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There will be no correspondence regarding the competition. The winners will be notified personally. Legal recourse is excluded.



Optimism Looms Large

IMTEX 2019 & Tooltech 2019 witnessed an unprecedented show of solidarity from the manufacturing community yesterday at its inauguration. The veterans proudly reflected on how far we, as a nation, have reached in the global manufacturing landscape and deliberated on filling the gaps to make wide strides to reach our goals. A fitting start to a very special golden jubilee of IMTEX.

he 19th edition of IMTEX and 21st edition of Tooltech, organized by Indian Machine Tool Manufacturers' Association (IMTMA), kickstarted on a high note yesterday at the Bangalore International Exhibition Centre (BIEC), Bangalore with visitors pouring in from a wide variety of sectors. The show holds a special significance this edition since IMTEX celebrates completing 50 years of being a world-class machine tools exhibition.

A perfect start

IMTEX's golden jubilee edition had to have a perfect start to set the tone for the seven-day metal cutting fair that would display technological refinements in the field even from the farthest nooks of the world.

Shri HD Kumaraswamy, Hon'ble Chief Minister of Karnataka, did the honors of inaugurating



Source: Magic wa

Industry veterans during the lamp lighting ceremony

the show in the presence of Shri RV Deshpande, Hon'ble Minister for Revenue, Government of Karnataka; Shri KJ George, Hon'ble Minister for Large & Medium Scale Industries, Government of Karnataka; Vikram Kirloskar, Vice President, Confederation of Indian Industry (CII); and Ram Venkataramani, President, Automotive Component Manufacturers Association of India (ACMA).

Fillip to the industry

What started as a vision for an all machine tools exhibition has turned out to be a one of its kind

industrial exhibition in India. At this juncture, IMTEX 2019 is its most evolved and is the reflection of IMTMA's relentless enthusiasm to create a platform to nurture the Indian Machine Tools industry on par with international standards. It's only opportune that the show To be continued on 6 **•**



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Industry veterans at the ribbon cutting ceremony

Continued from 1 <

IMTEX 2019 Tool 2019

reaches its 50th year milestone when the Indian manufacturing industry is at a turning point.

"We are at the beginning of a promising year for the Indian economy, India GDP forecast for the current fiscal is 7.3 to 7.4 percent growth. I am sure that in the forthcoming financial year 2019-2020 we will see more vibrancy and robustness," said P Ramadas, President, IMTMA. "Manufacturing is seeing good

growth in the country. The industry now needs to tap the various opportunities which are rising in defence, aerospace and other sunrise sectors. This will further open doors for research and innovation. This will also supplement the industries export potential besides strengthening 'Make In India' and taking manufacturing sectors contribution to 35 percent of the country's GDP," he added.

Commending the industry on its growth, Shri RV Deshpande, said, "I have been very closely associated with IMTMA for the past few years. I applaud IMTMA's efforts for taking the Indian Machine Tools industry to the global height. Almost up to 1995, we did not have any big automotive manufacturer in the country. Today, we have so many. This has been possible only because of the



Shri RV Deshpande, Hon'ble Minister for Revenue Government of Karnataka planting saplings post inaugural ceremony at BIEC

growth of the Machine Tools industry. In Karnataka itself almost 120 companies are engaged in machine tools manufacturing."

Seconding him, Kirloskar noted, "The Automobile and the Auto Component industry both are globally expanding and the highquality products are possible because of our Machine Tools industry's development." He cited three major areas — Energy Security, Environment and 'Make in India', where a long-term policy is needed and put forth his request to the union government to frame them.

Clearly proud to have IMTEX in the state of Karnataka, Chief Minister Shri HD Kumaraswamy said that he is glad to host all national and international guests in the state. "Today, the entire world knows Bangalore. This exhibition is of great significance to the Indian Machine Tools industry. I am glad to inform that Karnataka is the first state to declare the Aerospace Policy. We are working on providing a dedicated space to set up this industry. We are also working on setting up our exhibition center close to the airport."

