

DDL – Direct Diode Laser

Innovation is a Constant

A regular at IMTEX shows, Yamazaki Mazak India Pvt Ltd is back to exhibit to the world its latest offerings which it claims will prove to be the game changer in the sheet metal industry of the country.



Source: Magic Wand Media, Inc

Yamazaki Mazak India Pvt Ltd's team ensures that they remain ahead of the curve by recognizing the industry trends and catering to them.

Yamazaki Mazak India Pvt Ltd, a leader in the manufacture of advanced technology solutions such as Laser Processing machines, multi-tasking, 5-axis, milling, turning, CNC controls and automation, has been stepping up its game with constant and consistent innovation. The company has been regularly participating in IMTEX shows with its bouquet of innovative products and technologies for the industry. In this edition too, it's back with some awe-inducing solu-

tions with a promise to revolutionize the game.

Spotlight on DDL

With the Indian sheet metal industry evolving rapidly with its focus on high-speed, flexibility and automation, it is fiber laser that is quickly gaining increasing importance. The new trend is to look for higher power fiber lasers. Companies like Mazak who expend tremendous efforts on R&D are, therefore, in search of something new to offer to the industry. In this regard, Mazak has introduced the

new technology of DDL – Direct Diode Laser. Its performance is better than fiber laser in terms of cutting speeds and reliability.

"Mazak is ten steps ahead of others by developing its own source – Direct Diode Laser (DDL). We have launched it in this edition of IMTEX, and it is going to be a new third generation laser technology for sheet metal industry in India," claims Sachin Gambhire, Head Sales – Laser Products Section, Yamazaki Mazak India Pvt Ltd.

The new offering is poised to be a game-changer with cutting speeds that are faster than fiber generators of the same power in its power range. The Optiplex DDL boasts of wall-plug efficiencies of 45 percent as compared to 35 percent for fiber, along with a new PreviewG control and a drive package.

Offerings to meet today's demands

Mazak's newly launched OPTIPLEX DDL, OPTIPLEX FIBER III 8.0 kW are for

Continued on page 2. ▶



Ball Transfer Units

Hall 3A - Stall D110

Continued from page 1. ▶

cutting mild steel, stainless thin/mid worksheets, and thick materials such as stainless steel, aluminum, copper, brass, GI respectively.

New horizons are attracting the sheet metal industry players to explore diversified industrial applications like structural fabrication which also prominently requires 3D laser cutting. For such capabilities, prospective industries like solar structures, stadiums, airports, malls, amusement parks, etc. are to be kept in sight. Mazak has a strong product range to cater to these new emerging opportunities in the Indian sheet metal industry and this is what it has on display at IMTEX FORMING 2018.

Trends in the industry

Apart from this shift from CO₂ to fiber to DDL, there is another trend which is prominently visible – the diversification of 3D lasers. Users who are looking forward to expand their business profiles to cater to a larger customer base have been looking at 3D laser machines as one of the options. The

logic is very simple – with existing machine or infrastructure, one can always cater to existing customers. But, the addition of a similar machine will surely increase the production capacity but will not increase the customer base immediately. On the other side, if someone adds 3D laser, it not only doubles the production capacity but also adds many new customers. This combination is getting increasingly popular among sheet metal users.

Automation is the way

This is yet another industry trend that rises out of the need to reduce dependency on the skilled manpower and save cost per piece. The company has been working extensively to bring in solutions. "That is the first level of automation that we have integrated in our machines as standard feature. Apart from that, Mazak also offers automatic loading and unloading of the material and even sorting also," informs Gambhire.

Hence, in the Indian market people are asking not only for standalone machi-



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Sachin Gambhire
Head Sales
Laser Products Section
Yamazaki Mazak India Pvt Ltd

nes and FMS that is EMC plus automatic unloading and sorting of the parts," he explains.

Commitment to the customer

An integral part of the company's presence in India is its accessibility and availability for its customers here. A network of factory trained Mazak service representatives pay visit to the customer within 24 hours.

Along with offering a prompt service to its customers, the company is equally strong in its range of products. Its part center has more than 5000 different stock parts. The company values the high cost of downtime. And hence, operates its parts department from Monday through Saturday with the option for same-day shipment.

Yamazaki Mazak India Pvt Ltd
www.mazakindia.in
Hall & Stall: 4 / B-102

Buyer-Seller Meet

The Buyer-Seller Meet 2018 organized by IMTMA is witnessing the presence of potential buyers of metal forming machine tools and allied equipment from target overseas markets to explore mutual business opportunities. To know more please visit Hall 4.

Dates: January 26-29, 2018

Venue: Bangalore International Exhibition Centre, (BIEC)

nes, but machines with automated features and ease of operation also. "We call it Flexible Manufacturing System (FMS), Extensible Manufacturing Cell (EMC) or Compact Manufacturing Cell (CMC). These are the three versions. The first level of automation of CMC is a machine with 10 palettes, second level is EMC. Extensible means it can be extended up to 4

Industry Insight

“Manufacturing Environment Needs an Overhaul”

Although the domestic market is expanding, we need further innovation at all stages of machine tools' design to be globally competitive, feels TT Jagannathan, Executive Chairman, TTK Prestige Ltd.

TT Jagannathan, Chairman, TTK Prestige Ltd, has witnessed IMTEX growing from its infancy to its present stature. Hence is in the rightful position to notice the transformation. "This time the show is astonishing," he

commented after having explored IMTEX FORMING 2018 exhibition through a long walk along the aisles of the halls.

He held the view that although the Indian machine tool manufacturers have come a long way in their path of progress in the last few years and are making machines that are efficiently replacing the foreign makes, there remains a lot of room for improvement.

Right technology for enhancing productivity

Yet another important area to be worked upon is the adoption of the right technology, he remarked. "There is no dearth of modern technology in our country as this

exhibition proves. However, adoption of right technology and using that for the right purpose to increase productivity is essential," he said.

There is a gamut of issues that needs consideration before an investment plan is finalized. Adopting new technologies thus becomes imperative to compete globally.

