

Gear Technology

User's Guide To IMTS '96

The companies, the machines, the booths to visit; plus, travel tips, insider information, hot times, cool sights and required reading. What you need to know to get the most out of the greatest machine show on earth.

Nancy Bartels & William R. Stott

IMTS: It can be the best of times or the worst of times. The best because nowhere will you find more equipment, products and services for your business than at McCormick Place, Chicago, in September; the worst because finding your way around the show and around the city can be a hassle.

But have no fear: The intrepid scouts from *Gear Technology* are on the job. This User's Guide will tell you all you need to know to have a great (and productive) time at IMTS '96.

THE NITTY GRITTY

What: IMTS '96

Where: McCormick Place, Chicago, USA

When: September 4-11, 9:00-6:00 daily
(except Sunday, Sept. 8, 10:00-4:00)

For more info on registration, exhibiting, etc.,
call 800-322-IMTS
fax 703-893-1151

or check out www.imts.org on the Internet.
(Don't miss the "Virtual Gears").



Navy Pier at night.

Ed Ops

Manufacturing '96, the technical conference held concurrent with IMTS, is organized by show sponsor AMT and SME. Attendees will have a choice of over 70 one- and two-day courses and clinics in seven areas: automation/controls, design, forming and fabrication, machining, management, quality and tooling. Call SME's customer service center at 800-733-4763 for more information.

The Heart of the Matter

Cut to the chase. Visit the new Gear Generation Pavilion, where gear machine tool manufacturers will show off their latest technologies. Check out

- American Pfauter, L.P.
- The Gleason Works
- Hauser-Tec Co.
- Koepfer America
- Liebherr America/Sigma Pool
- Mitts & Merrill, L.P.
- Reishauer Corp.
- Star Cutter Co.
- Vermont-USA Machine Tool Group

The Inside Story

Booths you won't want to miss and what to look for when you visit . . . (* indicates location in Gear Pavilion.)

American Pfauter, L.P.—Booth #B1-6967*. See the new P100 carbide dry hobbing machine and the Kapp VAS 55P CNC form grinder, which will demonstrate topographical grinding. The Höfler ZP630 shows the latest gear measuring machine configuration and technology for gears up to 25" diameter. The new SP320 gear shaver is Pfauter's contribution to the latest CNC shaving machine technology. Pfauter-Maag Cutting Tools will display hobs, shaper cutters, form cutters, rack cutters and their new product, shaving cutters, and solid carbide hobs and thin film coatings, including TiN, TiCN and TiAlN.

Gleason Works—Booth #B1-7170*. See the Gleason PHOENIX 125GH hobbing machine with dry hobbing capability and the new PHOENIX 450HC hypoid cutting machine, a small-footprint, 6-axis CNC machine for large bevel gears.

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Also on view will be the Gleason-Hurth ZS 150 shaving machine with a new part loader, the ZH 250 honing machine and the TAG 400 CNC spur & helical gear grinder. New machine software includes a PC-based knowledge system for the 125GH hobber. The system puts accumulated knowledge related to machine setup, operation, troubleshooting and maintenance at the fingertips of gear production personnel 24 hours a day.

Ikegai America Corporation—Booth #D2-4385. On display here will be Ikegai's newest CNC gear hobbers and hob sharpeners. The SX-15 CNC gear hobber uses a 2,000 rpm spindle and a 220 rpm table. Both spindle and table are highly rigid to allow for the use of cermet hobs and small diameter multigroove hobs. The radial and axial rapid feeds are both 5000 mm/min, and the machine is equipped with a Fanuc 5-axis CNC and a hob quick-change system for straight shank hobs. The SAN-20 4-axis CNC hob sharpening machine, controlled by a 4-axis Fanuc NC, can grind both spiral and straight gear hobs.

