



The region's biggest
Machine Tool Expo



27 / 28 / 29 / 30

September 2018
Auto Cluster Exhibition Center, Pune

Published by



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TOWARDS A BRIGHT FUTURE

PMTX 2018: Growing from Strength to Strength

The second edition of the Pune Machine Tool Expo garnered a massive response as it opened its doors to the manufacturing community yesterday. It was an ideal start to the event which endeavors to put spotlight on the opportunities that the western part of India has to offer. Highlights...

Pune Machine Tool Expo (PMTX) 2018, the regional trade event, is organized by Indian Machine Tool Manufacturers' Association (IMTMA) to celebrate manufacturing capabilities of the region around the city of Pune and facilitate its connection with the manufacturing players of the rest of India and beyond. The exhibition kickstarted on a high note yesterday with visitors hailing from places close and far.

Indradev Babu, Vice President, IMTMA, did the honors of inaugurating the expo along with V Anbu, Director General & CEO, IMTMA and other Executive Council members of IMTMA.

The four-day event, which will continue until September 30, 2018, has been arranged to serve as a platform to demonstrate the latest manufacturing technologies. With over 80 exhibitors, the expo covers the entire gamut of metal working machine tools for both metal cutting and metal forming including automation and robotics, tooling systems, CAD/CAM and other technologies which are essential for today's manufacturing.

Optimism looms large

Highlighting the current positive sentiment in the industry, Babu said, "The year 2018-19 has so far been promising for the machine tool industry. Machine tool production for the financial year 2017-18 was around ₹7,293 crore. There was a growth of



(L-R) Indradev Babu, Vice President, IMTMA, and V Anbu, Director General & CEO, IMTMA inaugurating Pune Machine Tool Expo 2018

around 26 percent in production and around 27 percent in consumption. For the year 2018-19, production is estimated to grow by 20 percent and consumption may grow around 15 percent during the period."

"Regional machine tool expos such as PMTX will play an important role in the further development of the manufacturing industry in the region and we hope that the next four days will be a great time for all of you to connect,

network and do business," he added. "To further support Government's ambition of upping the manufacturing sector's contribution to GDP by 25 percent by 2025, the manufacturing industry needs to tap into various opportunities in major sectors such as Defence, Aerospace, Railways, Power, and other sunrise sectors. This would supplement industry's export potential and strengthen the Make-in-India initiative," Babu further said.

Tools for a smart future

Seconding Babu's view on the industry's growth, Anbu said, "India today is one of the fastest growing economies in the world. We are growing at 8.2 percent. If we look at the user segments such as auto or auto components, it's never been this vibrant."

"India is expected to become a five trillion economy and the manufac-



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"Regional machine tool expos such as PMTX will play an important role in the further development of the manufacturing industry in the region. We hope that the next four days will be a great time for you to connect, network and do business."

Indradev Babu
Vice President
IMTMA



Source: Magic Wand Media

"India is expected to become a five trillion economy and the manufacturing is expected to contribute one trillion to it. So there is a huge scope for manufacturing."

V Anbu
Director General & CEO
IMTMA

Continued from 1

turing is expected to contribute one trillion to it. So there is a huge scope for manufacturing," he added. "The speed at which Indian manufacturing is growing, manufacturers are increasingly in need of smart

solutions comprising Industry 4.0, additive manufacturing and robotics. This is the context in which the role played by the machine tool industry becomes very important," he noted summing up.

MACHINING CENTERS

Leveraging Strengths

India's leading manufacturer of CNC Turning Solutions participates at PMTX 2018 to exhibit what it excels in and explore the promising market of the region.

According to Harish B, Vice President, Micromatic Machine Tools Pvt Ltd, regional shows like PMTX facilitate reaching out to customers in different regions of the country. "Pune is a large industrial hub, catering to large OEMs. It is not always possible for entrepreneurs and industrialists to travel all the way to Bangalore for the IMTEX exhibition. Shows like PMTX help in bridging this gap," he says.

