partnership with QuEST Global

GLOBAL mobility solution provider Bombardier Transportation and QuEST Global, a global product engineering and lifecycle services company, have signed an agreement to extend their existing partnership in order to strengthen cooperation to further develop engineering capabilities for the rail market. The goal of this alliance is to ensure future innovation, as well as excellent delivery and project execution. Since 2017, both companies have been closely collaborating to deliver outstanding engineering solutions to the rail industry.

"Signing this agreement to extend our existing collaboration with



QuEST Global is an important step in providing world-class technical solutions to the global rail market. This extended strategic partnership will give us additional access to great engineering talent for joint product development across the entire value

chain," said Danny Di Perna, President of Bombardier Transportation.

Commenting on the partnership, Ajit Prabhu, Chairman & CEO at QuEST Global, said, "This partnership is a testament to our expertise in driving transformational initiatives with our customers and long-term partner, Bombardier Transportation. Our capability in converging mechanical, electronics and software technologies has helped our customers create their frontier by advancing the ways people live, work, travel and engage with each other. We look forward to helping Bombardier enhance their competitiveness in the rail domain."



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CAD/CAM Developments Streamline the Manufacturing Process from Job Setup to Job Completion

CNC Software, Inc., developer of Mastercam, the world's leading CAD/CAM software, recently announced the release of Mastercam 2021. Mastercam 2021 increases machining productivity and reduces overall production costs with faster and more flexible multi-axis improvements, improvements in turning and turning-related applications, advances in speed, safety, and much more.

According to Mastercam President and CEO Meghan West, these advancements have been made in direct response to the needs of the global manufacturing community. "Mastercam is developed by listening to our users and creating solutions for their problems. We adapt to changing needs to ensure that the customer experience is the best it can be as we continue to innovate for improved automation, efficiency, connectivity, and precision. From job setup through job completion, you can depend on our technology to empower productivity."

Faster, more flexible multi-axis programming

As more shops continue to rely on streamlined multi-axis cutting for single-setup precision, Mastercam 2021 adds new techniques and strategies. Expanded Multi-axis Pocketing combines efficient pocket cutting with a focus on

finishing with Accelerated Finish tools, automatically maintaining the correct tool contact within defined parameters. Mastercam now gives you the ability to analyse and modify the UV direction on surface models, expanding the power and flexibility of multi-axis flowline milling toolpaths. The new 3+2 Automatic Roughing toolpath automatically makes multiplane 3-axis roughing toolpaths by



evaluating the model and stock, creating a cut, calculating what remains, and repeating the process until roughing is complete.

Advances in turning and turning-related applications

Mastercam 2021 expands the support for modeling chucks and chuck jaws; you can now define them by selecting a solid model. Mastercam Mill-Turn supports collet chucks as individual component types, which greatly expands the range of machines that can be directly supported. Mill-Turn Simulation has been added to

the Mastercam Simulator interface so you can experience Mill-Turn simulation with the same interface tools as Mastercam Simulator. And, the Swiss machining solutions combine Mastercam Mill and Mastercam Lathe with specialized post processors. This adds machine-specific controls inside the Mastercam interface, delivering accurate G-code for a wide variety of Swiss machines.

NC Programming speed, safety, and precision

A new toolpath in Mastercam 2021, Advanced Drill, is a customizable multi-segment drill cycle that is useful for spot drilling, deep hole drilling, and back spot facing and each segment of the drill cycle can be defined and customized. And, when using tools with a tip angle, the new Chamfer Drill toolpath chamfers holes after calculating the correct depth based on the desired width or depth, and lets you select holes of different diameters or sizes, or that lie in different planes, and machine them in a single operation with a single tool. When creating a bounding box in Mastercam 2021, the new Wrap option allows you to create the smallest bounding box possible. The new Check Tool Reach function lets you check your tool and holder against the selected model geometry to view where the tool can and cannot reach.

New addition of MD220 grade VCGW type PCD turning insert for non-ferrous metals turning

MITSUBISHI MATERIALS CORPORATION Metalworking solutions company (Company President: Tetsuya Tanaka, Address: Marunouchi, Chiyoda-ku, Tokyo) has released 3 new VCGW type PCD inserts in MD220 grade for non-ferrous metals turning.

The VCGW type is a positive insert with a 35-degree, rhombic shaped geometry.

The tough double-edged insert is applicable to various cutting modes such as external turning and internal boring. It is ideal for machining aluminum alloy and non-ferrous metal



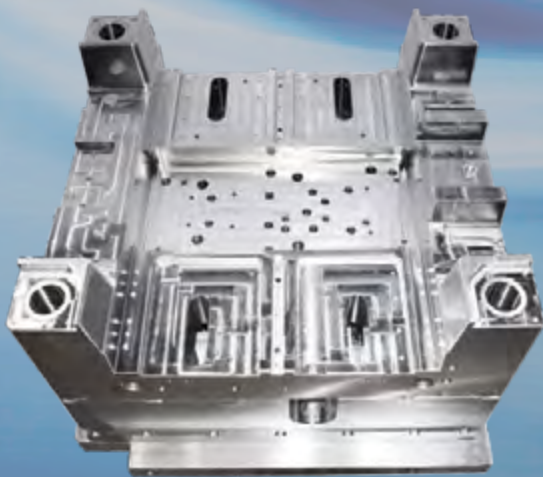
components on small automatic lathes.

Features of the VCGW type insert:

1. Ideal for various cutting modes such as external turning and internal boring.
2. Two cutting edges with high toughness.
3. Perfect balance between wear and fracture resistance.
4. Suitable for ultra-high speed finish cutting.

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BXA10 CBN Inserts Offer HP Chipbreaker to Boost Productivity in Hard Part Finishing

TUNGALOY has announced that its line of coated CBN grade inserts, BXA10, now includes HP style chipbreaker geometry to provide reliable chip control during finish turning of hardened steel parts.

Featuring a multilayer PVD coating composed of thermally stable Ti(C,N) layers and (Al,Ti)N layers, which provide good adhesion with a dedicated CBN substrate, BXA10 has been developed to provide exceptional tool life performance in high speed continuous cuts. This latest development will provide improved productivity, tool life, and surface integrity in continuous to light interrupted cuts at high cutting speeds of drive shafts, gears, and other case hardened or induction hardened

steel parts common in automotive industries.



A comprehensive range of new BXA10 inserts offers 308 items in a broad range of sizes, geometries, and nose radii in a range from 0.1 to 2.4 mm. Cutting edge preparations are available in five different standard options: -L, -LF, -LC, and -H in addition to the standard 0.13×25° profile, optimizing insert applications for all hard turning needs

including those that require specific attention such as burr elimination or edge toughness.

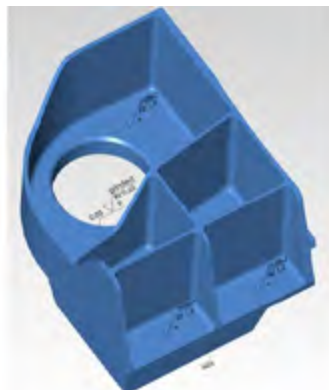
HP style chipbreaker is designed to optimize chip control at up to 0.2 mm (.008) depth of cut, typical range in finish hard turning applications. Undesirable chips entangling on the workpiece or long stringy chips piling at the bottom of the machine tools will no longer be an issue. The light cutting geometry of the HP chipbreaker reduces the cutting load, eliminating chatter or poor workpiece surface finish. The inserts are also available with a built-in wiper where better surface integrity is required. Total of 30 inserts are introduced in this offer.

Tech Soft 3D and OPEN MIND Collaborate on Powerful CAM Solutions

TECH Soft 3D, the leading provider of engineering software development toolkits, and OPEN MIND, a leading developer of CAD/CAM software solutions worldwide, recently announced that HOOPS Exchange, the industry's fastest and most accurate CAD data access and reuse technology for manufacturing and architecture, engineering and construction (AEC) workflows, will be integrated into hyperMILL® and hyperCAD®-S to ensure that all CAD and PMI data is transferred seamlessly between applications.

