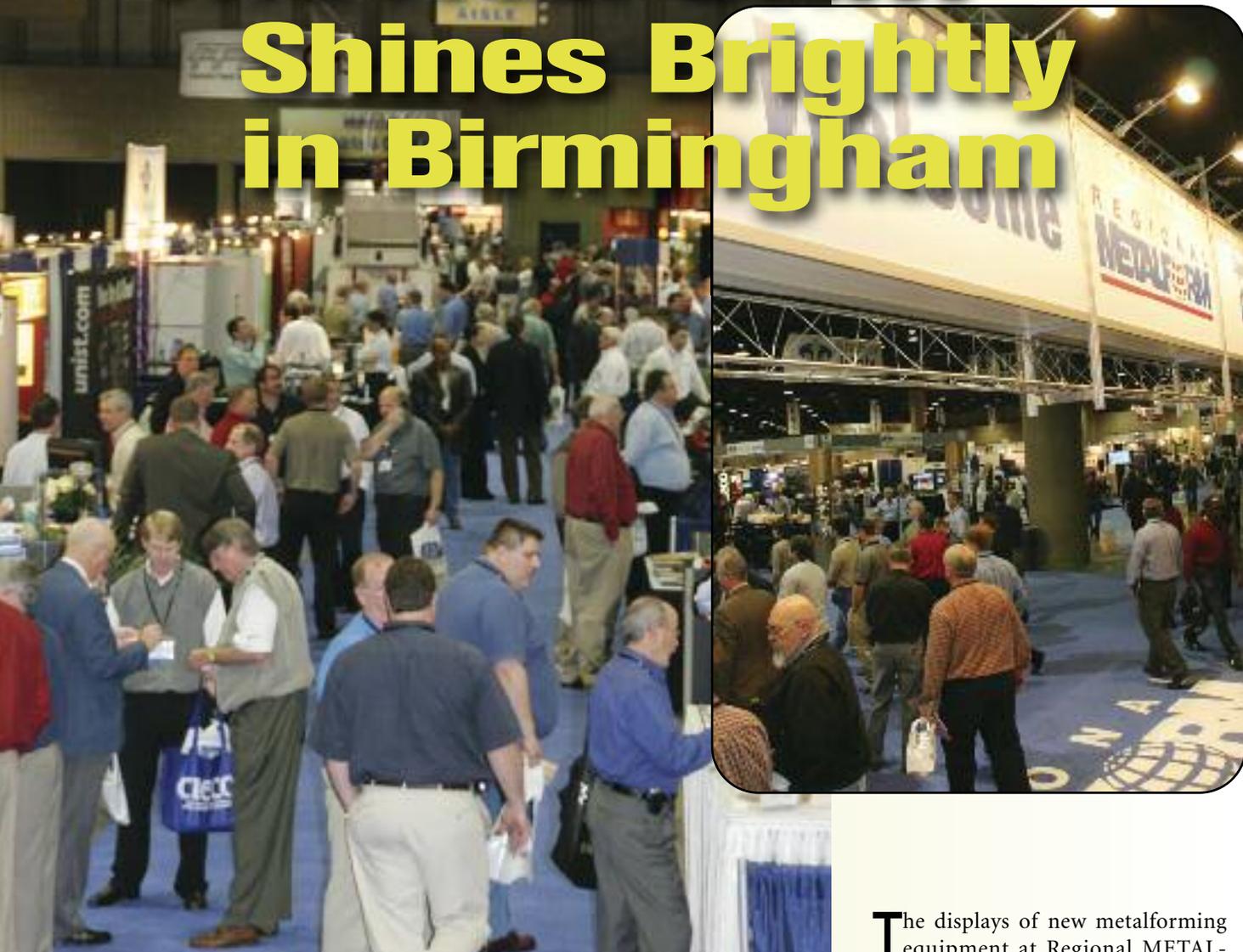


Regional METALFORM

Shines Brightly in Birmingham



In April, METALFORM attendees got a good dose of metalforming technology, with some old-fashioned Southern hospitality on the side.

BY BRAD F. KUVIN, EDITOR, AND LOUIS A. KREN, SENIOR EDITOR

The displays of new metalforming equipment at Regional METALFORM were numerous, and the potential impact of the new technology showcased is huge. After walking the show floor April 1-3, the editors present here a few of the highlights we spied. For complete wall-to-wall coverage of the technology on display at the exhibition—safety and quality/inspection products, presses, coil-handling apparatus, lubricants and lubrication systems, tooling and coating products and more—pick up your back copy of the March issue of *MetalForming*.

