

# IMTS 2000:

## The World Of Manufacturing

**F**or eight days every other year, the sponsor of the International Manufacturing Technology Show (IMTS), the Association for Manufacturing Technology (AMT), strives to turn Chicago's McCormick Place into a "productivity marketplace," the largest and most complete display and demonstration of manufacturing technology ever seen in the Americas. If the growth of the show is any indicator, that effort has been very successful indeed. With over 1.4 million square feet of exhibit space taking up all five levels and all three exhibit halls of McCormick Place, each level would rank as one of the nation's

200 largest trade shows. That wasn't always the size or scope of the show. Its inception, while impressive for the time, was humble by today's standards.

**The Birth of IMTS.** The first Machine Tool Show, sponsored by AMT's predecessor, the National Machine Tool Builder's Association, opened for a five-day run at the Public Auditorium in Cleveland, Ohio, on September 19, 1927. This precursor to IMTS was heralded as a neutral forum where engineers, product users, distributors and producers could freely discuss questions of mutual interest and seek solutions to manufacturing problems. The show's 12,000 visitors and 184 exhibitors filled the Public Auditorium to capacity. Helping to bring in the visitors, the Society of Automotive Engineers, the Machine Tool Congress, the Association of Woodworking Machinery Manufacturers, the Associated Machine Tool Dealers, the Foundry Equipment Manufacturers Association, the Screw Machine Products Association and the Power Transmission Association all held meetings in conjunction with the show. IMTS was born.

**IMTS Today.** Over the last 73 years, IMTS has grown, setting more and more records for attendance, exhibit space, the number of exhibitors, the number of pavilions and other growth measurements like the amount of sales conducted on the show floor. In fact, since its inception, the show has steadily evolved into a major selling event, with millions of dollars in business being conducted right on the show floor every day. In 1998, sales on the show floor exceeded \$1 billion. That was a 20% increase over the previous record. Sales averaged over \$715,000 for each of the 1,443 exhibitors at the 1998 IMTS, or almost \$15 million per hour for the entire eight-day run of the show.

IMTS 2000 offers ten pavilions with more than 1,800 exhibiting companies from around the world slated to attend. As in previous years, each pavilion is a highly focused "show-within-a-show," designed to allow visitors to find the products and services they need quickly so they spend their time at the show more efficiently. Also returning are the SME Technical Conferences, where engineers and other industry professionals can meet to discuss the latest in technology and processes, and the Student Summit, which is held to introduce high school and college students to the world of manufacturing.

DATES • LOCATIONS • TIMES • DATES • LOCATIONS • TIMES • DATES • LOCATIONS • TIMES • DATES

**SHOW DATES:** September 6-13, 2000

**LOCATION:** McCormick Place, Chicago, Illinois, USA

**EXHIBIT HALL HOURS:**

- Lakeside Center and North Building, Hall C: 9:00am to 5:00pm
- South Building and North Building, Hall B: 10:00am to 6:00pm
- Hours for Sunday, September 10, All Buildings: 10:00am to 4:00pm

**TECHNICAL CONFERENCE DATES AND LOCATION:**

September 6-13, 2000  
McCormick Place South, Level 4-5

**CONTACT AND OFFICE LOCATIONS:**

Additional IMTS information is available by calling (800) 322-IMTS or by logging-on to [www.imtsnet.org](http://www.imtsnet.org). At the show, if you have a question or need assistance, help is available. There are Show Offices located in the South Building (S400), the North Building (N229) and the Lakeside Center (E250). If you are an exhibitor wishing to drop off press materials, the Press Office is on the Main Concourse, Room N426. For international visitors, the International Center is in the North Building, Rooms N226-N228. Security Offices can be found in the Lakeside Center (E250), the South Building (S103) and in the North Building (N132). Exhibitor Registration Offices are located in the Lakeside Center (E256), the North Building (N229) and in the South Building (S103). Finally, Contractor Service Centers are located in the Lakeside Center (E253), the North Building (N230) and the South Building (S406).



## INTRODUCING NEW TECHNOLOGY...

... has always been a big part of IMTS, so much so that during World War II, the show was closed because the organizers feared that the introduction of new models would slow America's mobilization efforts! After the war, however, IMTS was the place where new models, products and technology were unveiled.

**Technology and Products Introduced at IMTS.** In 1947, the Cincinnati Milling Machine Company introduced its new synthetic cutting fluid, Cimcool, a shocking pink fluid that the company provided to all the machine tool exhibits. Since the machines themselves were all the same "machine tool gray," the pink color really stood out, making for a great promotion. At the 1955 show, the first Numerical Control (NC) systems were introduced. These systems relied on a number of control inputs including punch cards and paper tape. The 1970 show saw the introduction of an operational Direct Numerical Control (DNC) system. In this demonstration, a General Electric mainframe computer situated at Navy Pier fed programs to the NC controllers on 70 different machine tools installed at the International Amphitheater. Two years later, Computer Numerical Control was introduced at the show with several U.S. companies showing production model CNC controllers for the first time. In 1994, the big product news was the unveiling of the startling hexapod machine design technology with the Variax, by Giddings and Lewis, Inc., as well as a smaller version of these six-legged machine tools by Geodedics, Inc. Concepts in open architecture machine tools were also widely discussed as a way to make it easier to tailor CNC machines to specific applications. By 1996, the new technology star at IMTS was linear motion, with one horizontal machining center able to reach axis travel speeds of 3,000 inches per minute and acceleration as high as 1.5 g.