Constraints need to be released

Focusing on the status quo of the Indian machine tools industry, he opined that although several Indian machine tools manufacturers have the capability to offer machines of much better quality, there are several business constraints that restrict them. "We cannot compare our machine tools industry with that of China – that is a wrong way of evaluation. The Chinese machine tools

industry may be compared with that of America. Our manufacturers carry out their activities through a much more complex situation. Also, we are not supposed to compare prices between Chinese and India machines as the technologies that support the two are often different," noted Jagannathan.

Though the Government has been putting tremendous efforts to modernize the Indian manufacturing sector, things at the state level are still moving very slow. However, IMTMA, in its capacity, is filling that gap by organizing a highly informative exhibition, he opined. "Those who truly wish to upgrade their production systems, for them this exhibition is quite useful. I wish all the success to the machine tools technology show," he added.



Imparting Knowledge

Connecting with the Red-Carpet Generation

CONNECT, an initiative towards industry-academia collaboration, is a unique awareness programme that allows mechanical and engineering students to interact industry experts visiting IMTEX FORMING 2018.



TK Ramesh, Whole time Director & CEO, Micromatic Machine Tools Pvt Ltd during the session.



The audience gaining insight during the session



Maulik Patel, Executive Director, Sahajanand Laser Technology Ltd addressing the students.



The interesting session saw the students involved in the session.

Source: Magic Wand Media Inc

India is best known as the land of engineers. A large chunk of academically gifted students aspire to study engineering as this is seen as a guaranteed path to a stable future.

Despite this fact, the Indian manufacturing industry often struggles to find the right talent to meet its requirements as it gears up for global competitiveness. According to TK Ramesh, Whole time Director & CEO, Micromatic Machine Tools Pvt Ltd, only about 20 percent of the engineers entering the job field every year are employable. The gap, according to him, is more in attitude than the actual capability.

Maulik Patel, Executive Director, Sahajanand Laser Technology Ltd agrees. In an attempt to inspire engineering students to take up careers in manufacturing, Patel and Ramesh addressed students at CONNECT, an awareness programme on manufacturing, where students get to interact with the Gurus of the machine tool industry.

Providing an industry perspective, Patel divulged to the students the company's

approach towards hiring, and the qualities they value in potential employees. Ramesh provided a technology overview, introducing the students to the world of machine tools, explaining very simply how CNC lathes, turning, milling, grinding, and cutting machines work.

Generation stacks

A special feature of CONNECT is that it brings past, present, and future generations of the industry together. Ramesh recalled the early days of his career, when the first computer he saw, he was already 10 years into his job and it had a 20 MB hard drive. "You all now carry little computers with 6 GB RAM in your pockets," he quipped.

The audience, most of them born on this side of the millennium, belonged to, what Patel calls the Red-Carpet generation, who had never had to wait in line for anything – travel, movies, cabs, food, everything is a click away. Patel himself is a millennial.

However, every generation faces its own set of challenges, grows with its

own aspirations, and brings its own new approach to the work force. These changing aspirations and approaches shape the world of manufacturing, said Ramesh. "We are in an age of global manufacturing, where there is little or nothing to distinguish a machine made in India from one made in China," he added.

Gearing up for the drill

Going through the essential skill sets for the manufacturing industry, Patel pointed out that communication is

perhaps the foremost in today's factory environment. A mechanical and software engineer may share little in common knowledge, but they have to convey their needs and solutions effectively to work together.

Ramesh stressed on the need for a measure of discipline for young engineers to attain excellence. He, however, maintained that they must first need to discover their passion, which according to him is the only constant across generations separated by time and technology.

CONNECT @ Hall 4

	Session 1 Industry Connect (16:00-16:30 hrs)	Session 2 Technology Connect (16:45-17:15 hrs)
28 Jan 2018		
29 Jan 2018		

Register at student registration counter at Entry Plaza



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Industry-Academia Collaboration i2 Pavilion continues to inspire awe

The industry finds it difficult to refrain itself from gushing over the gasp-worthy research works by the academic institutions participating in i2 Pavilion, an initiative by Indian Machine Tools Manufacturers' Association (IMTMA) to get the academia and the industry on the same page. In continuation of our updates on them, we provide you yet another list of their interesting discoveries.



Participating students posing with the jury members at the Academia Pavilion

Fabrication of Differently Shaped Micro Tools for Micro-EDM

– NMAM Institution of Technology, Udipi. This research work proposes to develop a simple technique for grinding differently shaped tool electrodes for micro-EDM. The developed system consists of an Arduino-based tool spindle indexing mechanism incorporated in the in-situ tool grinding attachment with piezo actuated tool feed system.

"Development of Adaptive Double Sided Incremental Forming Process for Dieless Manufacturing" – PDPM Indian Institute of Information Technology, Jabalpur.

Incremental Sheet Forming (ISF) is a dieless sheet metal forming technique. This work proposes development of a technology that integrates Adaptive Double Sided Incremental Forming (AdDSIF) strategies with Ultrasonic Vibration-assisted ISF (UVaISF) to enhance process capabilities.

"Low Cost Metallographic Polishing Machine" – PERI Institute of Technology, Chennai. The objectives of the project are to design and construct the machine that will polish the metal for physical metallographic determination and also to design and construct the machine using locally available materials to

produce a flat, smooth and mirror-like surface of any metallic materials in order to determine the physical structure using the ceramic disc.

"Punch Life Improvement Using Heat Treatment & Cryogenic Treatment"

– PES College of Engineering, Aurangabad. The research talks about selecting the proper heat treatment and cryogenic treatment cycle so that the punch life can be improved.

"Processing & Tribological Characterisation of Formed Aluminum Metal Matrix Composites"

– PES University, Bangalore. The project talks on determining tribological properties of aluminum composites processed by cold-forging, hot forging, hot extrusion and as-cast composites.

"A Fully-Automated Multi-Purpose Robotic Arm for Various Industrial Tasks including Drilling Operations"

– Prathyusha Engineering College, Tiruvallur District. The project presents a fully automated robotic arm that can automate various industrial tasks.

