IMTS

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INTERNATIONAL MANUFACTURING TECHNOLOGY SHOW

NEWS RELEASE

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Registration Opens for IMTS 2024

IMTS offers inspiring solutions to all manufacturers

McLean, Va. (September 12, 2023) — Registration has opened for IMTS 2024 – The International Manufacturing Technology Show, taking place Sept. 9-14 at McCormick Place in Chicago. IMTS is the world's premier industry event in 2024, offering an unmatched breadth and depth of technologies and many application experts in a single location.

"'Inspiring the Extraordinary' sets the theme for IMTS 2024, as the event is packed with solutions that deliver exceptional results," says Peter R. Eelman, chief experience officer, AMT – The Association For Manufacturing Technology, which owns and produces IMTS. "The show offers a multitude of innovative technologies that enable manufacturers to move beyond their typical production approach to improve productivity and profitability. For every technology, there is a team of application experts eager to solve your toughest manufacturing challenges."

Eelman notes that extraordinary solutions come in packages of all sizes.

"Something as simple as making a new contact or experiencing a new technology can be transformative when it enables you to take on new business," he says. "You need to take the time to analyze your business and research what exhibitors are offering, but what makes IMTS special is that visitors can find unexpected inspiration in every aisle."

IMTS 2024 Prep Guide

"One year out from IMTS 2024 is a good time to assess your efficiency, set new goals, research technology, and plan equipment acquisition," says Kevin Wigington, the 2023-2024 chair of the IMTS Show Committee and general manager for Select Production Technologies (IMTS booth #339100), a provider of CNC machine tools for high-volume production of complex parts exhibiting in the Metal Removal Sector. "Solutions such as integrated machining and turning centers, production line solutions, data analytics, and capital expense items have longer purchase cycles, so start evaluating solutions before the need becomes critical."

As examples, Wigington cites turning centers that combine multiple operations (e.g., milling, hobbing, and grinding) in one machine and systems that use a sub-spindle or multiple axes to machine parts in a single setup to reduce cycle time and minimize geometric and shape defects.

Combination Machining Centers
"Visit IMTS to find out how you can complement your machine with any technology that boosts unattended run-time," advises Markus Stolmar, president and CEO of United Grinding North America, an exhibitor in the Abrasive Machining Sector. "For example, combination machining centers, tool measuring machines, and grinders now feature integrated tool changers, metrology equipment, and the ability to laser scan a tool or part to generate a 3D model."

Another trend, Stolmar notes, is machine manufacturers offering compact and more affordable machines so that job shops can move work in-house.

"OEMs are designing simple and efficient systems with operators and maintenance personnel in mind," says Stolmar. "For example, with an entry-level grinder, job shops can grind geometrically defined basic forms and contours for a wide range of parts. New digital solutions for data gathering, connecting systems, and other IoT applications also demonstrate intuitive use through operator interfaces that resemble a giant smartphone. Regardless of your company size, IMTS showcases the full spectrum of cutting-edge technologies that lead to business growth."

Tooling Technology
As part of moving work in-house by adding a smaller machining or turning center, companies need to research cutting tools that match their needs.

"Companies may be able to broaden their applications with our new steel turning grade, KCP25C, which is designed to machine steels and PH stainless steels and has been used in P10 and P40 turning applications," says Scott Etling, vice president of global product management at Kennametal (IMTS booth #432324), an exhibitor in the Tooling & Workholding Sector. "New MV (medium versatile) and FV (finishing versatile) geometries also provide customers with the flexibility to take light to heavy depths of cuts. The new geometries are engineered to lower cutting forces for smaller machines in addition to offering excellent chip control when needed."

Other advances to explore in the Tooling & Workholding Sector include tools to support the fast-growing electric vehicle (EV) market, PCD-tipped cutting tools for machining aluminum components, as well as coating advancements that provide consistent tool life.

"Manufacturing engineers want a tool that will last until the end of the shift without worrying about inexperienced operators making a tool change that could result in a less-than-perfect setup," says Etling. "Our new solid carbide end milling grade, KCSM15A, is a perfect example, allowing for productivity improvements with longer tool life."

AM Trends
Glynn Fletcher, president of EOS North America (IMTS booth #432302), the leading provider of laser powder bed fusion technology exhibiting in the Additive Manufacturing Sector, says that some AM processes are transitioning from lower volume, higher value production to more medium volume, cost-effective, and mainstream production applications.

“As part of this transition, AM is becoming an integrated process, not an isolated process,” says Fletcher. “Ten years ago, users had a stand-alone AM machine for high-value items, design freedom, or consolidating assemblies. Now manufacturers are integrating AM as part of a bigger value chain. That’s something visitors can explore when they come to a show like IMTS, where the full breadth of manufacturing technologies is exhibited.”

While suppliers of AM technology are driving industrialization by improving process reliability, consistency, and speed, they are also engaged in collaborative partnerships to offer end-to-end solutions. For example, partnerships for medical devices combine a full range of services, including front-end engineering and design services, 510k approval pathways, device and machine validation, pre-clinical testing, and commercialization.