"Tech Soft 3D is a trusted, reliable development partner who helps us implement specific requirements and accommodate customer requests," said Dr. Josef Koch, CTO at OPEN MIND Technologies, AG. "This kind of responsiveness is critical in our industry, as well as interoperability with multiple CAD formats – HOOPS Exchange is the leading product in this area and was an easy choice for us. We are very happy to be able to offer our customers the

ability to work with any CAD file type now, and not to fear any loss of data integrity when sharing files."



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of these components on 5-axis milling or mill-turn machines. Robust CNC postprocessors are also provided to assure strong communication to machine tool controllers.

"Digital transformation is happening at lightning speed within the manufacturing industry and we are committed to helping our partners, such as OPEN MIND, keep pace with this rapid momentum," said Lionel Vieilly, Product Manager at Tech Soft 3D. "Fast access to the full integrity of data, being able to use that data without the need for an additional translator, extreme performance with low memory usage – these are all paramount to quickly building robust, sophisticated 3D applications and we are proud to be the ones our partners look to as the gold standard."



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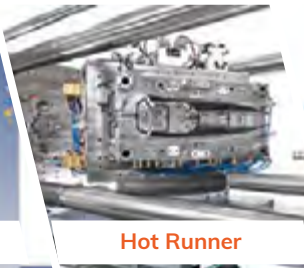
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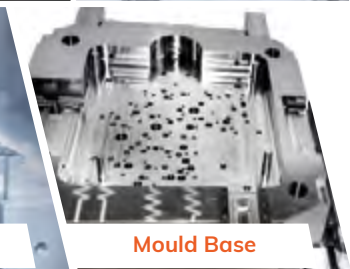
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LMT Tools Named Innovation Champion

INNOVATIVE medium-sized companies such as LMT Tools are not afraid of change, but see it as an opportunity. The company was selected in the 27th round of the TOP 100 innovation award. As of June 19th, LMT Tools is recognized as a Top 100 company in the categories of "Innovation-promoting top management" and "Innovative processes and organization".

The management of the manufacturer of precision tools has firmly anchored the goal of innovation leadership in the company. To keep creating bubbling ideas from which innovations can be generated, the top innovator relies on a wide range of methods, field trials with customers, and cooperation with universities.

The 1,200 employees around the world have been inventing new precision



tools for more than 100 years, and are now using 3D technology. Just like with the "EVOLine" tangential rolling head, a tool for manufacturing external threads, it is partly produced using 3D

printing. "This smart tool illustrates our idea of innovation. We develop new solutions by expanding the limits of existing technology and thus significantly increasing the benefits for our customers," says CEO Daniel Ehmanns. The TOP 100 company would like to provide smart tools with sensors in the future so that corresponding digital data is available – a field with great innovative potential.

Another building block of the innovation strategy of LMT Tools is the intensive networking amongst the departments. This includes regular workshops that promote knowledge exchange. The research and development departments at the various global locations also exchange information on an ongoing basis, and the employees have a lot of freedom to come up with ideas.

3D Systems Expands Plastics Materials Portfolio to Address Broadest Set of Applications in the AM Industry

3D Systems recently announced several innovations for its plastics materials portfolio designed to help manufacturers address a broader portfolio of applications. These materials – Figure 4 RUBBER-65A BLK, Accura Fidelity, Accura Bond, Accura Patch, and Figure 4 JEWEL MASTER GRAY – are designed for the company's Figure 4 and Stereolithography (SLA) printing technologies. With the expansion of its renowned materials portfolio, 3D Systems continues to open new production applications.

"Our team has continued developing new materials



across our plastics portfolio to address a broader set of production applications and providing data sheets with key test results and performance specs to make it easy for our customers to make the optimal material choice for their needs," said Menno Ellis, SVP and general manager, plastics, 3D Systems. "Our material scientists and technical experts have leveraged decades of experience to engineer these high performing materials to deliver accurate, economical, and repeatable results to enable our customers to maintain competitive advantage."

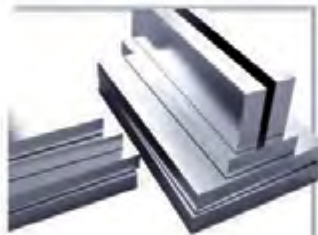
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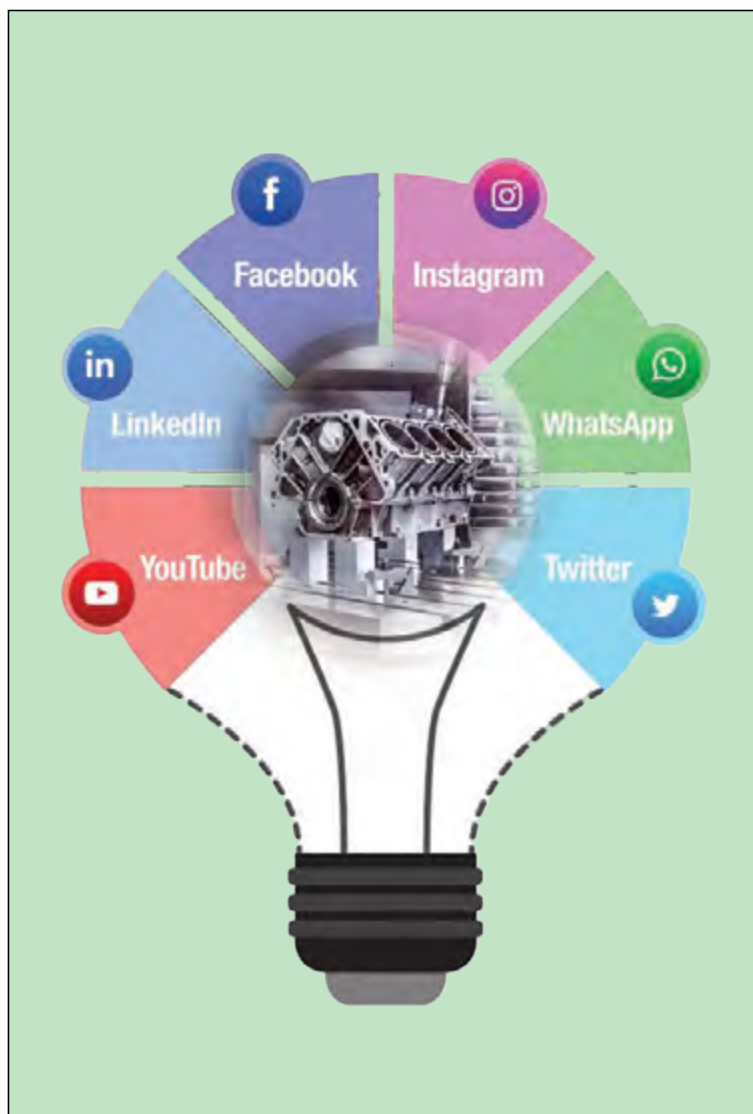
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Connecting in the age of social (media)..... distancing

Over the past few years, business houses have been spending their moolah on social media marketing. But, looking at the high costs involved, some (read: Indian SMEs) chose to ignore it. However, keeping in line with the change in consumer behaviour, there has been some shift of focus at the other end as well. In this article, we'll take a look at the importance of social media for the tooling industry and share a few social media tips.



Most businesses, especially the MSMEs, continue to communicate with their audience and potential customers through traditional media (newspapers, television, and radio among others). With the evolving consumer demands, the response time while using traditional media tends to increase and the interaction level is almost negligible in most cases.

The Indian machine tool industry consists of a large number of SMEs. As these SMEs form the backbone of the Indian economy, it is crucial for them to become a part of globalization and understand the essence of social media. It not only helps them create an online buzz but also reach out to more customers, especially in these current times.

COVID-19, Social Media and Indian SMEs

According to experts, almost 80% of digital ad spends can be attributed to social media. They also believe that SMEs have the power to drive digital marketing in the next few years. They have a reason to believe this. The current COVID-19 crisis has resulted in loss of business and has led to a rapid adoption of social media by SMEs. Like our neighbourhood vegetable vendor and kirana store moving to digital menus, we can soon expect our machine tool industry SMEs to strengthen their presence in the digital space.

Social media platforms like Facebook, Twitter, LinkedIn and YouTube, among others are considered to be serious marketing tools today. They are also one of the best ways to spread awareness about a business's offerings.