Inductoheat, Inc.—Booth #B1-6477. Inductoheat features STATISCAN®, a versatile, general purpose induction heating system. This self-contained, vertical/horizontal scanner hardens and tempers a variety of parts. It can be set up for lift/rotate and single shot operations. Statiscan stands alone or can be integrated into new or existing lines for hardening and tempering. Inductoheat's in-line, continuous-feed hardening system surface hardens cylindrical components for mid- to high-volume operations. It can be integrated with pick-and-place automation and other material handling systems. Check out the multi-media video display of induction heat treating.

Liebherr America/Sigma Pool—Booth #B1-7176*. A wide range of gear production machines will be on display at the Sigma Pool booth. See the LC82 CNC gear hobbing machine, capable of dry cutting; the Lorenz CNC gear shaping machine; the Klingelnberg PNC 100 CNC gear inspection machine and the Oerlikon line of CNC gear equipment.

Mitsubishi Machine Tool—Booth #D2-4254. The focus here is on Mitsubishi's gear cutting capabilities. The GD20CNC is a rigid CNC stand-alone gear hobbing machine designed for job shops and quick change environments. The GD20CNC hob center is a combination machine for hobbing and finish rolling of gears for high volume production. The FB30CNC is a plunge-type gear shaving machine for fast, accurate enhancing of gear tooth quality. Mitsubishi will also have on display a high speed drilling machine with an automatic tool changer.

National Broach & Machine Co.—Booth #B1-7489*. See the newest addition to National Broach's line of Red Ring systems, the new BV-T broaching machine with a force monitoring system to monitor tool wear. The BV-T offers a small footprint, safety, flexibility, efficiency and easy maintenance, according to the manufacturer. Also on exhibit is the SPIRALGLIDE broach tool, which offers longer tool life due to constant tooth engagement. Get complete information on National Broach's full line of precision gear cutting and forming tools at the booth.

(continued p. 11)

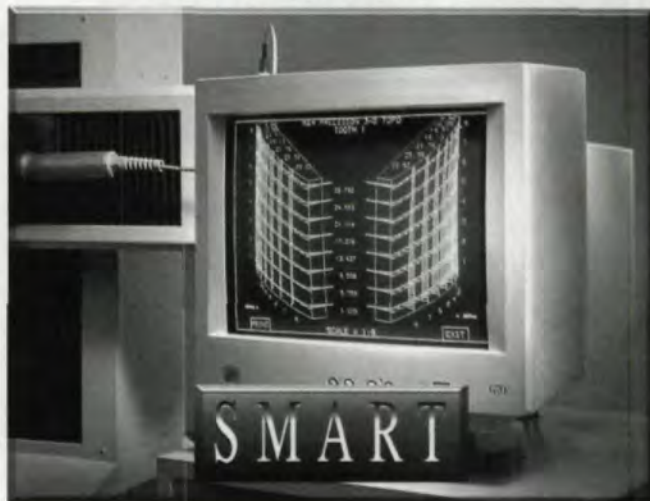


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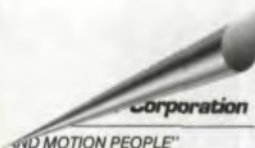


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Questions? We are at your service! Our proven technical staff with 175+ years of gear technology experience will help you find solutions and learn more about this remarkable instrument. For prompt assistance, call or FAX our WinSpect Product Team at:

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Reishauer Corp.—Booth #B1-7148*. The centerpiece at this booth is the RZ362A production gear grinder, featuring Reishauer's continuous shift process which guarantees high process stability, reduced idle times, very low perishable tool costs, quick setups and super-fast grinding times, according to the manufacturer. The various dressing attachments available for the RZ362A will be shown.

Schunk Inc.—Booth #B2-7060. Schunk's line of hydraulic chucks and arbors, with guaranteed accuracies of .00012" or less will be on display. With their high torque and .00004" repeatable centering capability, Schunk arbors are well suited for applications from hobbing and turning to testing and measuring. Good for applications from cutting tool manufacturing and resharpening to milling and boring where tool life, finish and productivity are important. Also on display will be vacuum components, high-precision pneumatic and hydraulic self-centering clamping blocks for workholding applications, rotating and linear extension units, plus a comprehensive offering of parallel, angular and concentric grippers and accessories.

