NEW PRODUCT PREVIEW

A SAMPLE OF NEW PRODUCTS SET TO DEBUT AT FABTECH 2019

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Thin-To-Thick. No Setup.

Continuous processing of thin materials and thick plate without a cutting lens change or manual setup.

AMADA's ENSIS fiber laser technology utilizes a proprietary and highly-innovative resonator to automatically change the beam mode to accommodate whatever material and thickness being processed. Now, the latest evolution adds another dimension with an innovative collimation system to automatically control beam diameter and beam configuration for unprecedented productivity.

To keep pace with the unmatched power and productivity of the ENSIS Series, it's essential to pair it with automated material handling such as the AMS 3015 CL (Cycle Loader). Designed and built in Brea, California, the AMS CL's modular design allows fabricators to easily expand their automation capabilities as future needs evolve.

Key Evolution Factors:

- Now available in 6kW and 9kW
- · Addition of collimation system expands ENSIS cut quality and capabilities
- Collimation mechanism does not limit access to cutting lens or head maintenance
- · Infinite mode and diameter control combination is an industry first

Variable Beam Control Unit

AMADA's new Collimation System provides infinite mode and diameter

9kW Configuration

- 1-second clean pierce in 1" plate
- Up to a 66% reduction in process time when compared to conventional fiber lasers at the same wattage

FABTECH

Booth A2103

ENSIS 3015 Fiber Laser with AMS 3015 CL



180 Amada Court • Schaumburg, IL 60173 www.amada.com/america 877-262-3287

To learn more about how you can leverage ENSIS technology to achieve unprecedented productivity, contact AMADA today. Stay In Touch With What's Next.

Unmatched Cutting Versatility Efficient Processing of Thin Materials

control combinations - AN INDUSTRY FIRST.



Collimation V System

and Thick Plate

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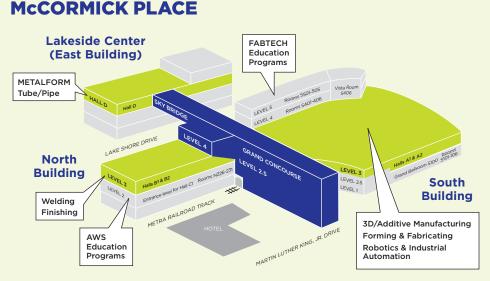
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SHOW HOURS

Monday, Nov. 11 10:00 AM*-6:00 PM

Tuesday, Nov. 12 9:00 AM-5:00 PM

Wednesday, Nov. 13 9:00 AM-5:00 PM

Thursday, Nov. 14 9:00 AM-3:00 PM

*EAST BUILDING (LAKESIDE CENTER) OPENS AT 9 AM

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See the TruBend 7050 at FABTECH Booth A2904 / www.trumpf.com



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Unico Inc Unisorb Installation Technologies Unist Inc United Aluminum Corp United Performance Metals United Wire Co Inc Unittool Punch & Die Company Vaccari SPA Vektek LLC Vibro Dynamics LLC Victory Tool Vidir voestalpine eifeler Coatings Voith Turbo Inc Wilco Inc Wintriss Controls Group LLC Wolfgang Loch GmbH & CoKG WorkWise Software World Precise Machinery Co Ltd Yamada Dobby America LLC Yih Shen Machinery Co Ltd (YSM) Yunsing Industrial Co LTD Zerust Corrosion Solutions ROBOTICS INDUSTRIAL AUTOMATION Accu Tech USA ABM - Advanced Bobotics for Manufacturing ASO Safety Solutions Inc. **Bilsing Automation North** America Binder USA Canon USA Design Storage & Handling Inc Dispatch Ekide SL Fagor Automation Corp FANUC America Corp Festo Corp Fremont Automation Harmonic Drive LLC Hiwin Corporation Hollbrit Inc IKO International Inc IIMFSnA JobPack Inc Kosmek USA Lasermet Inc Leadec Industrial Services Mach Machines LLC Mayser USA Inc Murrplastik Systems Inc Nabtesco Motion Control Inc NB Corporation of America Neugart USA Corp OnRobot US Inc Onshape Inc OPERA PrimeTest Automation Inc Promess Inc Sage Automation Inc Shop Floor Automations Inc Sigma DT Robotics SIS Corp SMC Corporation of America THK America Inc TURCK Inc Two Technologies Inc Veo Robotics Welker Engineered Products Zeiss, Carl Zeiss Industrial Metrology LLC

TUBE & PIPE

5 Star Engineering and Maintenance Accurate Technology Inc Accurex Measurement Inc Addison Machine Engineering Ind Advanced Fabricating Machinery Advanced Tubular Technologies Inc AFM Advanced Manufacturing Technologies AIM, Inc Ajax Tocco Magnethermic Corp Alpine Bender Machinery AM Industrial Group AMOB SA AMPCO Metal Inc ASMAG USA Inc Azak Tool Technologies Inc **Bend Tech** Beverlin Specialty Tube **BLM Group** Chiyoda Kogyo-Maruka USA Clark Fixture Technologies Combilift USA Comco USA Inc Continental Pipe & Tube Cut-Off Machines Creative Safety Supply Crippa SPA Current Tech Design Storage & Handling Inc Dynobend BV Eddytech Systems Inc EFD Induction Inc E.IP Maschinen GmhH Electrex Industrial Solutions FMMFD FD Machinery FENN Fives Gem Tool Corporation George A Mitchell Co Grazioli Cesare Srl Guild International Haas Saw & Supply Han Jie Machinery Co Ltd Haven Manufacturing Corp Heiko Machine Herber Engineering AB Horn Machine Tools Inc Huth Ben Pearson International LLC Hydro Tube Enterprises Inc Innerspec Technologies **INNOVO** Corporation INSPECTECH IP Automation Inc ITEC - Innovative Tube Equipment Corporation J&S Machine Inc Julia USA Kent Corp King Tester Corp Kinkelder USA Lomar Machine & Tool Co Mair Research SpA Manchester Tool & Die Inc Matter Srl Metalloid Corporation MiiC OPTON (USA) Inc Mill Masters New-Form Tools Numalliance Inc Olimpia 80 Srl OMNI-X USA OP USA Inc

TUBE & PIPE

WELDING

Systems Passline Performance Pensa Labs PHI PILLAR Induction Pines Engineering/H&H Tooling Proto-1 Manufacturing PT Peroni Karya Sentra Quaker Houghton Rafter Equipment Corp **RbSA** Industrial REA JET US Reika GmbH & Co **Boll Machining Technologies** & Solutions Rust Release (Safe Industrial Rust Remover) Saar Hartmetall USA LLC Sanderson Machines Schwarze-Robitec GmbH SST Forming Roll Inc Star Bend - Star Technology SrL T&H Lemont Taloc USA T-Drill Industries Inc Tenryu America Inc Thai German Products PCL Thermatool Corp Thermo Fisher Scientific Tools for Bending Transfluid Maschinenbau GmbH Tru-Cut Saw Inc Tube & Pipe Technology Tube 2020 Messe Dusseldorf North America Tube Bending Concepts Inc Tube Form Solutions Tubex Technology Machinery Ultraflex Power Technologies Corp Uniflex Of America Unison ITD United Industries Inc Universal Controls Group Universal Tool & Engineering Universal Tube & Rollform Equipment Corp Viega ViewTech Borescopes Vinston US Corp WAFIOS Machinery Corp Wauseon Machine & Manufacturing Inc Wecotech AG Weil Engineering North America Wilmington Precision Machining Winton Machine Company World Machinery & Saw Inc. Ying Chivan Corp YLM USA Inc WELDING ЗM ABB Inc Abicor Binzel Above Material Technology Co Ltd Ace Industrial Products ACT Automotive NA ADDere Advanced Metallurgy Technology Co Ltd Aerospace Engineering

Equipment (Suzhou)

Co. Ltd

AGT Robotics

Aimtek Inc Air Purification Inc. Airflow Systems Inc Airgas Inc Aketek Industries Alabama Laser Allegro Industries Allied Powers LLC ALM Positioners Inc ALS Maverick Testing Laboratories Inc AlumaReel USA Amada Miyachi America American Society For Nondestructive Testing American Technical Publishers American Torch Tip Co Inc American Welding Society American Weldguip LLC AMET Inc Anand Arc Ltd Andersen Industries Inc Andritz Powerlase Angle-Rite® Clamping System Anthony Welded Products Inc Antra Technologies Co Ltd Anxin Abrasives Co Ltd Applied Technical Services Inc Aquasol Corp Arc Solutions Inc ARC Specialties Inc ArcBoss Arch Value Solutions Arc0ne Arc-Zone.Com Inc Arkansas Elite Welding Academy Armor Tool Artotic Astro Arc Polysoude Inc ATA Tools Inc ATI Industrial Automation Attollo Lift Auburn Manufacturing Inc Automation International Inc AVS Industries LLC AWS Bookstore AWS Welding Competition AXXAIR USA Baoii Taimei New Material Technology Co Ltd Beijing Essen Welding & Cutting Fair Beilun Futuo Berkenhoff GmbH Bernard **BESSEY Tools North America** Beveler USA Inc. Black Stallion Industries (REVCO) Bluco Corp Blue Demon Welding Products Bollhoff USA Boostweld Bore Repair Systems Inc Bosch Bow Ind Bradford Derustit Corp Broco Rankin Bruker Corporation BSP Tools (Kunshan) Co Ltd Buffalo Shrink Wrap BUG-0 Systems C & G Systems Cadi Co Inc Caiman Gloves / Primax

WELDING

Thermal Tech & Temp Thermco Instrument Corp Threaded Fasteners Inc Thred Taper Tianiin Jinlong Welding Material Co Ltd Tip Tig USA LLC Top Cat Air Tools Top Manufacturing Inc Trafimet Group S.p.a. Tregaskiss Trendex Information Systems Inc Tri Tool Inc Tru-Cutt Inc TRU-FIT Products TRU-Weld Trystar Inc TSI Inc TSS Worldwide TWI North America LLC UltraTech International Inc U-Mark Inc UNIARC United Abrasives Inc /SAIT United States Welding Corp Universal Robots USA Inc Uniweld Products Inc Urrea Professional Tools Uweld Technologies Co Ltd VANTERM MAKINA San. Tic. A.S VDM Metals Victory CNC Plasma Systems Vitronic Machine Vision Vizient Manufacturing Solutions Inc - A Lincoln Electric Co voestalpine Bohler Welding USA Inc VSM Abrasives Corp W Weldpro Walter Surface Technologies Washington Allov Co Watts Specialties Inc. WD-40 Company WDI Westfalische Drahtindustrie GmbH WEICON Inc. Weiler Abrasives Weld Engineering Co Weld Pride USA For Weldbrush Weld Systems Integrators Inc Weldas Co LLC WeldComputer Weldcote Metals Welder Training & Testing Institute Welding Alloys USA Welding Consultants LLC Weldobot Technologies Inc Weldsale LLC WELDVIS, KOREA Wendt USA LLC West Chester Protective Gear West Warwick Welding Co Winnox Industries Ltd Wire Wizard Welding Products Wisconsin Wire Works Inc Wise Welding Technology & Engineering Co Ltd WITT Gas Controls Wolf Robotics LLC - A Lincoln Electric Co Wrefs Welding LLC Wuhan Welhel Photoelectric Co Ltd