"Since PMTX is being organized by IMTMA, we are also assured of good visitor turnout and good returns from our investment," adds Harish. The company is on a look out for automation concepts and completely automated machines at this edition, with Pune being a huge Auto and Auto component market. "We also expect to see more of high-speed die & mould machines, multi-axes machines and turn mill centers at PMTX 2018, considering there is also an important General Engineering and Die & Mould market, in and around Pune," he shares.

Heavy footfall expected

Micromatic Machine Tools has a market share of 30 percent in CNC turning and 20 percent in CNC milling across India. The figures are similar in the country's western region too. "Our customer base spans corporates, large OEMs, MSME and SSI sectors. Hence, we are expect-

ing substantial footfall from Auto and Auto component sectors and also from non-auto sectors such as Pipe Industry, General Engineering, Die & Mould, Pumps & Motors etc.," states Harish. The company is displaying its following new products at the event:

- Economical CNC Grinder: Pluto 18
- Die & Mould VMC: 1060 V
- Twin Spindle CNC Lathe: LCXT 12
- Real-time OEE, Smart Manufacturing IoT and Industry 4.0 Solutions

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High-performance and compact 1060V Vertical Machining Center

Source: Micromatic Machine Tools Pvt Ltd

DELHI MACHINE TOOL EXPO 2019
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Source: Micromatic Machine Tools Pvt Ltd

"Regional shows like PMTX help in bridging the gap between us and the region's local industry and enable us to showcase customized solutions and machines to cater to its needs."

Harish B
Vice President
Micromatic Machine
Tools Pvt Ltd

Micromatic Machine Tools Pvt Ltd
www.acemicromatic.net
Hall & Stall: B / A - 102

INDUSTRIAL METAL CLEANING CHEMICAL SOLUTIONS

Showcasing Strengths

For Zavenir Daubert, Pune is a focus market for its Cut Clean Protect & Pack proposition. The company is here at PMTX 2018 to showcase the next generation technologies and trends in Metal Working Fluids, Rust Preventives and VCI Packaging.

Having had a great response the first time, Zavenir Daubert India Pvt Ltd is back again in Pune Machine Tool Expo 2018 to exhibit what it is best at. With Pune being a focus market for Zavenir Daubert's Cut Clean Protect & Pack proposition, the show will be of significant help in examining Pune area's recent market trends and emerging opportunities in metal working. At PMTX this year, the company is displaying its prowess in Chemical Process Optimization with superior economics. "We are showcasing the next generation technologies and trends in Metal Working Fluids, Rust Preventives and VCI Packaging. The product categories include Neat Cutting Oils, Water Soluble Cutting Oils, Rust Preventive Liquids & Waxes, VCI

Packaging," shares Balwant Bains, GM – Product Management & Marketing, Zavenir Daubert India.

Advantage PMTX

For Bains, PMTX 2018 presents an ideal opportunity for the company to meet its existing customers and prospects, especially sub-contractors and vendors of its existing OEM customers. Also its potential cooperation partners, agents, and distributors. "We are expecting audience from Automotive OEMs, Automotive Component Manufacturers and Light Engineering Sector. PMTX being such a reputed and important event, we are looking forward to meet high quality exhibitors, higher visitor footfall and adequate press coverage. It is a great opportunity for us to

discuss requests, exchange experiences, brainstorm ideas and gather feedback from industry users and key decision makers," he adds.

Additionally, it shall be a receptive environment for Zavenir Daubert to introduce its next generation technologies like HAKUFORM® L Series Neat Oils - fully synthetic base oils (Natural Gas-to-liquid) and premium performance additives HAKUFLUID® Water Soluble Cutting Fluids water-based - 100 percent oil-free with variable viscosities for a range of applications that provide better lubrication and tool life than neat oils.

Zavenir Daubert India Pvt Ltd

www.zavenir.com

Hall & Stall: B / A-103



Source: Zavenir Daubert India Pvt Ltd

"Pune is a focus market for Zavenir Daubert's Cut Clean Protect & Pack proposition. Hence, the show will be of significant help in examining Pune area's recent market trends and emerging opportunities in metal working."

**Balwant Bains
GM – Product
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**Zavenir Daubert India
Pvt Ltd**

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Source: Zavenir Daubert India Pvt Ltd



HAKUFORM water soluble cutting oils with KLUTHE Advanced Surfactant Technology that creates stable micro emulsions.

