



International Machine Tool &
Manufacturing Technology Exhibition

JANUARY 19 - 25, 2023, BANGALORE, INDIA

CONCURRENT SHOWS



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CNC MACHINE TOOLS

Embracing Innovation and Technology

Addressing future trends and providing an enhanced value proposition to the customers with better technology is Jyoti CNC Automation's mantra for IMTEX 2023. The one-stop solution provider displays the comprehensive and innovative product basket that it has been relentlessly improving upon only to provide its customers the benefits and earn itself the much-needed competitive edge in the market...



Jyoti CNC Automation Ltd
www.jyoti.co.in
Hall & Stall: 5/B-112

Source: Magic Wand Media

As a showstopper of all shows in the country, IMTEX 2023 assumes great significance for the machine tool fraternity since it is happening after four years, believes Himanshu Shaparia, President – Sales, Jyoti CNC Automation Ltd.

"The rapidly changing technology is resulting in constantly changing customer expectations. Post pandemic, the landscape has changed significantly for the manufacturing industry, and staying relevant is a big challenge. Addressing future trends is paramount and providing an enhanced value

proposition to the customers with better technology is Jyoti's mantra for IMTEX 2023," he states.

"Improved Productivity, Increased Efficiency, Low Cost of Ownership, Better Profitability, and Increased Competitiveness are the power points of value/benefit for our customers," he adds.

Jyoti highlights at the show

As a One-Stop-Solution provider, Jyoti is showcasing varied products ranging from Turning Chuckers, Machining Centers, and Precision High-Speed Multi-Axis/Multi-Tasking machines complemented with automation solutions. The AX Series (Precision Turn Mill), Tachyon Series (High-Speed Drill-Tap Center) benchmarked against the best global brands, VTL (Vertical Turning), TS 120 (Twin Chucker), DXG Si (Linear Tooling with Gantry) for automation with turning, HMC 2.0 HP series (Horizontal Machining Centre) with various combinations are the products Jyoti has on its display.

Besides the upgrades, the company has launched 3 new products for different industry segments which are revolutionary and address the future trends in manufacturing. "Each of our products offers unique technological advantages with respect to Reliability, Productivity, and Precision."

"We are also showcasing a range of HURON high-precision 3-axis/5-axis machines, with MX 16 being the showstopper of the event. The MX multifunction machining center is a high-flexibility machine that enables machining operations in 5 axes and on 5 sides, in one setup part clamping, from roughing to finishing," he shares.

This bandwidth gives us the opportunity to serve a large spectrum of industry segments, including critical emerging sectors such as aerospace, defense, electronics, etc., with optimized solutions suited to the needs of the customer.

Staying rooted

In business, the organizations that truly stand out from the pack today as leaders within their industry have

To be continued on 4 ▶

Keeping Metals Clean. Together.

Hall No-5 Booth No: B 121
quakerhoughton.com | info@quakerhoughton.com





Source: Magic Wand Media



Source: Jyoti CNC Automation Ltd

» To stay competitive and equip your production lines for the future, the time to think about the next stage of your Industry 4.0 journey is now. The year 2023 shall bring in a wave of newer trends and applications of such technologies, and it is exciting to see what lies ahead of us. «

Himanshu Shaparia
President – Sales
Jyoti CNC Automation Ltd

one common factor: they all embrace innovation and technology, enabling the organization to grow consistently, stay relevant, and be a differentiator to deliver value to our customers, believes Shaparia. Jyoti CNC has lived up to its beliefs and today the company is one of the youngest players among the top machine tool manufacturers in the country. "We are among the top 3 manufacturers today. Our market share would be around 12-15 percent in the domestic market," he reveals. "The foundation laid by our CMD Parakramsinh Jadeja, a first-generation entrepreneur, was with a farsighted vision of making Jyoti a technological leader in the machine tool industry. His foresight of building a world-class manufacturing infrastructure is evident from the product basket we serve to our customers," he shares.

The company's acquisition of HURON gave it access to the best technology as well as a global footprint. "Our world is changing rapidly, and so are consumer expectations. Therefore, we must rethink our products and services to take account of the huge shift in customer needs," he rightly states.

Expanding global footprint

The company has been able to establish a global footprint across industry segments in the Middle East, USA, and Europe. "On analyzing the market trends and potential, we are looking at consolidating our presence in the Far East with the China +1 coming into play. We have also developed new products which would increase our presence in specific industry segments globally," says Shaparia.

"Our subsidiary HURON based in France compliments the global presence with high-precision 5-axis machines through its own network," he adds.

Leveraging digitalization

"We have found that the COVID-19 crisis drastically accelerated digitization and businesses must focus their efforts on building better digital-first interactions with customers. Industry 4.0 is part of this process and is transforming manufacturing across the world," notes Shaparia. Jyoti has launched 7thSENSE, a next-gen Industry 4.0 tool which is one of the most versatile tools to initiate its digital journey. "7thSENSE will redefine the conventional PPC to Plan-Produce-Complete. The benefits and potential return on investment are what is truly important," he informs.

The company has also developed PreciProtect, which is a collision protection technology that comes under Artificial intelligence (AI), to give an extra edge to the metal-cutting process with complete virtualization of one's machine environment. It can pre-empt any collisions during operations, resulting in saving precious downtime and protecting one's asset from major damages. "To stay competitive and equip your production lines for the future, the time to think about the next stage of your Industry 4.0 journey is now. The year 2023 shall bring in a wave of newer trends and applications of such technologies, and it is exciting to see what lies ahead of us," concludes Shaparia on a high note. **SD**



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Andreas Maier Workholding Technology Pvt Ltd
www.amf.de
Hall & Stall: 2B/A101B



» IMTEX is the magnum opus exhibition of our country's machines, cutting tools, and metalworking ecosystem, attracting the cream of manufacturers across India and the world.«

TV Mohan
Country Head & MD
AMF-India

Since 1890, AMF Germany has developed more than 6,000 workholding products. "We are showcasing representations of all our traditional as well as technologically advanced and sophisticated clamping devices," shares Mohan. "These include Hand Tools, Toggle Clamps, Standard Clamping Elements, Modular Fixturing Elements, Hydraulic Clamping Cylinders for Fixtures, Zero Point

Clamping, Vacuum Clamping, Magnetic Clamping, Plates, Single and Multiple Clamping Systems, and Marking and Cleaning Systems." Furthermore, Simon Schmidt, Head-International Sales, Andreas Maier GmbH & Co. KG (AMF), will be present at the show to better serve customers.

Showcasing the merits

For the first time in India, AMF-India is displaying a live demon-

stration of its Ecoline Magnetic Clamping with epoxy sealing. These monoblock electro and permanent magnetic clamping plates with square pole technology position, clamp, and machine magnetizable materials. They are light in weight and have lesser height/thickness. Their advantages include: Environmentally-friendly clamping technology: only power is needed for clamping and unclamping; Maximum safety:

holding force persists in power failure; Maximum holding force: using the latest magnetic materials; Water-resistant plug-IP 65; and 5-sided optimal machining without interference contours.

"Also, many of our OEMs (MTBs) and fixture builders are showing live demos of our products on their machines and fixtures with machining in this IMTEX edition," he further adds.

SD

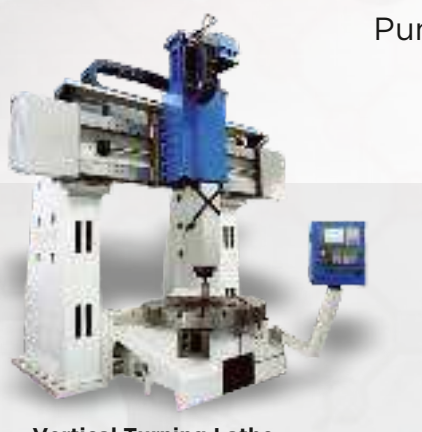


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Hall : **5** Stall No. : **B 107**



Thank you

for the overwhelming responses for the last **6** days

LMW wishes you a **Happy Republic Day**



Heavy duty series JV130 / JV200

Highlights:

JV130

Table size: 1350 x 660 mm
Stroke (x,y,z) : 1300 x 700 x 650 mm
20 tools Automatic Tool Changer
Tool shank – BT 40
Wider working area

JV200

JV 200 Table size : 2100 x 800 mm
Stroke (x,y,z): 2000 x 900 x 800 mm
20 tools Automatic Tool changer
Tool shank - BT 50
Larger working area

TURNING MILLING TURNMILL



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CNC TURNING CENTERS

UT 350 Duo With Sub Spindle

UT 350 Duo is a compact CNC Turning Center with Sub Spindle, which has its own Linear axis and Synchronous control that facilitate 'on the fly' transfer of parts from Main Spindle to Sub Spindle.