WELDING

Wuzhou Ally Protect Co Ltd Xiris Automation Inc Yaskawa America Inc York Portable Machine Tools Zheijang Changzheng Project Carbon Electrodes Co Ltd Zhejiang Jingwei Welding & Cutting Technology Co Ltd Zhengzhou Research Institute of Mechanical Eng Co Ltd ZJ Industries Inc

WELDING

Callington Welding Chemicals Cambridge Vacuum Engineering Canaweld Inc CANTESCO® Capital Weld Cleaners Carr Lane Manufacturing Co **CEIA USA Induction Heating** Systems **CENIT North America Inc** Cerbaco Ltd CGW-Camel Grinding Wheels USA Changzhou Asia Science & Technology Co Ltd Changzhou Huarui Welding & Cutting Machinery Co Ltd Changzhou Shine Science & Technology Co Ltd Changzhou Zhengyang Welding Material Co Ltd Chart Inc. Chicago Pneumatic Tool Company LLC Chung I Silver Solder Co Ltd Cibo Abrasives USA CK Worldwide Clamptek USA Inc Clean Air Consultants CleanSpace Technology Ptv Ltd Cloos Robotic Welding Inc Closed Loop Recycling CM Industries Inc Cobra Torches Inc Coldwater Machine Company - A Lincoln Electric Company **Computers Unlimited** Continental Abrasives Copier Pipe Machinery Coral SPA COR-MET INC Cougartron Inc. Coxreels **CRC** Industries CS United Inc CWB Group **CWI WELDING Generation4** D/F Machine Specialties Inc Dahching Electric Industrial Co Ltd Dataweld Inc Dedeco International Inc Dengensha America Corp Denray Machine Inc Dentec Safety Specialists Diablo Tools Diagraph Diamond Ground Products Inc Dino-Lite Scopes (BigC) Dinse Inc **Direct Wire & Cable** Diversitech Donaldson Torit - Donaldson Company Inc DualDraw LLC **DURUM Verschleiss-Schutz** GmbH Dvnatorch Inc E.H. Wachs / Orbitalum Easom Automation - A Lincoln Electric Co EASYKleen Pty Ltd Ecogate Inc **Eidos Ergonomics** eldec LLC Elderfield & Hall / Pro-Fusion Electron Beam Technologies Inc

WELDING

FumeVac

GAWDA

LLC

Co I td

Goss Inc

Gudel Inc

Co Inc

Har-Bach

Co Ltd

Co KG

MITUSA Inc

Encompass Machines Inc BrandSafway Ensitech Inc Intercon Enterprises Inc ESAB Welding & Cutting International Welding Products Technologies Inc ESCO Tool Co InterTest Euroboor USA **IPG Photonics** FANUC America Corp Iron Age Footwear Fastenal Company FEIMEC 2020 Progressive Action Fein Power Tools Inc **Cooperative Trust** Fireball Tool Works LLC **ISOtunes** FIT RITE Systems LLC **IVEC Systems** Flame Technologies Inc Flange Wizard Inc Inc Elexovit USA Inc. JAZ Brush USA Inc. FOCUS GmbH Jianosu Meixin Forney Industries Inc Optoelectronics Technology Co Ltd Foshan Sangiao Welding Jiaxing MTB Machinery Industrial Co Ltd Co Ltd FPT Industrie SnA JLC Electromet Pvt LLC Fronius USA LLC John Tillman Co FSU Welding Engineering Technology JR Automation Fusion Inc Kalas Wire Inc. Gas Lens Galore GE Schmidt Inc Kavo Products Co Ltd Genesis Systems IPG Kemper America Inc Photonics Company Kennametal Stellite Genstar Technologies Co... Inc. (GENTEC) Kent Stud Welding Gentex Corporation Keystone Fastening German Pavilion Technologies Gesswein Co (Kistler GmbH) **GH** Induction Atmospheres Kiswel USA Inc Kiellberg Vertrieb GmbH Global Saw Golden Eagle Minmetals Klimawent USA LLC (Beijing) Welding Materials Golden Spot Machinery Inc (Taicang) Co Ltd Koike Aronson Inc Konzen Company **GSM** America Inc LA-CO Industries Inc Guilin Mingfu Gullco International H&M Pipe Beveling Machine IIC Lessmann GmbH Harbert's Products Inc/Allied Drahtburstenfabrik Flux Reclaiming Ltd LeTourneau University Harris Products Group HBS Stud Welding Partners Henan Huamao Metal Abrasives Co Ltd Materials Co Ltd Liburdi Automation Inc Henan Xinxing Arts and LinAn Da Yang Welding Crafts I/E Co Ltd Material Co Ltd Heron Intelligent Equipment Lincoln Electric Co HGG Profiling Equipment BV Luvata Ohio Inc Hi Temp Products Hobart Brothers Magnatech LLC Hobart Institute of Welding Technology Industries Inc Honsberg America Corporation Inc Honsberg Metallsagen GmbH Hypertherm Inc Inc Hy-Tech Engineered Maxxeon Inc Solutions McDantim Inc IAP Air Products MCR Safety Ideal Welding Systems LP Mercer Industries igm Robotic Systems Inc Metabo Corp IHT Automation GmbH & Mianyang Zhongyan Abrasive Co Lt II-VI Highyag IMC Marks Micro Air Imperial Systems Inc Midalloy Industrial Solutions & Miller Flectric Mfg LLC Innovation LLC

WELDING

WELDING

Industrial Specialists by MK Products Inc Morris Precision Technology Company Limited MSC Software MTA-USA LLC NASA Technology Transfer Program Nation Wide Products Ironworker Management National Standard Nederman LLC Nelson Stud Welding Inc New Fire Co Ltd Newland (Tianjin) Welding JASIC Technologies America Material Co Ltd Ningbo Air-Safe Tool Co Ltd Ningbo Dabu Welding Technology Co Ltd Ningbo Jamson Machinery Manufacturing Co Ltd Ningbo Jintian Ningbo Kimpin Industrial Pte I td Ningbo Powerway Alloy Joysun Abrasives Co Ltd Material Co Ltd Ningbo Starex Welding & Cutting Technologi Kanca El Aletleri Dovme Celik Ningbo Yihe Refrigeration Ve Makina Sanayi AS Equipment Co Ltd Ningbo Zehen International Kawasaki Robotics (USA) Inc Trade Co Ltd Nodha Industrial Technology Wuxi Co. Ltd Norton | Saint-Gobain Novarc Technologies Inc Nuova CMM Srl Octopuz Inc Kistler Cutting and Welding Olympus America Inc Optrel Inc Osborn OTC DAIHEN Inc KLINGSPOR Abrasives Inc Otto Trading Inc Kobelco Welding of America Oxvlance Inc Pador Marketing Group Panasonic Systems Solutions Company of America KUKA Robotics Corporation Pandiiris Inc PDS BarTech Inc Laizhou Hongyuan Bench Pearl Abrasive Company Vise Manufacture Co Ltd Pemamek LLC Laser Marking Technologies Penny Weld LLC PEERD INC Phoenix International Inc Piher Pittarc Welding Wires Levitate Technologies Inc Plasma Automation Inc Lianyungang Orientcraft plasmo USA LLC Plymovent Inc Pollstar Communications Ptv Ltd POWER ROBOT Lincoln Electric Automation Praxair Distribution Inc. Precitec Inc Preston Eastin Machitech/Beamcut Systems Primo Automation Systems Pro Spot International Manufacturing Solutions Pro Systems LLC - A Lincoln Electric Company Matsumoto US Technologies proAutomation LLC Matuschek Welding Products pro-beam GmbH & Co. KGaA Proceq USA Inc PROFAX / LENCO PSTproducts GmbH Pulsa PushCorp Inc Pyramex Safety Products Quantum Machinery Group Radyne Corp Michigan Pneumatic Tool Inc. Rasco **Resistance Welding Controls** LLC Resistance Welding Machine & Accessory

Rex-Cut Abrasives RIDGID Rite-Hite Robotic Technologies of Tennessee LLC Robotmaster a Hypertherm Company Rocon LLC RoMan Manufacturing Inc. Roy Smith Company RWMA - Resistance Welding Manufacturing Alliance Saf-T-Cart Inc Sakura of America Saldatore Distribution Inc Sanpo Publications Incorporated SanRex Corporation SciAps Inc Selectrode Industries Inc Serimax North America LLC Servo-Robot Inc Shandong Aotai Electric Co Ltd Shandong Maike Tungsten Molybdenum Technology Co Ltd Shanghai Huawei Welding & Cutting Shanghai Kaisen Environmental Technology Co I td Shanghai TAYOR Heavy Industry (Group) Co Ltd Shanghai Wtl Welding Equipment Manufacture Co Ltd Shaver Industries Shenzhen Riland Industry Co I td sia Abrasives Sigma Steels SISMA USA Inc SKM Industries Inc SMA Abrasives USA LLC Sorex Welding Co Ltd Southern Stud Weld Inc SPI Lasers Stabila Inc Stanley Black & Decker Inc Steel Vision Tools Steelmax Tools Steiner Industries Strong Hand Tools STUAA Automation Co Ltd Suhner Industrial Products Inc Sumig Usa Corp Sumner A Southwire Company Sunstone Welders Superflash Compressed Gas Equipment Surewerx USA Inc Surface Flow Technologies Inc/LSN Diffusion LTD T. J. Snow Company Taurus Englobe Ltd Taylor-Winfield Technologies Inc Team Industries Inc **TEC Welding Products** Techniweld USA Technogenia Lasercarb Technology TECMEN Electronics Co Ltd Tennessee Rand Inc - A Lincoln Electric Co Termmei Torch & Tip Company THE BOUECHE COLLC Thermacut Inc Thermal Dynamics

WELDING

Wuxi Datang Welding & Cutting Mechanical Equipment Co Ltd

EXPLORE NEW PRODUCTS AT FABTECH

The following pages in this New Product Preview offer a glimpse of what's in store at FABTECH. Find descriptions and images of new machinery, new materials and new processes listed by technology and company name. To view a complete list of all new products offered, click on the Exhibitor Search tab at **fabtechexpo.com**.