CNC MACHINES

Forging New Bonds

Delighted to be part of PMTX 2018, Jyoti CNC Automation looks forward to making new connections while showcasing its upgraded turning centers and machining centers for SMEs to boost their competitiveness.

For Jyoti CNC Automation Ltd, PMTX being at Pune offers a great locational advantage to get directly in touch with the industries of the surrounding states. "The event aims to provide an ideal platform for metal working and machine tool companies to showcase their products in the western region with respect to specific industrial segments," notes Pankaj Bandal, Regional Manager – Sales, Jyoti CNC Automation. As a competitive solution provider, Jyoti CNC is exhibiting its CNC machines with a technological edge with the aim to enhance productivity and efficiency of its customers. "At PMTX 2018, we are showcasing our upgraded turning centers and machining centers as complete solutions for the vast SME sector to boost its competitiveness," he shares.

Expanding network

"The last edition of PMTX offered a unique experience in terms of learning, adopting and growing. We were able to connect better with our clients and delegates from many diverse sectors," says Bandal.

In line with its mantra of being customer-centric, the company looks forward to meeting its existing customers and acquiring new customers to strengthen and expand its network at PMTX 18.

"The current event is again an opportunity to meet quality customers, consultants and decision makers. This would lead to forming new bonds, reinforcing our market positioning. The strong presence of SME and large corporate visitors is an added advantage to network on this business platform. Spot machine bookings are always an exciting experience during the show," he adds.

Jyoti CNC aims to reach up to customers from diverse industries. "Auto OEMs, auto component manufacturers, die and mould manufacturers, valve and valve component manufacturers, heavy engineering industries, precision parts manufacturers, tool rooms and commercial job shops are some of the industrial segments that we will focus on in the show," he further shares.

'nvu' is the highlight

"We are displaying our 'nvu' series of machines which will surely draw attention of visitors," informs Bandal. The company is introducing its high-speed Drill-Tap Center Tachyon Series with 60 m/min rapid along with CNC Turning Center DX250 500 nvu, and Vertical Machining Center models VMC 850 nvu and RX 20.

"Efficiency, reliability and cost per unit product are the most exacting demands in the present machine tool business. To cater to that, Jyoti has developed a much advanced and improved Gen-Next variant, the VMC 850 nvu for components where precision, accuracy, repeatability and surface finish matter," he adds.

The C-frame machine has a rigid and robust construction which is perfectly suited for high-end metal cutting applications. 3-Point levelling system is integrated to avoid twisting of the structure. It also supports flexible, quick installation and relocation.

To meet advanced die and mould application requirements, the machine is also available with electro spindle with rapid acceleration/deceleration.

The VMC 850 nvu is designed ergonomically for effortless operation. Movable operating panel design offers fatigue-free machine operating experience, thus improving human comfort and flexibility. Special concentrated Total Productive Maintenance (TPM) concept is adopted to maintain machine performance for a longer working life. "The VMC 850 nvu truly serves as a 'Made in India, Made for the World'



Source: Jyoti CNC Automation Ltd

"The current event is yet an opportunity to meet quality customers, consultants and decision makers. This would lead to forming new bonds, reinforcing our market positioning."

Pankaj Bandal
Regional Manager-Sales
Jyoti CNC Automation Ltd

product to the field of metal cutting," adds Bandal summing up.

Jyoti CNC Automation Ltd
www.jyoti.co.in
Hall & Stall: A / A-112



Source: Jyoti CNC Automation Ltd

The ergonomically designed VMC 850 nvu for effortless operation

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PRECISION MANUFACTURING

For the Right Cut

An account of how Komet Group is using Renishaw metal additive manufacturing technology to produce a range of innovative cutting tools...

Germany's Komet Group is a global technology leader in the fields of high-precision drilling, reaming, milling, threading and process monitoring.

Challenges

With a strong focus on innovation and continuous development, it was perhaps inevitable that Komet Group staff would come up with some tooling designs that were too expensive, or even impossible, to make with conventional manufacturing methods.