"Friction Stir Welding of High

Strength Low Alloy Steels"

– PSG College of Technology, Mechanical, Coimbatore. This work is focused on the possibility of employing the single point incremental forming technology currently being developed for flexible sheet metal forming applications, for producing low cost, small-batch and high-quality polymeric sheet components.

To know about the various other projects by the above institutes, visit Hall 4.



Source: Magic Wand Media Inc

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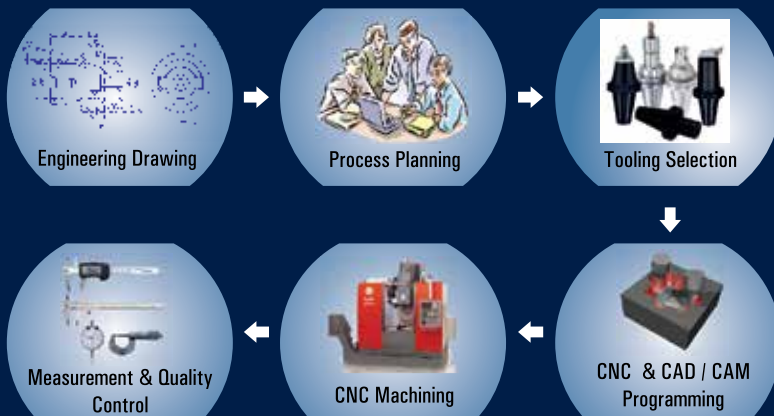
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Fiber Laser line-up



AMADA
Fiber Laser Lineup

Amada developed its own fiber laser oscillator as the laser machine manufacturer for the first time



3kW

6kW

9kW

AMNC 3

Global standard
fiber laser cutting machine

LCG-3015AJ

*Also available as LCG-4020AJ



3kW

AMNC 3

Energy saving, v-lot production,
wide range fiber laser machine

ENSIS-3015AJ

*Also available as ENSIS-4020AJ



Hall No. 4
B108



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No.60, KIADB Bengaluru Aerospace Park,
Singahalli Village, Budigere Post, Bangalore,
North Taluk - 562 129, India.
Ph: 080 - 71100200



Industry Delegates

End users' product manufacturer finds good leads at IMTEX FORMING 2018



"At Elgi Ultra, the emphasis is on the best methods of production to offer the best products in the market. As our recently developed product involves the use of sheet metal works and aluminium components, we are looking for sheet metal fabricator machines and technologies that we can adopt for smooth production of the new product. We have got a few leads and have received some useful technical information. Since we work on an outsourcing module, we are interested in new technologies. Once we find the technology that best suits our products, we pass that information to our vendors and they install the machine and manufacture our products as per our guidance."

Rana Chanda
General Manager – New Projects
Elgi Ultra Industries Ltd

New technologies for process modification



"This is our first visit to IMTEX FORMING. We are specifically interested in machines that can help us in scrap cutting. We need to ensure manpower economy and power cost cutting. Right now, we do things manually and, hence, any latest cutting tools technology will be an advantage to us. The show presents some excellent technologies on cutting. We have zeroed in on some laser and plasma cutting technologies. Some boring machines and dimension measuring systems that we came across are also of interest to us. We have to now decide on the technologies that we can adopt to improve our processes."

OP Agrawal
Rail Wheel Factory
Ministry of Railways
Yelahanka, Bangalore

The show is a great source of information



"I have come to the exhibition to witness new technologies, and have got some good ideas. Demonstrations on laser cutting technologies were very interesting. Some of the latest punching technologies that I saw here could be very helpful to increase our productivity. Presentation on the applications of robotics was also informative. Overall, it's a highly organized show."

D Prabhath Kiran
Deputy General Manager
Product Engineering & Services Division
Toyota Kirloskar Motor Pvt Ltd

New technologies for process modification



"SEG Tools has been putting in efforts to give a new perspective to the machine tool industry of Oman since its inception in 2016. Our company's representatives travel all over the world to source emerging technologies for enhancing the industrial standard of our country. Search for new technologies and machinery for fabrication and welding has got me here, and am totally satisfied with the exhibition. I have attended many trade fairs in the world including those in Hannover, Taiwan and so on. This is my first visit to IMTEX, and the experience has been beyond expectation. I will be regular to the show henceforth."

S Mohammed Ashraf
Managing Director
SEG Tools, Oman
(A division of SEEGA International)

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Visitors' Views

IMTEX FORMING 2018 offers international exposure

“ We have had a wonderful opportunity to witness the latest in machinery and components at the exhibition. It is a great platform for developing contacts as well. We have come across certain technologies that are already being used abroad but are yet to be deployed in mass scale in India. The plan is to acquire them for our workshop.”

Santosh Bhandari
BDE
GNS Engineering Pvt Ltd



IMTEX FORMING 2018, a learning ground



“ This is my very first visit to the event and, to say the least, it's a spectacular show of the latest in machine tools. It has been a great learning experience, which I would be putting to use in making decisions for the deals I am to engage in here at IMTEX FORMING 2018.”

Dhananjay Kumar
JWM, Ordnance Factory
Muradnagar, Ghaziabad

Research & Development

Hybrid Technology for Forming the Future

Dr Dirk Landgrebe, Director, Fraunhofer Institute for Machine Tools & Forming Technology IWU, offered a glimpse into some of the most unique and innovative solutions being designed and developed by them in Forming Technology. An overview...

At the International Seminar on Forming Technology 2018 organized ahead of IMTEX FORMING 2018 & Tooltech 2018, the keynote address helped the participants gain some insight into hybrid technology.

"The hybrid technology involves the combination of fiber-reinforced plastics, plastic injection moulding and metal forming or hydroforming," explained Dr Landgrebe, "It is being used in automotive applications, aeronautic applications, and we also see some applications in race cars."

He presented some case studies including lightweight battery carrier manufactured by Hybrid Processes, a cockpit cross beam made of fiber-reinforced plastic metal and a brief view on selective laser melting.