In Focus

Picture this, businesses in different geographies need services and want to explore the options. How will they find them? Obviously, by browsing the internet. If you have a strong online presence and have taken 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, "First impression is the last impression."

So, why not start with a company website, followed by:

- ▶▶ Social media activities
- ▶▶ Investing in SEO
- ▶▶ Preparing knowledge-sharing contents
- ▶▶ Attending webinars
- ▶▶ Investing some time on platforms, like LinkedIn

Another thing worth investing time in is, collaborating with the on-demand-manufacturing platform. The on-demand-manufacturing concept has created a buzz in the manufacturing industry. These platforms take orders from different businesses and take the help of their manufacturing partners to complete them. You can list your company in one of these platforms and explore more opportunities.

Indian Machine Tool Market & Scope for Digital Marketing

According to a report by Technavio, the machine tool market in India is poised to grow by USD 1.9 billion during 2020-2024, progressing at a CAGR of nearly 13% during the forecast period. It has also been noted that, advertising spends on digital media overtook spends on print in 2019, becoming the second largest advertising medium in India after television. Digital media which includes social media is estimated to grow at a rate of 26%. The three main areas that businesses are spending on include— video, social media and search advertising.

Looking at the current scenario, the best approach for the Indian tooling industry should be maximum interaction with the customers. Also, taking into consideration the high marketing costs, social media comes across as a highly effective marketing tool for our SMEs.

Why is it the time to change?

Looking at the global business scenario in the times of COVID-19, it is crucial for tooling suppliers to prioritize tasks which have massive impact - the digital space.

How can social media help SMEs?

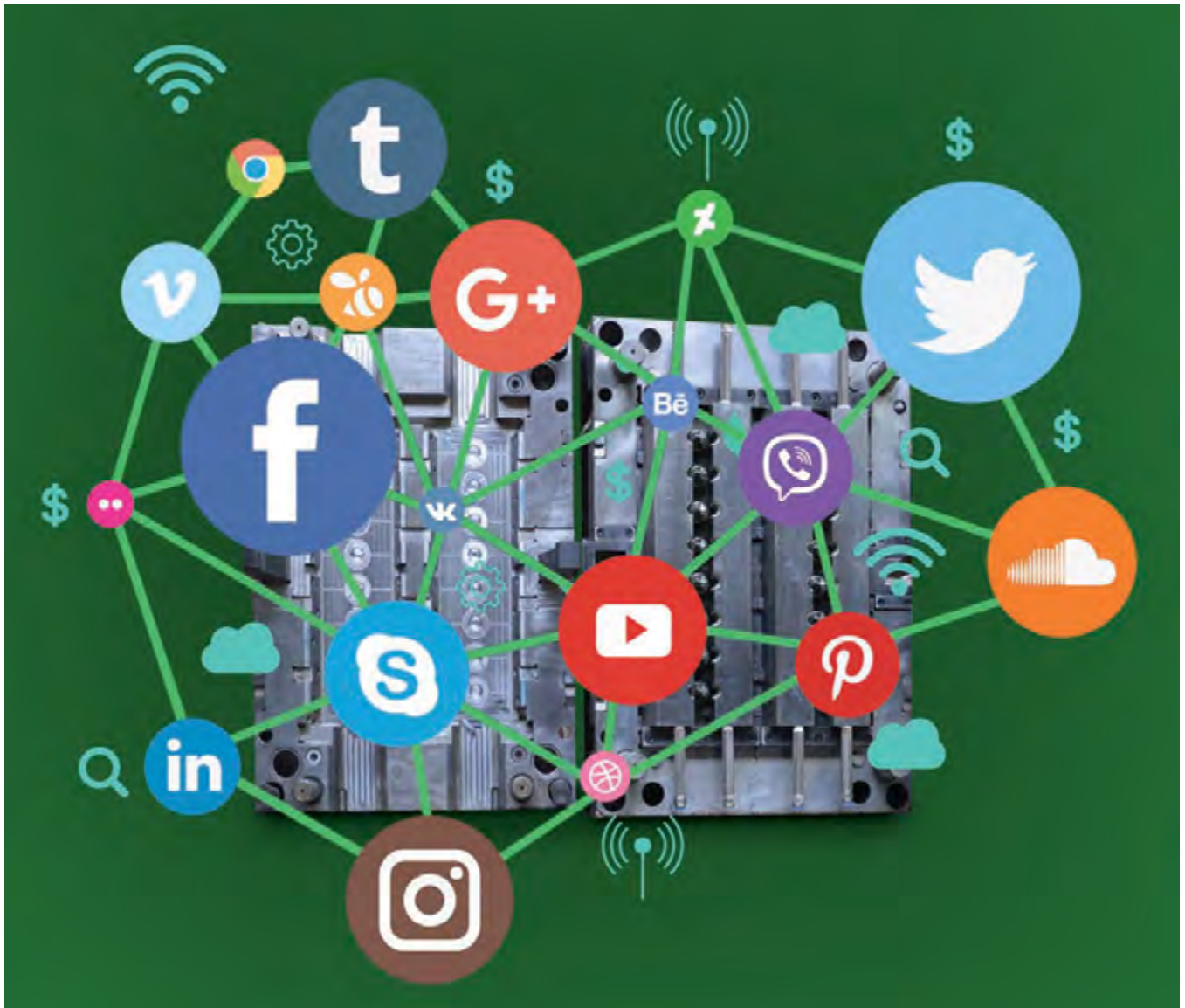
- ▶▶ **Cost effective:** We are now well aware that social media is a great way to spread the word about your business, products, and services. What makes it better is the fact that followers/visitors who like your offerings can share information about it with their friends and family members.
- ▶▶ **More website traffic:** Every time you post something on social media, you can encourage users to visit your website and learn more about your business. Which means, social media will help you direct people to your website, leading to more customers and conversions.
- ▶▶ **Run targeted ads:** Apart from posting regular updates, you can also run targeted ads on social media platforms to help you reach qualified customers. For example, Facebook allows you to target users based on location, demographics, interests, and behaviours, while LinkedIn offers segmentation by location, company, job title, gender, and age. Further, you can track the performance of your ads in real time.
- ▶▶ **Helps you build relationships with customers:** Social media acts as a platform for both potential and existing customers to interact with you, ask questions, and share their opinions. Maintaining a healthy presence on social media can help you engage more customers and build relationships that encourage them to initiate business with you.
- ▶▶ **Helps gain consumer insights:** While interacting with followers on social media, you can gain valuable insights and information about your customers. You can get an idea about their business, their requirements, specific demands. Further, you can directly share information about your products and services. Such information will help you make better business decisions and you can tailor your communication to better resonate with your target audience in the future.



Last year's report by Google-KPMG stated that digitally engaged SMEs have the potential to grow double in comparison to their offline counterparts. Especially, social media has enabled small businesses to unlock new markets. According to a 2019 marketing report, 96% of SMEs are using social media in their marketing strategy. Facebook, especially, is doing wonders for them in terms of Facebook Ads and reach.

To help small and medium businesses get a better global reach, last year, Facebook introduced features like multi-country lookalike audiences, dynamic language optimisations, multi-city targeting, and Facebook IQ cross-border insights finder.

Social media gives small businesses the option to choose their target audience, it can be termed a cost effective but powerful way of marketing. If they haven't already, this is the best time for SMEs in the manufacturing and tooling industries to come forward and take the digital leap. 🌈



Your guide to social media marketing

In the very initial days, businesses could just pop in and post whatever, whenever. The world of business on social media was sparse, and the capabilities of businesses to connect with their target audience was a challenge. But the times have changed.

Social media is now an important part of a business's marketing strategy. Creating valuable content is one thing, but sharing that content with the right audience and getting them interested in your brand, product, or even guide them your site is another.