Celebrating 50 glorious years

2007 was the year when the journey of IMTEX took a more exciting turn when it settled in the BIEC, the world's most professionally designed and created exhibition center. To cater to the growing needs of the industry, another Hall (Hall 5) has been added to the center, which was formally inaugurated at the hands of the dignitaries.

"I had the privilege of inaugurating the show and opening the BIEC when IMTEX entered Bengaluru 12 years ago. The exhibition has been a gateway for attracting investments in Karnataka since then," said Shri HD Kumaraswamy recalling IMTEX's first at the center. "It is IMTEX's 50th year and 10th year in our own complex. I am glad to welcome 13 of our past Presidents with their families. They visualized much early to build what Indian Machine Tools industry is today. I am glad to say that we have been able to utilize the entire space that has been created within the complex. This is the biggest IMTEX so far," said Jamshyd N Godrej, Chairman -Exhibitions, IMTMA.



Rajendra Jain honored with IMTMA-Doshi Award

cknowledging his visionary pursuit of entrepreneurial excellence and unique leadership style, Rajendra Jain, Managing Director, ITL Industries has been honored with the IMTMA - Vinod Doshi Premier Outstanding Entrepreneur Award at IMTEX 2019. The award has been instituted in memory of Vinod Doshi, Chairman of Premier Ltd, an outstanding industrialist and one of the founding fathers of IMTMA. Described as a diligent, determined, creative and compassionate mechanical engineer by his close associates, Jain's entrepreneurial journey has been of challenges and winning over them. With his spirit to consistently innovate, he introduced the first indigenously designed Double Column Type Band Saw Machine in 1988. It was Jain's inherent leadership qualities that resulted in turning a partnership firm, ITL Industries, to a Public Limited Company within no time.





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FROM FAR & WIDE

In the Right Direction

With IMTEX celebrating 50 years, Dr Wilfried Schäfer, **Executive Director, VDW,** says it has become meaningful over the years.

or German manufacturers, trade fairs like IMTEX take priority considering that they have a fairly large market base here through numerous representatives. Dr Wilfried Schäfer, Executive Director, German Machine Tool Builders' Association (VDW), affirms that trade fairs like IMTEX become a homing ground for business between machine tool suppliers and customers.

India-Germany make great partners

According to Schäfer, India is one of the world's largest machine tool markets. He shares the importexport data between India and Germany, "In 2017, machines worth almost €2 billion were consumed. The country imported 60 percent of this. With a share of



66 Over the past 50 years, the organizers have been outstandingly successful in fulfilling this role. For 18 years, VDW and the Indo-German Chamber of Commerce have been organizing a joint German stand, which continues to be well received.*

Dr WILFRIED SCHÄFER Executive Director, VDW

16 percent, Germany ranks third among the most important suppliers after Japan and China. The same year, German deliveries increased by more than a fifth. In the first three quarters of 2018 they lost slightly, 3 percent to just under €150 million. It was mainly parts and accessories, gear cutting machines and machining centers that India's industry had ordered."

German Machine Tool Builders' Association (VDW) www.vdw.de Hall 3B, Booth C104 / 3C, E108



www.lmwcnc.com Hall 5. Booth B106

Visit us at Hall 5 · Stall A103

VERTICAL MACHINING CENTERS

LMW launches JU 60 VMC

akshmi Machine Works Ltd (LMW) yesterday at IMTEX 2019 launched a 5-axis simultaneous VMC. The JU 60 provides high speed and accuracy in complex part machining with a built-in spindle of 15,000 rpm. It has ideal axes layout with 2 spindle axes and 3 table axes. The machine has a symmetrical structure for thermal stability and comes with an automatic tool changer with 40 tools. For higher accuracy and high rapid traverse rate (X,Y, & Z axes 48 m/min), it has BBT40 spindle taper. Better tool clamping and higher material removal is achieved due to BBT spindle. It has a larger clamping area (dia. 500 mm) and Siemens 840 D Control system.