Dr Landgrebe broadly laid out the two categories:

Hybrid Process where we combine several processes in one, for

example hydroforming and injection moulding; and

Hybrid Products where we introduce a sheet metal combined with a plastic layer or FRP layer.

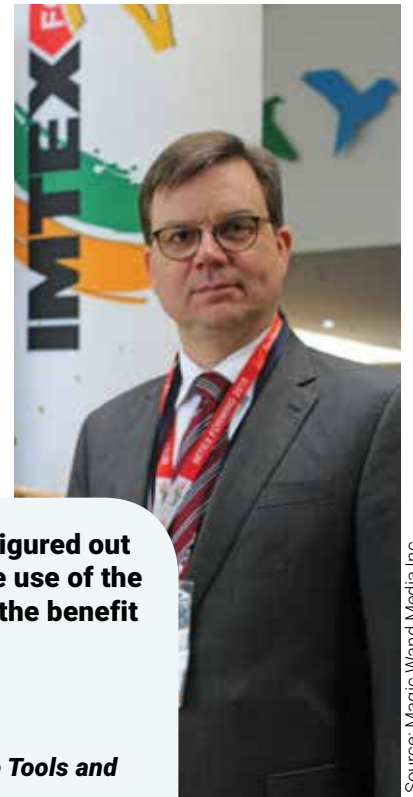
Challenges and outlook

"The technology is new and complicated to handle, with very limited niche applications as long as there are no additional benefits, like cheap replacement of existing parts," cautions Dr Landgrebe, who does not see visible impact of it on the market for another decade. "I see quite some future for both hybrid process and product, and the growth will be big, but the actual market share they will reach will be three to four per cent."

Lack of any recycling strategy is a major concern. "As of now we haven't figured out what happens after the use of the components. Unlike steel or aluminum, we do not have the benefit of a circular

economy," he added, "These problems will rise rapidly with use of this material, hence we have to keep the use low."

Despite all these, he conceded there has been a lot of positive response for hybrid technology, at least as far as highly customized special applications go. His presentation certainly whetted appetite of an audience looking forward to a day packed with action.



“As of now we haven't figured out what happens after the use of the components, so do not have the benefit of a circular economy.”

Dr Dirk Landgrebe
Director
Fraunhofer Institute for Machine Tools and Forming Technology IWU

Source: Magic Wand Media Inc

7

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For registration contact : Rathan ; cell : 9743180085; email : rathan@imtma.in

Press Brakes

Bend it like Bystronic

Bending is a procedure for forming a flat, sheet metal workpiece. It immediately follows cutting in the processing chain. The workpiece lies on a bottom tool with a v-shaped opening. A wedge-shaped tool (punch) presses the workpiece into the v-opening and thus bends it to the desired angle.

Dynamic crowning

Bystronic has for long used dynamic crowning on the Xpert model range press brakes. This unique compensation system adjusts the curvature of the lower beam automatically during bending. State-of-the-art dynamic crowning makes this correction in real-time and with the latest sensors. Users can,

therefore, achieve exact, constant bending results, and this even with bent parts that are more than 3 m long.

Precision crucial in press brakes

Precision is the most important yardstick for press brakes. Slight deviations from the desired bending angle are physically unavoidable. The bending angle can either be basically inexact or can vary across the entire bending. Compensation systems balance out these errors. Bystronic uses the unique hydraulic dynamic crowning technique on its press brakes. The stamp and die are specifically curved to balance out the deformation caused by the bending process. Another decisive factor is

the behavior of the workpiece during bending. For precise bending results, state-of-the-art sensors provide all required information to the press brake controller. This data is evaluated and an intelligent bending process is implemented, thanks to automatic corrections.

Xpert 40 and 80

Xpert 40 and Xpert 80 are compact speed machines for small- and medium-sized parts.

Customer benefits:

- Maximum process speed via high acceleration of the upper beam and backgauge;
- Ideal when there is a shortage of space and capacities fluctuate. The machine can be operational or mobile in less than five minutes;
- Process control reduces electric power consumption by up to 30 percent and decreases wear;
- Flexible tool selection and press capacity of up to 80 tons offers a wide range of application;
- High ease-of-use through ergonomic design and individual customizable work environment.



Xpert 40

Source: Bystronic Laser India Pvt Ltd

	Xpert 40	Xpert 80
Tonnage	40 t	80 t
Bending length	1030 mm	1530 mm
Open height	570 mm	570 mm
Standard stroke	200 mm	200 mm
Max. high speed	300 mm/s	300 mm/s
Max. working speed	25 mm/s	25 mm/s

Bystronic Laser India Pvt Ltd
www.bystronic.com
 Hall & Stall: 4 / B-106

Laser Systems

Creating New Benchmarks in Production Efficiency

Apioneer in the world of lasers in India, Sahajanand Laser Technology Limited (SLTL) has catered to the needs of various industries, offering total solutions with a wide range of laser systems for diversified industrial applications such as laser cutting, marking, welding, micro-machining, solar cell scribing/cutting, diamond processing, etc.

Now, it is one of the world's largest manufacturers of CNC laser systems for the diamond industry. The company also provides solutions to scientific and research institutes and government organizations in India and abroad. It exports its systems to the USA, Russia, Sri Lanka, Thailand, Namibia, Botswana, Saudi Arabia, Iran, Dubai, Switzerland, Angola, Israel, Armenia, China, Poland, South Africa, Singapore and other countries.

IMTEX offers opportunities

With a strong belief that the IMTEX show extends opportunities in abundance since it captures huge attention in the machine tools and

technology sector, SLTL will unveil its latest laser machines. "For this time, we have emphasized on segment-oriented enhancement and will focus on delivering integration with cutting-edge systems that incorporate the latest features at each level. To be specific, material handling and storage solutions are being added, keeping the sheet metal industry in mind. Enhancing productivity and reducing human effort are some of the elements that our systems work towards," says Maulik Patel, Executive Director, SLTL.