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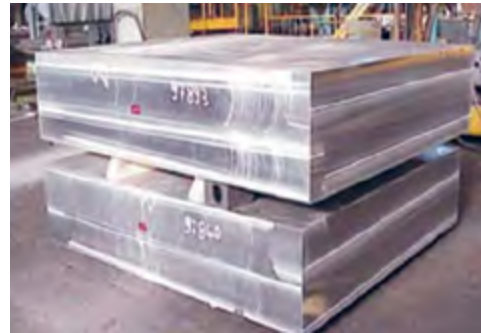
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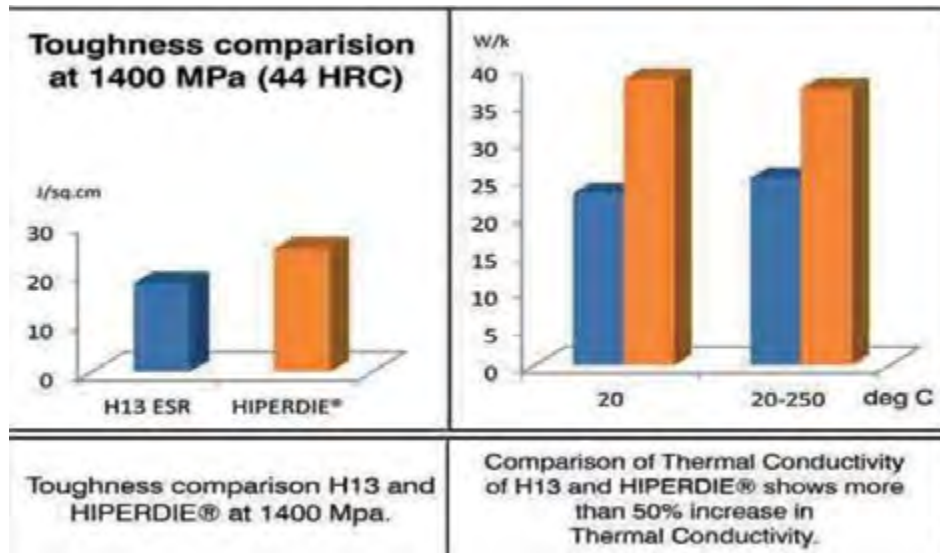
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In Focus

In this guide, we will be covering the five main social media platforms. We will break down everything from what type of content you should post, how often you should share, and best practices for each channel. Let's begin.

- ▶ **LinkedIn:** It has over 250 million monthly active users, and it's the most used social media channel for business-to-business (B2B) marketers to share content. Try to post on LinkedIn every week. Companies that post weekly on LinkedIn see a 2x rise in engagement on their posts. LinkedIn is also a great platform for your employees to become your brand advocates. Make sure to utilize them and their network to spread your content—this is a great way to get your content on the platform more often without oversharing.



Tip: LinkedIn is also a great platform for video. If you have the ability to create a product or insight focused video, you can see your engagement rates climb.

- ▶ **Facebook:** It has a massive user base with 1 billion daily and over 2 billion monthly active users. Facebook makes it easy to build target audiences for paid ad placements based on people who engage with your organic posts. It is a fairly conversational platform and it's important that you connect with those who follow you. Try sharing a few different types of content and see what resonates well with your audience and drives the most impressions, engagements, and shares. Several studies show that engagement rates per post dropped significantly for businesses posting more than twice per day and for businesses posting only once per week. About one update each day is an ideal rate for most businesses.



Tip: Posts with an image see a higher conversion rate than posts without one. So, make sure your post or link has an accompanying image.

- ▶ **Twitter:** This is the most conversational of all of the social media platforms. There are over 500 million tweets sent daily, and over 320 million monthly active users on the platform. It is one of the most relied upon social channels. It's easy to get lost when there are 5,787 tweets sent every second. Posting multiple times a day will give your tweets a better chance to be seen by your followers and give them more chances to engage with you. Lastly, make sure to continue to provide value to your followers, you can also be a little



more playful on Twitter than you would be on a more business-focused platform like LinkedIn.

Tip: Your tweets can include product promotions, online contests, sales, thoughts related to the industry, data insights, and new releases.

- ▶ **YouTube:** It's time to take a look at the video platform. With 1.9 billion monthly active users, YouTube is a huge social media platform with over a billion hours of video content being watched daily. It is the second largest search platform and the second most trafficked website after Google. Creating video content for YouTube can increase the credibility of your brand and drive a lot of engagement. YouTube users are three times more likely to watch a YouTube video to learn how to use a product compared to reading instructions. Reusing existing content from your website in video form is a great way to produce content that will perform well. And as for length, try to stick to a two minute video. Further, make sure you are optimising your videos for SEO, using catchy titles, taking advantage of keywords, and tagging your videos correctly.



Tip: As much content as your team can sustainably produce is great for YouTube. Make sure you don't cut down on quality.

- ▶ **Instagram:** It has 1 billion users in the platform and 500 million active users. Instagram offers different posting formats, short-lived stories and permanent posts. With these options, businesses have the flexibility to curate their presence on Instagram to focus on business goals and audience's wants. As Instagram is affiliated with Facebook, paid advertisements from your business Instagram account are created directly within Facebook and don't need to be set up on an additional platform. Posts on Instagram should be images or short videos of content that largely embodies your brand. Stories are a more casual and conversational way of posting content and are live for 24 hours. Posting on Instagram is all about quality and consistency. Some brands post multiple times per day; it but this depends on how visual your industry is. Posting stories can be more frequent even on a daily basis.



Tip: Show some high-quality photos of your product, some images that align with the value you bring to your customer, or some behind-the-scenes moments.



‘Digital transformation of companies will become the major focus across industries’

“Companies will invest more in technology, which will fuel innovation and further business growth. This, in turn, will impact the workforce, as there will be greater demand for new skills. This will also accelerate the trend of adopting technologies such as artificial intelligence, machine learning, and robotics, among others,” says **Arun D'souza, Country Manager – India, ASEAN & ANZ, Autodesk.**

Q **COVID-19 has affected several businesses across the globe. How is Autodesk trying to stay productive in the wake of this pandemic?**

These are indeed unprecedented times! But we are trying our best to focus on helping our customers navigate through the current situation. We are working to ensure that our customers continue to have reliable access to their software and Autodesk's support. We are also working with our customers and helping their customers upgrade skills, and learn about the different functionalities and features available within the software to enhance their productivity, among other things.

Q **Could you please elaborate on some of the measures that Autodesk has adopted to facilitate ease of business during this time?**

Each company is facing its own unique set of challenges during this time. At Autodesk, we are striving to be proactive and compassionate in our response, as we try to support our customers during this difficult phase. It is important for us to engage with our customers proactively and closely.

At Autodesk, the health and wellbeing of our customers, partners and employees remains our foremost priority. Some of the measures we have taken include:

- ▶▶ Beginning March 24, 2020, we announced a temporary Expanded Access Program for several of our flagship cloud collaboration products. This program offers customers free access to select Autodesk products and services.
- ▶▶ The products and services includes BIM 360 Docs, BIM 360 Design, Fusion 360, Fusion Team, AutoCAD Web and Mobile, and Shotgun – all for commercial use.
- ▶▶ Customers can take advantage of this program by

visiting our Expanded Access Program center on [Autodesk.com](https://www.autodesk.com/expanded-access)

- ▶▶ Autodesk extended the contract payment terms to 60 days for all customers and partners, for new orders and renewals placed directly with Autodesk up to August 7, 2020.

Q **The COVID-19 outbreak has forced many companies to rethink their strategies. Is there a valuable lesson that you think companies must learn?**

For companies, it is always important not to take success for granted and to stay ahead of the curve. This situation has underlined the importance of why organisations should be nimble, agile, technology savvy and invest in developing the skills of their workforce. No one can predict the future. But nothing should stop us from being better equipped to face any situation.

Q **Post COVID-19, the manufacturing landscape is likely to witness a tremendous transformation. What do you think will be the new normal in manufacturing?**

All businesses and sectors are facing the strain in these unprecedented times. However, as and when the situation improves, we hope that businesses will bounce back strongly. This might happen over a period of time. If we work together and persevere, we will be able to overcome this situation.

I think that digital transformation of companies will become the major focus across industries. Companies will invest more in technology, which will fuel innovation and further business growth. This, in turn, will impact the workforce, as there will be greater demand for new skills. This will also accelerate the trend of adopting technologies

Leaders Speak

such as artificial intelligence, machine learning, and robotics, among others.

Q What policy changes would you suggest to help MSMEs bounce back?