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METALWORKING FLUIDS



Doing Cool Stuff Punit Gupta, Managing Director, Blaser

Punit Gupta, Managing Director, Blaser Swisslube India, believes in having a sustainable long-term way to generate added values for its customers and create long-term partnerships with them, its employees and channel partners.

unit Gupta, Managing Director, Blaser Swisslube India, says with certainty that the competence of suppliers and customers must work together in a collaborative way to reach higher standards of working. "Customers need competent partners who work with their strengths, bring the technology expertise and contribute to increased competitiveness. As a globally active and focused company, we have geared up to collaborate with our customers and bring in new technologies and generate added value for our customers through Liquid Tool," he says.

Every element in manufacturing must generate returns on investment rather than expenditure. People would then definitely find it interesting to change their approach in manufacturing.

With years of focused engagement with the metalworking operations, Blaser Swisslube developed the concept of Liquid Tool - a new dimension in productivity & profitability. An area of Metalworking Fluid, which was often neglected and considered as a necessary evil, has been completely transformed with Liquid Tool concept. It allows manufacturers to exploit the potential of machines and tools to a larger dimension. Liquid Tool is built on competence and expertise at Blaser Swisslube including its people, technology driven formulations and customized services. It is possible to gain much larger benefits by having a strong trust in this approach. Tests at customers' end have shown that there are possibilities of increasing the tool life by 20-40 percent and to increase the productivity to the tune of 8-15 percent by working together.

Meeting requirements

Blaser Swisslube India is showcasing Synergy 735 at IMTEX 2019. It is a crystal-clear, innovative, watermiscible and oil-free metalworking fluid that ensures spotless surfaces that are easy to clean thanks to its



66 Liquid Tool is built on competence and expertise at Blaser Swisslube including its people, technology driven formulations and customized services. It is possible to gain much larger benefits by having a strong trust in this approach."

PUNIT GUPTA Managing Director Blaser Swisslube India

neutral pH and outstanding rinsing behavior. Synergy 735 has a neutral odor, excellent skin compatibility and offers a clear view of the machining process. It performs in a variety of materials such as titanium and aluminum alloys as well as steel and stainless steel, copper alloys and composites.

Blaser Swisslube has created optimum conditions for simulating and testing the latest machining technologies at its in-house Technology Center in Switzerland. "Our Technology Center is unique in the industry and it's where we develop and test the latest metalworking fluids before they come to market," Gupta shares summing up.

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IMTEX

METROLOGY

IMTEX 2019 Tool 2019

3D Scanner ATOS 5

ATOS 5 delivers high-precision data for a diverse range of manual and automated applications.

TOS 3D scanners are replacing tactile measuring systems and gauges in many areas of industry. In a short time, they capture more detailed and easily interpretable quality information about an object. The sensors provide full-field deviations between the actual 3D coordinates and the nominal CAD data.

For diverse applications

ATOS 5 sensor provides full-field 3D coordinates for each individual measurement. Within a few seconds, up to 12 million inde-pendent measuring points are captured per scan. With its powerful light source, ATOS 5 delivers high-precision data for a diverse range of manual and automated applications: from tools and moulds to plastic and metal parts. The GOM data quality is particularly evident in the detail sharpness of the 3D

models, for instance in precise display of smallest details like rib structures, narrow radii or hemmed edges. The Blue Light Equalizer of ATOS 5 is so powerful that even unconventional surfaces can be scanned in short measuring times, making the precise coverage of complex geometries possible. In addition, the 3D Scanner is equipped with a Blue Light Equalizer, which increases the brightness of the light source by a factor of 1.5 and transmits uniform, non-coherent, specklefree light to the projection unit. Developed for industrial use, ATOS 5 delivers high-precision data in a short measuring time even under non-standard conditions. The fullfield 3D measuring data allows comprehensive process and quality control, visualizing hidden errors and thus speeding up production processes.

ELECTRIC & ELECTRONIC EQUIPMENT

Reigning Globally

Mitsubishi Electric India Pvt Ltd considers IMTEX & Tooltech as an ideal platform for showcasing its products and is, therefore, a regular participant of the show. The company is displaying latest from its extensive product stable including controllers, motors and amplifiers.

itsubishi Electric has been participating in IMTEX since the year 2010 and considers it as one of the major promotional events for CNC. "The exhibition is an ideal platform for CNC manufacturers such as Mitsubishi Electric to showcase advanced technological products and interact with various machine tool builders as well as end-users," says Shuhei Matsui, General Manager – CNC Systems, Mitsubishi Electric India Pvt Ltd.