Turkish Press Builder Comes Onshore in California

METALFORM marked the U.S. exhibition debut of Turkish press builder Drinns, with U.S. offices for Drinns U.S.A. Industrial Machinery in Newport Beach, CA. The firm manufactures C- and H-frame eccentric mechanical (to 400 tons) and hydraulic (to 500 tons) presses. Among standard features are the use of helical gears to provide reliable power transmission and ease of maintenance; and a centralized lubrication system. Available accessories include adjustable stroke, overload protection, motorized ram adjustment, and pneumatic and hydraulic cushions for deep drawing.

Drinns U.S.A. Industrial Machinery:
888/300-3611; drinnsusa.com

Sensor-Application Specialists at Your Service

Designed to help metalformers jump-start their die-protection program, sensor manufacturer Balluff Inc., Florence, KY, introduced METALFORM attendees to its new Balluff Sensor Outfitters program. The firm will send a pressroom-automation specialist to your shop floor to review and document your automation programs and perform a metalforming-sensor audit (it also offers a similar program for welding, conducting a weld-cell sensor audit).

After reviewing your most challenging dies and day-to-day operations, the specialist will prepare an audit report that features three levels of recommendations—those identifying immediate opportunities for improvement, as well as ideas for mid- and long-term improvement. Also included are specific

and confidential sensor recommendations. With a die (or dies) identified as good candidates for sensors, a Balluff sensor expert and a journeyman diemaker will work with your toolroom staff to select and properly install the sensors, as well as oversee the part-runoff process.

Balluff Inc.: 800/543-8390; balluff.com

Servo Presses to 2500 Tons

Officials at the Schuler Inc. (Canton, MI) booth spoke at length about its expanded range of blanking and forming servo-drive mechanical presses—available with press force from 275 to 2500 tons and constructed from standard component modules. The presses can produce full-rated work energy operating as slowly as 1 stroke/min.



Modular design with standardized components means, say company officials, short delivery times and optimized spare-parts management.

Servo-drive technology allows the individual programming of slide speed and motion sequences so that stampers can optimize parameters during forming and adapt the slide curve to each specific application. The added process control improves part quality and reduces die wear compared to conventional mechanical presses.

Schuler also met with show goers to discuss its expanded press-service capabilities, with engineers and field technicians on staff to maintain hydraulic systems, mechanical presses, control

systems and automation equipment for all Schuler and, now, Mueller Weingarten brands. And, the firm now provides technical service, including major upgrades and rebuilds, in an alliance with Bliss Clearing Niagara (BCN) Technical Services.

Schuler Inc.: 734/207-7200;
schulerinc.com

Seyi Debuts Servo-Press Technology

...available on presses with single- and double-point connections in capacities from 121 to 330 tons. The presses come with controls that include standard conventional-crank, blanking, drawing, coining and multiple-hit profiles. The touchscreen displays machine status, fault codes and slide-motion curves.

Seyi Presses, Inc.: 909/839-1151;
seyiamerica.com



Hydraulic Press Line Introduced for Small to Medium-Sized Stampers

Danish press builder Hydraulico, with U.S. offices in York, PA, introduced its eight-model lineup of STP hydraulic presses. Slide tonnage ranges from 100 to 400 tons. Four models employ single-acting technology, and four are double-acting presses. All feature a rigid H-style frame, offer a slide stroke of 800 mm and a work table 1250-mm square.

The largest model in the series, the double-acting STP400/150, offers 400 tons of slide force and 150 tons of cushion force. Mechanical slide locks are standard; light curtains are optional, along with shock absorbers, tool-changing equipment, feeders and a stacker.

Hydraulico: 717/505-5000; hydraulico.com

In-Die-Welding Systems

Ocon Automated Systems, Barcelona, Spain, showcased its patented in-die-welding units for resistance welding of

company promises constant, reliable weld quality with high torque resistance and the ability to weld from above, below and even on cams.

The welding units, 70 mm thick, accept nuts, bolts and studs from the company's feeders. Each welding unit is controlled by the Ocon WCET 1000/2 welding cabinet, featuring adaptive medium-frequency timers. The welding units have inputs and outputs for communication with the press and welding cabinet.

The welding and feeding cabinet rests on wheels to facilitate movement from press to press, with simple connection via multi-connectors allowing the feeder to be changed in less than 5 min. Different feeders can be con-

nected for applications where more than four elements are needed.

Ocon Automated Systems:
+34-93-814-3532; ocon-ik.com



nected for applications where more than four elements are needed. The units, available for retrofit or installation in new progressive, transfer or tandem dies, can weld at press speeds to 60 strokes/min. The

Round Draw Module for 3D Die-Design Software

Accurate Die Design, Inc., New Berlin, WI, debuted the Round Draw module for Logopress3 3D die-design software. The module and software, developed by Logopress Corp., Besancon, France, runs inside SolidWorks-based Logopress3. Dedicated to the strip-layout portion of the current software, it can produce an accurate and complete strip layout in less than 10 min. With more tooling dedicated to round draw work, this new function will help

Next-Generation Leaders Vote on Best of Show

During Next Generation Leaders Day at METALFORM on April 1, members of the PMA Next Generation Leaders Division toured the show floor to vote on the best new products on display in two categories: Best New Equipment/Service, and Best New Software. Here are this year's winners.