Additive Mfg

AddUp Inc

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Booth A4141 FormUp* 350



An industrial metal additive manufacturing machine using multi-laser beam melting technology to produce mass production components or prototyping.

Bluestreak | Bright AM

Booth A3945 Advanced Part Build Tracking Capabilities

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With an electronic (or paper) traveler allowing the ability to track operating steps including out-of-sequence as well as advanced dispositioning of nonconformances. CIDEAS Inc Booth A3745



Powder Bed Fusion laser sintering machines.

Desktop Metal

Booth A3752 Studio System



Three-part solution that automates metal 3D printing. Tightly integrated through Desktop Metal's cloud-based software, it delivers a seamless workflow for printing complex metal parts inhouse—from digital file to sintered part.

Laser Mechanisms Inc

Booth A3364 Direct Deposition Head



FiberWELD[®] DH is a high-power direct deposition head for processing macro-scale industrial and aerospace components. Delivers multi-axis laser energy to a center fed process wire for directional independence. For additive manufacturing, cladding and HLAW. Protolabs

Booth A4350 Metal 3D Printing for Production



Metal 3D printing service offering several secondary processes like post-process machining, tapping, reaming, and heat treatment and also offering powder analysis, material traceability, process validation, and inspection reporting.

Tethon 3D

Booth A4241 Bison 1000



Ceramic DLP desktop printer.

Xometry

Booth A4343 Carbon DLS Capabilities



Xometry connects customers with manufacturing solutions through proprietary AI algorithms offering CNC Machining, Sheet Metal, Injection Molding, and 3D Printing.

MakerBot 3D Printers

Booth A3739 MakerBot METHOD X



The MakerBot METHOD X manufacturing workstation prints with real ABS, a 100°C build chamber, and SR-30 supports to deliver dimensional accuracy, precision, and reliability.

Arc Welding

Miller Electric Mfg LLC BoothsB19054, B23054

Deltaweld* System with Intellx™ Feeders



Deltaweld Systems deliver pulsed MIG capabilities to help operations reduce welder training time, minimize spatter and rework, and improve weld quality. The Intellx Pro dual wire feeder option provides even greater flexibility. Multimatic[®] 255 Multiprocess Welder



Reduce downtime and increase productivity with this multiprocess welder that delivers MIG, stick, DC Lift-Arc[™] TIG and pulsed MIG capabilities — making it ideal for professionals in the light manufacturing, fabrication and MRO segments.

Millermatic[®] 255 MIG Welder



Built for professionals in the light manufacturing or fabrication segments, this smaller, more versatile machine is capable of welding metals up to 1/2-inch thick with an output rating of 230 amps and 25.5 volts at a 60 percent duty cycle.

Multimatic[®] 220 AC/DC Multiprocess Welder



Delivers all-in-one capabilities for MIG, flux-cored, DC TIG and DC stick welding, plus the addition of AC TIG. Welders can tackle more projects and more materials — now offering AC/DC TIG from 24-gauge to 1/4-inch thick aluminum and steel.

Weld Engineering Co

Booth B18035 AS-4 - Electric Flux Recovery



The AS-4 is the Mighty-Might standard duty submerged arc flux recovery system with patented self-cleaning filter technology. Mounts onto most sub arc welding equipment.

HFH-100-E/P - Heated Auto Flux Hopper/Separator



The HFH-100-E/P is a heated 150 pound (or larger) low-mount flux hopper and separator that automatically transfers recovered flux to the welding torch for continuous welding and flux recovery operation. Used with the Mighty-Mac Super Duty Vacuums.



Instead of Recalls: Automatic Weld Seam Inspection with VIRO WSI

Defective weld seams in automotive manufacturing often have serious consequences. The solution? The VIRO WSI optical inspection system from VITRONIC. The new generation of sensors is even more compact, faster, and more powerful and inspects all types of weld seams. Thanks to in-line, direct inspection, VIRO WSI also enables rapid intervention in the upstream welding process. This sustainably reduces defects, optimizes processes and ensures fewer downtimes, rework and rejects. Weld seam inspection from the technology leader. www.vitronic.com

Arc Welding

Weld Engineering Co

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Booth B18035 LAFV-32 & MAFV-32 - OEM Replacement Hopper Valves



The LAFV-32 and MAFV-32 valves give complete valve closure and prevent problems associated with OEM hopper valves, especially using pressure feed (PT-100, HPT-100, PFR-3000, HPR-3000, HPFR-HAMX-3000) or flux recovery (XP-3, XP-4T) systems.

Assembly

Multipress Inc

Booth D45054 M5P Bench Top Press



A model M5P bench top press with dual anti-tie-down start buttons including pressure shift speed change and pressure reversal.

PFERD INC

NEW PRODUCTS

Booth B31017 INOX-TOTAL Brushes



A line of brushes with all components: wire, face plate and stem built out of 302 stainless steel. The line features both crimped and knot wire wheel and bevel brushes.

Automation

Amada America Inc

Booth A2103 AMS 3015 CL Automation



The AMS 3015 CL was engineered to provide a flexible automation solution that reduces unnecessary machine downtime due to manual material loading.

MC Machinery Systems Inc

Booth A2923 ASTES4 Laser Automation



Fully integrated system provides seamless communication between the laser and the sorting mechanism.

Murata Machinery USA Inc

Booth A4901 Motorum M2044TS with RL1212



This 22-ton, punch press, uses a servo-electric drive system for simple and reliable processing. A large turret provides flexibility and a small table for limited space. Paired with the RL1212 load/unload system, the punch can work for hours unattended.

Pemamek LLC

Booth B35050 PEMA WeldControl



PEMA WeldControl streamlines the communication between operator and machinery during welding operations. Production data monitoring, diagnostics, tracking, and robot programming can be performed by one operator on a one-panel control system.

Shop Floor Automations Inc

Booth A5174 DataXchange ODI - Operator Data Interface



The ODI replaces the previous Data Entry window for the machine monitoring system. More user-friendly and visually appealing.

DataXchange SRC Adapter



Connect fabricating equipment with the Status Relay Control (SRC) - any machine, brand and age of equipment.

RS232 to USB Upgrades



The Pendant and Portable USB Connect devices help fabrication shop floors modernize RS232 ports.

Bending/Forming

BLM Group

Booth A2153, D46532 3 RUNNER End-Forming Machine



Straightening, end forming, cutting. The 3-RUNNER is a complete tube production process starting from a coil which, straightens, forms (up to six stations), faces, cuts and unloads the finished part. All in one continuous operation.

Elect All-Electric CNC Tube Bender



All electric CNC tube bending machines for tubes up to 150 mm (6"). Configurable for right- or left-hand bending.

E-TURN All-Electric CNC Tube Bender



CNC mandrel tube bender for pipes and profiles up to 50.8 mm in diameter. In-process righthand/left-hand bending.

Carell Corporation

Booth A5743
Plate Rolls



Carell Corp. has partnered with PARMIGIANI, builder of high-quality plate rolls to offer 4Roll, 3Roll and Translating Geometry Rolls.

Durma North America Inc/Durmazlar/DURMA

Booth A2934 **Blue Bend Panel Bender**



Increases piece production efficiency using advance technology and provides full capacity automatic tool changing with minimal adjustment timing.

Eagle Bending Machines Inc

Booth A5743 CPS-20 H/V Roll Bending Machine





Hydraulic Roll Bender designed to operate in both horizontal and vertical positions. This universal roll is complete with programmable controls and universal tooling.

HAEUSLER AG Duggingen

Booth A5319 **HAEUSLER EVO CNC 4-Roll Plate Bending Machines**



EVO four-roll plate bending machine includes as standard the latest graphically supported CNC Control BENDtronic®, the VSA® variable side rolls swing arm technology and the HAEUSLER Hybrid Drive System HHDS®.

Herber Engineering AB

Booth D46559 2400S All Electric 4" Boosted **CNC Bender**



The Herber 2400S is capable of bending up to and including 4" Stainless Steel tubes and was designed for the rigors of high production while offering a unique design for contract manufacturers where seconds and flexibility count.

Mate Precision Tooling

Booth A3168 Wila Trumpf Style Press Brake Tooling



Expanded Wila Trumpf Style press brake tooling with over 30 punch and die profiles. Additions include punches with acute, sash, gooseneck and blade profiles. 55mm height dies have a wide range of V-openings and angles at 30°, 80° and 86°.



Visit Caplugs at FABTECH 2019.

We will be exhibiting a variety of new masking components, including blind weld nut plugs, at FABTECH 2019. This series is ideal for threading a mask through a weld nut. Made from our Ultrabake[™] material, these reusable plugs are ideal for use in high temperature finishing processes such as:

• Powder coating Plating

• E-coating

Anodizing

Caplugs Masking Specialist Chris Malone will be speaking on "Masking, the Key to Quick Cost Savings" on Monday, November 11 from 2:30 - 3:00 p.m.

Product Protection | Masking Solutions | Custom Molded Components

- Injection Molding Vinyl Dip-Molding
- Rubber Molding Extrusion
- Vinyl Coating Die-Cutting

Shercon



www.caplugs.com/masking

1.888.CAPLUGS | sales@caplugs.com



Bending/Forming

MetalForming Inc

Booth A2162 Schröder MAK4 EVO 40/5 UD ATC AHS



The Advanced Handling System features the dynamic combination of automatic tool change, up and down bending, and automated part manipulation fully automating the entire bending process.

Schwarze-Robitec GmbH

Booth D46541 CNC 25 E TB MR

Fully electric tube bending machine for smaller tube diameters with intelligent NxG control system. Almost all CNC axes can be operated simultaneously during bending – reducing production times enormously.

Star Bend - Star Technology SrL

Booth D46559 Star 450 - 1.75/2" 3-Stack

4-Axis CNC Bender



The re-envisioned Starbend electric CNC bending machine features include an electric bend head, slim line bend head, independent bend die return, carriage boost and more.

Steelmax Tools

Booth B33050

ABM50 Double Side Plate Beveling Machine

A digital display provides precise control of bevel geometry and full digital control of milling head and travel speed. Lay the foundation for high quality welds with precise, consistent bevels.

TRUMPF Inc

Booth A2904 TruBend 7050



The TruBend Series 7000 is known for speed and ergonomics, and increasing the size and tonnage brings the high level of productivity to a wider range of parts.

Coil Processing Allor Manufacturing Inc/ Plesh Industries

Booth A5062 Precision Tapered Backup Bearings



Backup Bearings give direct interchange 2.5"- 11.375". All are sealed or shielded for life and are heat-treated using bearing-quality steel.