A 12-station Servo Indexing Hydraulic locking turret with twin-sided tool disc facilitates machining on main spindle and sub spindle and also simultaneous machining on both spindles in certain cases.

UT 350 Duo compact CNC lathe with sub spindle enables I operation and II operation of the part to be completed in one setting with 'on the fly' transfer, thus greatly reducing the thru put time and increasing the productivity.

In addition, the In-Line accuracy or geometry of the parts produced

in this machine is far better than doing the operations in two different machines as the component is unclamped from one machine and re-clamped again in another machine which leads to inaccuracies and also additional load/unload times.

Long and slender shaft components can be completely machined in one loading with intermittent component transfers from main spindle to sub spindle in stages without the need for steady rest.

A pneumatic-operated part catcher is provided on the machine for unloading of the components from Sub spindle after II operation.

When equipped with a Bar feeder and parts catcher, the machine becomes a complete automated cell where a raw bar is loaded and parts get unloaded from the machine after I and II operations get completed.

A wide range of workholding options like 3 Jaw chuck, Collet attachment of different makes and/or dedicated fixtures are offered to suit component needs.

All necessary safety interlocks/provisions are incorporated to ensure trouble-free and safe operation of the machine. **SD**

Gedee Weiler Pvt Ltd
www.gdweiler.com
Hall & Stall: 1A/B-105



Source: Gedee Weiler Pvt Ltd

VISITOR SPEAK

"The feedback for RBSM is highly encouraging"



Gurvinder Singh, Director, Trade Promotions, EEPC INDIA

We have an old relationship with IMTEX. We have been regularly doing Buyer-Seller Meetings at the show. This year, we have around 44 buyers from different countries including the USA, Japan, Korea, Indonesia, Malaysia, and Thailand. Since IMTEX is happening after four years, the response received is overwhelming. There is a good flow of domestic visitors. We are getting a lot of inquiries for exports for the members. Many members have had successful meetings already. The feedback is highly encouraging. We are looking at a surge in

overall exports. We hope these initiatives will help members explore more opportunities outside India. We will keep on doing several editions in the coming years. We are also planning to do machine tool events outside India. We plan to visit significant events like Expo Manufactura in Mexico; EMO, which is one of the world's highly popular shows; Metalax in Thailand, and many more. This will help members get more market share outside India. "

Source: Magic Wand Media

METALWORKING FLUIDS

Making Highly Effective Metalworking Fluids

Blaser Swisslube's experts are bringing efficient coolants to market. But not before the products are subjected to in-depth performance tests at the Blaser Swisslube Technology Center.

Blaser Swisslube's in-house Technology Center has been undergoing gradual expansion for more than 10 years. Currently, the facilities house six CNC machines, including a state-of-the-art grinding machine, and cover an area of more than 16,000 sq ft. New developments are tested here, and customers' production situations are simulated under close-to-reality conditions. In order to carry out meaningful wear tests and interpret the acquired data correctly, Blaser Swisslube depends on highly precise measuring devices and sensors. Key parameters here are the flank wear (vB,max) and the maximum cutting force (Fmax). The flank wear is now measured in a fully automatic process directly in the machine by means of a wear camera. The cutting force is measured directly in the tool holder using the spike sensor system.

The testing equipment now includes a microscope camera for measuring tool wear and the spike sensor system from pro-micron for measuring cutting force. This allows for faster collection of meaningful data that is of benefit to the user.

Meaningful data collection

"With this machine, we can feel out the tool wear," says Tobias Mathys, Process Engineering Manager at Blaser Swisslube,

pointing to the Technology Center's DMG Mori NVX 5060. This CNC machine is dedicated to coolant development at Blaser. It is equipped with a wear camera — an industry camera that is protected in its own specially dedicated housing.

Dr Linus Meier, a tribologist at Blaser Swisslube, explains: "Tool wear, which manifests itself through tool breakage, mass deviations or unacceptable surfaces, often limits the economic efficiency of a process. With the new measuring options, we receive more information, directly from the machine, in a short amount of time. The microscopic images of the wear in relation to vB,max and Fmax are consolidated and visualized for every cutting edge of the milling cutter."

Fit for the future

"Thanks to the optimized data flow, I can read the results of the performance tests from the Technology Center and understand them better. Changes to the coolant in the laboratory can be implemented more quickly and easily as a result. Our customers also benefit from this," explains Dr Olivia Bossart, a chemist in Research and Development at Blaser Swisslube. **SD**

Blaser Swisslube Solutions Pvt Ltd
www.blaser.com
Hall & Stall: 1B/A-111



Source: Blaser Swisslube Solutions Pvt Ltd

MACHINE TOOL SOLUTIONS

Proffering Innovative Products

Eppinger Tooling Asia Pvt Ltd, with a wide range of products including tool holders, gear and gearing solutions, and rotary tables, is enough equipped to change the game of the Indian machine tool industry.

Eppinger Tooling Asia Pvt Ltd/ESA Eppinger GmbH
www.eppinger.de
Hall & Stall: 2B/B-101



Source: Magic Wand Media

» For us, IMTEX is one of the most important exhibitions to reach out to our potential customers and communicate about the new products and innovative technology we offer.«

Vinay Javali
Head Sales
Eppinger Tooling Asia Pvt Ltd



Source: Magic Wand Media

Vinay Javali, Head Sales, Eppinger Tooling Asia Pvt Ltd, considers IMTEX one of the most important exhibitions for reaching out to potential customers and promoting new products and technology. "We have been eagerly waiting for the IMTEX exhibition for the last 2 years," he states.

Leveraging country pavilion

As a German company, it displays

new innovative products at the German Pavilion at IMTEX 2023, Tooltech 2023, and Digital Manufacturing 2023 that Javali believes will revolutionize the Indian machine tool industry. "The entire product range from Eppinger Group is displayed," he says. "Multiple products from our three business lines, i.e., Tool Holders, Gears & Gear Boxes, and Rotary Tables, are being displayed at our booth."

Comprehensive display

The Tool Holders business line's products include Static & Live Tool Holders of both VDI and BMT type. Along with the standard product range, Gear Skiving/Hobbing, Angular Adjustable/Double Spindle Tool Holders are displayed.

New launches and demos

The company has unveiled its Precision Rotary Tables with inbuilt sensors and other unique

features. "These Rotary Tables are aimed at customers who are looking for high rigidity, speed, precision accuracy, and flexibility," Javali explains.

The company is demonstrating its Dia 200 Rotary Table and Trunnion Rotary Table with Cradle Plate Configuration at its stall. "Our Rotary Tool Holders are demonstrated on Turn Mill Centers at our different OEM partners' booths," he further adds.