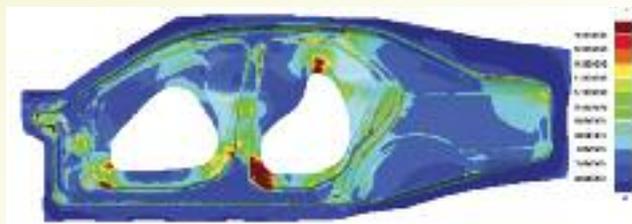
Best New Software: Engineering Technology Associates (ETA)

ETA, Troy, MI, earned recognition for its latest Dynaform release 5.6, which offers many new features and includes a new module called Die System Analysis (DSA).

Also, the DSI module simulates operational loads on the die and generates FEA models of the die structure to evaluate its strength and durability.

Lastly, the software can simulate the transfer of the workpiece through the die stations and predict any interference between the work and the tooling. Stress-strain results also can be used to prevent damage during transfer, loading and unloading.

ETA: 248/729-3010; eta.com



Dynaform allows a manufacturer to entirely bypass the development of soft tooling, reducing overall tryout time, lowering costs, increasing productivity and providing complete confidence in die-system design. It also allows the evaluation of alternative and unconventional designs and materials.

The DSA module offers an LS-Dyna-based finite-element-analysis (FEA) solution to analyze die-system operations including scrap shedding and removal, die structural integrity, and sheetmetal transferring and handling. ETA officials explained to METALFORM visitors that the module can predict and correct for scrap-shedding problems during the trim-die-design stage, and that trimming operations and shedding simulations can be set up in the module's graphical interface.

Best New Equipment/Service: Miyachi Unitek

Next-Gen's awarded the blue ribbon in the equipment and service category to the 10- and 20-W fiber-laser markers, Model LMF2000, displayed by Miyachi Unitek, Monrovia, CA. The markers are capable of Q-switch frequencies of 2-500 kHz for optimum mark quality and speed while engraving metal-alloy and plastic workpieces. Features appreciated by the voters include PC, touchscreen, stand-alone or pendant operation; an intuitive and customizable marking interface; integrated rotary and XYZ motion; LAN connectivity; and an in-line camera option to view the marks and to provide non-intrusive code verification or read capability. In addition to the standard marking software, a number of software options are available to seamlessly integrate the marker into existing and legacy systems.



Miyachi Unitek: 626/303-5676; muc.miyachi.com

designers save time and money, according to Ray Proeber, president of Accurate Die Design. Additionally, he says, the automation it provides will enable companies who otherwise would not have the expertise and experience required to design round draw dies to now feel confident in this area.

The Round Draw module automatically calculates each intermediate stage of the strip layout parametrically to allow for simple changes. The function is automatic and customizable, and also



automatically handles stretch-web management. The program accounts for material characteristics as it automatically determines draw reductions.

Accurate Die Design: 262/938-9316;
accuratediedesign.com

Die Design and Build, and Launch Support, for AHSS, HSS and Aluminum Projects

The combined expertise of MBtech Group and MBtech Autodie was presented to the editors of *MetalForming*, along with show attendees, to illustrate the ability of MBTech, Grand Rapids, MI, to design, engineer, machine, construct, try out, and provide launch support for tools built to handle high-strength and advanced high-strength steels, and aluminum alloys. Marketed as providing art-to-part service, MBtech assesses material formability (virtual and physical), accounting for geometrical limitations and coating and joining issues, and resolves complex challenges related to springback, splitting and wrinkling.

MBtech described at the press conference how its engineers worked with Chrysler, the American Iron and Steel Institute and Mercedes Group Research to recently complete a lightweight-body project that significantly reduced the weight of a body-in-white using AHSS.

MBTech Autodie LLC:
616/454-9361; mbtech-group.com

New Q & T Steel for Wear Components

International Mold Steel, Inc. (IMS), Florence, KY, has begun to import Toolox 44, a new quenched and tempered steel from Swedish supplier SSAB designed to provide high impact and low residual stresses, and therefore good dimensional stability. With a nominal HRC value of 45 yet still easy to machine, according to IMS officials, the steel proves ideal for use in

guide rails, bending tools, wear components of tools and dies, and other machine components. IMS supplies Toolox 44 as plate in thicknesses from 0.20 to 5½ in. Mechanical properties: 210,300-psi tensile strength at 20 C, with 13-percent elongation and 22-ft.-lb. impact toughness. Composition: 1.35 Cr, 0.90 Mn, 0.80 Mo, 0.70 Ni, 0.60 Si, 0.31 C, 0.145 V.