Star Cutter Co.—Booth #B1-7158*. Star Cutter will feature its UTG-300 tool and cutter grinder as well as a full line of gear and other cutting tools, including hobs, shaper cutters, gun drills, pressure coolant reamers and milling cutters. Also on display will be Star Cutter's line of thin-film coatings, including TiN, TiCN and TiAlN, and plated products, including grinding wheels, dressers and carbide pre-form blanks.

The Outside Story

The whole city of Chicago lies outside McCormick Place, and as any native can tell you, it always helps to have an insider to grease the wheels for you in this town. So the *Gear Tech* staff of insiders has collected some important bits of information to make your IMTS visit go as smoothly as possible.

Transportation. It's true that the last plane out before the Apocalypse will have a layover at O'Hare Airport, but once you're on the ground, the options multiply. A limo or cab ride to downtown is \$25-\$30. The CTA runs from the airport to downtown for \$1.50, but you have to schlepp your own luggage, and you're dropped off at a downtown stop, not in front of your hotel.



Travel Secret I. If you can get an airline that will fly you to Midway, take it. The short runways make looking out the window during landing and takeoff not for the faint of heart, and the facilities are a bit scruffy, to put it kindly, but it's smaller, less crowded, saner and much closer to downtown than its gargantuan big brother out in the suburbs.

Travel Secret II. You can beat the long cab lines at IMTS by catching the Metra Electric Train (accessible from the North Building) at the 23rd St. Station near McCormick Place, which will take you to the Loop in seven minutes for the standard \$1.50. The station is still partially under construction, but the train has two stops downtown, Randolph and Van Buren. Both are close to the Loop action, hotels, and cabs. And don't forget that IMTS offers free shuttle

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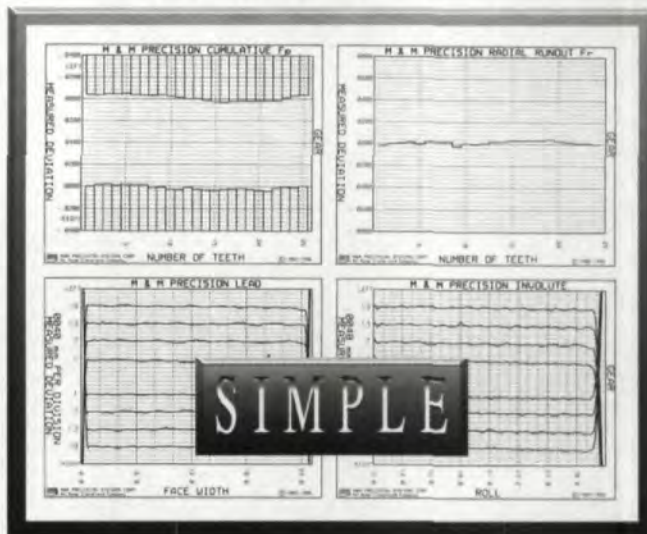
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buses every 20 minutes between McCormick Place and downtown hotels.

Stormy Weather

(Maybe). Local myth says there are three weeks in October that make living here bearable the rest of the time, but September ain't bad either.

Here's the straight scoop on IMTS weather. September is still high summer in the Midwest. Normal highs are in the mid-70s and lows in the mid-50s; however, early in the month, the high 80s or lower 90s are not uncommon. A light coat or jacket will be more than enough for warmth. Never assume it won't rain in Chicago. Pack an umbrella.

Travel Advisory. Seriously, folks, if you're planning on arriving at McCormick Place by car, beware. A **major reconstruction** of Lake Shore Drive in front of McCormick Place is underway and won't be done until IMTS is a fond memory. The Drive is open and traffic is moving, but a good alternative if you're arriving from the north is to get off north of Jackson Blvd. and take State St. or Michigan Ave. south to 31st St., then east to the McCormick Place parking lot. From the south, Lake Shore Drive to 31st is still your best bet.