MSMEs are the backbone of the Indian economy and this current crisis has, in a way, paralyzed the economy. Demand has decreased considerably and is unlikely to rebound strongly in the near term. It will be increasingly difficult for these businesses to meet their obligations, such as repayment of loans to financial institutions or wages to their employees. Unlike bigger firms, MSMEs generally do not tend to have the reserves. Besides, they do not even have easier access to credit. And so, any policy intervention should primarily focus on providing easier access to capital. The recent policy announcements are a step in this direction. Hopefully, these will help revive the sector.

Q There have been many discussions about the supply chain being disrupted owing to the pandemic. Now, companies across the globe are looking to diversify their resources to many countries instead of depending on only one. Do you think that such a scenario could benefit India?

India has always had the potential to manufacture. The government too has a strong policy focus through initiatives such as 'Make in India' and recent announcements to make India a self-reliant economy. While supply chains have been disrupted by the current situation, the Indian economy will continue to find ways to adapt to the new reality. It's too early to comment on what the future supply chains will look like, but Indian firms can definitely attempt to stay competitive by focusing on digital transformation, skilling their workforce and supporting the government to protect the economy through innovative measures.

Q What policies will India need to attract maximum investment to the country?

India has a few competitive advantages such as low labour costs and a strong policy focus to promote manufacturing, among others. In addition, the government should continue to focus on building a strong infrastructure for businesses to thrive, boosting the next generation's skill sets among its workforce, and announcing product-linked incentives for sectoral businesses. The digital transformation of the economy and of businesses should continue, and access to the digital economy should be strengthened. 🇮🇳

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‘This is a big opportunity for India’

“Being the biggest democratic and stable country, India provides ease of doing business. The Government policies will only make it the world’s preferred manufacturing destination,” says **Satwant Singh, Jt. Managing Director, TTB Tooling.**

Q **COVID-19 has affected several businesses across the globe. How is TTB Tooling trying to stay productive in the wake of this pandemic?**

I believe that we need to look at every crisis as an opportunity and implement a strategy to make the most of it. COVID-19 has provided a lot of profitable opportunities to the medical industry. Earlier, equipment such as PPE kits, face shields, and masks, among others, were imported by a few traders and distributed at a higher margin. As the input costs were higher and we were unable to compete with Chinese products in this field, very few manufacturers were interested in setting up units. But now, when manufacturers realised that the demand for these equipment is going to exceed supply, many have ventured into this business.

Just like the others, we also decided to diversify into this lesser-known field. We started manufacturing face shields on a war footing and are providing them to various organisations and COVID-19 warriors—namely, the police department, medical staff and institutions. Besides, we also bagged the opportunity to manufacture ventilator molds. This how we are able to stay in business and generate enough cash flow to at least pay salaries of our employees.

Q **Clearly, change seems to be the only constant for a business to survive in these unprecedented times. Post COVID-19, what do you think will be manufacturing’s new normal?**

It is going to be a challenging time for all the industries as they are going to witness a shortage of unskilled and semi-skilled labour. At the same time, fear of the pandemic looms large until a foolproof cure is found. The industries will need to be highly cautious and

ensure the safety of all the employees. Hence, the cost of safety will go up. But, at the same time, they will need to learn fast to work with less manpower while keeping the production ratio the same or higher. The market will surely open up, but there will be a scarcity of products owing to high demands and less supply. So, the industry which delivers with less manpower will have a better margin and market share.

Q **Do you have any suggestions for tool makers or manufacturing SMEs?**

Tool makers have benefitted the most, but they need to be more flexible and open to new challenges. SMEs need to be proactive and aggressive when it comes to grabbing new opportunities. They should avail of the government’s schemes related to finance.

Q **How about MSMEs? What policy changes or support do they need in order to revive?**

MSMEs need to maintain their cash flow for their operations to run smoothly. However, with OEMs trying to keep their cash reserves intact by delaying payments, MSMEs are finding it difficult to operate. To avoid such a scenario, there should be some norms for recovering outstanding payments. No one should be allowed to hold payments for more than the agreed time. This move will certainly help MSMEs.

Also, the industry should look for ways to make the ‘Make in India’ option more viable. They should help small players by transferring technology and financial support to upgrade them. This will also help them to become more competitive and productive.

Q **Now, companies across the globe are looking to diversify their resources to many countries instead**

Leaders Speak

of depending on only one. Do you think that such a scenario could benefit India?

Definitely! This is a big opportunity for India. Being the biggest democratic and stable country, India provides ease of doing business. The Government policies will only make it the world's preferred manufacturing destination. In fact, many global automotive companies, such as Honda, have made India their hub in Asia. Maruti Suzuki has started sourcing most of the tooling and other developments in India. Hyundai has also set up a unit in India to export to other Asian and African countries. Also, many Japan and USA-based companies have shifted or are in the process of shifting their outsourcing to India.

Q What policies will India need to attract maximum investment to the country?

I think India currently lacks the necessary infrastructure, such as uninterrupted power supply, and ease of commuting to the workplace, among others. Also, banks and other financial institutions should be a little more flexible in terms of providing financial aid to investors. Even though they have reduced their lending rates of interest, the small players are finding it difficult to avail of loans. I think they need to have a little faith in the investors' ability rather than only focusing on NPAs. If these issues are redressed, nothing will stop our country from becoming the world leader. 🇮🇳

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How to be an informed Additive Manufacturing buyer?



Globalization has changed the way we produce things. Due to rapidly-evolving technologies, shortening product lifecycles, and increased competition, companies today are under a lot of pressure to develop new products faster and in a cost-effective manner. With the changing product development process it becomes imperative to adopt the right manufacturing process that fulfills your requirement.

“You need to decide on the basis of benefits the right process. For example, powder is excellent for high detail, high resolution and complexity for small pores and channels as well. But other processes may be good for large parts but not necessarily for small parts with small pores and channels.”

**Dr. Ian Halliday,
Additive Manufacturing Consultant**

Additive Manufacturing, often considered as the future of manufacturing, has emerged as one of the most preferred technologies for new product development. However, because of low penetration and lack of awareness, buyers often make mistakes in selecting the right process in technology.

The excerpt of the one-hour long session, which included a presentation and panel discussion, are as follows:

What is a requirement?

A requirement could be anything in metals or polymers in the segment of prototypes, even a functional prototype that performs the desired operation in a particular application. Some people may require parts in small batches that could be anyway 50 or above parts. Sometimes you may not really have the CAD file in hand, an ideal solution for the same in reverse engineering. A CAD file can be generated by scanning each surface using a blue light scanner.

Pre-Requisites:

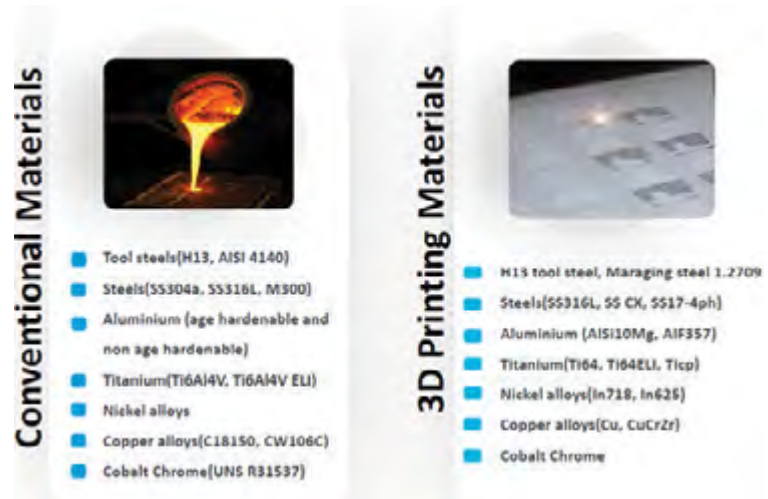
Once the requirement is understood, there are certain pre-requisites that are essential such as the design which could be in the form of a CAD file in STL or step formats. You need to specify the materials specifications, quantity, tolerances, delivery time, application, and finally, the budget.

Why to go for AM over conventional processes?

There are multiple reasons why you should go for a process like AM. Reduced lead times, free form fabrication, distributed manufacturing, having a shorter supply chain are some of the prime reasons to go for AM. We should also understand that maintaining a digital inventory for free is also possible therefore you can manufacture on demand. There is also no cost for tooling involved.