SD

DELEGATE SPEAK

"IMTEX is a fabulous learning experience"

I can summarize my IMTEX experience in two words: Amazing and Excellent. This is my first IMTEX show. I am from a manufacturing engineering company for aircraft products. IMTEX has everything that one needs for modern manufacturing. It is a very well-organized exhibition. The halls are also placed well. So one knows where to head according to one's requirements. It is a fabulous learning experience. We could find many suppliers here who can offer us solutions

S Manicka Vasagam
General Manager (Aircraft)
Aircraft Division, Bangalore Complex
Hindustan Aeronautics Ltd

for our existing machines, especially when we are about to upgrade our machine shop. Since we are under the Ministry of Defence, we have issues getting IoT inside the factory. We need to zero in on companies that can get some solution to this. **SD**

"IMTEX 2023 is an eye-opener"

Primarily, I look after three shipyards:

Garden Reach Shipbuilders & Engineers Ltd, Mazagon Dock Shipbuilders Ltd, and Goa Shipyard Ltd. We are in constant need of innovating and



Gaurav Arora
Deputy Planning Officer
(Naval Systems Modernisation)
Directorate of Planning & Co-ordination
Department of Defence Production
Ministry of Defence, Govt. of India

improving on technology to reduce our timelines and increase safety. IMTEX & Tooltech is an opportunity to witness and explore products and technologies available in the international market. It is here we understand how much Atmanirbharata has come to the Indian industry so that we too can pick things up and integrate them into our processes.

The show has been an eye-opener. The quality standard that Indian goods have achieved is spectacular. It has been a highly satisfying experience. IMTEX is a perfect place for gaining knowledge of the latest machine tools. We would definitely like to increase the use of indigenous components in our production process.

But it is not only indigenization but also innovation. Because till the time we develop the culture of developing technology, we will remain one step short. **SD**

Source: Magic Wand Media

"It's interesting to see people come together and collaborate"

We are from the Electronics City Industries Association (ELCIA). We are here to visit IMTEX and explore cutting-edge technologies. It is interesting to witness how the members of the Electronic City can come together and collaborate in various areas including design, prototyping, manufacturing, and marketing, and successfully meet their personal objectives and that of the show. **SD**



Shivayogi V Ballolli (second from left)
General Manager, ELICIA

Source: Magic Wand Media

MACHINE TOOL PROBES

Eliminating Manufacturing Errors



Hexagon Manufacturing Intelligence

www.hexagonmi.com/en-IN/solutions/industries
Hall & Stall: 3A/B-108

Hexagon Manufacturing Intelligence is one of the flagship divisions of the diversified group Hexagon, AB Sweden. The division empowers customers to put data to work throughout the product manufacturing lifecycle, digitally transforming operations to improve productivity and efficiency while embedding quality throughout the process. The company caters to industries such as Automotive, Aerospace, Defense, Energy, Medical, Satellite, Electronics, etc.

Hexagon is a leader in Machine Tool Measurement or Machine Tool Probes. It covers all probing systems such as Infrared, Radio-wave, Temperature, and Production. Then there are Tool setters, Laser tool setters, and some CNC accessories.

Machine Tool Probes are widely in use these days because of key benefits like in-line inspection, reduced scrap, lowered costs, higher utilization of machines, etc. They address today's production challenges like machine errors, tool errors before/during machining, and application errors related to part alignment or work offset programming. Further, the integration of Machine Tool Probes, NC Gage/Server, and Q-DAS offers standalone solutions in terms of in-line inspection, complex parts measurement, free-form measurement of prismatic or sculptured parts, setting up machine work offset and analytics of achieved measurement data all as an end-to-end solution. **SD**

EDGE AUTOMATION PLATFORM

Gaining Flexibility through FlexEdge

The Edge Automation Platform FlexEdge™ helps to modernize aging communications and control infrastructure. New and existing devices can be easily connected to the system, reducing overall downtime and enabling scalable integration. Driven by the automation software Crimson®, FlexEdge enables IIOT connectivity to numerous cloud environments by point-and-click configuration.

The FlexEdge sled architecture, designed to enable organizations to leverage new communications technologies as they become available, avoids costly and complex rip-and-replace scenarios. The form factor adapts as the application needs change; it effortlessly scales by adding up to ten hot-swappable I/O or PID modules. On-device wiring diagrams and removable wire clamp screw terminal blocks ease installation, while the at-a-glance module status indicator and indi-



Red Lion Controls

www.redlion.net
Hall & Stall: 1B/A-110

dual channel LEDs improve troubleshooting and system testing. The user can also select the right FlexEdge software functionality for the application. They can select from Networking Gateway, Protocol Gateway, Advanced IIOT Gateway, or an Automation Controller with IEC 61131 capabilities. If the application changes, one can simply upgrade the gateway to meet the application's requirements. **SD**

MSME - SME - COLLABORATIVE ROBOTS

Enabling New Possibilities

Svaya Robotics is proud to be a pioneer in building India's first collaborative robots and for having accomplished building and delivering full-stack robotic solutions across various verticals.



Svaya Robotics Pvt Ltd

www.svayarobotics.com
Hall & Stall: 1B/B-110

The shift from 'mass production' to 'mass customization' is turning out to be a challenge for the manufacturing industry, especially for SMEs. With popular demand for higher education and white-collar jobs, working on the shopfloor has become a taboo for aspiring youngsters. Achieving consistent quality and expected throughput by relying on the existing aging workforce and inflexible infrastruc-

ture is another bottleneck SMEs are struggling to resolve.

It has been observed that people on machine shopfloors spend only 20 percent of their time programming or on quality inspection and the rest 80 percent just waiting for the machine to complete its job. This is where human-centered robots can come in handy to manufacturing leaders to enable agile, reliable, and human-scale operations with error-free outcomes.

Human safety first

Svaya Robotics is at IMTEX 2023 & Tooltech 2023 to introduce its novel 6-Axis Collaborative Robotic platform that can open up new possibilities in manufacturing and Industry 4.0. The robots are built from scratch, with human safety being core engineering principle. The product portfolio consists of five product varieties with payload



Source: Svaya Robotics Pvt Ltd

» IMTEX 2023 & Tooltech 2023 is a great opportunity for Svaya Robotics to introduce its world-class Collaborative Robots developed and manufactured in India. Svaya has made pioneering advances from hardware to software to algorithmic stack and human-robot interaction from ground up. «

Vijay R Seelam
Founder & CEO
Svaya Robotics Pvt Ltd

capacity and reach ranging from 3 kg to 16 kg and 600 mm to 1300 mm, respectively. The company is displaying its products by showcasing new possibilities across various verticals. Surface finishing, welding, machine tending, palletizing, and precision assembly are a few crucial applications the company is working on. Its modular design allows for application-specific customization of its

robotic arms. The robots are accessible to anyone and the intuitive no-code human-robot interface (HRI) makes it easy for anyone with no prior knowledge of programming to teach the robots. The light-weight and the out-of-the-box set-up makes it convenient to repurpose the robot for any edge task imagined. **SD**

INDUSTRIAL PROCESS FLUIDS

Improving Manufacturing Capabilities

Quaker Houghton, with its industrial process fluids, has been supporting several industries to reach their full potential. A look at the support it is extending to our defence and aerospace sectors...

In various manufacturing processes, metalworking fluids (MWFs) are applied to ensure workpiece quality, reduce tool wear, and improve process productivity. At "Quaker Houghton with its combined 250 years of applied experience in customer process analysis, cutting-edge fluid technologies, bespoke equipment, supplemented with industry-compliant digitalization technology, enable the company to evaluate and optimize a value chain and support customer goals in minimizing costs and gaining operational efficiencies," notes Sachin Mahajan, Marketing Manager – India, Quaker Houghton.

Supporting Indian defence & aerospace sectors

Quaker Houghton is a partner in progress to the world's most successful aerospace and defence companies. Some of the examples where it partnered led to:

- **10% increase in productivity:** With the utilization of advanced high lubricity coolant, an aerospace titanium component manufacturer was able to increase cutting speeds and feed rates with a side benefit of ₹50 lakh savings per machine tool.
- **150% increase in tool life:** A switch by a leading service provider for aerospace OEMs to our new coolant with its advanced lubricity package and excellent wetting properties resulted in increased tool life and reduced coolant usage.
- **50% reduction in part defects, reduced cycle time and improved surface finish:**

Source: Quaker Houghton



» Under growing pressure to increase productivity and throughput, reduce environmental impact, aerospace and defence manufacturers are also dealing with new highly engineered materials creating new requirements in manufacturing processes and metalworking fluids.«

Rohit Bhale
Senior Commercial Manager
Quaker Houghton

A global manufacturer of fuel systems for military and civil aircraft eliminated the use of multiple coolants and associated foam, staining and biological issues by switching to a single biostable product. Fluid consumption was decreased, and operator acceptance increased. **SD**

Quaker Houghton
www.quakerhoughton.com
Hall & Stall: 5/B-121

INTERNATIONAL ASSOCIATION – TAMI

Rebuilding the Connection

Tommy Hsu, President, Taiwan Association of Machinery Industry (TAMI), aims to forge ties between Taiwan companies and Indian customers that had come loose during the pandemic and feels IMTEX 2023 & Tooltech 2023 will be an ideal facilitator to do so.