"We would like to encourage our MTB partners to display machines with Mitsubishi CNC to showcase our latest technologies such SSS-4G, Interactive Cycles, Touch Screens and SD cards etc.," he adds.

On the showcase

Mitsubishi Electric is displaying its latest product line-up consisting M80, M800, C80 and E80 along with Motors and Amplifiers. M80 controllers are capable of handling up to 12 axes targeted for VMC and Die-Mould applications. M800 is high-end controller capable of handling up to 32 axes





66 Technologies such as IoT, Edge Computing, Cloud, AI, etc. help integrate the whole factory from raw material to finished goods, procurement to sales, vendor to customers."

SHUHEI MATSUI General Manager – CNC Systems Mitsubishi Electric India Pvt Ltd

used for high-end Machining applications such as 5-face machining. C80 controllers are useful for Line Assembly and Line Machining applications especially for the Automotive market. "Our newly-launched E80 controller is for the Part Production and Turning market segment. Apart from this, we are also displaying Industry 4.0 software applications such as Factory View, Data Back-up tool etc., which are indigenously developed in India by Mitsubishi Electric India," informs Matsui. He is happy that IMTEX is growing larger with an additional hall to showcase emerging technologies on IoT and 3D printing. "Some of our partners are displaying machines with Mitsubishi CNC in this section. We expect the new technologies should be available to customers to enhance their manufacturing capability," he adds.

Smart moves

Matsui thinks that manufacturing units should make use of latest technologies such as IoT, Edge Computing, Cloud, AI, etc., thus enabling them to grow. "These technologies help integrate the whole factory from raw material to finished goods, procurement to sales, vendor to customers, etc. Automation, Digitization and Visualization are the key elements of Smart Manufacturing. The e-Factory from Mitsubishi Electric is a one-stop solution for all the smart manufacturing needs. Mitsubishi Electric pioneered the e-Factory concept in Japan in 2003, which is currently deployed in more than 130 companies worldwide," adds Matsui.

Mitsubishi Electric entered the CNC business in India in 2010, and since then has grown five times. It has partnered with most Indian machine tool builders. Initially, it entered the die-mould market with its high-end CNC M70/M700 and captured 80 percent market share. It has sold the CNC in different segments such as grinding, honing, gear hobbing, engraving, gantry etc.



























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VERTICAL MACHINING CENTRES

Partners in Growth

Rajesh T Ghashi, Managing Director, Chiron India Machine Tools Pvt Ltd, believes that the key to happy customers is being a partner to them along every step of their journey.

hiron India Machine Tools Pvt Ltd knows that IMTEX is an opportunity that comes its way every two years. The company plans to maximize its presence and demonstrate a live show displaying solutions for manufacturing complex parts. In this backdrop Rajesh T Ghashi, Managing Director, Chiron India Machine Tools, says it aims to depict its capability as the right manufacturing solutions partner to the industry. "As Chiron Group, we have the complete ability to provide complete manufacturing solution inclusive of automation and Industry 4.0 solutions," he adds.

At IMTEX 2019, the company is displaying its high-precision highproductive Twin Spindle Vertical Machining Centre with workpiece changer. The DZ 12 W model has

a spindle distance of 250 mm, 15,000 rpm spindle, 45 Nm Torque, rapids of 75m/min in all axis with acceleration of 1 g in X and 1.5 g in Y and Z axis. The machine is equipped with 2x32 HSK A50 Automatic Tool changer and Fanuc 31iB5 CNC system.

Current adoption

Ghashi seems pleased that the organizers have made room for two separate pavilions this time round - One for Additive Manufacturing and the other for Industry 4.0. "We would like to see the number of players who will bring with them capabilities and showcase their contributions. It would be really interesting for industrial visitors / academicians to see the latest trends which they can think of adapting in their present manufacturing environment," he adds.