**New Technology at IMTS 2000.** This year's IMTS will showcase a variety of new products, processes and technologies. You will see new grinding machines from **Bryant Grinder Corporation (Booth A-8531)** and **Overbeck Corporation (Booth B2-7530)**. The Bryant *Ultraform UF2* is an external form grinder for use on precision-ground components such as gears and bearings. The machine offers greater speed and precision thanks to improved stiffness characteristics. Overbeck will exhibit the *IRC-400*, their newest generation of universal internal grinding machine for bores, faces, angles and generating radius with a cylindrical wheel. Another grinder, the *Blanchard/Reform Model AR-6000 Type 13 Heavy Duty Traveling Head Production Surface Grinder*, can be seen at the **Motch/Cone-Blanchard booth (Booth A1-8343)** along with the new *Conomatic Tri-Turn 383 CNC Multiple Spindle Bar Machine* and several others. **Leistritz Corporation (Booth C-5315)** will be demonstrating their new *PW200 Whirling Machine*, the first in a series of newly engineered thread-producing machines. **National Broach and Machine Company (Booth B-7048)** will be showcasing their latest roll-forming technology with the new *PMF-610 Red Ring NC Precision Vertical Roll Forming Machine*. **Sentry Company (Booth C-5737)** will introduce their new *MP-2000 Multipurpose Heat Treating Furnace*, a 2000 °F open hearth furnace designed for tool hardening. **Balzars, Inc. (Booth E-2748)** is set to unveil their new *Diamond-Like Carbon (DLC)* tool coating.

These are just a few of the many new machines, processes and technologies that will be on display and, in many cases, on sale at IMTS 2000. See "Places to Visit" on page 55 for descriptions of the booths of many gear-related suppliers.

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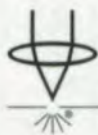
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**GETTING AROUND IMTS 2000**

Within the pavilions you will find companies involved in all aspects of manufacturing, but how do you find the pavilion you want with all these different halls and levels? The map above shows you precisely where everything is located. The ten pavilions and one service area of IMTS 2000 are:

**Abrasive Machining, Sawing and Finishing Pavilion (North Building, Hall B, Level 3)**

This pavilion will feature various types of grinders and abrasive cutoff machines; band, circular and hack saws; and machines for buffing, polishing, vibratory finishing and lapping. Deburring and marking equipment will also be featured.

**Business Services (North Building—Concourse Lobby)**

This is the place for industry-related publications as well as government and other non-manufacturing organizations.

**Controls & CAD-CAM (Lakeside Center, Hall D, Level 3)**

This pavilion features CIM/CAD/CAM systems, CNC controls, automation management systems, communications systems and LAN, software development services, computers and software, instruments, controls and systems integration services.

**EDM (Lakeside Center, Hall D, Level 3)**

The EDM Pavilion will include wire EDM, ram type EDM, EDM filtration systems and supplies, metal disintegrators and die sinking machines.

**Gear Generation (North Building, Hall B, Level 3)**

Manufacturers of gears and related equipment will find gear hobbing, shaping, shaving, skiving, rolling, grinding, lapping and measurement systems in this pavilion. See "Places to Visit" for a listing of gear industry vendors you do not want to miss.

**Lasers & Laser Systems (North Building, Hall B, Level 3)**

This pavilion will feature a wide range of applications including metal cutting, marking, scribing, drilling, cladding, trimming, engraving, welding, heat treating and measurement.



**Machine Components/Cleaning/Environmental  
(Lakeside Center, Hall D, Level 3)**

This pavilion features equipment; machine components; engineering services; environmental protection services; services for air, water and oil filtration and purification; safety guards and mats.

**Metal Cutting (South Building Hall A, Level 3  
and North Building, Hall C, Level 1)**

The Metal Cutting Pavilion will feature over 600,000 square feet (almost as large as the entire 1978 Machine Tool Show) of machining and turning centers as well as machines for milling, rolling, boring, drilling, transfer, broaching, skiving/roller bur-nishing and whirling.

**Metal Forming & Fabricating  
(North Building, Hall B, Level 3)**

This pavilion will house straight-side, OBI and hydraulic presses; water jet cutting equipment, CNC turret punch presses, tube and pipe benders, press brakes, roll benders, shears, hand welding and robotic welding equipment, hot and cold forming technology, spinning machines, wire forming, forming cells and systems, foundry/casting and, investment casting equipment, plasma cutting, friction welding, stress relief equipment, coil and sheet handling equipment and plate benders.