“In the current post-pandemic times, we are eager to explore a new market for the Taiwan machinery industry. We expect IMTEX 2023 & Tooltech 2023 to rebuild the connection between Taiwan companies and Indian customers. The event can also be a medium for us to seek information on the local sales channels and demands of the local market,” shares Tommy Hsu, President, Taiwan Association of Machinery Industry (TAMI). Taiwan's machinery industry has continued to step up efforts in the past two years to transform and upgrade, improving corporate resilience and increasing the value of its products. “We are committed to developing value-added machinery products and services by adopting digital solutions and innovative online/offline hybrid measures extensively. We believe only through Smart Manufacturing can our clients and partners worldwide will continue to move forward with us,” he adds.

Source: TAMI



» We are committed to developing value-added machinery products and services by adopting digital solutions and innovative online/offline hybrid measures extensively. We believe only through Smart Manufacturing can our clients and partners worldwide will continue to move forward with us.«

Tommy Hsu
President
Taiwan Association Of Machinery Industry (TAMI)

Technologies from Taiwan

With high value-added and comprehensive service, Hsu believes that Taiwan machinery is the best choice for the Indian manufacturing sector to upgrade. “We can show you everything in the comprehensive manufacturing ecosystem of metal processing. We have a wide variety of machine tool solutions and advanced technologies from the global manufacturing industry on display,” he adds.

Taiwanese Presence in IMTEX 2023 & Tooltech 2023

Around nine Taiwanese companies are housed in the Taiwan pavilion in Hall 4. The companies are:

- PMI • CHING HUNG
- PALMARY • AUTOGRIP

- EXACT • KENTURN • APEX
- CHAIN HEADWAY • TOPKING.

Exports to India

According to the data from TAMI, the export value of the machine tool sector from Taiwan to India was US\$ 94 million in 2021 and US\$ 85 million in 2022 (till November). Meanwhile, the import value from India to Taiwan was US\$ 0.34 million in 2021, US\$ 0.86 million in 2022 (till November). **SD**

Taiwan Association of Machinery Industry (TAMI)
www.tami.org.tw
Hall & Stall: 4/C-117

SENSORS & SWITCHES

Enhancing Machine Automation



SMC Corporation (India) Pvt Ltd
www.smcin.com
Hall & Stall: 4/B-134

SMC's Air Management System (AMS) is a Sustainable Digitalized solution that equips the end user with machine monitoring and condition-based maintenance. The need of the hour is to think "Why not reduce the wasted air generated by your factory equipment?" The Air system reduces the air consumption due to lower pressure during production stoppages/equipment standby: Standby

Mode, and by shutting off valves depending on equipment shut-down conditions: Isolation Mode. One of the most important criteria of sustainable development for any organization is to be able to monitor, analyze and take relevant action as per the need. AMS will act as a tool at the initial stage, enabling one to visualize the production equipment status. It empowers one to monitor the equipment status from another location or from outside the office. Various attributes like flow, pressure, temperature, and other sensor information can be communicated to the host system via Industrial Ethernet or the OPC UA data communication protocol. The various other benefits include: Communication cables not required; High security, thanks to unique encryption; Communication distance: Max. 100 m; IO-Link compatible; and Can be retrofitted to existing equipment. **SD**

HANDHELD QUICK CHAMFERING TOOLS

MMX02 by Mechmatrix

Often modern CNC shop leaders unknowingly spend more than necessary time and effort in deburring-chamfering operations after machining. Amidst the pressure of increasing productivity and reducing cycle time, the challenge of maintaining a friendly working environment with the operator team adds to the struggle. Mechmatrix provides an innovative solution that substantially reduces operator fatigue and increases productivity in deburring-chamfering operations by five times. EASY-MECH brand handheld chamfering-deburring tools are proving to be the popular choice to provide a world-class edge finishing on machined and pressed components without operators having to sweat heavily on the shopfloor. Modern CNC shops can easily deburr-chamfer sharp edges on components quickly and easily after operations like casting & forging, plasma cutting, laser cutting, CNC machining, fabrication, pressed

Handheld Quick Chamfering machine



Source: Mechmatrix

Mechmatrix
www.mechmatrix.in
Hall & Stall: 2A/A-123

components, water jet cutting, and shearing on press brakes. The benefits and savings in operator time and effort provide substantial reduction in cycle time. Thus also enhancing respect for the supplier machining the parts. Mechmatrix enables companies to increase profitability by improving productivity. Companies are enabled to become process-dependent instead of person-dependent on the shopfloor for secondary edge finishing operations like deburring-chamfering. **SD**

Making Engineers Industry Ready

Career oriented courses for Engineers

- Hands-on Training on Machine Tool Design - CNC GPM / SPM (Duration 8 Weeks)
- Finishing School in Production Engineering (Duration 6 Weeks)
- Hands-on Training on Industrial and Machine Automation for Digital Manufacturing (Duration 6 Weeks)
- Product Optimization through Finite Element Methods (FEM) (Duration 6 Weeks)
- Master class in Implementing Industry 4.0 in Manufacturing – A Hands-on approach (Duration 4 Weeks)

Whom it is applicable

- Fresh engineers seeking a career in manufacturing industry
- Engineering students in Pre final / final year
- New hires in industry
- Engineering students looking for internship

Placement Assistance Provided

1,36,070+
Mandays

2190+
Training Programmes

40,145+
Professionals Trained

6,200+
Companies Trained Pan India



GRINDING FLUIDS

Strub Vulcan Futura CF 05

Carbide is one of the hardest materials used in the manufacturing of tools. The heat generation between the tool and the workpiece interface is very high and requires grinding oil with excellent cooling, flushing, and low mist properties. Also, the grinding oil should have anti-cobalt leaching property for safer and healthier work environment. Strub Vulcan Futura CF 05 is a high-performance grinding fluid free from chlorine and sulphur. It is formulated with low-viscosity synthetic oil with minimal aromatic content for smooth performance. It is recommended for ferrous, non-ferrous, tungsten, and high-speed steel. It is suitable for grinding and re-grinding operations. And also for solid carbide round tools and drills. Features include low-viscosity, chlorine and sulphur free, non-sticky performance, high flushing properties, excellent oxidation



Source: Strub India Pvt Ltd

Strub India Pvt Ltd
www.strub-lube.com
Hall & Stall: 4/C-126

stability, extended life of grinding wheel, zero cobalt leaching, and long service life of oil. With qualitative analysis data, Strub Vulcan Futura CF 05 performance was proved excellent in terms of the tool life, sump life, and overall productivity. More than 200 carbide grinding machines are running with Strub Vulcan Futura CF 05 including major carbide tool manufacturers across India. **SD**

For further details and registration, please contact:

Ph : +91 7349067391 / +91 9743180085
E - Mail : training@imtma.in
www.imtmatraining.com
www.imtmaelearn.in



IN CELEBRATION OF MANUFACTURING EXCELLENCE



Source: Magic Wand Media

INTERNATIONAL BUYER - SELLER MEET

Fostering Connections

The largest machine tool and manufacturing technology exhibition in South and South-East Asia IMTEX draws international buyers to have an up-close experience with our home-grown innovations and meet the innovators. Here's what our guests from far and wide have to say about their experiences at the event.