Impact of 'Make in India'

Given the fact that the philosophy behind the 'Make in India' campaign is to bring forth tremendous development to those fundamental industries which provide ground level goods and materials, Patel is of the firm opinion that one of the core contributors would be the metal forming industry. "It is projected that by the end of 2019, the infrastructure sector will attract an investment of up to \$1 trillion.

45 percent of which will be channeled into the construction sector. The government is intensively planning huge projects to enhance infrastructure in Tier II cities and this development cannot be undertaken without the involvement of metal forming industries. The same kind of opportunities will also be offered through the government's project of providing power to all by the year 2021," Patel adds.

Future upbeat

Given the scope that the infrastructure and power sectors, among others, will provide to the metal forming industry, SLTL is confident of tapping into these opportunities. "Ours is a very holistic approach. We take special care in providing products that are cost-effective and production-specific with high levels of quality and efficiency. We also take special efforts towards operator training and education. Put together, these will certainly take us ahead with a good momentum," states Patel.



IMTEX show extends opportunities in abundance since it captures huge attention in the machine tools and technology sector.

Maulik Patel
 Executive Director
 Sahajanand Laser Technology Ltd

Sahajanand Laser Technology Ltd (SLTL)
www.sahajanandlaser.com
 Hall & Stall: 2A / B-106

Thanks to CNC scheduler software, automatic and continuous 3D laser cutting of large, long structural material

- Optional chain conveyor for increased versatility and maximum quantity of workpieces.
- Optimum focus positioning is automatically determined resulting in considerably reduced piecing time.
- Just load long material in the loading station, and 3D cutting is performed automatically as well as transfer of finished parts to the unloading station.

*Option

Max. material length

8000 mm (314.96"), 6100 mm* (240.16")
12200 mm* (480.31"), 15100 mm* (594.49")

Max. cutting length for unloading

8000 mm (314.96"), 6100 mm* (240.16")
12200 mm* (480.31"), 15100 mm* (594.49")

Max. material diameter

round pipe \varnothing 406.4 mm (16.00")
square pipe \square 300 mm (\square 11.81")
H beam 300 mm (11.81")



Chain conveyor (option) shown




3D Laser Processing Machine for Long Pipes and Structural Material

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Press Brakes

Charting the Way to Success

Meiban Engineering Technologies has rightfully pegged expectations from IMTEX FORMING 2018. The show, with its far and wide reach, is important for the company in its process to grow.



Source: Magic Wand Media Inc

From L to R: Yosuke Murata Muratec, Executive Vice President, Murata Machinery Ltd and A V Srinivasan, CEO, Meiban Engineering Technologies Pvt Ltd at the company booth.

“Along with catering to the huge Indian market, IMTEX FORMING has become a point of interest for neighboring countries as well. Hence, the show is quite important for showcasing our products.”

AV Srinivasan
CEO
Meiban Engineering Technologies Pvt Ltd

Target audience

At the expo, Srinivasan expects customers from various relevant industries which includes infrastructure. “Our main focus is on Control Panels, Railways, Telecom, Agricultural products, Elevators and various other sheet metal related industries,” he states.

The company has expended a lot of efforts in informing and inviting people from focus industries. “Our main task at the exhibition is to ensure that the intended customers visit our stall without fail,” It has placed high impact teams from Sales and Customer Support to explain the features of the machines and the applications to the customers. “We are focusing on attending to their technical questions and meeting their expectations,” shares Srinivasan.

Meiban Engineering Technologies Pvt Ltd
www.meibanengg.com
Hall & Stall: 4 / C-101

Meiban Engineering Technologies Pvt Ltd, an associate company of Murata Machinery Ltd Japan, is a solution provider in the field of automation and turnkey projects for manufacturing automobile and sheet metal components. Meiban Engineering supplies and services sheet metal machines which include CNC Servo Turret

Punch presses of various capacities, punching and shearing machines.

The company considers IMTEX FORMING as an important exhibition for showcasing its technologies and products. “India in itself has a huge market. IMTEX has become a point of interest for neighboring countries as well. Hence, the show is quite important and relevant for showcasing our products,” states AV Srinivasan, CEO, Meiban Engineering Technologies Pvt Ltd.

Innovations at IMTEX 2018

Along with its other offerings, the company has displayed the Eco-friendly Servo Technology Punching as well as Bending machine. “As



CNC Servo Motor Driven Ram Turret Punch Press

everyone is aware, Muratec introduced this Servo technology in 1994. This year, we are displaying Motorum-3058TG which is a 30-ton machine with highly advanced CNC features. The machine incorporates software to monitor tool life, schedule it and it also has the capability of giving the data to improve the performance,” informs Srinivasan.

“The AC Servo Press Brake is a fully electric one and is very easy to run. The running cost is quite low. The distance between the frames is 1200 permitting the customers to do full length bending. Both machines can be connected to the network and are Industry 4.0 ready,” he adds.



Ball Screw Press Brake

source: Meiban Engineering Technologies Pvt Ltd

IoT

Amada's Virtual Prototype Simulation System

VPSS 3i (Virtual Prototype Simulation System) from Amada is a futuristic system based on IoT concept which uses its intelligence to reduce dependency on programmer / operator and provide an interactive solution. The product is designed and produced in a virtual environment before its actual manufacturing starts. This enables least set-up time and zero defects.

VPSS3i package can automatically create 3D model from a 2D drawing file, select tools and decide the bend sequence, preparing blanking data for laser, punching or combination and finally doing the welding, finishing

and assembly. Amada will soon introduce IoT-based products to the Indian market. The company's IoT mainly focuses on 5 products: Monitoring, Manufacturing design, Factory control, IoT servicing and IoT consulting.



Sheetmetal Engineering System VPSS3i is a factory reform solution to turn a factory into a smart factory.

Amada India Pvt Ltd
www.amadaindia.co.in
Hall & Stall: 4 / B-108

Source: Amada India Pvt Ltd

Distributed Servo Drive system

Cost Efficiency is the need of the hour

Integrated drive technology reduces machine footprint and control cabinet space requirements. A read...