Pull-Thru Slitting Line Leveler



Roll plunge based on gauge and yield, positions machine for desired plastification. Real time roll bending corrects strip defects. Auto side shift cassette change. 4-HI machine allows for 5 or 6-HI with no mods required.

Work Rolls



Work Rolls from 0.75" - 12.00" in diameter meet the highest standards for material, finish, tolerance, strength and reliability to keep production moving for leveling equipment. Available in "inch" and "Metric" diameters.

The Bradbury Group

Booth A4375 Athader Double Eccentric Slitter Heads



Athader's double eccentric slitter head produces a clean strip edge with minimal penetration, enhancing the edge quality of cut strips and reducing wear on the slitter knives and motor.

Cutting

Durma North America Inc/Durmazlar/DURMA

Booth A2934 Fiber Laser Tube Cutting Machine



High quality components, great efficiency and includes a complete automatic loading and unloading system requiring less effort, while saving time.

HYMSON

Booth A4396 HF H Series



High power smart laser cutting machine with outstanding power up to 15kW, a multiple of extension choices and great design for automatic production line.

HF LU Series



All-in-one laser cutting machine with an automatic loading and unloading system, parallel kinematic technology, superior performance in thin materials and assembly with retractable grippers to ensure remarkable precise cutting.

HP D Series



Expert-class ultra-high speed intelligent machine tool with an automatic loading and unloading system that can easily handle a variety of tube shapes and fully covered with protection.

Park Industries

Booth A5342 KANO HD CNC Plasma Cutting Machine



The KANO[™] is available in six machine sizes and is configured with a Hypertherm EDGE[®] Connect CNC, a Hypertherm[®] high definition plasma system, optional oxy-fuel cutting torch and choice of cutting table style.



A TANK

The KANO[™] HD features a design that will thrive through years and years of high production volumes. No shims or jack screws are ever used to adjust the components straight – that's accuracy!

Since 1953, Park Industries® has proudly brought American manufacturing ingenuity and world-class machinery to fabricators across North America. Their state-of-the art manufacturing facilities are tooled with highly sophisticated 5-Axis mills that produce some of the highest precision machines on the market today.

Available in six machine sizes, the KANO[™] HD is configured with a Hypertherm EDGE[®] Connect CNC, a Hypertherm[®] high definition plasma system, an optional oxy-fuel cutting torch and your choice of cutting table style.

True Unitized Machine Frame

COME SEE THE KANO[™] HD IN ACTION AT FABTECH #A5342

- Independent Cutting Table
- 6, 8, & 10 Ft Wide
- 12 & 24 Ft Long

ark Industries

- Plasma & Oxy-Fuel
- 3 Cutting Table Styles
- Built to ISO-230-2 Machine Tool Accuracy and Laser Verified



// Contact us today to learn how the KANO™ HD can help increase your productivity.

800.328.2309 // parkindustries.com/kano

Cutting

Piranha \ MegaFab

16

Booth A4924 **PIRANHA B-Series Plasma Table**



The B-Series plasma table is perfect for hobby to light industrial cutting needs. Available in 4'x4', 4'x8' and 5'x10' models with power ranges up to 125 amps.

Thermacut Inc

Booth B19062 **EX-TRACK** Portable Cutting

Machine

The EX-TRACK unit is a lightweight and highly portable CNC cutting system that can be easily transported and assembled.

Products for HPR[®]400XD

A suitable replacement series of consumables, torches and accessories for the HPR®130XD, HPR*260XD or HPR*400XD Hy-Performance® cutting systems.



ARKU Inc

Booth A3162 EdgeBreaker® 3000



Deburring machine in ARKU's deburring and edge rounding portfolio offering fast and efficient double-sided deburring and rounding of laser cut parts.

Caplugs

Booth B16055 **BWNP-SH Series of Blind Weld** Nut Plugs



The reusable BWNP-SH Series plugs are designed to mask blind weld nuts where it is not possible to thread a mask through the weld nut. They are also ideal for use when it's easier to install a mask into the weld nut from one side.

Durr Systems Inc

Booth B13066 EcoAUC



EcoBell and EcoGun Control Unit. PLC and valve technology allows operating color change systems from the EcoMCC family with up to 10 colors.

EcoDose 2K



Electronic dosing system suitable for high and low pressure applications. It can be used in

manual and automatic processes. Optimized for quick color changes and easy flushing.

EcoPump Packages



Fully assembled, portable, ready to use modules.

EcoRP 10 R1100



The ready2spray robot is a high performance, compact, paint robot for industrial applications.

Rotary Package - EcoBell2 SL



Applications by rotary atomizers. Optimal integrated 2k - Unit.

System Application Equipment Color change, dosing and atomization. Dual shaping air ring for spray pattern regulation from 90 to 600 mm.

Ensitech Inc

Booth B37043



The TBE-440 is optimized to include the latest advances in TIG Brush[™] technology and streamlined to deliver quality.

TBE-550



The TBE-550 utilizes a specifically focused adaptation of the 700 series design, to align its performance with Ensitech's latest technological advance, the PRO-PEL[™] Torch.

TBE-700



Powerful, reliable, electrochemical weld cleaner at 90amps @ 100% duty cycle.

Gema USA Inc

Booth B13034 **Dynamic Contour Detection**



The Dynamic Contour Detection laser scanner offers a higher level of automation for powder coating. The innovative design detects object geometries, aligning each gun to the correct position to coat the most complex components.



MagicControl[®] 4.0 Control Unit



MagicControl® 4.0 provides full control for all automation aspects such as guns, reciprocators and booths for powder coating systems. This allows complete operation of the coating line and consistent process reliability.

OptiCenter® All-in-One Powder Center



Powder center combining powder feeding, control and electrostatics. This space-saving design provides fast color changes, stable coating results, clean working conditions and trouble-free maintenance.

OptiFlex® Pro Series



OptiFlex[®] Pro series brings high performance to manual powder coating. PowerBoost[®] technology delivers 110,000 volts of power for quick and efficient powder coating.

OptiFlex® Pro Spray Series



OptiFlex[®] Pro Spray powder coating series provides superior application performance and quality for operations with frequent color changes that require a stable powder output over extended time and long distances.

OptiStar All-in-One® Control Unit



OptiStar All-in-One[®] control unit combines electrostatics and powder feed in one compact device. This design eliminates all pneumatic lines between injector and control unit and enables space-saving system integration.

Graco Inc

Lesta USA-Self Learning Painting Robots

Booth B11054 LestaUSA Self Learning



A simple self-learning robotic painting technology mirroring intricate human movements without the need for programming.

PFERD INC

Booth B31017 POLIVLIES[®]



PFERD's POLIVLIES® ceramic oxide CO-COOL flap disc is an addition to the POLIVLIES® flap, and hook and loop discs.

Inspection & Testing

Accurate Technology Inc Booth D46450 ProTable-GA



Large format measuring table capable of locating any point in X, Y space for Quality Control checks. Accuracy within +/-.005 inches for non-contact systems. Ranges up to 35x120 inches. Ideal for all part formats up to 4 inches thickness.

Aquasol Corp

Booth B17012 PRO OX*-100 Kit



Programmable handheld digital oxygen monitor with a 2-Point Calibration procedure designed to give operators the most precise oxygen level readings.

Fischer Technology Inc.

Booth B10026 FERITSCOPE FMP30



Precise measurement instruments to determine the proportion of ferrite quickly and non-destructively.

FISCHERSCOPE® X-RAY XAN® 500



The XAN®500 X-ray fluorescence instrument can be used as a handheld device, as a fully enclosed desktop unit or integrated directly into production lines. Coating thickness measurements with WinFTM® software is based on the fundamental parameter analysis.

Inspection & Testing

Accurate Technology Inc Booth D46450 MMS* INSPECTION



A handheld dry film thickness gauge for coating thickness measurement on steel and non-ferrous metals. Measuring ranges: 0-2500 µm on FE and 0-2000 µm on NF (DFT).

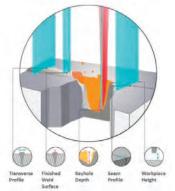
PHASCOPE® PAINT



The pen-like PHASCOPE® PAINT is ideal for fast and easy thickness measurement of paint layers on ferrous and non-ferrous metals. Statistical evaluation of the readings is carried out on a smartphone using the intuitive Fischer app.

IPG Photonics

Booth B19038 LDD-700 In-Line Scanning Weld Monitor



In-line weld monitoring system uses in-line Coherent Imaging to confirm quality of welded parts in real-time. An IR laser beam fired through the same optics as

NEW PRODUCTS

the welding laser records weld depth, finished surface transfer profile and bead height.

Vitronic Machine Vision



With newly developed sensors, the automated weld seam inspection is even faster and more compact and has been optimized for MIG/MAG and for laser seams.

Lasers

Amada America Inc

Booth A2103 EML 2515 AJ (3kW) Fiber Laser/Punch Combination



Amada's most popular combination machine pairs the multipurpose turret with the unlimited shape cutting flexibility of a fiber laser. This grants fabricators the flexibility to work with their customers to create better part designs.

ENSIS 3015 AJ (9kW) Fiber Laser Cutting System



9kW ENSIS fiber laser technology utilizes a collimation system so fabricators can process both thin and thick materials without a cutting lens change or manual setup.

ENSIS 3015 RI (3kW) Fiber Laser Cutting System



Engineered to include an innovative Rotary Index with the power and speed to efficiently transition from flat sheet to tube or pipe cutting in as little as two minutes.

FOL 3015 AJ (9kW) Fiber Laser Cutting System



Now available in 9kW and engineered to produce the highest quality parts at unmatched speed while reducing operating costs and environmental waste.

Ventis 3015 AJ (4kW) Fiber Laser Cutting System



The Ventis 3015 AJ Fiber Laser Cutting System uses Locus Beam Control (LBC) technology to control the kerf width of the laser beam when processing stainless steel and aluminum.

BLM Group

Booth A2153, D46532 LC5 Combo Lasertube/Sheet Metal Laser Machine



Cuts tube and sheet on the same machine.

LS5 Flat Sheet Laser Cutting System



LS5 is one of the markets most complete solutions, designed to evolve with needs. The very compact and configurable layout can be suited to fit available space and processing requirements.

LT7 Lasertube



Fiber laser processing machine for tubes and profiles that assure the best cut accuracy at the highest productivity.

LT-FREE 5-Axis Laser Cutting Machine



Bent tubes, hydroformed components, tubular assemblies or stamped parts. The LT-FREE 5-axis laser cutting machine is perfect for processing any 3D part with high precision and excellent cut quality.