International Mold Steel:
800/625-6653; imsteel.com

Regional METALFORM

New Metal-Spinning Machines, Better Controls

Leifeld Metal USA Metal Spinning, Colorado Springs, CO, introduced additional S-version metal-spinning machines as well as new spinning controls and



software. The company offers four S models, equipped with stronger headstocks, tailstocks, motors and slide power as compared to the standard versions.

For example, Leifeld's PNC 125 S spinning machine with combined playback and CNC control can form materials to 1 in. thick with a maximum

blank diameter of 98 in. The PNC 108 S machines feature stronger headstocks and tailstocks only, allowing the use of heavy tooling.

The company also informed METALFORM attendees of the many enhancements it made to its playback/CNC control and software, giving its metal-spinning machines greater speed and versatility.

Leifeld Metal USA Metal Spinning:
719/282-9061; leifeldspinning.com

Complete Software for Stamping Simulation

Forming Technologies (FTI), Oakville, Ontario, introduced FormingSuite 7.0, which company officials claim is a cost-effective complete sheetmetal-stamping simulation software suite. The suite includes a number of FTI programs that allow for cost estimation, material cost reduction, design and simulation of sheetmetal components. Included in the package: Fastblank for accurate blank

development; Blanknest for coil-based blank nesting; Prognest for cost optimization of progressive-die layouts; Fastform to predict formability issues during product design; Fastform Advanced for detailed draw-development analysis; and Costoptimizer to identify cost-saving opportunities for stamped components.

FormingSuite 7.0 also is available as an embedded CAA module for Catia v5.

Forming Technologies Inc.:
905/-827-2997; forming.com

Improved Hydraulic Motion Control

Delta Computer Systems, Inc., Vancouver, WA, reached out to metalformers looking for improved motion control. The company's RMC motion-controller family delivers precise closed-loop control of position, speed and pressure/force for hydraulic, pneumatic and electric servo applications. Its new RMC150 offers two to eight axes of precise closed-loop position or speed control with



synchronization. The RMCs also provide a 12-Mbps USB interface. Either USB or Ethernet can be used to communicate to a PC running Delta's RMC-Tools software for controller configuration and programming as well as high-speed motion graphing and diagnostics for tuning and debugging. RMCTools sets up, tunes, troubleshoots, programs and controls all features of the RMC motion controllers to ease controller utility.

Delta Computer Systems, Inc.:
360/254-8688; deltamotion.com

Third-Generation Electronic Palm-Button Control

The Break-A-Beam infrared-light-beam-based palm-button press control, from Break-A-Beam Inc., Warren, MI, now is in its third generation and was introduced at Regional METALFORM in Birmingham. The infrared beam is housed in an ergonomically designed enclosure that supplies an output signal when the press operator places his hands in the enclosure and breaks the beam.

Sold as replacements to mechanical palm buttons, the units help avoid carpal-tunnel syndrome. They include self-monitoring ability to avoid false trips during power-up, and will not activate if the beam is blocked for less than 75 msec. New is a smaller profile—3 by 3 by 3 in.

Break-A-Beam Inc.:
586/758-7790; break-a-beam.com

Die Clamp Includes Preload Indicator

To help die setters and other responsible for setup quickly clamp dies to rolling bolsters, press beds and slides, the Hilma Div. of Carr Lane Roemheld, Ellisville, MO, introduced a hydro-mechanical clamping nut with a built-in preload indicator. To use it, the oper-

ator manually positions the clamping nut against the clamping edge, rotates the housing against the die or sub plate, then tightens one or both hex sockets until a preload indicator pin extends fully. This action pressurizes the integral hydraulic piston and converts minimum tightening torque into a high clamping force on the tool. The clamping nut comes in three sizes, with clamping force of 13,400, 22,400 and 33,700 lb.

Carr Lane Roemheld:
636/386-8022; clrh.com/hilma

Compact Side-Transfer System

TTS Automation, Barrie, Ontario, Canada, teamed with Sander Automation to showcase its HST side transfer system. The patented scissor-arm design of the unit, reportedly more compact than conventional side-transfer systems, allows increased throughput and higher speeds than predecessors. Operators can easily see movement of tools, grippers and in-die automation due to



containment of all moving parts within the equipment and press-bed area.

TTS Automation: 705/737-5254;
ttsautomation.com
MF

Access More New-Product Info Online

The products reviewed here represent just a fraction of the new technology available to metalformers. For the whole metalforming-technology picture, visit our online Pressroom Technology Show at metalformingmagazine.com/show. New products are organized into these pavilions: Presses, Automation, Coil Handling & Processing, Lubrication and Pressroom Safety.