The new AMP8000 distributed Servo Drive system from Beckhoff breaks new ground for modular machine concepts. The space-saving AMP8000 integrates a servo drive directly into a servomotor in an ultra-compact design. By relocating the power electronics directly into the machine, the control cabinet only needs to house a single coupling module to supply power to multiple servo drives with a single cable via a distribution module. The result: significant savings in terms of cost, space, materials and installation effort.

With the AMP8000, space requirements for drive technology inside of control cabinets can be reduced to a single coupling module. Via EtherCAT P, providing EtherCAT signals and power with one cable, such a coupling module can control up to five distributed AMP8000 Servo Drives via an IP-67-protected AMP8805 distribution module. Since the entire AMP8000 system is cascable, even complex motion systems can be implemented with a remarkably simple topology. In addition, Beckhoff offers preassembled cables that simplify logistics considerably and minimise wiring errors. With fewer and smaller cable routes to the motors, installation efforts are significantly reduced.

Optimized design for efficient drive integration

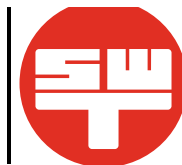
The drive integration concept of the AMP8000 features an exceptionally compact design. Since the power module is conveniently located at the back end of the motor shaft, the attachment dimensions of the new distributed servo drives are identical to those of the proven standard AM8000 series servomotors. The only dimensional change is to the overall servomotor length, which is extended by approximately 7 cm. For the machine builder, this means that only a little additional space is needed at the motor end and adjusting the overall motion control concept is easy without having to otherwise alter existing machine designs.

The AMP8000 distributed Servo Drive system is available in flange sizes F4 and F5. Various models are available with power ratings from 0.61 to 1.23 kW and standstill torque ratings from 2.00 to 4.8 Nm (F4) or power ratings from 1.02 to 1.78 kW and standstill torque ratings from 4.10 to 9.7 Nm (F5). STO and SS1 safety functions are integrated into the AMP8000 series by default, and a range of additional safe motion functions are in preparation.



Source: Beckhoff Automation

Distributed Servo Drive system with the one cable solution EtherCAT P. The new AMP8000 provides the ideal basis for compact and fully modular machine designs.



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Beckhoff Automation Pvt Ltd
www.beckhoff.co.in
Hall & Stall: 3A / C-104

Laser Processing Machine

Mazak's High-Power Fiber Cutter

Mazak's newly-launched OPTIPLEX 3015 FIBER III 8.0kW fiber laser is for cutting thick materials such as stainless steel and aluminum. The productivity of thin worksheet cutting is increased, thanks to its 8.0kW high output fiber laser and improved machine acceleration. It boasts of productivity increase by more than 14 percent. Rapid traverse rate of X-,Y-axes is 120m/min

for higher productivity. The machine is equipped with MAZATROL Preview G CNC and comes with a 9 in. touch panel for increased ease of operation. It has a reduced maintenance cost / running cost. The OPTIPLEX 3015 Fiber III can be integrated into a compact manufacturing cell (multiple pallet changer) or extensible manufacturing cell (Laser FMS) to meet unique production requirements.

Specification		Values
Laser	Laser Rated Output (Continuous)	8.0 kW
Capacity	Maximum Cutting Size Right/Left	3050 mm / 120.08 in
	Maximum Cutting Size Longitudinal	1525 mm / 60.04 in
Feed Axes	Travel (X axis)	3110 mm / 122.44 in
	Travel (Y axis)	1595 mm / 62.8 in
	Travel (Z axis)	110 mm / 3.94 in



Source: Yamazaki Mazak India Pvt Ltd

Mazak's High-Power Fiber with 8.0 kW output fiber laser.

Yamazaki Mazak India Pvt Ltd
www.mazakindia.in
marketing@mazakindia.com
 Hall & Stall: 4 / B-102

Marking Solutions

Gravotech's innovative Laser Solutions for marking and traceability



Source: Gravotech Engineering

New Technifor range for marking and traceability.

Gravotech has introduced innovative solution, Technifor range, that promises to simplify marking and traceability and ensures optimum marking quality in all circumstances. With the rise of traceability requirements in every industry around the world, Gravotech stands out as the integration specialist in innovation on several levels: Lower integration costs, especially with ultra-easy connectivity; A reliability commitment through warranty and consistent results; Ongoing performance supported by offering optional supervisory visits for rapid diagnosis and preventive maintenance.

amplitude on the market with Autofocus for a perfect marking in all conditions. Thanks to the 'Multi-level and inclined surfaces' system for marking that adapts to various levels without adjustment. The instantaneous marking control 'Vision manager' ensures complete traceability due to its vision system with an integrated camera. The marking control, the setting and the communication with the camera are integrated into the system. These innovations are real technological breakthroughs and push boundaries in traceability marking.

New integrable laser solutions

Gravotech's new integrable four series of high performance laser solutions make for a comprehensive range for traceability needs:

- Fiber:** compact and powerful
 - Hybrid:** laser solution Plug N'Mark
 - Green:** ideal solution for "cold marking"
 - CO₂:** "on the fly marking" system.
- The key features integrated in all models of the new range include: The '3D module' offers the largest

Wide range of applications

The marking solutions can be used to mark metals, plastics, ceramics, glass, rubber, organic materials such as leather, wood and fabric, etc. and the application sectors include automobile, precision mechanics, medical, aeronautics, jewelry and watchmaking, electrical industry, electronics, tooling, oil and gas, and sectors with professional engravers.

Gravotech Engineering Pvt Ltd
www.gravotech.com
 Hall & Stall: 2A / E-102

Metal Forming Solutions

Grind Master introduces US-Make Metal Forming machines

Grind Master Group has entered into a strategic partnership with MJC Engineering & Technologies Inc, USA, for promoting its Metal Forming machines in India. Metal forming is a metalworking process of shaping metal parts and objects through mechanical deformation. Various processes for metal forming include Metal Spinning, Shear Forming, Flow Forming, Rotary Forging and Hot Forging which are extensively used in various industries including aerospace, defence, automotive, etc. The Metal Forming can be done on a wide range of materials inclu-

ding titanium, nickel alloys, super alloys etc. Metal Forming technologies are extensively used for manufacturing various applications including next generation jet engine lip skins, aluminum liners for fuel cells, wheels rims, brake drums, gas cylinders etc. These machines are Industrie 4.0 compliant with advanced data-logging, setup and workcell management systems.