Bystronic Inc

Booth A2122 ByStar Fiber 12kW Laser Cutting System



ByStar Fiber with 12kW laser has an expanded spectrum of cutting applications, a unique cutting head for exceptional speed and cutting quality from thin sheet material to thick plate.

Dallan America Corp

Booth A5952 Dallan LXN

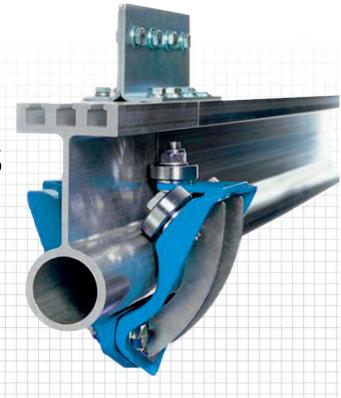


Lean machine for metal fiber laser with revolutionary technology that provides the freedom and flexibility to work starting from coil or standard sheet, up to 40 ft long with the maximum precision.

ALTRAC CRANE SYSTEMS at FABTECH for the first time

- JIB CRANES
- GANTRY CRANES
- MONORAIL CRANES
 MOBILE CRANES

Custom designed to get the most efficiency out of your manufacturing facilities



•MODULAR •STRONG •VERSATILE •LIGHTWEIGHT

With a 30 year history of improving manufacturing, an Altrac crane system is a proven way to increase throughput





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Lasers

Durma North America Inc/Durmazlar/DURMA

20



Fast cutting and energy efficiency capabilities. Easy to use and easy to maintain and service.

KNUTH Machine Tools USA Inc

Booth A3150 ACE Laser



The KNUTH ACE Laser 3015 2.0 has a 5' x 10' cutting table, 2 kW IPG fiber laser source, Precitec cutting head, CypCut CNC control software with nesting function and automatic shuttle table.

Lasermet Inc

Booth A1247 Falcon Active Speed Door with Active Laser Guards



A fast, industrial, laser safe, roller shutter door fitted with "Laser Jailer" Active Laser Guarding. The interlocked laser is enabled only when the door is closed. Any laser strike on the door is immediately stopped.

SLIC – Screen-operated Laser Interlock Controller



The SLIC is the latest touch screen operated laser interlock control system that connects to the main interlock controller (ICS-7-SP) via an RS232 link. The interlock will only enable the laser to fire once all switches and doors are closed.

Lumentum



CORELIGHT Series high-power fiber laser systems feature exceptional brightness enabling high-quality and high-speed cutting performance of mild steel, stainless steel, aluminum, copper, brass, and many other materials.

Mate Precision Tooling

Booth A3168 Laser Accessory Products



Over 500 laser accessory products for the rapidly growing fiber and CO2 laser market.

Mazak Optonics

Booth A4202 OPTIPLEX FIBER III 10kW



OPTIPLEX FIBER 10kW utilizes Mazak's PreviewG control and high-performance drive package that provides higher productivity through high-speed and high-accuracy. Also equipped with intelligent functions that simplify operation and reduce operator dependency.

MC Machinery Systems Inc

Booth A2923 EX-F 8kw



All-in-one Zoom Cutting Head design provides adaptable, automated focus lengths between 3.75 and 10 inches and automatic beam diameter alignment, and comes standard on the 6kw and 8kw. Cut thin and thick materials with ease, including up to 1-inch mild steels, without setup.

SR-F 4kw



The small footprint fiber laser. Motion Cut technology features the beam on/off time and axial movement simultaneously to eliminate the need for the axes to stop.

Mestek Machinery Inc

Booth A3975 Laser-Max 1.5 with Coil Feed



The next evolution in the Vulcan cutting systems featuring a premier fiber laser cutting system, the Laser-Max 1.5 creates a clean, quality cut with minimal heat affected zone on the cut edge.

Murata Machinery USA Inc Booth A4901 LS3015GC 8.0kW Fiber Laser



This laser can cut ferrous and non-ferrous materials alike. The LS3015GC features a small footprint, upgraded drive system and the power of an 8.0kW fiber.

Piranha \ MegaFab

Booth A4924 PIRANHA M-Series Fiber Laser



Piranha M-Series laser cutting machines are designed to run a wide range of material types and thicknesses. Available in 4 kW or 6 kW cutting heads, the M-Series fiber laser is a highly productive tool for a variety of applications.

Thermacut Inc

Booth B19062 EX-TRABEAM® PRO

Fiber laser cutting head with low-drift regulation and auto focus features for optimal cutting results.

TRUMPF Inc

Booth A2904 TruLaser 5030 Fiber



The TruLaser 5030 fiber introduces several innovative features for improving productivity and cut quality, Smart Nozzle Automation with QuickSwap and Active Speed Control.

Lubrication

Unist Inc

Booth D46339 Unist SmartFlow™ Controller



Easy-to-use controller allows for simple setup, advanced control integration, fluid usage tracking, process monitoring, diagnostic and maintenance tools. Pair with Unist applicator for an intelligent lubrication system.

Machining/EDM

Uelner Precision Tools & Dies

Booth D46273 OKK MCV 1260 Cat 50 35HP CNC Mill

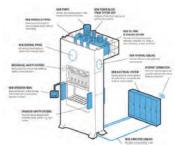


With the addition of the OKK CNC mill, Uelner is now able to machine almost all die sets inhouse in one setup.

Maintenance & Repair

Hydraulico AS

Booth D45664 Hydraulico Press Upgrade/ Refurbishment



Complete or partial press upgrades, within just three weeks on virtually any kind of hydraulic press.

HydraulicoLink

A digitalized solution allowing best-in-class maintenance and placing Hydraulico as a potential service partner, no matter the brand of hydraulic presses.

PFERD INC

Booth B31017 VICTOGRAIN[®]



VICTOGRAIN[®] precision-formed abrasive grain is used to make grinding products.



🔿 corona

Programmable Fiber Lasers 3-15kW

FABTECH Booth A3550 www.nlight.net

Material Handling/ Marking

Altrac USA

Booth A6368 Altrac Gantry Crane



A modular, lightweight system that adapts to any environment. No need to upgrade existing structures to achieve handling loads up to 1 ton and the extendable systems can grow with business.

Blue Water Engineering Pty Ltd

Booth A5033 Forklift Vaclift FVL500PT



Vacuum lifter to enhance safety when lifting or moving material. Design features, significant modifications and advancements to the vacuum system include an internal self diagnostic vacuum checking and component identification system.

InfoSight Corporation

Booth A3555 KettleTag*PLUS



Galvanizing tags with text and bar codes that survive the entire galvanizing process.



Laser-powered metal tag printer that is durable, reliable, versatile and easy to use.

LabeLase® 30XX Tag Printer



Prints more tags in less time. Its speed makes it especially valuable when production lines increase speeds, or more data is needed on tags.

LabeLase® 4000 Tag Printer



High speed desktop metal tag printer with sharp, clear text, bar codes, logos, graphics, and user selectable fonts.

PaintTag™



Tracking cast or heat numbers. ProAcid clean, then paint start to finish traceability. PaintTag is ideal for tracking work pieces through acid prep and painting operations.

ShotTag™



Acid rinse then bead blast with one tag for the entire process. ShotTag is designed to withstand bead and steel shot blasting applications.

Mestek Machinery Inc

Booth A3975 Iowa Precision Coil Feed



A highly integrated Coil Feed system with wireless capabilities to eliminate the need to load material by hand for the upload and reloading of coil production for either a plasma or laser-cutting tables.

MetalForming Inc

Booth A2162 Böckelt Flexible Storage and Logistics System



The intelligent storage, inventory, and production management system offers customers reduced set-up times, increased productivity and machine uptime, and lower operating costs.

Other Machinery/ Equipment/Parts/ Products

Daubert Cromwell

Booth D46253 Clear Pak[®] 5000 Film

Environmentally friendly film protects steel, aluminum and copper. Bio-based, nitrite and amine-free. Internationally approved for industries such as automotive, electronics, aerospace and precision machined parts manufacturing.

Premium Metal-Guard® VCI Bubble Bags

Flexible, adhesive-top bubble bags that protect metal parts from physical damage and corrosion during storage and shipment.

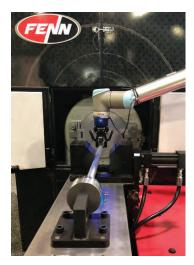
Safecote[®] CLV



Rust preventive liquid protects internal threads on machinery stored outdoors. Low VOC, does not require removal. Ideal for rental equipment and heavy duty construction machines where long-term corrosion prevention is critical.

FENN

Booth D46456 Fully Automated Turn-Key Swaging Solution



Fully integrated turn-key rotary swaging solution complete with robotics, a sound enclosure, a hydraulic feeder table, and a FENN 3F swager. Benefits include improved equipment safety, reduced set up time and reduced operating costs.

Hydraulico AS

Booth D45664 Electronic Shimming Plate System



Patented Electronic Shimming Plate[™] offers extreme blankhold control and short start-up time in monoblock deep drawing. With deep drawing, material flow changes significantly during drawing, often causing problems with wrinkles and cracks.

Midwest Automation

Booth A3179 Niagara Wet Dust Collectors



Niagara Wet Dust Collectors from Midwest Automation designed to efficiently clean or filter contaminated air in a variety of operations that create metal dust and other abrasive media residue. Available in three new series and fifteen different models.

Newcastle Systems Inc

Booth A3178 QC Series Mobile Powered Workstation



QC Series Mobile Powered Workstations designed for mobile quality testing, measurement and inspection as well as other processes requiring vast storage capabilities.

TAB Industries LLC

Booth A3384 TAB Wrapper Tornado Smart Controls



The Smart Control package uses a position encoding system to automatically set the dispensing unit at its home location in the wrapping ring, apply the plastic film, then cut it, holding onto the stretch-wrap for the next pallet load.



With Walter on the job, nothing else cuts it.

Zip WheelTM THE INDUSTRY'S LEADING AND MOST TRUSTED CUT-OFF WHEEL

Some might be satisfied with good. And some might settle for better. But when the only option is the best, it's got to be the Zip Wheel[™] from Walter Surface Technologies. The Zip Wheel[™] is engineered to deliver the most cuts in the industry. And only Zip Wheel[™] features a patented rib design that cools the surface and reduces friction. That means no cut-off wheel cuts straighter, sharper, smoother, faster — or safer.

For more information, visit walter.com/zipwheel 1-800-522-0321





Visit us at booth B35035

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ALTE

Other Machinery/ Equipment/Parts/ **Products**

UltraLox

Booth D45868 **ULTRALOX INTERLOCKING™** TECHNOLOGY



UI TRALOX INTERLOCKING™ TECHNOLOGY produces durable. cost effective, attractive pre-assembled aluminum railing and fence products within minutes.