» For the last 10 years, I have been working with a few Indian machine tool manufacturers. This edition of IMTEX has me looking for Indian machine tool manufacturers for other kinds of machines. I have been successful in finding a few who can meet our requirements. We will go for the next round of the meeting after this show gets over.«

Ryan Lee
Director
Sales Department
BAE Young Machine
South Korea



» This is my first visit to India and the experience at the exhibition has been very good. The quality of the Indian machine tools has been worth the effort and time. The exhibits are beyond my expectations. I have been able to establish contact with some Indian companies through the buyer-seller meet. The only flip side is the road travel to the venue.«

Yalcin Pash
Manager
West Anotolia Sales
Tezmaksan
Istanbul



» It's been a highly satisfying experience at IMTEX 2023. This exhibition has been ideal for realizing our plans of expanding my business.«

Cristian Intilia
Manager
Crace s.r.l.
Italia



» In the last 20 years, I have come to India several times. My last visit was around five years ago. I have been watching that the Indian machine tool industry is growing at a significant pace. The Indian players are catching up with the machine tools made in western countries. The quality and aesthetics of the machines manufactured in India are remarkable. I plan to collaborate with Indian machine tool manufacturers for importing their products. The response so far has been highly positive.«

Adam Noris
Director
Willjolu Limited
United Kingdom

VISITOR SPEAK

Impressive collection of I4.0-based machinery



Adhiyaman
Senior General Manager
NPD & Production
Shakti Precision Components (I) Pvt Ltd
Bengaluru

"I have been to several editions of IMTEX. This time, the show has a lot of focus on Industry 4.0. Many new machine tool technologies are also on display. 3D printing machines are also interesting. Thanks to IMTMA for organizing one such show where we get to see machines related to Industry 4.0. I am glad to have come and witness new technology-based products."

Source: Magic Wand Media

A GLOBAL MACHINE TOOL GROUP

Largest Machine Tool Manufacturers

AceMicromatic Group has created the ultimate Machine Tools Manufacturing Ecosystem. We understand the needs of MSME to OEM's. We offer Turning, Milling, Grinding, SPM's, 3D Metal Printing & Industry 4.0 solutions, all under one roof.

We offer comprehensive solutions to meet most customer needs. With more than five decades of rich and pioneering engineering experience, AceMicromatic Group has steadily grown to be one of the most successful businesses in the world.



Integrity



Customer Obsession



Nurturance



Agile Culture









Innovation



Performance Excellence



WHY ACEMICROMATIC GROUP?

<p>20 lakhs sq. feet manufacturing area</p>		<p>Casting, Machining & Assembly done in-house</p>	
	<p>4 Hrs Mean Time to Repair (MTTR) (85% of all calls)</p>		<p>70+ Locations across India</p>
<p>75,000+ CNC machine installations</p>		<p>8 Tech Centers across India for customer</p>	

- 50 Years Lineage
- Application Support
- Hand Holding & Training
- Micromatic 360
- Rental & Leasing
- Tooling Up Solutions
- Complete Ecosystem
- 4700+ Employees
- AMC
- CRM Connectivity
- Financial Assistance
- Highest Resale Value



AN INVITATION TO CELEBRATE THE

50th ANNIVERSARY
OF MGT



Visit us at
Hall 5, AceMicromatic Group Pavilion

Micromatic[®]



salesmmt@acemicromatic.com



acemicromatic.net



INDUSTRY-ACADEMIA

Brilliant Minds Awarded at IMTEX 2023

Source: IMTMA



To encourage young engineering talents, IMTEX 2023 organized a competition for the young innovators in the Academia Pavilion, where budding engineers showcased their projects targeting to improve engineering processes.

Out of the 22 showcased projects, 5 innovative works received cash awards and certificates. The team from PSG College of Technology, Coimbatore, bagged the First prize worth ₹50,000 for their project titled 'Alternate Material(s) for CNC Machine Tool

Bed'. The Second prize worth ₹25,000 was won by the students from the Indian Institute of Technology Madras, Chennai, for their project titled 'New Generation Multi-Point/Single Layer Supra-brasive Tools'. The Third prize worth ₹15,000 was awarded to the

students from KLS Gogte Institute of Technology, Belagavi, for their project titled 'Application of Minimum Quantity Lubrication Cooling Technique for Aerospace Material Machining in an Industry'.

Two consolation prizes each worth ₹5,000 were given to teams from N.M.A.M. Institute of Technology, Udipi, for their project titled 'Design & Development of Low-Cost 4-Axis CNC Machine For Art Work Machining' and Amrita Vishwa Vidyapeetham, Kollam, for their project titled 'Cost Effective Universal Form Tester'. **SD**

SAW MACHINES

Automatic Circular Saw Machine CS150NC

CS150NC is the world's first Indian machine with the trusted 5 nos installation in India and the only Indian machine to cut Ø 150 mm steel bar with Ø 460 mm cutter. A precise and energy-efficient machine, it is equipped with a unique heavy-duty 3-stage helical reduction gearbox, with precise class ground geared and precision class bearings, which offer high output efficiency, backless free operation, long service life, and less input power motor of 20 HP without any compromise in cutter life or productivity. It is the world's first slant-type 45-degree cutter feeding design machine that offers excellent chipping angles at par with the world leader Japanese circular saw machine. It has an accurate first-piece control feature of +/- 0.5mm to avoid wastage of material. The short last cut is within 50 mm + cut length. Cut pieces lengths are of +/- 0.1mm accuracy. **SD**

Source: Capstone India



Capstone India
www.capstoneindia.in
Hall & Stall: 1A/A-126

CMMS

For a Well-Oiled Plant Operation

Computerized Maintenance Management Software (CMMS) is not just software that merely digitizes one's operations, it presents a great bandwidth with in-depth functionality to help one monitor their KRA and KPIs. OPSCALE is an insightful business suit to enhance operations, sales, and manufacturing support. OPSCALE-FTM is the complete CMMS that simplifies plant maintenance by enhancing visibility and transparency. It not only simplifies plant maintenance by enhanced visibility at the shop floor level but also helps optimize plant assets and resources, enabling the plant to operate with



Werardt Systemss Pvt Ltd
www.werardt.com
Hall & Stall: 1B/A-127

high asset uptime and at peak efficiency by improving production uptime, reducing unplanned stoppages, lowering maintenance expenses, helping utilize human resources effectively, and enhancing asset life through best practices. **SD**

Source: Magic Wand Media

CNC VERTICAL TURN-MILL CENTERS

The Versatile JVTM-1.2

Jagdeep Vertical Turn-mill Center is a versatile machine capable of performing various operations, viz turning, milling, PCD drilling & tapping, profile turning, taper & offset turning, thread-milling, multi-axis machining, etc., in a single or less number of set-ups, facilitating higher productivity. Jagdeep CNC VTM 1.2 machine construction is a heavy-duty double-column construction, made with

seasoned castings. The table has been provided with a suitable set of bearings to support and machine heavy jobs while maintaining accuracies and finish. With rigid construction and optimized ratio to table and cutting spindle increases productivity with less power consumption. The machine has been provided with an umbrella-type ATC with 10/20 tools options, for easy changeover and multiple operations in a single setup. Powered with Fanuc Oi TF Plus series

CNC system, the JVTM-1.2 machine is easy to operate and maintain. The box-type guideways in the X and Z axis facilitate vibration dampening which enables the machine for heavy-duty machining with the desired accuracy and surface finish. JVTM-1.2 stands as a versatile machine for various applications/industries like Oil and Gas, Valve, Mining, Power, Motor Manufacturing, Automobile, Gearbox Manufacturing, Plastic, Die and

Mold manufacturing, Infrastructure Components, etc. **SD**

Jagdeep India
www.jagdeepfoundry.in
Hall & Stall: 5/A-101



Source: Jagdeep India

DUAL SIDE PLANETARY FINE GRINDING MACHINERY

Lapmaster Wolters DSG Series

The Lapmaster Wolters line of dual-side planetary fine grinding machinery is specially designed and built to withstand extreme conditions within a production environment while requiring minimal maintenance. These units are available with fine grinding platens from 20 in. up to 55 in. in diameter and are specially configured for each application. Depending upon the application, these machines utilize fixed abrasive diamond or CBN suspended in resin, metal, and vitrified bonds to grind a wide range of materials to very tight specifications.