Grind Master Machines Pvt Ltd
www.grindmaster.co.in
 Hall & Stall: 2A / B-110



MJC Engineering & Technologies Inc, USA's Metal Forming machines are being promoted by Grind Master Group.

Source: Grind Master Machines Pvt Ltd

Laser Technology

Leading the way through innovation

Laser Technologies, in a short span of time, has worked wonders with laser technology, helping industries find the right solutions for various challenges. Its participation in IMTEX FORMING 2018 is encouraged by its vision to make laser technology accessible to everyone in India.

According to Rakesh Agarwal, Managing Director, Laser Technologies, IMTEX FORMING 2018 is the largest show of its kind and plays a key role in making technology accessible throughout the world, irrespective of its origins. "It is equally important for both the exhibitors and prospective customers. Visitors can not only access and experience the latest innovations in technology, but also compare all alternatives in a matter of hours. The comparison is made holistic by

the presence of almost all major players and technology thought leaders. At the same time, it gives the manufacturers a wonderful opportunity to showcase their USPs. Whether it's an economical product to help take medium and small industries to the next level or a product with cutting-edge technology to help production scale new accuracies and productivity, IMTEX is the right platform for all and the reason we continue being a part of it," states Agarwal. At this year's edition, the company is

offering the following new products and technologies:

HSG-Make Laser Cutting Machine: This is India's most popular low to medium power laser cutting machine. It has been purchased more than 50 times in the last one year.

Alpha-Make Laser Welding Machine: This has been developed for ALM 200 die mould repair. ALM 200 comes with unique and robust features such as mobility and 360-degree rotation, etc.

AI-In 200: Alpha Laser makes high-precision, tabletop laser welding machines for customers who have very precise welding needs such as capillary tubes, magnetic equipment and sensors.

Technology is for everyone

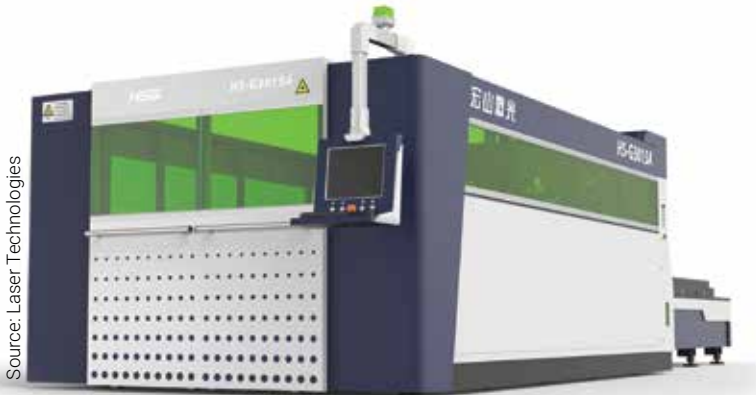
Laser Technologies' vision is to make laser technology accessible to everyone in India. With so many innovators displaying their products, the company takes the event as an opportunity to learn more about the industry and the technologies on offer.



IMTEX FORMING 2018 gives all kinds of manufacturers a wonderful opportunity to showcase their USPs. This makes it the right platform for all and the reason we continue being a part of it."

**Rakesh Agarwal
Managing Director
Laser Technologies Pvt Ltd**

Laser Technologies Pvt Ltd
www.lasertechnologies.co.in
Hall & Stall: 4 / B-117



Source: Laser Technologies

Laser Technologies represents many global manufacturers, covering a wide range of solutions in laser marking, laser welding, 2D laser cutting, 3D laser cutting, laser cladding, laser hardening etc.



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Manufacturing process for Dies

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Automation and Robotics

Making Automation a Cost-Effective Option

Malles Automated and Robotic Systems believes that automation can be achieved without making huge investments and is all set to prove its point at IMTEX FORMING 2018.

After 34 years of building dream homes and emerging as a top brand as Malles Construction, Malles Group has diversified to extend its services at a technological level in the form of Malles Automated and Robotic Systems. Established in 2012, it churns out products and technologies that save labor, energy and materials while improving quality, accuracy and precision. Its products include the likes of collaborative tabletop robots and palletizing robots.

IMTEX, ideal for product display

For Malles Automated and Robotic Systems, a platform like IMTEX is highly essential and as Harish Chandraprakasam, Managing Director, Malles Automated and Robotic Systems, puts it, "Our businesses are B2B and we strongly feel there is no better way to showcase these than at IMTEX. Mediums like online portals, business magazines are also great but there is only so much one can put through a full page advertisement. We feel there is nothing better than seeing it live and understanding the advantages of our products. With the current thirst for new, efficient and

cost-effective technologies, IMTEX is the best arena to bring it all under one roof."

The company is an authorised distributor for Kawasaki Robotics, MCI Robotics, Macron Dynamics, Technosoft Motion, Precise Automation and RoboDK. "We are showcasing a Kawasaki welding robot system, Kawasaki deburring system, M a c r o n sealant



Source: Malles Automated and Robotic Systems

dispensing system, and MCI robotics pick and place system. For the first time in India, we are showcasing an

Indian make robot from MCI Robotics. It has been completely designed and made in India and has all the features and specifications at par with any similar imported robot available in the market. It can be programmed and controlled using a tablet or even a mobile phone," informs Chandraprakasam.

Malles' agenda at this year's IMTEX FORMING is to reach out to machine builders, OEMs, system integrators and educational institutions. "To be honest, anyone who needs automation that will not burn a hole in the pocket but instead save some to fill the pocket will find us the right choice," he states.

Strategizing for future growth

The company has a team in Bangalore that is currently working on a well-defined strategy. "We are handing out product literature and have invited our potential customers. We are planning to visit many of the visitors in the coming weeks. All this will pave the way for future growth," explains Chandraprakasam.