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IMTEX 2019 Tool 2019



(L-R) Sanjay Sangam, National Sales Head, Renishaw India; Chief Guest TR Parasuraman, Deputy Managing Director, Toyota Industries Engine India; Paul Gallagher, Vice President and Director, Renishaw APAC; and Paul Weaver, Vice President, Renishaw India present during the Smart Factory Launch

NEWS

Renishaw displays intelligent solutions

lobal engineering company, Renishaw, is here at IMTEX 2019 to showcase a complete automation cell, demonstrating to manufacturers how intelligent process control (IPC) is key to the operation of a successful smart factory. Additionally, it is also launching several new products to address the industry's need for automated process control.

Renishaw's technology provides manufacturers with measurement data to enable intelligent decision making, a crucial part of Industry 4.0. By providing equipment for machine calibration, on machine measurement, off-machine gauging and verification, Renishaw enables manufacturers to improve their processes and quality, while reducing CNC machine stoppages.

Innovations galore

At the show, the company is demonstrating IPC for larger parts through Equator 500. "Intelligent process control is a crucial part of the Industry 4.0 journey for companies in the metal cutting industry. Renishaw is a leader in automation for machine tool and will demonstrate to visitors a complete automation cell, so they can experience IPC for themselves," said Paul Weaver, Vice President, Sales and Marketing, Renishaw in India.

Renishaw also has a separate AM stand, where it is exhibiting the four-laser RenAM 500Q that speeds up the process by up to four times in the most commonly used platform size, without any compromise on quality. It is also demonstrating its software for metal AM including QuantAM build preparation software, remote process monitoring application, InfiniAM Central, and the InfiniAM Spectral application for the live feedback on energy input and emissions.

Among many more, the company is also showcasing a new version of SupaTouch, an intelligent optimization routine as part of its Inspection Plus macro software for machine probing cycles, which leads to a cycle time reduction for CNC machine tools of up to 60 percent. Its new CARTO 3.0 software supports the XR20-W rotary axis calibrator to quickly capture and analyze data from rotary axes. This provides an easy-to-use and intuitive software solution for all Renishaw laser calibration products, reducing the calibration time of a 5-axis machine tool to several hours.

Visitors can learn more about Renishaw's popular smartphone apps including GoProbe, which generates code for machine tool probing and the Trigger LogicTM app, which provides users with a simple way to customize their Renishaw probe settings.

Renishaw Metrology Systems Ltd www.renishaw.com Hall 3A, Booth B103 Hall 6, Booth D102

MACHINING SOLUTIONS

DMU 50 3rd Generation

ith DMU 50 3rd Generation, DMG MORI has managed to harmonize the modern appearance of the design with user-friendly operation. The large, smooth opening door to the work area, for example, with a width of 876 mm ensures unrestricted access from the front, even in combination with automation solutions. The table also has an ergonomic loading height of 800 mm. The optimum



accessibility of the DMU 50 3rd Generation even encompasses maintenance components such as the control cabinet, fluid box, oil mist separator, heat exchanger and cooling unit.

Travel paths of 650 x 520 x 475 mm and workpiece weights of up to 300 kg mean the new DMU 50 3rd Generation covers a wide range of components. Its new NC swivel-rotary table with an enlarged swivel range of -35°/+110° boosts this versatility. A rapid traverse of 42 m/min and 30 rpm in the swivelrotary axis ensure the dynamics for 5-sided to 5-axis simultaneous machining. In addition to the 15,000 rpm speedMASTER® motor spindle, the user can also choose between motor spindles with up to a 20,000 rpm. Also available as an option is an expanded tool magazine with up to 120 pockets. There are 30 tool pockets in the standard version.

TUMAKURU MACHINE TOOL PARK (TMTP)

(A Special Purpose Vehicle of GOI & GOK) 3rd Phase, Vasanthanarasapura, Tumakuru District, Karnataka Exclusively For Manufacturers Of Machine Tools And Their Ancillary Industrial Units.