Apart from that, there is a good choice of high strength materials available for 3D printing. Therefore, the reliance on investment casting processes for such parts can be avoided. Ideally, the MOQ for each part is high, which makes it difficult to manufacture in small batches using investment casting processes and AM is the perfect choice of technology for this.

Another important factor to go for AM is that you can manufacture complex designs at no extra cost. You can have customized parts made easily. Another important factor to choose AM is that it reduces or eliminates the wastages which otherwise is a big



Fig(1): Conventional versus 3D printing materials. [1]

loss in other manufacturing methods. Since the technology is highly suited for complex-customized parts, one can also have a high mix and low volume production.

Equivalent materials in AM:

There is a lot of doubt in the mind of a buyer when it comes to the material, especially when it comes to the conventionally used material over the AM material. Below are some equivalent materials that one can look out for.

Material, process selection (polymers):

There is a wide range of attributes that should be considered while choosing the material and hence the process. A few of them are given below:

- ▶▶ Strength: Polyamide glass filled material
- ▶▶ Transparency: Accura 60
- ▶▶ Water resistance: Somos evolve 128
- ▶▶ Temperature resistance: Polyamide flame retardant
- ▶▶ High resolution: Somos Evolve 128
- ▶▶ Durability: Polyamide glass filled, Polyamide 2200, Somos Evolve 128
- ▶▶ Stiffness: Polyamide Glass filled
- ▶▶ Impact resistance: Polyamide glass filled, Somos Evolve 128

“Our customers are being much more focused towards repeatability of the product, demonstration of the supply capabilities in terms of process control and ability to deliver consistent parts.”

Paul Guillaumot,
CEO, Spare Parts 3D



“What additional requirements you need to be careful about when you are buying an AM service for your customer? For that, you need to make sure that your requirements are crystallized very well because this can lead to problems later on. You need to make sure that your service bureau is complying with the certifications that your customer may require, define acceptance criteria for the parts.”

Atha Ur Rahman Khan,
Director - Additive Manufacturing, Cyient

Now, we also need to consider the characteristics of the alloy. When it comes to polypropylene, then we can choose Visijet flex material. If the requirement is for Polycarbonate, then Accura 60 should be chosen. A thermoplastic that is used for high strength applications is ABS. In that case, Somos Evolve 128 is an equivalent material. When it comes to polyamides, one can think of nylon. Using the above points one can choose the right material and process in polymers.

Material, process selection (metals):

The attributes that one can consider for metals are many. A few of them are highlighted below:

- ▶▶ Strength: In718, Ti64, SS316L, SS17-4Ph
- ▶▶ Temperature Resistance: In718, In625, Ti64, CM247*
- ▶▶ Corrosion resistance: SS316L, Ti64, In718, SS17-4Ph
- ▶▶ High strength to weight ratio: Ti64, AlSi10Mg, CuCr
- ▶▶ Tooling materials: Maraging steel
- ▶▶ Refractory alloys: Tungsten
- ▶▶ Aluminium die casting: AlSi10Mg
- ▶▶ Super alloys: In718, In625, Hastelloy X
- ▶▶ Bio-compatible: Ti64, CuCr, SS316L
- ▶▶ Conductive alloy: Copper

The buyer can learn how to choose a metal on the basis on such attributes as well.

Material, process selection (Polymers and metals):

Talking about some thumb rules one can follow in AM for polymer or metal AM selection. When it comes to form and fit then for low tolerance of ± 0.5 mm then FDM should be chosen. For a tolerance of ± 0.3 mm then SLS, for high tolerance ± 0.1 mm or less than material jetting can be considered. In terms of strength for low strength of less than 30MPa then FDM is an ideal choice. Then for (30-85), MPa SLS can be considered while for 85MPa or higher strength DMLS or SLM should be chosen.

A jet engine's example was taken to show how a few parts can be manufactured using AM technology and what the benefits are. For polymers, an Electric vehicle was taken as an example to talk about which technology can be used to certain parts and we also talked about the benefits. Post-processing is an essential component when it comes to metal AM. There are certain standard post-processing techniques employed like support removal, etc. and certain optional post-processing techniques such as painting, shot blasting. While in the case of metals machining and shot blasting can be done even some advanced techniques like AFM.

There are also certain indirect applications like conformal cooling, vacuum casting and an alternative to the investment casting process using a polystyrene material. A cost to technology comparison was also done for each process to make the viewers understand when it comes to AM what is the costing that they can look for let's say a COVID headband in polymers and an impeller in metals. 🌈

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Micro, Small & Medium Enterprises: The Growth Engine of New India



The Indian MSME sector is the backbone of the national economic structure and has unrelentingly acted as the bulwark for the Indian economy, providing it resilience to ward off global economic shocks and adversities. Headquartered in New Delhi, the Ministry of MSME is a branch of the Indian Government, which is the apex body for the formulation and administration of rules and laws pertaining to MSMEs in the country. MSMEs not only play a crucial role in providing large employment opportunities at comparatively lower capital cost than large industries but also help in industrialization of rural & backward areas, thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth. With around 63.4 million units throughout the geographical expanse of the country, MSMEs contribute around 6.11% of the manufacturing GDP

MSMEs

1. Manufacturing Sector

Enterprises involved in the manufacturing or production of goods for an industry listed in the first schedule of the Industries (Development and Regulation) Act, 1951

Also, enterprises employing plant & machinery to add value to a finished product that results in a distinct name, use or character, come within the purview of micro small and medium enterprises meaning.

2. Service Sector

Enterprises involved in providing or rendering services.

Management Mantra

Benefits of MSME

- It creates large-scale employment
- Economic stability in terms of Growth and leverage Exports
- Encourages Inclusive Growth.
- Cheap Labour and minimum overhead.
- Simple Management Structure for Enterprises
- MSMEs do not require a huge capital to start.
- The main role in the mission of "Make in India"
- More credit to enterprises from the Financial Institutions.
- Credit Linked Capital Subsidy Scheme
- Protection against delayed payments.

The following activities are excluded from the aforementioned definition

- Forestry & Logging
- Fishing & Aqua culture
- Wholesale and Retail Trade
- Domestic help such as cook etc
- Household production for own use such as cloth and farming
- Activities of extraterritorial bodies such as UN, IMF
- Certain activities of Crop, animal production in Division 01 of NIC

and 24.63% of the GDP from service activities as well as 33.4% of India's manufacturing output. They have been able to provide employment to around 120 million persons and contribute around 45% of the overall exports from India.

What are MSMEs (Micro, Small & Medium Enterprises)?

As per the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 enacted by the Government of India, the definition of MSMEs encompasses Micro, Small and Medium Enterprises which are further classified into two broad categories (explained in diagram on Page 38).

Need For MSMEs

The MSMEs have been accepted as the engine of economic growth and for promoting equitable development. The MSMEs constitute over 90% of total enterprises in most of the economies and are credited with generating the highest rates of employment growth and account for a major share

of industrial production and exports. MSMEs are complementary to large industries as ancillary units and this sector contributes enormously to the socio-economic development of the country.

Corona Virus Package for MSMEs

In view of the Nation-wide emergency caused due to outbreak of Covid-19, the Hon'ble Prime Minister of India announced a ₹ 20-lakh crore economic relief package titled Atmanirbhar Bharat Abhiyan. In continuation to the vision, the Hon'ble Finance Minister in her first tranche of financial package announced a slew of incentives for MSMEs. Below are the key announcements of Atmanirbhar Bharat Booster shots for MSMEs. The key announcement includes collateral-free automatic loans for business/MSMEs, expanding the scope of term MSME, equity infusion in MSMEs, etc. The Government has now revised the definition of MSME whereby the investment limit is proposed to be revised upwards; additional criteria of turnover would also be introduced.