Melanie Lang, co-founder and CEO of Formalloy Technologies (IMTS booth #433018), believes the trend of adding AM equipment to move work in-house is growing and will continue.

“The last few years opened our eyes to the instabilities in our supply chain,” says Lang, whose company provides directed energy deposition (DED) AM systems. “We can’t take delivery times for granted, the true country of origin for our products remains uncertain, and some sources are subject to geopolitical issues. Fortunately, we can apply technology to solve those problems.”

As examples, consider large-scale metal additive technologies to replace forgings, castings, and tooling, which typically come from overseas and with long lead times. Other applications include out-of-date parts (notably for defense systems) or remote locations (e.g., military bases).

“America is in the middle of a factory boom because companies want the speed and flexibility to control supply chains, manage inventory, and respond faster to customers,” says Lang. According to the Wall Street Journal, construction spending on manufacturing reached $108 billion in 2022, which is $25 billion more than in any preceding year.

Further, construction spending remains robust relative to the manufacturing indexes. The most recent ISM Manufacturing PMI showed the tenth consecutive month of contraction; orders of manufacturing technology have been on a downward trend since peaking in the last quarter of 2021 but remain above the historical average, according to the latest U.S. Manufacturing Technology Orders Report published by AMT, and industrial capacity utilization (July) remains below its long-run average.

“By IMTS 2024, I believe current concerns about the economy will be resolved,” says Wigington. He notes that despite the slowdown this year, companies have retained workers, consumer spending remains positive, if slower, and the Federal Reserve appears to be “sticking the soft landing” by taming inflation while avoiding a prolonged recession (visit AMT’s Intelligence page for more economic insights).

Faster and Smarter

“The manufacturing and warehousing sectors remain optimistic, prompting company leaders to look at the big picture,” says Doug Burnside, vice president of North American sales and marketing for Yaskawa Motoman (IMTS booth #236601), which is exhibiting in the Automation Sector. “From reshoring initiatives

and workspace optimization to production capacity and workforce shortages, multiple issues are often at play when companies are looking to invest in automation technology."

Some of those technologies include robots that combine AI deep-learning software with 3D cameras to create human-like vision and achieve pick rates of 1,200 to 1,700 per hour for a wide range of objects. Extremely fast and intelligent robots help companies meet order fulfillment demands, a trend driven by e-commerce sales, which grew to $272.6 billion in the first quarter of 2023, according to the U.S. Census Bureau.

"For smaller companies, collaborative palletizing and welding are two easy options for first steps into automation," adds Burnside. "The systems deploy rapidly and have user-friendly pendants. We're also seeing a host of robots with longer reach arms for more application flexibility in palletizing and welding."

"The solutions exhibiting at IMTS 2024 reflect the issues facing the industry," says Tim Shinbara, chief technology officer at AMT. "Labor and supply chain challenges dominate these issues, as does digitization and rapidly scaling production to meet demand trends. Manufacturers need to address these issues when they are manageable, which is why I say that researching and then visiting IMTS is the most intelligent investment you can make to mitigate risk and maximize opportunity."

Register now at IMTS.com/Register to gain new ideas, gather expert advice, and expand your network. A limited amount of exhibit space remains for IMTS 2024. To learn more, visit IMTS.com/Exhibitor.

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Image Information

Photo: IMTS2225-Front of south Hall.jpg
Photo Caption: The Metal Removal Sector at IMTS features dozens of turning centers that combine multiple operations and more.

Photo: Browning-Flying-in-AM-Jet-Suit.jpg
Photo Caption: Browning Flying at IMTS: See the latest in manufacturing advances at IMTS 2024. Richard Browning, a technologist, inventor and founder of Gravity Industries Ltd., demonstrated what's possible when science, technology, engineering, and math (STEM) are put into action by piloting his Jet Suit over McCormick Square at IMTS 2022.

About IMTS – The International Manufacturing Technology Show

IMTS – International Manufacturing Technology Show – The largest and longest running manufacturing technology trade show in the United States is held every other year at McCormick Place in Chicago, Ill. IMTS 2024 will run Sept. 9-14. IMTS is ranked among the largest trade shows in the world. IMTS is recognized as one of the world's preeminent stages for introducing and selling manufacturing equipment and technology as well as connecting the industry's supply chain. IMTS attracts visitors from every level of industry and more than 117 countries. IMTS 2022 had 86,307 registrants, 1,212,806 net square feet of exhibit space, 1,602 booths, and 1,816 exhibiting companies. IMTS is owned and produced by AMT – The Association For Manufacturing Technology.

About AMT – The Association For Manufacturing Technology
AMT – The Association For Manufacturing Technology represents U.S.-based providers of manufacturing technology – the advanced machinery, devices, and digital equipment that U.S. manufacturing relies on to be productive, innovative, and competitive. Located in McLean, Virginia, near the nation's capital, AMT acts as the industry's voice to speed the pace of innovation, increase global competitiveness, and develop manufacturing's advanced workforce of tomorrow. With extensive expertise in industry data and intelligence, as well as a full complement of international business operations, AMT offers its members an unparalleled level of support. AMT also produces IMTS – The International Manufacturing Technology Show, the premier manufacturing technology event in North America. www.AMTonline.org