As a result, for several years, Dr Reinhard Durst, Research and Development Manager for hard metal tools at Komet Group has been exploring the potential of additive manufacturing for tooling production and the equipment available in the market.

Solution

Dr Durst has been working with Renishaw for the last year. This transfer of knowledge and know-how is inherent throughout Renishaw's new and growing network of Additive Manufacturing Solutions Centers. Before buying the machine outright, customers can lease the latest Renishaw equipment at a Solutions Center and work independently on their projects.

"Parts produced with additive manufacturing can reach an up to 99.9 percent consistent structure, just like rolled or cast metal components," explained Ralph Mayer, Manager, Additive Manufacturing Services, Renishaw GmbH.

Renishaw's metal additive manufacturing system uses laser powder bed fusion technology in an inert argon atmosphere. An extremely thin bed of metal powder is laid down and areas that will form the component are melted using a high performance ytterbium fibre laser and then solidified on cooling. This process is repeated with layers of metal powder, typically between 20 and 60 µm thick, until the part is finished. The thinner the layers, the better the accuracy and surface quality of the finished part.

Results

The first of the projects handled jointly between Komet and Renishaw was the development of a new range of PCD (Poly-Crystalline Diamond) screw-in milling cutters. The main bodies of the cutters are manufactured on a Renishaw metal additive manufacturing system, with multiple bodies produced during each cycle of the machine, and then fitted with PCD blades and screwed onto their tool holders. The use of

Challenge

Germany's Komet Group was tackling with tooling designs that were too expensive and almost impossible to make with conventional manufacturing methods.

Solution

Renishaw's metal additive manufacturing technology offered Komet Group a new design freedom to develop even more innovative tool solutions.



Source: KOMET GROUP

"It is not easy for a company that is new to metal additive manufacturing technology to work out the best laser parameters on its own."

Dr Reinhard Durst
Research and
Development Manager
for hard metals
KOMET GROUP
(Germany)

the Renishaw technology to manufacture the tools allows geometries to be produced that would be almost impossible by conventional means.

"We have changed the arrangement of the blades and achieved a substantially greater axis angle. Compared to conventional milled tools, we have greatly shortened the grooves. These changes mean that the tool is a lot more productive for the user," explained Dr Durst. For example, with a 32 mm screw-in head, the number of grooves and blades has been increased from six to ten, achieving a feed rate that can be up to 50 percent higher.

In addition, the ability to optimize the paths of the coolant channels ensures that each cutting edge is supplied precisely with coolant through a separate

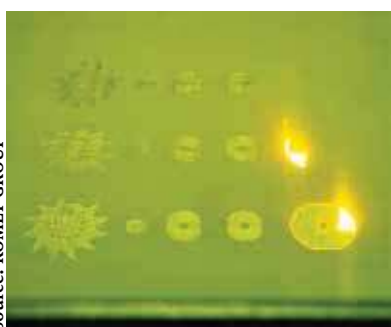
channel, while the external design of the bodies helps to ensure that chips are removed reliably from the face of the tool.