Invitation for Allotment of Industrial Plots at **TUMAKURU MACHINE TOOL PARK**

HIGHLIGHTS OF THE PROJECT:-

- TMTP is being developed in about 530 Acres, as a self contained gated community with world class infrastructure.
- The Industrial Park will have state of the art infrastructure with eco-friendly layout exclusively for manufacture of Machine Tools.
- Power Supply Distribution network with UG cables and supplementary solar power (Uninterrupted power supply.)
- Dual water supply system potable & non-potable, underground Sewerage System.
- Power, water and sanitation points at each plot. Ready for "plug & play".

CONNECTIVITY

- 20 Km from Tumakuru town and 90 Kms from Bengaluru, along the NH-4 leading to Mumbai.
- Nearest Airport: Kempegowda International Airport (105 Kms), accessible bypassing Bengaluru City.

COMMON FACILITIES:-

- Common Engineering Facility Centre (CEFC); Test and Certification Centre (T&CC); Research & Development Centre (R&D); Incubation Centre for Startups.
- Investment promotion subsidy; Exeption for business development; Incentive and Concessions to MSME's as per Karnataka Industrial Policy 2014-19.

Sri. Gaurav Gupta, IAS Principal Secretary to Govt., C&I Department, GoK Dr. N. Shivashankara, IAS CEO&EM, KIADB

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WORKHOLDING SOLUTIONS



Smart Fixtures -The Next Revolution

Smartfix 4.0 can be installed on even existing fixtures currently running in plants.

orms and Gear's Fixture building expertise, in partnership with ASM Technologies' IT, Data Analytics and Artificial Intelligence strengths, has resulted in the development of Smartfix 4.0 - a revolution in Fixture Building and Workholding.

Smartfix 4.0 is a Fixture / Precision Workholding Device with the ability to collect, transmit and analyze data in a useful format to the end user. As the fixture is in continuous contact with the component, it is the ideal device to collect and analyze data at a component level. Sensors to monitor vibration, pressure, and component sensing are mounted on the fixture. And sensors to monitor oil levels and temperature are mounted on the powerpack.

Data collected from these sensors are transmitted wirelessly to the cloud where the data is then processed using Data Analytics and Artificial Intelligence. The analyzed data is then presented to the end user through a custom-built mobile application platform.

INDUSTRY-ACADEMIA



IMTEX 2019 hails 50 Academic Institutes

n a bid to forge the highly crucial Industry-Academia bond, IMTMA has called upon academic institutes to display their innovations and closely gauge industry requirements. Seventeen institutions from Bangalore and 33 from outside including two IITs are participating in the i2 Academia Pavilion at IMTEX 2019 & Tooltech 2019. Although most of them are displaying their R&D projects through posters, a few are showing live demonstrations of their innovations.

The students from NMAM Institute of Technology (NITTE) are showcasing a Noble Drilling Technique. With a normal drill bit it is not possible to drill beyond a certain depth. To resolve it, they have developed a technology by which they charge a mist coolant to facilitate the process. They are in talks with SKF Industries to introduce this technique.

Nagendra Jayaram, Senior Assistant Professor, Mechanical Engineering Department, New Horizon College of Engineering, shared, "We are showcasing our Centre of Excellence (CoE) for the Additive Manufacturing technology, some other techniques of manufacturing and innovative surface enhan-

cement technologies. In our CoE, we can customize the material that is to be printed. We are primarily focusing on



plastic waste materials, which are carelessly disposed. With our FDM printer we make technical parts from the waste thermoplastics."

Sathithya Yogi from Chennai Institute of Technology said, "We have developed an automated trolley that can move and turn in any direction within a very narrow place. This is a specialized application of Human Machine Interface (HMI). Although such products are already available in the market, this development drastically reduces their cost."

Nehal Ahmad from HKBK College of Engineering said, "We are displaying design and fabrication of power generating systems from various moving devices. For example, power can be generated even from a treadmill. We are trying to show all such new concepts at the show."



MANUFACTURING SOFTWARE

3-Axis and 4-Axis Mill Post Processor

This new post processor has been developed with the technical aid of Siemens CNC engineers.