Lapmaster Wolters India Pvt Ltd
www.lapmaster-wolters.co.in
Hall & Stall: 5/C-124

The Lapmaster Wolters DSG series of twin-wheel grinding machines are driven by three variable-speed motors for maximum process control flexibility. All three rotating machine components, the sun gear, top plate, and bottom plate, are independently controlled. Process down pressure requirements are pneumatically regulated and continuously monitored by a load cell.

SD

DATA AND BUILD PREPARATION SOFTWARE

Magic Works

Materialise Sdn Bhd
www.materialise.com/my
Hall & Stall: 1B/B-130



Source: Materialise Sdn Bhd

An Additive Manufacturing (AM) system is not a light investment, so it is critical for the printing production to run as efficiently and reliably as possible to maximize your machine investment. Without the right software, making a 3D design file printable takes a lot of time and effort. Materialise Magics simplifies data and build preparation with one easy-to-use solution that includes both CAD and mesh tools. Whether you want precise control over your workflow or quick, optimized enhancements at the click of a button, Magics guides you to success.

Why choose Materialise Magics software?

- Support through the full workflow:** Whether one is importing files, slicing builds, or any step in between, Magics provides the tools.
- Advanced control:** One can gain impressive precision throughout their workflow by defining parameters that best suit their needs.
- Increased productivity:** One can automate processes with specialized modules that reduce prep time and boost production rate.
- Technology neutral:** No matter the technologies or materials used, one deserves one solution to meet all their needs.
- Dependable support:** From training courses to personalized advice, the company's team of experts at its Help Center is available.

SD

INDUSTRY 4.0

High-Tech Solutions for MSMEs

Central Manufacturing Technology Institute (CMTI), an autonomous R&D institute under the Ministry of Heavy Industries, Government of India, is showcasing its I4.0 electronic components, such as energy meters and cloud gateways at IMTEX 2023 & Tooltech 2023 and Digital Manufacturing 2023.



Central Manufacturing Technology Institute
www.cmti.res.in
Hall & Stall: 2A/B-107

CMTI has created custom solutions for smart manufacturing and Industry 4.0 for the Indian manufacturing sector. It also provides machine-to-machine connectivity, intelligent machine conversion, and low-cost IIoT devices for MSMEs.

Following key technologies are being displayed at IMTEX 2023.

Trikon - 2: Launched at the show, the indigenous handheld laser scanning device with two cameras and a laser profile projector can capture 3D shape information for various applications. Its 60 µm resolution

makes it ideal for several auto components and a cost-effective solution for manufacturers.

iFoundry 4.0: An integrated smart foundry system that quickly and precisely produces small, intricate metal components. The system includes an IIOT-controlled 3D printer (FDM-based), a mixing and molding unit, and a metal melting and pouring unit.

µ AFFM-75D: A newly engineered superfinishing method using Abrasive Flow Finishing technology, it is ideal for superfinishing, deburring, and creating a radius on metallic components with complex geometries, micro features, and inaccessible critical components.

Nanospin: An ultra-high precision spindle/rotary table platform developed with advanced air-bearing technology to address the mother technologies for high-precision machines. These spindles have a running accuracy of 50-100 nm, compared to 5-10 µm for typical spindles.

SD

WOMEN EMPOWERMENT INITIATIVE

ORGANISED BY



SPONSORED BY



Hands-on Training & Internship on
"Design and Manufacturing of Special Purpose Machine"
Preparing Women Engineers Industry Professionals

DESIGN INSTITUTE
Machine Tool Design Powered by Technology

Programme Details:

Schedule & Duration:
Training - 20 Feb to 15 Apr 2023 (18 weeks)
Internship - 17 Apr to 13 May 2023 (14 weeks)

Location:

Training - MTMA Design Institute - REC, Bengaluru
Internship - AceMicromatic Group - Puzosy, Bengaluru

Who can Participate:

Women Graduate or Diploma engineers from Mechanical, Mechatronics and allied disciplines, from Year 2020, 2021, 2022 and 2023 PUs in India.

Programme Fee : Nil

For more details about program & registration

For more details and registration, contact:

Digvijay Nath Pandey
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☎ 080 68246708
✉ digvijay@imtma.in

B L Patil
☎ 8088251077
☎ 78997 99296
✉ bipatil@imtma.in



Source: Magic Wand Media

METALWORKING LUBRICANTS

MAGNACOOL® Bio-based Metalworking Lubricants

Source: Magnus Lubricants Pvt Ltd



Magnus Lubricants Pvt Ltd
www.magnuslubricants.com
Hall & Stall: 5/C-133

Public awareness about environmental issues and health risks of hydrocarbons coupled with the inherent advantages of plant-origin products have renewed interest in bio-based lubricants.

The inherent properties of these products offer many advantages in metalworking applications. A few are:

- Excellent lubricity leading to improved tool performance;
- High flash points and, hence, fire safety;
- Lower evaporation;
- Being plant origin, the products are highly biodegradable and environment-friendly.

MAGNACOOL® is offering a range of bio-based products in both

water miscible and neat oils applications as below:

Water Miscible Products: The company's MEC500 series covers an entire range of metalworking applications and materials as below:

MEC510: It is a universal product that can machine all types of materials and applications.

MEC515: The product is for applications that demand a higher lubricity with economy.

MEC520: This product has exceptional lubricity and, hence, is used for demanding applications. It can even replace neat oils in many instances.

Neat Oils: Magnacut ENV grades offer the advantages of bio-based products and are proved to be economical on the total cost considerations. A wide range of grades to cover a complete range of viscosities and applications are as below:

MAGNACUT - ENV10: A low-viscosity oil for automatic turning, honing, and grinding.

MAGNACUT - ENV22: A medium-viscosity oil for turning, milling, drilling, etc.

MAGNACUT - ENV35: A high-viscosity oil for heavy-duty applications.

SD

FACING HEADS

FH Series from O.M.G.



Source: O.M.G. Srl

O.M.G. Srl

www.omgnet.it
Hall & Stall: 5/C-139

The facing heads by O.M.G. Srl are prearranged for U-Controlled axis. They allow the execution of high-precision machining like external and internal facing, boring, cylindrical and conical threading, and whatever interpolation with the axes of the machine tool. O.M.G.'s solution stands out for four main features:

- The Gear reduction ratios 3:1, 4:1 or 6:1 allow applications on machine tools with relatively low spindle torque.
- The radial positioning system of the slide is directly mounted to the rotating area of the head for maximum rigidity and no backlash.
- A direct measurement system for reading the position of the U-axis allows extremely precise machining.

- Hydraulic clamping of the slide for extreme rigidity and precision during boring operations.

The FH Facing Heads can be applied manually or automatically to the machine tool spindle of boring machines, machining centers, and special machines.

The FH series Heads are designed to overcome the torque, precision and maintenance limits of the current solutions available on the market. Thanks to a patented design and the experience and quality that characterize O.M.G. in the design and production of Heads, the FH series Facing Heads allow one to perform the required machining operations with absolute precision and reliability. O.M.G. Srl program consists of Facing Heads, Automatic and Manual Angular Heads, Revolver Turret Heads, Spindle Speeders, Multi Spindle Heads, Gear Chamfering Heads, and Special Milling/Drilling/Tapping Heads.

SD

INVENTORY MANAGEMENT SYSTEMS

ModuloGen-02 Inventory Vending Drawers

SupplyPoint's ModuloGen-02 is a high-capacity multi-drawer system with an 'Easy Scoop' design of compartments in a drawer that ensures a smooth retrieval of contents. Combined with the company's powerful SupplyPoint inventory management software, it gives 100 percent accountability of who has taken what item and how many of those, on which job, and what machine can be traced with SupplyPoint's software and hardware.