Renishaw Metrology Systems Ltd
www.renishaw.com
Hall & Stall: A / D-106



Source: KOMET GROUP

Multiple cutter parts are produced on a single build plate



Source: KOMET GROUP

Renishaw laser powder bed fusion technology



Source: KOMET GROUP

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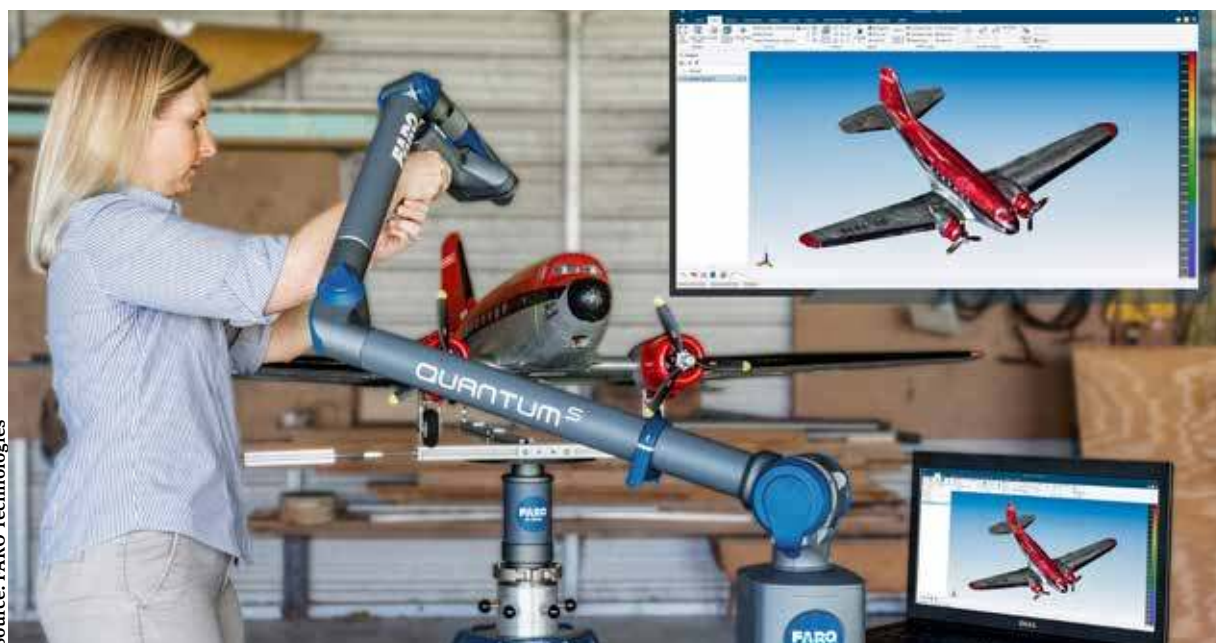
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Source: FARO Technologies



The FARO® 8-Axis Quantum ScanArm with Prizm™ laser line probe (LLP)

METROLOGY SOLUTIONS

Measuring up to Expectations

FARO Technologies considers PMTX an ideal platform to showcase latest technologies and solutions and connect with professionals from a wide range of sectors. At PMTX 2018, it's displaying its new offering which is sole in the world.

Regional shows, like PMTX, provide FARO with a platform ideal to network with industry leaders, decision makers and users of the machine tools and manufacturing industry. "As a technology-led event, PMTX provides an attractive opportunity for companies to showcase their latest technologies and solutions, and facilitates cooperation between businesses both regionally and internationally," states Quah Beng Chieh, Head of Marketing – Asia Pacific, FARO Technologies.

Agenda PMTX 2018

The company looks forward to exchanging new ideas on the latest trends and technologies with various trade professionals from various sectors of the machine tools and manufacturing industry. "We expect to meet our existing customers and prospects, especially those in the metalworking, automotive, and renewable energy sectors," says Chieh. "We are also eager to speak with those interested to learn more about FARO's leading-edge measurement technology and solutions, and how it can provide precision and accuracy that improves the overall efficiency of the manufacturing processes," he adds.

Chieh anticipates receiving enquiries from a wide variety of sec-

tors within the manufacturing and metal fabricating industries as FARO's measurement solutions are extremely versatile.

8-axis portable metrology arm solution

FARO is showcasing its latest breakthrough technology in metrology – the FARO® 8-Axis Quantum ScanArm with Prizm™ laser line probe (LLP). It is the world's only 8-axis portable metrology arm solution. Seamlessly integrated with any FaroArm®, the eighth axis enables the part to be rotated in real-time, relative to the Arm. "This takes away any difficulty users may have had in reaching around the object, and eliminates the need to move the Arm into different locations during the measurement process," explains Chieh. In addition, Prizm™ is the first LLP that scans objects in high resolution, 3D color. Ideally suited for inspecting moulded parts, the true-to-life functionality allows inspection professionals to drive out dimensional and surface character quality issues that would otherwise slow the end-to-end production process.

FARO Technologies
www.faro.com/en-in
Hall & Stall: A / A - 107



Source: FARO Technologies

"We are eager to speak with those interested to learn more about FARO's leading-edge measurement technology and solutions, and how it can provide precision and accuracy that improves the overall efficiency of the manufacturing processes."

Quah Beng Chieh
Head of Marketing –
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