A.K.A. . . . Chicagoans have the annoying habit of naming major roads twice. Guide for the unwary traveller: 22nd St. is also Cermak Road. Lake Shore Drive is Illinois Rt. 41. Interstate 290 is known here as the Eisenhower Expressway. I-90/94 is the Kennedy, unless you're south of the Eisenhower, when it's the Dan Ryan. I-90/94 splits northwest of the city. I-90 becomes the Northwest Tollway, heading to Rockford, and I-94 is the Edens Expressway, which will take you toward Milwaukee. I-55 is the Stevenson. We won't even go into the state roads which also have street names that change as you go from one neighborhood to another. Best advice when getting directions: Make sure you've got the road number, not just the name.

Fun & Games

IMTS will leave you little time to spend playing tourist, but if you're at the show for longer than a couple of days and have the chance (or the need) to get away from McCormick Place for a few hours, there's plenty to do.

Fan City. Both major league baseball teams will be in town. The Cubs play Montreal on Sept. 9-11 and Philadelphia Sept. 13-15. The White Sox play Detroit on Sept. 2-4, Boston on Sept. 6-8 and Cleveland Sept. 16-18. The Chicago Bears will be at Soldier Field against Dallas on Sept. 2 and against Minnesota on Sept. 15th.

The Lively Arts. Opera, theater, comedy, jazz and blues clubs, movies in a dozen languages—you can find all that and more in Chicago. Two items to keep in mind. Hot Tixx (312-977-1755) sells half-price, day-of-performance theater tickets. The best current listings of entertainment of all sorts is found in *The Reader*, a free weekly newspaper distributed in record and book shops, drugstores, newsstands and restaurants all over the Loop and near north and south sides. Check it out for what's hot (the classified ad section is a real trip in itself).



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Dead Poets (and Others) Societies. The major museums in Chicago are worth the effort, but anybody who tells you it's possible to "do" one in a day or less is pulling your leg. If you only have a couple of hours, try some of the lesser known gems, which are smaller, less crowded, more intimate, and less expensive.

The Museum of Broadcast Communications is on the corner of Michigan and Washington downtown in the Chicago Cultural Center. The building itself, which used to house the public library, is an architectural beauty (there are also free concerts every Wednesday at 12:15 p.m.), and the museum is a tribute to early radio and t.v. For a different kind of souvenir, get a video of yourself playing anchorperson. You (and up to three of your friends) can read the news, weather and sports on a t.v. news set. Cost for the video is \$19.95. Admission to the museum is free.

The Chicago Historical Society at Clark and North avenues has lots of early Illinois exhibits and Lincolniana. Check out the diorama of the Chicago Fire and the current exhibit, "The Last Best Hope of Earth: Abraham Lincoln and the Promise of America." Admission is \$3.00. Mondays are free.

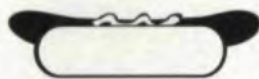
Zen & The Art of Sightseeing. Sometimes what you need most at IMTS is a breather from the noise and crowds. Chicago has 30 miles of lake front, and a stroll along a portion of it is relaxing, healthy and absolutely free. Or pick a comfy spot on some breakwater to sit, take a few deep breaths, look north by northeast and meditate on the fact that there's nothing but blue water between you and Upper Michigan.

For a more lively hike, try Navy Pier. It has shops, restaurants, an indoor botanical garden, a 15-story Ferris wheel, a carousel and plenty of street life. Free trolley rides operate along the length of the pier. Go to the end of the pier or the top of the Ferris wheel and look west for a spectacular view of the city.

A must-see after IMTS closes in the evening is the Buckingham Fountain in Grant Park. Recently refurbished, this giant classical fountain operates between May and October. A free light show is held every evening between 9:00 and 11:00 p.m. A great spot for people watching and picture taking.



Epicurean Ecstasy. Whether it's hot dogs or haute cuisine you've a craving for, some restaurant in Chicago serves it. Pick up a current copy of *Chicago* magazine (found on most newsstands) for a thorough, user-friendly guide to over one hundred area restaurants. It's by no means a comprehensive list, but it should help you make do until you can get home to momma's cooking. ☺



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