Features and benefits of ModuloGen-02

Configurable Divider: ModuloGen-02 can be configured to

provide different-size drawers and compartments to accommodate tools, inserts, drills, end mills, etc. An expandable system of up to 10 ModuloGen-02 frames/machines can be connected to provide a maximum of 1,200 drawers.

Unique Manual Override: The manual override is simple and easy to use in the case of power outages and maintenance situations.

High-Speed Access: Rapid search and selection of items via the SupplyPointTM software is further enhanced with a complete LED identification system.

Security Access to the contents of items in the ModuloGen-02 can be restricted by the use of user name, password, biometric identification, card readers, or a combination of these options.

Efficiency: Multiple drawers can be selected in one transaction, minimizing the time required to manage large volumes of stock.

ModuloGen-02 • Lowers inventory costs and increases capital • Optimizes inventory based on usage • Provides an audit trail of items issued • Controls product access and usage • Reduces walk and wait time • Minimizes downtime.

SD



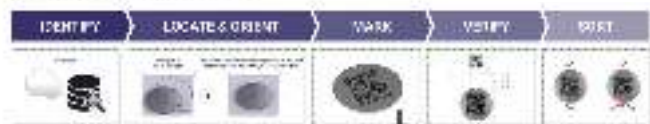
Source: SupplyPoint Systems Pvt Ltd

SupplyPoint Systems Pvt Ltd
www.supplypoint.com
Hall & Stall: 3A/C-102

LASER MARKING SYSTEMS

SLTL's Compact Yet Powerful Optifly

ARTIFICIAL INTELLIGENCE
BASED SMART AUTOMATION SYSTEMS



IN THE 70-130 TONNAGE
LASER MARKING SOLUTION
FOR FIBER & PRODUCTION



SLTL Group
www.sltl.com
Hall & Stall: 2A/B-109

S LTL Group has developed an on-the-fly automation solution, CE-compliant Optifly. It is a Poka-Yoke Vision Inspection System for monitoring marking and zero down wastage. Integrated with IoT and Industry 4.0, it works on Fiber or CO₂ laser technology to mark continuously on metals and non-metals, respectively. This smart machine can mark permanent impressions by mentioning the batch numbers, serial numbers, and all other details on the commodities in no time. This laser marking system gets synced with any sort of production line. The intu-

itive machine performs the following processes without any human interference: Identify > Locate > Orient > Mark > Verify > Sort. Built with sheer speed, this marking machine is space-saving and can be combined with any production line. Its integration into the entire system is easy due to the comprehensive interfaces. Optifly works with SLTL's robust hardware and intuitive in-house software 'Mark Pro', which is integrated with IoT to gather real-time data of the working to analyze the machine performance and uptime as well as the operational details without additional tasks. The reports are easily accessible and can be downloaded in a few clicks as and when needed. **SD**

MEASURING & MARKING TOOLS

Combination Try and Meter Square



Kristeel Shinwa Industries Ltd
www.kristeel.com
Hall & Stall: 3A/A-127

This Kristeel 4-pcs Combination Try Square consists of a Ruler with a 90° head, a Center Square, a Protractor Head, Scriber, and a Level, which can be used separately. The ruler is made of hardened steel with graduation in Metric and English. The 90° Head is painted in a casting base. The Degree

Protractor Head has a casting base, and the Center Head is painted in a casting base.

Application

The 90° Head is used to check and mark 90° to 45° angles, to check the surface level by in-built spirit level indicator and to check length/depth in mm/inch. The Degree Protractor Head is to check different angles from 0° to 180° and to check surface level by spirit level. The Center Head is used to find and mark the center point of round discs and shafts, ranging up to 100 mm in diameter. This try square has the least count of 0.5 mm / 1/32 in. and a size of 12 in. x 1 in. x 2.0 mm. **SD**

COLD WORK TOOL STEEL

BÖHLER K490 MICROCLEAN

The requirement of blanking and fine blanking has steadily grown over the years. On the one hand, the complexity and the accuracy of parts produced have increased significantly and on the other hand, the strength and the thickness of the sheet metal are at a high level but will rise even more over the years.

All these facts lead to higher loading on the tools and, consequently, to a higher requirement on the tooling material and the surface quality. During blanking and fine blanking, the tooling material has to withstand high mechanical loading. Especially the active parts are exposed to the highest loading. Thus, in operation, different wear mechanisms, break-outs, or chipping can occur, which cannot completely be avoided. Therefore, for an adequate lifetime of the tools improved or new material concepts are required, which is a challenge for steel developers. BÖHLER K490 MICROCLEAN strongly demonstrates its metallurgical competence as the powder



voestalpine High Performance Metals India Pvt Ltd
www.boehler.in
Hall & Stall: 5/A-148

metallurgical cold work tool steel. This steel grade convinces by its complex microstructure with a volume of hard primary carbides of about 10 percent. It shows a toughness at the same level of wear resistance which is doubled when compared to PM grades M4 and PM 23. **SD**

MSME - SME - DIGITAL MANUFACTURING

Digital is the Way Forward

A muse is a digital manufacturing company that helps product developers, production buyers, and OEMs make custom parts as fast as 24 hours. "We design, prototype, and even mass-produce products, all under one roof. Our cutting-edge integrated facility is equipped with Injection Moulding, 3D Printing, and CNC Machining," informs Gowri Shankar Mehanathan, Co-Founder & CEO, Amuse.

At IMTEX 2023 & Tooltech 2023, the company is showcasing how it brings out parts with its Industry 4.0 strategy, and also various use cases with HP Multi Jet Fusion 3D Printing technology that makes low-volume production an economically viable option. "We can also seamlessly shift a high-volume production to injection moulding," he adds.

The most prominent end use applications include clamping, electronic enclosures, connectors, and metal to plastic replacements. **SD**



» We have a novel approach to going digital, sustainable, and additive in manufacturing. We design, prototype, and even mass-produce products, all under one roof. «

Gowri Shankar Mehanathan
Co-Founder & CEO
Amuse

Amuse
www.amuse3d.in
Hall & Stall: 1B/B-113

METAL 3D PRINTERS

Meltio M450 to Revolutionize Manufacturing

Source: Monotech Systems Ltd



Monotech Systems Ltd
www.smcin.com
Hall & Stall: 1B/A-116

The Meltio M450 is ideal for small to medium size part fabrication and multi-metal 3D printing research. The company's multi-metal DED 3D printer allows users to produce near-net-shape metal parts of very high density in a single-step process on a highly compact footprint. Meltio's unique and patented technology is wire-laser metal 3D printing. It's a type of directed energy deposition process that precisely stacks weld beads on top of each

other when they are introduced into a laser-generated melt pool. Meltio's pioneering process is compatible with most stainless steels, mild steels, tool steels, titanium and nickel alloys as well as invar. In addition, cobalt-chrome alloys and precious metals like gold have been showing great results in customer-led projects.

Main benefits of Meltio M450:

- **Reliability:** The metal 3D printing process is monitored in real-time and compensated if required by process control.
- **Safety:** Suitable for any environment, thanks to a process built around wire, a sealed chamber, and a built-in 3-stage filter.
- **Ease of use:** Automatic toolpath generation and material print profiles supplied by Meltio make for a plug-and-play experience.
- **Affordable:** The low capital and running costs of the Meltio M450 make metal 3D printing of conventional parts possible. **SD**

OIL CLEANING SYSTEMS

Coolant Cleaner from Oilmax Systems

Oilmax Systems is a manufacturer and exporter of Centrifugal Oil Cleaning Systems. The company was started by first-generation entrepreneur Ashutosh Gokhale in 2010 with a mission to develop products that can conserve natural resources and help the industry reduce maintenance expenses and improve product quality.

The coolant/sump cleaner removes sludge, metal chips, and swarf from coolant/oil tanks and filters it via a reusable steel mesh filter. The system works on the principle of vacuum suction. A powerful vacuum blower creates a vacuum in the tank of the unit, which sucks in coolant, metal chips, swarf, etc., passing it through the mesh basket. The contamination gets collected in the basket and a clean coolant flows through to the tank of the unit. A centrifugal delivery pump delivers back the clean coolant.