The new definition also eliminates the distinction between the manufacturing sector and services sector as against the existing criteria as given below:

Existing MSME Classification			
Criteria : Investment in Plant & Machinery or Equipment			
Classification	Micro	Small	Medium
Manufacturing Enterprises	Investment < ₹ 25 lac	Investment < ₹ 5 cr	Investment < ₹ 10 cr
Services Enterprises	Investment < ₹ 10 lac	Investment < ₹ 2 cr	Investment < ₹ 5 cr

Revised MSME Classification w.e.f; 01/07/2020			
Composite Criteria : Investment & Annual Turnover			
Classification	Micro	Small	Medium
Manufacturing & Services	Investment < ₹ 1 cr	Investment < ₹ 10 cr	Investment < ₹ 50 cr
	Turnover < ₹ 5 cr	Turnover < ₹ 50 cr	Turnover < ₹ 250 cr

Benefits extended under "Atmanirbhar Bharat Scheme"	
Benefits Available	Conditions/Features
Collateral free Automatic Loans for Businesses including MSME	<ul style="list-style-type: none"> Eligibility: Outstanding dues up to INR 25 crores and Turnover up to INR 100 crores. Limit: Up to 20% of entire outstanding dues as on 29.02.2020. Tenure: 4 years Moratorium: 12 months on Principal Repayment Loans will be provided with an interest cap. Further, 100% credit guarantee cover will be given to Banks and NBFCs on principal and interest.
Subordinate Debt for Stressed MSMEs	<ul style="list-style-type: none"> Eligibility: MSMEs which are NPA or are stressed. Promoters of the MSME will be given debt by banks, which will then be infused by promoters as equity in the Company. Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) to provide partial credit guarantee support to banks.
Equity infusion for MSMEs through Fund of Funds	<ul style="list-style-type: none"> Setting up of Fund of Funds (FOF) with Corpus of INR 10,000 crores. FOF will provide equity funding for MSMEs with growth potential and viability. FOF to be operated through a Mother Fund and few Daughter Funds.
Global tender to be disallowed upto ₹ 200 crores	<ul style="list-style-type: none"> Indian MSMEs and other companies have often faced unfair competition from foreign companies, therefore Global tenders will be disallowed in Government procurement tenders upto ₹ 200 crores. This will be a step towards Self-Reliant India and support Make in India. This will also help MSMEs to increase their business.
Other interventions for MSMEs	<ul style="list-style-type: none"> E-Market linkage for MSMEs to be promoted as a replacement for trade fairs and exhibitions. Fintech will be used to enhance transaction based lending using the data generated by the e-marketplace. MSME receivables from Government

The amendment in definition will accommodate more units under the MSMEs segment which would further enable them to avail special perks available to MSMEs. On one hand more units will be included under the ambit of MSMEs and on other side the existing units would not fear losing the status of MSME. This amendment is a boon as it will encourage fresh talent in India owing to the increase in investment limits.

Conclusion

To conclude, the MSME sector of India is today at the gateway of global growth on the strength of competitive and quality product range. This sector has been instrumental in the growth of the nation, leveraging exports, creating huge employment opportunities for the unskilled, fresh graduates, and the underemployed, also extending the opportunities to banks for giving more credit to enterprises in this sector. However, facilitation from the Government is required to minimize the transaction costs of technology upgradation, market penetration, modernisation of infrastructure etc. The MSME sector has often been termed the "engine of growth" for



developing economies. Therefore, it is concluded that MSMEs in the Indian Economy have shown tremendous growth and excellent performance with the contribution of policy framework and efficient steps which had been taken by the Government from time to time for the growth and development of the MSMEs. 🇮🇳

Author: Kajal Jain, Senior Executive, T Sriram, Mehta & Tadimalla Chartered Accountants (TSMT)

Bringing Design Accuracy to Healthcare Products



GSK Consumer Healthcare, an associate of GlaxoSmithKline plc., one of the largest pharmaceutical companies in the world, aims to provide everyday healthcare products that help people do more, feel better and live longer. These products, which are sold in more than 150 countries, include household names like Boost, Crocin, ENO and Horlicks. Its office in India has won a large number of awards in 2019, such as Brand of the Year, Best Sales and Operations Planning Practice in Pharma and Advancement of Women.

Good Products Deserve Good Design

GSK leaves no stone unturned in its effort to provide better healthcare products and maintain its dominance in the market. Being an industry leader,

GSK is fully aware of the importance of product packaging (color, shape, aesthetics, etc.), which can help grab the customers' attention and build a personal connection. As a result, it is a priority for its design team to promptly respond to any changes in the market and come up with new packaging ideas that address those changes.

Before 2011, GSK used soft tooling to create prototypes for its packaging, which it outsourced due to the absence of an internal team. Yet, the long prototyping process made worse by multiple iterations led to delays in delivery and cost escalations. Furthermore, outsourcing always carried a confidentiality risk, which was a headache for an international company. Frustrated by these issues, GSK decided to adopt new technologies

specifically 3D printing, the star in Industry 4.0.

The Requirements Are High

While GSK needed the basic value that 3D printing technologies typically provide such as speed, accuracy and cost-saving they also had unique requirements. Because most of its products fell in the fast-moving consumer healthcare segment, GSK wanted its packaging to be aesthetically pleasing, recognizable and memorable. Consequently, when its engineers were looking for a professional 3D printer, they wanted something that could print multiple colors and multiple materials. Additionally, they needed to be able to print different levels of transparency.

With these special requirements in mind, GSK turned to DesignTech. Headquartered in Kothrud, Pune, DesignTech is a company that provides comprehensive additive manufacturing solutions (in addition to other services) and has been ranked amongst NASCCOM Top 50 Emerging Companies in India. When approached by GSK, DesignTech immediately proposed the Stratasys® J750 3D printer, Stratasys flagship PolyJet system. The J750 can deliver unrivaled aesthetic performance, including true, full-color capability with texture mapping and color gradients. As the first PANTONE Validated 3D printer, the J750 can print over 500,000 colors and the materials cover a wide range of Shore values and transparencies. It also promises prototypes that look, feel and operate like the real thing.

“The Stratasys J750 3D printer delivers aesthetically appealing components with full functionality. We can now quickly print multi-color and multi-material transparent and opaque packaging prototypes that help us deliberate and make quicker decisions about our launch strategies.”

**Sanil Prasad,
Head Packaging, GSK**

Together, GSK and DesignTech tried out the J750 using it to 3D print multicolored bottle lids, sachets and toothbrushes with multicolored bristles. The parts exhibited breathtaking accuracy and the J750 also delivered a convincing transmittance percentage for GSPG bottles. After the teams from both companies had analyzed GSKs current and future requirements for product packaging, GSK decided to purchase the Stratasys J750 3D printer.

Streamlining the Process and Everything Else

With continuous support from DesignTech, GSK now prints the packaging components of all its consumer healthcare products such as bottles with various textures, colored bottle labels with a transparent bottle body, tablets and tablet containers, caps, lids, jars, etc. with its new J750 3D printer.

The team has even successfully printed a bottle with exactly the same transparency as the original Horlicks bottle. And thanks to the part accuracy, different stakeholders at GSK (marketing, packaging,



Case Study



supply chain, etc.) can now assess and finalize the packaging designs with ease and confidence.

Amazed by the potential the J750 has to offer, the GSK team has since expanded the printers applications, printing prototypes for sample products from other divisions, such as oral health, pain relief, nutrition and digestive health.

The GSK team has been impressed by how the J750 has helped them save both time and money. A project that used to take a whole month can now be completed within a day and a half.

The Stratasys J750 3D printer delivers aesthetically appealing components with full functionality, states Sanil Prasad, Head of Packaging at GSK. We can now quickly print multicolor and multimaterial transparent and opaque packaging prototypes that help us deliberate and make quicker decisions about our launch strategies.

Now with everything done in-house, there are no more worries about confidentiality. In addition, the consistently high-quality parts printed by the Stratasys J750 always pass functional, thermal, tolerance and dimensional accuracy tests with ease. 🌈

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The inspirational journey...



Shri Madhusudan Balvantrai Shah
(28th August 1935 - 27th July 2020)

July 27, 2020, marked a dark day in the world of plastics as its guiding light, Shri Madhusudan Balvantrai Shah, left for his heavenly abode. Madhubhai, as his friends fondly called him, was a versatile plastics professional turned successful entrepreneur. He was respected by one and all for his exemplary service to the plastics industry.

With over six decades of experience spanning across various plastics fields, Madhubhai won the admiration of many in the plastics industry in India as well as across the globe, more prominently in Europe and Asia.

Love for knowledge

Throughout his life, Madhubhai was an enthusiastic learner. He obtained his B.Sc. (Hons.) degree from Bombay University in 1956. His curiosity to learn about plastics, led him to join the University Dept. of Chemical Technology and study Plastics Technology under Prof. NR Kamat. He graduated from UDCT, obtaining a B.Sc Tech degree in Plastics Technology with a first class in 1958.