Plate & Structural Fabricating

VOORTMAN USA

Booth A2169





Voortman V807 robotic thermal profile processor brings the versatility and capabilities of robotic plasma and oxy-fuel processing into a footprint reduced by more than 50%.

Press Brakes

Accurpress

Booth A2980 Accurpress Heavy Duty Press

Brake

The Accurpress Heavy Duty Press Brake line offers solutions for jobs requiring maximum flexibility for specialized plate forming jobs. With massive builds and optional accessories, the Accurpress is built for any advanced forming challenge.

Amada America Inc

Booth A2103 EG 4010 All-Electric Press Brake



The EG 4010 is a compact press brake solution to produce small sheet metal components that demand a high degree of precision.

HRB 1003



Very latest press brake technology to be built in High Point, NC.

HRB 1003 ATC



Very latest press brake technology with automatic tool changer to be built in High Point, NC.

Durma North America Inc/Durmazlar/DURMA

Booth A2934 **Electric Press Brake Series**



The drive system is simplified yet stronger and does not require oil to generate press power, works for a long time on the same calibration, and provides high-energy usage savings solutions while keeping the fast speed, efficient production, and quality.

Press Brake Machine



Specially designed to operate in excellence and built with high quality components making them fast, reliable, and precise Press Brakes.

ErmakUSA/Ermaksan

Booth A2954 **ERMAKSAN FX Series Servo Electric Press Brake**



Press brake offering fast and green bending solutions. Belt technology eliminates the need for crowning on the bed and comes with 3D graphical touchscreen controller and offline software.

MC Machinery Systems Inc

Booth A2923 **BB306**



Diamond BB Series Electric Press Brake with AC Servo motor and ball screw mechanism for highspeed productivity and repeatability (\pm 0.001mm).

BB6020 with Videre



Diamond BB Series Electric Press Brake features 100 percent Mitsubishi electronics, motors and servo drives.

BH13530 with Automatic Tool Changer



Diamond BH Series Hybrid Press Brake features Dual Drive system controls high-speed up and down movement with a ball screw and bending movement by hydraulic piston.

MVD Makina Sanayi A.S.

Booth A5350 Servo Electrical Press Brake



Press brake featuring up to 50% less energy consumption, up to 30% more productivity, noiseless, accurate positioning, clean environment without hydraulic oil, a recall and save bendings with barcode scanning system and ergonomic design.

Pacific Press Technologies

Booth A3979 **Pacific Blaise 175-ton Press** Brake



The competitively priced Blaise press brake includes intuitive software, a heavy-duty frame, and .0004" precision accuracy. Part programming is a breeze with the user-friendly interface and on-screen help buttons of the Delem HMI Machine Controller.

Piranha\MegaFab

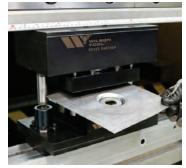
Booth A4924 **PIRANHA T-Series Press Brake**



chine that fits well in applications that do not need sophisticated control or back gauge options. Available in models ranging from 35-280 tons, this machine comes with standard X-Axis back gauge and a simple CNC control.

Wilson Tool International

Booth A3114 Brake Partner™



Brake Partner[™] lets shops use punch press tooling to make forms in the press brake. This innovative solution can help lower costs and reduce lead times, thanks to the streamlining of equipment and machine flexibility it offers fabricators.

Xtreme Lift



With its easy-glide rollers and hand-pump hydraulics, the Xtreme Lift is one of the safest and least strenuous options to help operators load tools into a press brake.



New Orleans, LA November 19-21, 2019

Punching

Durma North America Inc/Durmazlar/DURMA

Booth A2934 TP Punch Press Series



Provides high quality, precise forming, fast turret, upgraded hydraulics, and three automatic indexing stations, a movable table, unloading hopper, automatic clamps, cad-cam software, and a main control system.

Mate Precision Tooling

Booth A3168 Mate QCT™ Quick Change Tooling Line



Mate QCT[™] tool-less punch retention system now includes Metric QCT[™], AMX QCT[™] for Amada air blow systems and MXT QCT[™] for Wilson Series 90 systems.

TRUMPF Inc

Booth A2904 TruMatic 1000 Fiber with SortMaster



The TruMatic 1000 fiber increases the range of automated production with the SortMaster Compact. The SortMaster Compact removes, sorts and stacks individual parts up to 24" x 16" and up to 33 lbs.

Robotics

Abicor Binzel

Booth B19062 TH6D-GF



Optical seam tracking sensor using a combination of laser lines and cameras allowing the course of the welding seam to be tracked and corrected in real-time on the Y and Z axis.

xFUME ROBO



Fume extraction kit for robotic welding features a patented design that allows for source capture of welding smoke in a robotic application directly at the arc to a cleaner plant environment.

ATI Industrial Automation

Booth B29074 ATI Compliant Deburring Blade



The pneumatically-actuated Compliant Deburring Blade excels in light and medium deburring, chamfering, and scraping operations. Both axial and radial compliance reduces robot programming time and enables consistent contact forces throughout the process.

Lasermet Inc

Booth A1247 Laser Castle V8



The Laser Castle V8 is the latest version of the modular, rapid-build laser safety cabin designed and certified to prevent the escape of high energy laser radiation.

Peddinghaus Corporation

Booth A2147 PeddiAssembler



The PeddiAssembler is a robotic steel beam assembly and welding machine which can achieve up to 15,000 tons of completed members per year.

Yaskawa America Inc



AR-series 6-axis arc welding robots offer optimized acceleration/deceleration control for all robot axes, resulting in overall improved productivity. Five models are available with 8-25 kg payload capacity to support a wide variety of sensors and torches.

Safety & Environmental

Keller USA Inc

Booth A5127 DustOff Gust



DustOff Gust is manufacturing's clean-air partner; a cabin for employees to safely "DustOff" at breaks without sending hazardous particles into the air.

Saws & Cut-off Machines

Universal Tube & Rollform Equipment Corp

Booth D46963 3.5" (89 mm) High-Speed Flying Cold Saw



High-Speed Flying Cold Saw equipped with motion controls, length control system, hydraulic clamp system, 325 FPM maximum speed, .160" (4 mm) maximum wall thickness.



Debuting at FABTECH 2019 Loewer BeltMaster

Best of both worlds with small part finishing and large part graining in one machine.

The innovative K4TD BeltMaster allows the utility of multiple machines with a single unit.





Flexibility to process small parts Lower operation costs Touch screen interface German built quality

Воотн АЗ126



www.ammachinerysales.com

A MACHINERY SALES, Inc.

Solutions for Deburring, Belt Grinding, Polishing, Buffing & Micro-Finishing

Software & Machine Controls

ITEC - Innovative Tube Equipment Corporation



The TubeWorks plug-in for Solid-Works and powerful stand alone tool is designed to reduce the pre-production design time to only a matter of minutes.

Kyntronics



An 'all-in-one' solution (controller and programming included), in a scaleable, modular, 'power-on-demand' machine platform. The design is self-contained with no hoses.

Lantek Systems Inc

Booth A3521

Lantek 360

Lantek 360 is a suite of cloudbased manufacturing applications that give users access to incredible capabilities enabling visibility and processing of large amounts of real-time and historical data for better decision making with greater efficiency.

MachineMetrics

Booth A5060 MachineMetrics - Cloud

Application for Production

MachineMetrics is the industry's Al-driven machine monitoring and predictive analytics platform for discrete manufacturers and machine builders.

MachineMetrics Health - Maintenance Software

A predictive analytics application on the MachineMetrics Industrial IoT platform that allows maintenance teams to monitor and manage equipment health in real-time.

MachineMetrics Production

MachineMetrics Production features simple "self-install" IIoT connectivity, fully automated cloud machine monitoring and OEE software connects to all machine types to provide visualizations of real-time manufacturing production data.

Nederman LLC

Booth B31074 Nederman Insight



Industrial air filtration system monitoring technology that provides manufacturers with a real-time, mobile view of their system performance - complete with a robust visual dashboard, auto-generated alerts and notifications.

ProManage

Booth A3652
ProManage AR



Become a factory of the future and see what is beyond equipment with ProManage Augmented Reality.

ProManage IIoT based MES/ MOM System



MES/MOM system fully integrated with Artificial Intelligence (AI) and Augmented Reality (AR) technologies. ProManage helps to improve business results of a manufacturer automatically.

ProManage Predictive Maintenance Management



Integration with the ProManage Production Module, ensures that maintenance operations are planned according to production volumes and automatically executed to reduce the number of breakdowns and shorten repair time.

ProManage Predictive Quality Management

Multiply your productivity by increasing your quality. ProManage Auto-improve

Manage quality to increase competitiveness by preventing losses before they occur, accessing interactions instantly and tracking results and analyses regularly.

Wintriss Controls Group LLC

Booth D45133 ShopFloorConnect^{*} Version 6.0 OEE/ Data Collection



ShopFloorConnect[®] Version 6.0 has several enhancements including a fresh design format for fast, easy access to all data, offering more robust, user-friendly reporting and dashboard customization, flexible scheduling capabilities and much more.

Stamping

Alma Machinery Co

Booth D46331 Alma Machinery Used Press

Warehouse

60,000 SF of additional space to total 170,000 SF of used presses and press room equipment in MI and TN.

AMADA ORII AMERICA

Booth D45533 AMADA ORII SDE-GORIKI



Advanced direct drive servo press offering a highly rigid solid-column frame and full length center-gib with a wide slide. Ranges in size from 150 ~ 300 mt.

Carell Corporation

Booth A5743 T100 DIGI Dual Axis Horizontal Press



with "SIMplylogik" NC Dual Axis Programmable Controls

T100 Dual axis horizontal press with digital programming has a powered back gauge. This hydraulic press will bend, fold, crimp, punch and form a variety of materials in flat, square, round, tubular and special shapes.

Tool & Die

Quality Wire EDM Inc

Booth D45252 1 & 2 Day Emergency Tool Repair Service



1 and 2-day emergency tool and die repair service with hardened certified materials on hand and around the clock operation.

Precision Cut Shims



Shim sets start at .005" and go to 1/16" thick.

Say Goodbye to Press Down Time



Keep those mission critical jobs running. All wear and consumable tool parts are fabricated and stocked at the facility.

STEINEL Normalien AG

Booth D45266 Smart Nitrogen Cylinder



The patented nitrogen cylinder features integrated pressure and temperature sensors and wireless or cable data interface. This allows continuous monitoring, increase in productivity and product lifetime prediction.

Uelner Precision Tools & Dies

Booth D46273 Makino PS-95 High Speed CNC Mill



High-speed machining with PS-95 Makino for the tool room.