Oilmax Systems Pvt Ltd
www.centrifugaloilcleaner.com
Hall & Stall: 3A/B-129

Source: Oilmax Systems Pvt Ltd

The applications of the system include soluble cutting oil, neat cutting oil, water emulsion, quenching oil, CNC/VMC machines, and storage tanks.

Working principle

The sump cleaner removes very fine dirt up to 10µ and below from oils/coolants by the vacuum created in the tank. There are no consumables hence no recurring cost. The collected dirt can be easily cleaned and the unit put back to use again. **SD**

MSME - SME - PRECISION MACHINE TOOLS

Precision is Key

Arrow Machine Tools machines are equipped with the most advanced technology. The company is showcasing them here at the event and is also launching a product.

Source: Arrow Machine Tools



Arrow Machine Tools is an established machine tool manufacturing company that started in 1995. "We, at IMTEX 2023 & Tooltech 2023, are showcasing Small High Precision

CNC Lathe; CNC20 with live tools, CNC25 with a live tool and Barfeeder; Slant Bed CNC Lathe model CN25 Deluxe; Single Spindle Automat Lathe Models A25 and A32; Second Operation Lathe SOL25 7



Source: Arrow Machine Tools

SOL32; and CNC Polygonal Lathe," shares R Vaidyanathan, Managing Partner, Arrow Machine Tools.

New Launch

Slant Bed CNC Lathe model CN25 Deluxe: The features include a slant bed, hydraulic clamping system, linear toolings, high-speed rpm 4000 std. (opt 5000), high rapid X & Z: 20 m, high-speed CNC lathe mainly used for high-precision small parts of up to 25 mm.

» We have supplied more than 10,000 machines using state-of-the-art technology to clients spread over India and beyond. We are here at IMTEX 2023 & Tooltech 2023 to showcase our products to visitors from industry sectors including Auto Parts, Machinery Parts, Domestic Parts, Hydraulic Fittings, etc. «

R Vaidyanathan
Managing Partner
Arrow Machine Tools

The benefits include space saving, power saving, reduced cycle time, and increased operator efficiency. The machine is equipped with an automatic barfeeder for long bars and also for loading/unloading. Automation can be equipped for cut/forged bars. It is available with FANUC/Arrow-make CNC system. **SD**

STORAGE SOLUTIONS

K-Roller from Fledon

K-ROLLER - Storage Racks for Rods/Shafts/Bars/Tubes/Pipes



Fledon Engineering Works

www.mhmore.in
Hall & Stall: 5/B-140

The K-Roller storage system from Fledon Engineering Works is a strong, high-performance storage solution for long products such as steel bars, steel profiles, rods, shafts, tubes, and pipes. This system features a range of robust components, with support columns for heavy-duty load capacities. With a cost-effective and easy installation, the K-Roller is an ideal choice for quick and efficient product storage and retrieval.

The advantages include • Heavy-duty racking for long steel profiles • Vast quantities of long products stored efficiently and securely • Floor space freed up

extensively • Quick and direct access to material • Simple and easy handling • Easily extractable system • Easy access to material, and • Storage of materials with excess lengths possible.

The K-Roller system is the perfect solution for quick and easy storage for long steel profiles or for heavy-duty load capacities. Thanks to its streamlined design, one can enjoy an efficient, intuitive product storage and retrieval system with minimal effort and cost. It can help reduce material handling time and improve the efficiency of a production process.

The company team can help determine the best storage and retrieval solution for one's specific needs and requirements, while also providing detailed information on installation and performance. **SD**

COLLET CHUCKS

TruePowerGrip Quick Change Collet Chucks

The collet chucks from Exemplar Machine Tools include models TPG-T, TPG-PB, and TPG-DL. Their main advantage is their compact design. Applications include multiple spindle lathes, gear cutting machines, grinding machines, CNC turning and machining centers, friction welding and

profile turning machines. They are highly suitable for bar work and chuck work.

The advantages of the TruePowerGrip systems are as follows:

- These collet chucks use imported rubber steel segment clamping heads, vulcanized according to the proven rubber flex technology;
- They have the highest clamping force and rigidity;
- Clamping tolerances of ± 0.4 to 0.5 mm;
- Their applications include turning, milling, grinding, bar work, and chucking work;
- Simple and quick retooling with manual or pneumatic changing device (not part of the standard collet chuck);
- Standard axial rear stop is fixed in TPG-PB and TPG-DL collet chucks. **SD**



Exemplar Machine Tools
Hall & Stall: 5/C-132

MSME - SME - TECHNOLOGY AND AUTOMATION SOLUTIONS

Automation is the Future

3D Concept Analysis and Development India has on display its four automation solutions and launched its latest innovation Linear Move at IMTEX 2023 & Tooltech 2023.



3DCAD Display 3 - ST30

At IMTEX 2023 & Tooltech 2023, 3D Concept Analysis and Development India is exhibiting the most updated technology and automation solutions that can support its customers that range from OEMs and Tier-1s.

"As a global system integrator and line builder for various automation applications, we are presenting our capabilities in the fields of:

- Robotic machine tending application enabled with IIOT features and dashboard development;
- Scara robot-based high-speed pick and place automation;
- Cobot-based handling automation for packaging industries with vision system feedback;
- Robotic material removal automation with compensation-based closed-loop programming," shares Raghu Srinivasamurthy, Managing Director, 3D Concept Analysis and Development India Pvt Ltd.

New launch

The company has also launched Linear Move - Linear, Telescopic, and Linear Actuators from 3DCAD at the event.

Srinivasamurthy looks forward to collaborating and supporting its customers in the fields of:

- Robotic automation of applications such as welding, deburring, sanding, high-speed pick and place, machine tending, dispensing, and EOL automation;
- Engineering services such as Product design, Process design,



"At IMTEX 2023 & Tooltech 2023, we are exhibiting the most updated technology and automation solutions. We wish to connect with interested customers from industries including Automotive (2W, 3W, and 4W), Locomotive, Aerospace, and Defence."

Raghu Srinivasamurthy
Managing Director
3D Concept Analysis and Development India Pvt Ltd

Design detailing, Robot simulation, FEA Analysis, Robot programming, and PLC programming;

• IIOT-based services and Custom software development. "We wish to connect with interested customers from industries including Automotive (2W, 3W, and 4W), Locomotive, Aerospace, and Defence," he adds. **SD**

3D Concept Analysis and Development India Pvt Ltd
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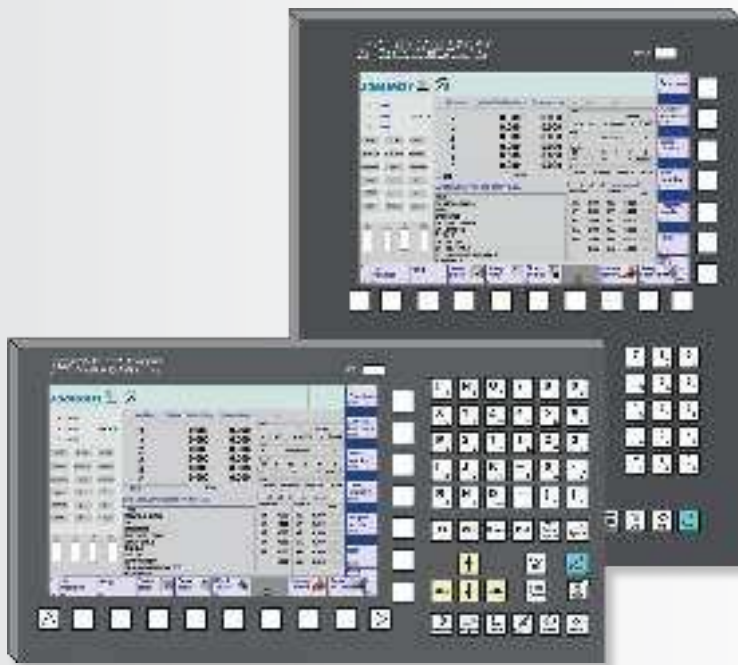
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