NC Software, Inc., producers of Mastercam CAD/CAM software, announces a 3-axis and 4-axis milling post processor that will unleash the highest productivity on SINUMERIK-controlled machine tools. This new post processor was developed utilizing the technical expertise of Siemens CNC engineers.

This post processor provides 3- and 4-axis support for SINUMERIK 808D CNCs from Siemens.

- Some features include:
- CYCLE 832 Support for High Speed Settings.
- Work offset support matching control capabilities.
- 808D optimized Drilling Cycles (CYCLE 82, 83, 84, 85, 86, 840), with full 4-axis support.
- Numerical tool call with offset D#.
- TOFFR functionality to support cutter compensation wear strategy.
- Optimized Multiaxis toolpath using the FGROUP and FGREF commands.
- A Siemens application guide.

JU60 5 Axis VMC

Highlights:

LMW. JU60

- 5 Axis Simultaneous
- Built in Spindle (15000rpm)
- Ideal Axis layout with two spindle axis and three table axis

JU60

- Symmetrical structure for thermal stability
- Linear scale
- Automatic tool changer (40 Tools)
- Larger Clamping Area (Dia 500mm)
- BBT 40 Spindle taper for higher accuracy
- Higher Rapid traverse rate (X,Y & Z 48 m/min)
- Pre loaded axial & radial roller bearing to withstand the load exerted during machining
- Trunnion type both end supported A axis table
- Siemens 840D control system

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A bevy of benefits

With features such as power surfactants, advanced surfactant technology, special additives, and dual-effect action, HAKUPUR[®] cleaners provide the following advantages:

- Superb cleaning effect
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- Longer bath life.



Zavenir Daubert India Pvt Ltd www.zavenir.com Hall 3A, Booth B125

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NEWS

BFW partners with Universal Robots

BHARAT FRITZ WERNER

harat Fritz Werner Ltd (BFW), a leading machine tool manufacturer in India, in association with Universal Robots, pioneer and leader in Collaborative Robots (Cobots), have joined forces to cater to the MSME segment with new and affordable automation solutions. The aim is to redefine the production processes by deploying

robotic arms through modular, flexible and user-friendly integration solution

Bharat Fritz

Werner Ltd www.bfwindia.com Hall 1A, Booth A102

platform – Arjun. Ravi Raghavan, Managing Director, BFW, said, "Our strategic partnership will bring collaborative robot technology on a modular flexible platform to MSME shop floors to enhance their manufacturing competitiveness significantly."

Pradeep David, General Manager, Universal Robots, South Asia, said, "We're pleased to be working closely with BFW as its CNC machines and Automation Services are well respected throughout the country. Cobots will make it in top 50 disruptive technologies of 2018 in job shops in India."

Fibro India Precision Products Pvt Ltd www.fibro.com Hall 4, Booth B146

Large individual workpieces or several clamping fixtures holding heavy weights can be positioned accurately and machined with maximum precision in 3-, 4- or 5-axes simultaneously on FIBROMAX tables.



source: Fibro India Precision Products Pvt Ltd

ROTARY TABLES

FIBROMAX 2.0

Second-generation, heavy-load positioning tables feature high rigidity and efficiency.

pecialist and rotary table pioneer FIBRO presents the FIBROMAX 2.0 series: a completely revised series of its XXL rotary displacement series. In comparison to the first-generation, the bearing diameter and thus the rigidity of the heavy-load positioner has increased significantly and with virtually unchanged costs. The continuously increasing requirements for the construction of wind power plants, roller bearings, turbines, gearbox cases, and construction machines were the reasons for the new heavyload concept.

Maximum process stability

Rotary tables for workpiece sizes of 4 x 4 m and transport loads of

up to 400 tonne are now standard at FIBRO. The heavy-duty tables provide a positioning accuracy of ± 2 angle seconds. The axial run-out and radial concentricity are in a range of a few hundredths of a millimetre. In addition, with the FIBRO-MAX 2.0 series, a very large dimensioned and highly precise roller bearing provides for maximum rigidity and thus the highest precision during processing. When in a positioned state, a hydraulic table top clamp increases the tangential torque and relieves the gear. The preloaded bearing and a play-free twin-drive also offer optimum conditions for circular milling and simultaneous machining. FIBROMAX 2.0 pro-vides a maximum of process stability at minimum maintenance effort.