Tooling

Michigan Pneumatic Tool Inc

Booth B19092 MP-2312 Angle Grinder



The MP-2312 is a powerful and rugged, 2.3 hp governed grinder designed for the demanding applications in foundries, and metal fabrication. It features durable beveled gearing, a spindle lock, and is also available in 20 grinder and sander models.

Tube & Pipe Fabricating or Welding

Abicor Binzel

Booth B19062 Spool Welding Robot SWR



A collaborative welding machine designed specifically for pipe, small pressure vessel, and other types of roll welding. It is capable of welding flanges, tees, elbows, reducers, and more.

Alpine Bender Machinery

Booth D46768

Work Cell with Programmable Pick/Place Unloading



CNC tube bending work cell that demonstrates automatic loading and programmable unloading without the use of a robot. Utilizes X, Y, and Z pick and place

unit. This unit is programmed via the bender controller.

AMOB SA

Booth D46559 AMOB - eMob 150 - 6"



All electric 10-axis multistack boosted CNC bending machine with an extremely large variety of included options.

Carell Corporation

Booth A5743 ETM-90HD Digital Heavy Duty 3" Pipe Bender



Rotary pipe and tube non-mandrel bender constructed from solid steel plate, no castings, 3" pipe and 3.5" tube capacity. Digital Touch Screen HMI with 40 programs x 5 bends each includes auto capacity material calculator.

Dynobend BV

Booth D46559 CB76 MR 3D



All-electric, rotary-draw and 3D freeform bending machine for bending and rolling of tubes and profiles, offers through its unique design an extremely large amount of freedom around the bending head.

Tube & Pipe Fabricating or Welding

ITEC - Innovative Tube Equipment Corporation

Booth D46559

MTS Tube Punching and Forming Tools and Machines



The MTS tube punching and forming units, work plates and machines when combined in work cells can utilize the combination of standard machinery for an almost endless variety of applications such as cutting, single or twinhead bending, punching, forming, flattening, coping, milling and drilling.

Universal Tool & Engineering

Booth D46568 CNC Tube Bending Work Cell and Servo PDA Boost



Demonstrates automatic loading, robot unloading, and complex shape inspection and will feature programmable Servo Pressure Die Assist, which will reduce setup time and operator skill level, as well as control wall thinning and deformation of bend.

Tube & Pipe Producing

BLM Group

Booth A2153, D46532 LT7 Lasertube



Fiber laser processing machine for tubes and profiles that assure the best cut accuracy at the highest productivity.

Trilogy Machinery Inc

Booth A4968 BSP Tube Punching Systems



Customized BSP Systems tube punching machines with a wide range of tube, pipe and profile punching possibilities including automatic loading and unloading features.

Universal Tube & Rollform Equipment Corp

Booth D46963 3.125" (80 mm) Complete Tube Mill Line



Complete Tube Mill Line equipped with (all new): Kent Corporation Entry Equipment, 300 KW Solid State High Frequency Welder, SFM Forming and Sizing Mills, UCG High-Speed Flying Cold Saw and 3 Motor Drive System.



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Booth A5731 GlobalMAX



A value-focused waterjet starting at \$54,950.

Welding Consumables

voestalpine Bohler Welding USA Inc

Booth B27068



FABTECH

Booth# B350

Avesta ER308Si/308LSi

Solid wire, high-alloyed, austenitic stainless. Very good wetting and feeding characteristics with excellent weld metal toughness down to -320°F. Application temperature max. 660°F.

Avesta ER309Si/309LSi

Solid wire, high-alloyed, austenitic stainless. Ideal for special applications joining unalloyed and low-alloyed steels, cast steel grades, stainless heat resistant Cr-steels and cast steel grades to austenitic steels and cast steel grades.

FOXcore 46 MC

Metal-cored high-efficiency wire for semi-automatic and fully automatic joint welding of unalloyed and fine-grained constructional steels and service temperatures from -4 °F to +840 °F.

FOXcore 52 RC

All position rutile flux-cored wire with fast freezing slag system. Excellent mechanical properties, low spatter loss, smooth, finely rippled bead surface, X-ray quality.



diamondspark 46 MC

Seamless all positional metal cored wire for semi-automatic and fully automatic joint welding of unalloyed and fine-grained constructional steels. High resistance to porosity, good wetting behavior as well as low hydrogen contents.

diamondspark 52 RC

Seamless rutile flux cored wire especially suitable for ship building, structural steel work or wherever good bead appearance is required. Excellent weldability, high performance weld speed, very low spatter.

Welding Machines/ Equipment

Booth B19062 xFUME VAC ADVANCED



Powerful fume extraction technology made for high-vacuum fume extraction welding needs. Two 0.8 KW motors and high fume extraction capacity with more than 20,000 PA vacuum.

Cut, clamp, fixture, and weld accurately with the RHINO CART® MOBILE FIXTURING STATION.

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Folds down when not in use.

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Welding Machines/ Equipment

Abicor Binzel

Booth B19062 xFUME VAC FLEX



Welding fume extraction solution ideally suited for mobile use at changing individual welding stations.

Lincoln Electric Co

Booth B19030 POWER MIG[®] 140 MP[®]



A lightweight, portable multiprocess welder that connects to 120 volt power. This machine is capable of MIG, Stick and Flux-Cored welding out of the box, and with the addition of a TIG Torch and Foot Pedal, you can add DC TIG to its list of capabilities.

RANGER[®] 330MPX[™] Welder/ Generator



The Ranger[®] 330MPX[™] welder generator is equipped with a 25 horsepower Kohler[®] engine to supply incredible power for every job. A digital user interface makes set-up easy while offering 10kW of clean AC continuous power. Use CrossLinc[®] Technology to adjust settings remotely.

NEW PRODUCTS

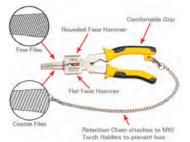
Strong Hand Tools

Booth B35038 Deluxe Magnetic Grasshopper



The Deluxe Magnetic Grasshopper locates and holds steel stock in the vertical position for tack welding. The spring-loaded Grasshopper arm delivers positive, self-adjusting holding pressure with a copper spindle for grounding contact.

Deluxe MIG Pliers



Deluxe MIG Pliers have both fine and coarse files for welding gun maintenance, rounded and flat hammer faces, and a side pull v-notch for grasping wire or nuts. A retention chain helps prevent loss and attaches to the ReadyRest[™] MIG Rests.

Plasma Cutting Tray Attachment for Rhino Cart®



Cut, clamp, fixture and weld on one convenient work surface by adding the Plasma Cutting Tray attachment to the Rhino Cart[®] Mobile Fixturing Station. Ready Rest[™] Adjustable TIG, MIG Torch Rests



The ReadyRest[™] line of adjustable, fully articulated TIG, MIG Torch Rests are height and angle adjustable for setting at the ideal position for easy access. Increase efficiency and productivity, and prevent torch damage.

ReadyRest[™] Articulated Arm Rest



Maximize comfort, productivity and safety in welding with the ReadyRest[™] line of Wrist and Arm Rests. The articulated Arm Rest supports the extended arm for greater weld control and complete freedom in positioning.

ReadyRest[™] Grinder Rest



ReadyRest[™] Grinder Rest holds 6" or 7" grinders. Store a grinder on this rest to prevent damage, maximize valuable space and create an organized work area.

Taylor-Winfield Technologies Inc

Booth B28098 Capacitive Discharge Welder



Capacitive Discharge (CD) power supplies equipped with Multi-Capacitor Source (MCS) system. **FABTECH** | Visit Wilson Tool International at Booth A3114

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we make the tools that make the parts that make the things that matter. And it starts with a box addressed to our customers. It's what's in the box that counts.



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Be sure to use **#FABTECHexpo** or **#FABTECH19** in your posts!





Reserve a seat at the FABTECH Bistro and you will always have a convenient place to eat, meet and network.

The Bistro offers assorted menu options including fresh and healthy lunch options, all at a reasonable price.

Pre-purchase your individual lunch tickets to avoid the lines. Find the daily menu, pricing and order tickets at **fabtechbistro.com**.



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SPECIAL EVENTS

There are a lot of great events happening this year at FABTECH.

You won't want to miss the keynotes, expert panel discussions, Smart Manufacturing Hub and much more.

All events are free and open to all attendees unless otherwise noted.

MONDAY, NOVEMBER 11

KEYNOTE PRESENTATION

8:30 AM - 9:45 AM

FABx TECH TALKS

In honor of Veterans Day, this year's FABx will feature a powerful lineup of visionary veterans. These are heroes with incredible stories who have gone on to excel in leadership, business, advanced manufacturing, and workforce development. Drawing on their unique experiences, speakers will captivate and inspire audiences with their frontline stories focused on motivation, team building, innovation, and how to achieve excellence in the business battlefield.

FEATURED SPEAKER:



CHAD HENNINGS

Through a nine-year NFL career and three Super Bowl Championships, 45 successful combat missions with the Air Force, and as one of the most decorated college football players in NCAA history, Chad represents the philosophy that he lives by — that excellence is not a destination, but an identity.

FABx SPEAKERS:

- Hernán Luis y Prado, Founder and CEO, Workshops for Warriors
- Jason T. Ray, Co-Founder and CEO, Paperless Parts Inc.
- Shelly C. Rood, Educational Consultant, Mission Ambition LLC
- **Michael Walton**, Industry Solution Executive (Manufacturing), Microsoft

LEADERSHIP EXCHANGE

12:30 PM - 1:30 PM

EMERGING & ADVANCED TECHNOLOGIES FOR MANUFACTURING 2020

Advanced manufacturing is transforming the economy and jobs, using cutting-edge technology and new manufacturing processes to accelerate innovation. Learn how companies are using advanced technologies to stay at the forefront of manufacturing.

MODERATOR: Dave O'Neil, Vice President, SME Media PANELISTS: Chandra Brown, CEO, MxD Jason T. Ray, Co-Founder and CEO, Paperless Parts Inc.

Michael Walton, Industry Solution Executive (Manufacturing), Microsoft

TUESDAY, NOVEMBER 12

KEYNOTE PRESENTATION

8:30 AM - 10:00 AM



FRANK ABAGNALE, Cybersecurity Expert, Best-selling Author and Subject of *Catch Me If You Can*

Renowned international cybersecurity and fraudprevention expert Frank Abagnale — known as one of the world's most famous con men — will present a two-part keynote. During the first part of his speech, appropriately titled *Catch Me If You Can*, Abagnale will provide entertaining insight into his life as the notorious imposter

of the 1960s. He will then instruct attendees on how to protect themselves and their businesses from fraud during the second part titled the *Art of the Steal*.