**Quality Assurance (Lakeside Center, Hall D, Level 3)**

This pavilion will include precision measuring machines, coordinate measuring machines, precision gaging, automated gaging, laser measurement, in-process gaging, tool condition monitoring equipment, measurement software, and quality and environmental management software.

**Tooling & Workholding Systems  
(Lakeside Center, Hall E, Level 2)**

From angle brackets to z-axis fixturing and everything in between, the Tooling & Workholding Systems Pavilion includes boring bars, cutters, drills, endmills, fixturing systems, gun drilling tools, hobs, inserts, jigs, keyseating tools, lapping tools, magnetic chucks, NC tables, over spindle adaptors, plates, quick change dies, reaming tools, screw thread inserts, tool storage equipment, universal fixturing, vises, and workholding systems.



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*Pavilion Icons*

 IMTS 2000 Metal Cutting	 IMTS 2000 Controls & CAD/CAM	 IMTS 2000 EDM	 IMTS 2000 Gear Generation	 IMTS 2000 Lasers & Laser Systems
 IMTS 2000 Metal Forming & Fabricating	 IMTS 2000 Abrasive Machining/Sawing/Finishing	 IMTS 2000 Machine Components/Cleaning/Environmental	 IMTS 2000 Quality Assurance	 IMTS 2000 Tooling & Workholding Systems





IMTS takes place Sept. 6-13 at McCormick Place, Chicago, IL.

## IMTS EVENTS

IMTS is more than just the largest manufacturing exhibition in America. It is a place where industry professionals can share ideas and learn from each other. It is also a place where young people can come and see, first hand, what modern manufacturing is all about and whether it is a career path they should consider.

## THE IMTS 2000 MANUFACTURING CONFERENCE

The Society of Manufacturing Engineers (SME) and the Association for Manufacturing Technology (AMT) have teamed up to create the most comprehensive educational conference in the manufacturing community for IMTS. "We've realigned the conference with the attendee in mind," said John McEachran, SME conference director. "We've added high-level keynote luncheons addressing strategic manufacturing practices, free interactive technology forums on capital expenditures, and a new conference format allowing attendees to participate in the conference while attending the show."

The first luncheon keynote, "Manufacturing for Customer-Driven Organizations," will be held on Thursday, September 7, from 12:00pm to 1:30pm. A panel of Blue Chip companies will address the shifting paradigms and philosophies steering companies to become customer-driven organizations. The second keynote, "Small and Mid-sized Manufacturers: Making E-commerce a Reality," will be held on Monday, September 11, from 12:00pm to 1:30pm. This presentation will cover the many options available to small and mid-sized manufacturers wanting to sell directly to customers over the Internet.

Leading equipment manufacturers will participate in several Interactive Technology Forums dealing with capital expenditures, which will be followed by question and answer sessions with the panel members. These forums include "Comparative Coatings for Cutting Tools," Wednesday, September 6, 9:00am to 11:00am; "Software for Job Shops," Wednesday, September

6, 9:00am to 11:00am; "Maintenance Management," Friday, September 8, 9:00am to 11:00am; and "Environmental Compliance," Tuesday, September 12, 9:00am to 11:00am.

To allow attendees to participate in the conference while attending IMTS, the conference has been designed with half- and full-day sessions. Over 60 technical sessions are available with 10 new half- and full-day sessions available including the Machining and Grinding Series, the Forming Series, the Plastics Series, the Management Best Practices Series, the Factory Automation Series, the Design Engineering Series, Computer Technologies Solutions, the Green (Environmental) Series, the Leadership Development Series, and the Precision Machine Design Workshop (a special two-day intensive workshop).

To register for the IMTS 2000 Manufacturing Conference, contact SME customer service at (301) 694-5243 or (888) 346-8925. For more information log onto [www.sme.org/imts](http://www.sme.org/imts).

## IMTS 2000 STUDENT SUMMIT

One of the toughest issues facing American industry is recruitment, educating today's young people about the reality of working in manufacturing. That is what the Student Summit program is all about. Students get a pragmatic, hands-on look at a wide variety of rewarding job and career opportunities in today's sophisticated, high-tech manufacturing industry. Junior high through graduate level college students will be exposed to the latest manufacturing products, services and processes of more than 1,800 exhibitors.

The majority of teachers responding to a survey from the 1998 IMTS Student Summit indicated that students acquired a greater understanding of the industry and experienced a positive change in their perceptions of careers in manufacturing technology. More than 4,000 students from approximately 240 high schools, post-secondary technical schools and colleges across the United States attended the IMTS 98 Student Summit. Even more are expected this year as the industry attempts to reach out to students in order to change misconceptions that are keeping some of them from considering manufacturing careers.

The program demonstrates what's hard to depict in the classroom—a close-up view of the latest machine tools and related technology being offered as well as the opportunity to meet experts in the field who are demonstrating this technology. Most groups visit for one full day or more. For more information, visit [www.imtsnet.org](http://www.imtsnet.org).

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