... of a creative and curious leader, who always demonstrated the willingness to learn, believed in wholesome development, made a difference and finally gave back to the Plastics industry from which he received his recognition. These are some of the qualities that set **Shri Madhusudan Balvantrai Shah** apart. A tribute to the man who devoted his life to mold the plastics industry.

He believed in being a trendsetter, which is clearly evident when he chose to pursue a career in plastics, even though there were so many popular options he could choose from. He chose to work in a plastics processing factory to gain in-depth knowledge of the field.

As a fresher on the job, he was excited to get the hands-on experience of working on the shop-floor. He took every opportunity he got to experiment with his creativity and find innovative solutions to various process-related problems encountered.

He developed the means to segregate tons of plastics PS, PE, CA, CAB, etc., swept off the floor with non-plastic extraneous materials into individual reusable plastics raw materials. He also produced LDPE film for laminating on bituminised Hessian cloth and developed poly-sleeves for tea garden nurseries (tea-saplings).

The above-mentioned early accomplishments of Madhubhai were followed by new product developments, such as:

- (a) Direct Polycoated jute with permissible low WVP—a challenge overcome by machine modifications and improved process technology on Zimmer.
- (b) Developing special polycoated/ sandwiched papers for defence to meet stringent requirements.
- (c) Producing blow molded bottle crate (BEKUM).
- (d) Producing rigid PVC clear/ opaque bottles and product launch to successful commercialisation of products.

Obituary

Apart from learning about the job, Madhubhai believed in all-round development and focused on developing his communication skills. This skill helped him immensely when he joined SLM-Maneklal in 1979. At SLM-Maneklal, he took on the challenge of convincing entrepreneurs to buy sophisticated automatic but costly Kautex-Maneklal blow molding and Toshiba-Maneklal Injection molding machines. He even designed aided customer support services to help them succeed in their existing and new ventures.

The Visionary

Having gained sufficient experience in products, processes and networking with professionals, in 1984, Madhubhai launched his entrepreneurial venture. He set up a consultancy firm to help entrepreneurs with new projects. After a thorough market survey, he would suggest ways to upgrade the production technology that would help companies produce high-quality products while staying competitive.

In 1991, he shifted his focus to marketing. His exposure to the international plastics industry helped him easily forge business relationships, especially with technocrat-owned overseas companies producing high-tech products at competitive prices. Thus was born Madhu Marketing & Services.

Madhu Marketing & Services provides innovative pioneering solutions. It is a quality supplier of machines, hot runner systems, conventional/innovative ancillaries/ molds and mold parts and complete tooled up project. He introduced many such technologies to the Indian plastics industry. In view of his pioneering efforts, he is widely regarded as the 'father' of the hot runner industry evolution in India.

As an additional service to the Plastics industry, Madhubhai established the 'Technology Centre' of Madhu Machines & Systems Pvt. Ltd. in Bangalore. The centre provides additional knowledge to students passing out from institutes like NTTF, CIPET and IPI, among others, on plastics processing machines, innovative ancillaries, hot runner system, and mold parts, among others.

The company, in its current form, was established at Vadodara and further expanded its manufacturing activity in Bangalore in 2012. It produces speciality ancillaries, additional injection units and hot runner controllers under its own brand for domestic and overseas markets. The company now has two manufacturing units in Bangalore with service

support infrastructure across all major plastics industrial centres throughout the country.

An Industry Patron

Madhubhai firmly believed in giving back to the plastics industry from which he was convinced that he benefited all along. He was an active member and secretary of the Plastics & Rubber Institute (Bombay Chapter) in the 70s'. His dedication and commitment to the plastics industry and plastics institute has been immense.

In recognition of his contribution to the development of plastics industry and services to the Plastics and Rubber Institute (LOND) and later, to the Indian Plastics Institute, he was awarded AMPRI (LOND) in 1974, FPRI (LOND) in 1984 and FIPI (Ind) in 2003.

Another highlight was the recognition he received by the Austrian Chamber of Commerce for having furthered and greatly influenced the Indo-Austrian trade for equipment used in the plastics industry, in 2008. He was awarded the most prestigious "Lifetime Achievement Award" by IPI in 2013.

He has actively served as Convener and Chairman Vadodara Chapter, Chairman of International Conference Committee for two terms and President of IPI. He was also the Managing Committee member of Plastindia Foundation for three years (2003-2006). He was the Chairman of Education Committee of PIF during the said period. He conducted two-day programmes on 'Upgradation of Production Technology' at Mumbai, Kolkata and Chennai. He has also served as Paper Setter and Examiner at UDCT and HBTI (Kanpur) and Hon. Lecturer at IIP, GIRDA & IPI. Madhubhai immensely contributed towards the conceptualisation and modernisation of the diploma (DIPI) course at Indian Plastics Institute.

A Complete Human Being

Throughout his life, Madhubhai was connected with various social service activities and was very involved with the Brahma Kumaris. His passion for singing and playing music kept him connected with the finer joys in life.

Madhubhai will long be remembered for his enthusiasm, entrepreneurship and servitude towards the plastics industry. 🌈

Due to the COVID-19 situation, the printing of the TAGMA Times has been delayed. Hence, the obituary has been published in the June 2020 edition. We regret any inconvenience caused.

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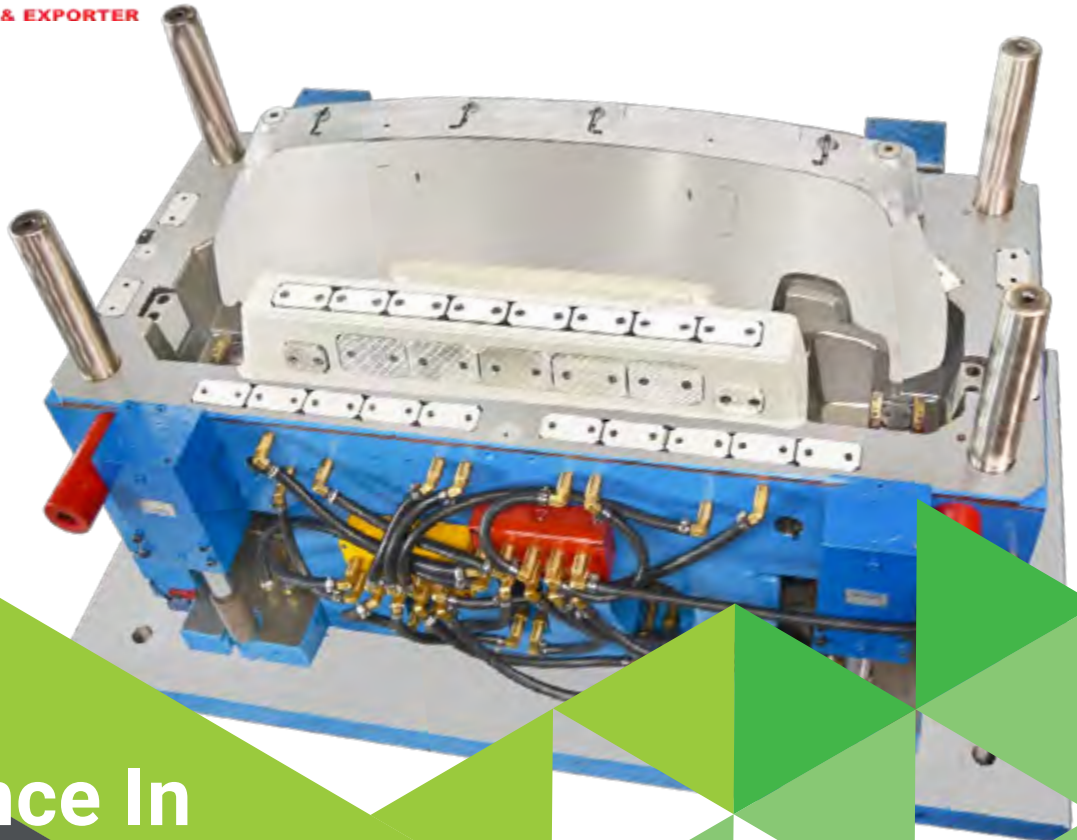
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