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WORKHOLDING SOLUTIONS

IMTEX 219 Tool 219

Zero-Point Clamping System

With technological superiority, the zero-point systems from AMF have virtually revolutionized the zero-point clamping technology market.

MF has introduced highly precise clamping modules with high draw-in, locking and holding forces that ensure perfect clamping in the widest range of applications. The systems are used for set-up time reduction in metal cutting as well as non-metal cutting areas. They also find applications in food, pharmaceutical and chemical industries. The new indexing function of the clamping module prevents the pallet or work piece from twisting especially when a single module is used. Repeatability is within 0.005 mm and accurate positioning at every 90 degree. The module is opened pneumatically with 5 bar and gets mechanically self-locked. The clamping module connection can be disconnected once clamping is achieved. Positioning and clamping gets p done in one operation. Pneumatic blow out of chips is a standard option. § Opening, closing and support functions can be controlled and interfaced b with machine control for safe operations. Modules with various capacities are available

Andreas Maier Workholding Technology Pvt Ltd www.amf.de Hall 2B, Booth B112

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COURSE BENEFITS:

Comprehensive Machine Design on Controls & Machine Automation



"Great Source of Knowledge"

66 IMTEX is truly a one of its kind exhibition. I am a regular participant in the show and have seen it growing from edition to edition. It's an excellent platform to learn about the technological advancements from all over the world.*

MILIND KULKARNI Managing Director Kulkarni Transpower Pvt Ltd



"New Technologies All Under **One Roof**"

66 IMTEX 2019 has added several new technologies to its already comprehensive list of display offerings. Tools for safely handling composites is what caught my attention today. It is an emerging field, which is bound to grow."

GIRISH RISHI Manager, Machine Shop United Metallurgicals Pvt Ltd



"Useful for College Students"

661 am a student and have come here to get acquainted with the new technologies that are being deployed in the modern machine tools. The real-world scenario is always much more advanced than what is taught in colleges. I got to see some interesting applications of automatic control and robotics here at the show."

VISHNU DAS CMAS Technologies Calicut



"Good Focus on Technologies for Composites"

66 My purpose of visit is to search for new machinery with the latest technologies. Although most technologies being exhibited here are already in our workshop, there are some which are new and highly advanced. We need this knowledge to begin with since we are moving from metals to composites."

B P GUPTA Jr. Works Manager **Small Arms Factory Ministry of Defence Government of India**



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At IMTEX 2019, Mahr unveils a new product series for tactile contour and surface measurement. They all have one thing in common: more speed.

Shorter measurement times increase performance - that's what we at Mahr believe. Our new MarSurf devices are therefore optimized to accelerate measurement processes and simplify handling.

Contributing significantly to the shortened measurement times of the new MarSurf devices are:

1. Innovative clamping system

For quality assurance, less handling mean faster measuring procedures. The key to this is the innovative workpiece clamping system of the new MarSurf devices: it combines a large mounting plate with 50 mm bore dimension and the integrated TY adjustment in such a way that no additional XY table is required. The result: workpieces can be positioned flexibly and quickly.

2. Higher axis speeds

The axes of the new MarSurf devices also provide more speed. They move the contour probes along the X-axis about 25 times faster than their predecessors – namely with up to 200 mm/s. Measuring up to 50 mm/s on the Z axis, measurements are now about 5 times faster than other axes on the market. The highly dynamic touch probe also enables measurement speeds of up to 10 mm/s.

3. Intelligent probe arm system

With the new MarSurf devices, you can also quickly mount or change a probe. Because: the probe arms are magnetically attached and can be quickly mounted without tools. The probe arms of the MarSurf CD series are also equipped with a data chip, which is automatically read out after mounting. Within seconds, all relevant information about the probe arm used is available.

Mahr Metrology India Private Limited

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