“There is nothing better than seeing the products live and understanding their advantages. With the current thirst for new, efficient and cost-effective technologies, IMTEX is the best arena to bring it all under one roof.”

**Harish Chandraprakasam
Managing Director
Malles Automated and Robotic
Systems Pvt Ltd**

**Malles Automated and Robotic
Systems Pvt Ltd**
www.mallesautomation.com,
www.mcirobotics.com
Hall & Stall: 4 / P-102

Plasma Cutting

Kjellberg explores the future of Plasma Cutting at IMTEX FORMING 2018

The leading manufacturer of plasma cutting machines, Kjellberg Finsterwalde is presenting the results of its development work that forms the basis of its path-breaking Silent Cut technology.

Kjellberg is the longest established manufacturer of plasma cutting machines in the market and offers plasma and laser cutting products for a wide range of different cutting tasks. With these high-quality products made in Germany, excellent results can be achieved for automated, mechanised or manual cutting. Kjellberg's subsidiary Kjellberg Cutting and Welding India Pvt Ltd in Pune takes care of all activities concerning sales and service in India since 2015.

Q plasma power sources

In the metalworking industry, there are various approaches on the topic of Industry 4.0. For Kjellberg, any consideration on this topic still puts the user at the heart of the discussion because the user's productivity should be increased and work processes should be made easier. The latest results of Kjellberg's development work are being presented here at IMTEX

FORMING 2018: The new generation Q plasma power sources.

The Q power sources show how networking and communication will change production processes of the future. According to the requirements of Industry 4.0, the power sources with a modular design can form networks and exchange information with their own as well as other components. The emphasis here is on the digital process monitoring and process control as well as the possibility for remote access. Kjellberg has, therefore, developed an extensive operator interface for the user that is device and location independent.

Silent Cut ensures health and safety

At IMTEX 2018, Kjellberg is showing its latest plasma cutting technology Silent Cut as well. During live demonstrations, the visitors can convince themselves of the reduced sound pressure level



Source: Kjellberg Finsterwalde

Excellent cut quality with Silent Cut

during the plasma cutting. As a further development to the patented Contour Cut technology, Silent Cut reduces the sound pressure level by up to 15 dB(A) during plasma cutting of mild steels with a material thickness between 4 and 30 mm in the current range between 60 and 160 A. Even the high frequencies perceived as par-

ticularly disturbing are considerably reduced. The reduction of the sound level by 10 decibels is already perceived by human hearing as a halving of the loudness. Thus, Silent Cut makes an important contribution to health and safety at work – with high cut quality. Kjellberg's intensive development work forms the foundation of the Silent Cut technology. The results are a unique combination of new consumables and new cutting data allowing the user to cut holes, bars and contours with similarly high quality as with Contour Cut and to benefit from a considerably reduced sound pressure level. Due to the easy change of the consumables and the use of the Silent Cut database, the technology can also be used for existing systems.

Kjellberg Finsterwalde
www.kjellberg.de/en
Hall & Stall: 4 / B-113

Manufacturing Software Partners in Success

DesignTech Systems, a loyal participant in the IMTEX shows, is back again in this edition to help industries adopt the latest technologies to remain competitive and relevant in the fast-changing market space.

Leading CAD / CAM / CAE and PLM solutions and Additive Manufacturing technologies provider in India, DesignTech Systems Ltd has been working closely with the Mechanical engineering industry in India, helping it make a transition from traditional processes of yesterday to adopting the latest technologies in order to match the global standards of engineering excellence.

The company, with its strengths, help industries optimize their mechanical product design / engineering processes, thereby making them more innovative, efficient, cost-effective and time-saving.

Company offerings at IMTEX 2018

This year, DesignTech Systems is showcasing some of the advanced CAE solutions, 3D Printing or Additive Manufacturing technologies, latest CAD, Digital manufacturing and PLM solutions from global leaders at IMTEX FORMING 2018. "These solutions would help industries attain their goals of product design and manufacturing excellence through efficient processes and systems that augment productivity, generate greater RoI and enable them achieve high-

er cost-effectiveness. That would help them remain competitive and relevant in the fast-changing market space," states Vikas Khanvelkar, Managing Director, DesignTech Systems.

The company is the only Platinum Partner for Siemens PLM Software in India, and has also forged strategic tie-ups with global leaders such as Altair Engineering for its HyperWorks suite of solutions, Stratasys 3D Printing Technology, MathWorks for MATLAB and SIMULINK, SLM Metal 3D Printing technology, and Solidscape high precision 3D Printing solutions.

At its booth at the show, DesignTech Systems is offering a live demonstration of Stratasys 3D Printer.

Reaching out to the right audience

The company has over 19 years of experience in working with companies from cross vertical domains from India and overseas to support them in their most complex and challenging engineering initiatives.

"Our target audience at the IMTEX 2018 are industry segments such as Automotive, Aerospace and Defence, Industrial Machinery, Heavy Engine-



“ We regularly participate in the IMTEX shows with our solutions that can help industries attain their goals of product design and manufacturing excellence.”

Vikas Khanvelkar
Managing Director
DesignTech Systems Ltd

ring, Electromechanical and Consumer Goods, and Power and Energy," informs Khanvelkar.

DesignTech Systems Ltd
www.designtechsys.com
Hall & Stall: 3A / D-111

Advanced Fabrication Technology

LVD's CADMAN makes full process integration a reality



CADMAN is LVD's answer to full process integration and optimized process flow.

CADMAN looks at the big picture and helps streamline the complete fabrication process – from production control, communication, planning and management to punching, bending and laser cutting – through integrated, database-driven software.

It comprises an intelligent CADMAN core database and works on different levels: interacting with ERP, efficiently classifying jobs with CADMAN-JOB and offline work preparation with CADMAN-B, -L and -P. The Touch controls Touch-B and Touch-L for bending and laser cutting offer the ability to intuitively interact with the machines and the Touch-i4 tablet to quickly view and analyze data.

LVD-Strippit India Pvt Ltd
www.lvdgroup.com
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