LEADERSHIP EXCHANGE

12:30 PM - 1:30 PM

STATE OF THE INDUSTRY: AUTOMATION IN MANUFACTURING

Innovations in robotics and automation have catalyzed the fourth industrial revolution. This panel will explore how automation is changing the manufacturing landscape and cover both the role of technology and people in the future of manufacturing. Experts will share their perspective on the impact of robotics on human workers and the facts vs. fiction of worker replacement. They will discuss identifying key challenges to implementing automation and developing a pipeline to de-risking technology and implementing it on the factory floor.

NETWORKING EVENT

5:30 PM - 7:30 PM Lakeside Center, McCormick Place

INDUSTRY NIGHT

Enjoy a fun-filled evening of food, drinks, and networking during our Industry Night Party! The **Chicago Blues & Brews** themed event will include live blues music, local craft beer tasting, and much more. We expect this to be a sold-out event so be sure to register early. **Advance ticket price: \$50**

MONDAY, NOVEMBER 11 & TUESDAY, NOVEMBER 12

AWS PROFESSIONAL WELDERS COMPETITION

Participants will go head-to-head as they complete and clean a single-pass fillet weld in just 5 minutes. Speed and accuracy count, and weldments will be evaluated to the current AWS D1.1 standard by a panel of Certified Welding Inspectors. Those interested in competing must be 18 years or older and weld for a living. Learn more about how to participate in the competition at **aws.org/weldingcompetition**.



WEDNESDAY, NOVEMBER 13

7:45 AM - 10:00 AM

WOMEN OF FABTECH BREAKFAST

Join us for a networking breakfast celebrating the importance of women in the manufacturing sector. This event aims to foster relationships and dialogue between supporters and practitioners in the field. A breakfast buffet is included. **Price: \$25**

PRESENTATIONS

KEEPING UP WITH TECHNOLOGY

MODERATOR: Dan Davis, Editor-in-Chief, *The FABRICATOR®*

SPEAKERS:

Susanne Lauda, Director, Global Advanced Manufacturing Technology, AGCO Corporation Gretchen Zierick, President, Zierick Manufacturing

STARTING A WOMEN'S INITIATIVE WITHIN YOUR ORGANIZATION

SPEAKERS:

Monica Silliman, Manufacturing Engineering Manager, Combine Final Assembly, John Deere Harvester Works

Erin Welken, Manager, Business Process Improvement, Global Agriculture and Turf Supply Management Organization, John Deere

KEYNOTE PRESENTATION

8:30 AM - 9:30 AM



GRANT IMAHARA, Former Host on Discovery's "Mythbusters" and Animatronics Engineering Expert

On stage, Grant provides a behind-the-scenes look at his work on various sets and productions while also touching on the importance of advancing the engineering/ manufacturing industry. Grant has credits on numerous blockbusters including *The Matrix* sequels, *A.I., Galaxy Quest, Terminator 3, Van Helsing,* and *Star Wars: Episodes 1-3*.

LEADERSHIP EXCHANGE

12:30 PM - 1:30 PM

THE IMPACT OF DISRUPTIVE TECHNOLOGY AND THE FUTURE OF MANUFACTURING

The pace of innovation is incredibly fast and new things are being discovered daily. As technology has advanced and becomes embedded in plants, warehouses, and throughout the supply chain, businesses have needed to adapt to stay competitive. Many already have, but the path toward digital transformation is different for every company. Come hear our panel of experts cover disruptive technologies from 5G and IoT to AI and robotics and automation, share case studies, and help manufacturers understand and explore the challenges and benefits that implementing these technologies entails.

MODERATOR:

John R. Brandt, CEO and Founder, The MPI Group

PANELISTS: Mohamed (Mo) Abuali, Ph.D. Managing Partner, IoTco Dave Beck, Founder and Managing Partner, Foundry 45
Greg Mark, CEO and Founder, Markforged
Tim Weber, Global Head of 3D Metals, HP 3D Printing

THURSDAY, NOVEMBER 14

LEADERSHIP EXCHANGE

11:00 AM - 12:00 PM

21ST CENTURY WORKFORCE: BUILDING TOMORROW'S WORKFORCE

Manufacturers in the 21st century must make it a precedence to have a workforce that is educated, diverse, and motivated. Organizations need to produce a more globally competitive workforce that can meet the demands of an evolving digital economy and adapt to the trends and challenges of managing a multi-generational workforce. Come hear our experts share their strategies and some actions to address the challenges for the future.

MODERATOR:

Kord Kozma, Global Director of HR, Nidec Press & Automation

PANELISTS:

Hernán Luis y Prado, Founder and CEO, Workshops for WarriorsRob Tessier, National Director of Advanced Fabrication Technologies, AirgasDean Steadman, CNC Education Program Manager, FANUC America

MONDAY, NOVEMBER 11 - THURSDAY, NOVEMBER 14

SMART MANUFACTURING HUB

The Smart Manufacturing Hub will feature several advanced manufacturing technologies, including automation, advanced materials, 3D printing, the Industrial Internet of Things (IIoT), 3D scanning, and more. Technical presentations from industry-leading smart technology providers will provide insight on recent developments in this rapidly evolving field.

Sponsored by:











2019 PRICING CHART

EXHIBITS ONLY

Registration is FREE through November 8.

Beginning November 9, the cost to attend the exhibits is \$50. AWS, FMA, SME, PMA, and CCAI members may always attend the exhibits for FREE with proof of membership.

SPECIAL EVENTS

TUESDAY, NOVEMBER 12 • INDUSTRY NIGHT AT McCORMICK PLACE

Advance ticket price for attendees is \$50 and includes food and drinks, networking, entertainment, and more.

WEDNESDAY, NOVEMBER 13 • WOMEN OF FABTECH BREAKFAST

Price for FABTECH Attendees is \$25 and includes a breakfast buffet.

EDUCATION PROGRAMS

3D/Additive Manufacturing, Automation, Cutting, Finishing, Forming & Fabricating, Laser, Lean, Management, Marketing & Sales, Smart Manufacturing, Stamping, Welding Fabrication, Workforce Development Tracks

Packages (Buy More and SAVE!)	Member	Non-member
1 Session	\$195	\$220
2 Sessions	\$330	\$385
3 Sessions	\$450	\$540
4 Sessions	\$550	\$660
Full Conference: (5 or more sessions) BEST VALUE!	\$750	\$900

NOTE: The rate for the 1/2-Day Laser Welding Workshop (Session AWF100) and Leadership Skills & Development Workshop (Session F216) is \$365 for Members and \$465 for Non-members.

WELDING TRACK

	Member	Non-member ^a		
AWS Educational Sessions	\$25	\$50		
1/2-Day Seminar	\$345	\$430		
1-Day Seminar	\$565	\$665		
2-Day Seminar, Conference or RWMA School	\$795	\$895		
Career Path Workshops	\$50	\$75		
1-Day Professional Program	\$175	\$225		
4-Day Professional Program	\$395	\$495		
Student Professional Program	\$85	\$110 ^b		
AWS Awards Luncheon	\$30	\$30		
AWS Prayer Breakfast	\$15	\$25		

^a Non-member price for AWS Sessions only includes a one-year AWS Individual Membership.

^b Non-member Student Professional Program price includes a one-year AWS Student Membership.

CONFERENCE CANCELLATION POLICY:

Cancellations and refund requests (for paid conference registrations) must be made in writing to Attn: Betsy Bonnell: FABTECH Conference Cancellation or sent to bbonnell@sme.org no later than October 28, 2019, to receive a full refund minus a \$50 administrative fee. Cancellations received after this date are non-refundable. Substitutions allowed.

MONDAY, NOVEMBER 11

Schedule-at-a-Glance

TECHNOLOGY	8:00 AM - 9:30 AM	10:00 AM - 11:30 AM	12:00 PM - 1:30 PM	2:00 PM -	3:30 PM
3D/ADDITIVE MANUFACTURING	NEW! F10: Application Discovery - Evaluating Real Use Cases for In-Office Metal 3D Printing	NEW! F20: 3D Printed Tools for Additive Manufacturing Environments	NEW! F30: The Ultimate Guide to Metal Additive: Mapping the Process from Discovery to Production	NEW! F40: Metal 3D Printing for Fabrication Shops	
AUTOMATION	NEW! F11: Move to the 21st Century: The Pro's and Con's of Adding Auto- mation to Your Process	F21: Getting Started with Robotics: A Journey to the World of Robotics	NEW! F31: Leading and Preparing an Industry 4.0 Organization and Workforce	NEW! F41: Industrial Internet of Things (IIoT) for the Job Shop	
CUTTING		NEW! F22: Cutting for Advanced Materials		NEW! F42: Automated Processes Hybrid Induction & Oxy-Fuel Cuttin	
FINISHING		C20: ABCs of Infrared		NEW! C40: It's Your Money - Control Your Costs	
		NEW! C21: I Want to Powder Coat, Now What?		C41: Powder Coating Basics	
		NEW! C22: Corrosion Basics and Prevention		NEW! C42: Understanding the Basics of Pretreatment	
FORMING &	F13: Press Brake for Engineers	F23: Machine Safeguarding	NEW! F33: Material Handling	F43: Advanced Pre Technologies	ss Brake
FABRICATING	F14: Coil Processing: Slitting HSS Materials	F24: Roll Forming: Basics and Lubricants	F34: Roll Forming: Tooling and Trouble Shooting	F44: Advanced Solutions for Tube and Pipe	
LASER		NEW! F25: Lasers for Joining Development and Control	NEW! F35: Remote Laser Joining & Interface Applications	F45: Lasers and Laser Systems for Advanced Manufacturing	
LEAN	NEW! F16: Lean Principle: Getting Started with Your Lean Journey	NEW! F26: Lean Tools: Flow & Pull in High Variety Environment	NEW! F36: Lean Principle: OEM Quality Excellence: 6 Practical Steps to Becoming an Award-Winnng Supplier	F46: Lean Principle: Strategic Planning and Hoshin Kanri - How to Achieve the Future You See	
MANAGEMENT	NEW! F17: Choosing the Best Source of Growth Capital for Your Manufacturing Business	NEW! F27: Planning for the Present & Paving a Strategic Roadmap	F37: Job Shop Costing, Estimating and Scheduling for Complex Jobs	NEW! F47: Hands-on Workshop - Cultivate & Value Your Leadership	
MARKETING & SALES	NEW! F18: Supercharge Your Networking & Inbound Marketing	NEW! F28: Your Schematic for Assembling a Powerful Digital Marketing Machine	NEW! F38: Build a Sales Strategy & Model for Scalable Growth	NEW! F48: Deliver Superb Custom er Service & Build a Customer-Centric Culture	
SMART MANUFACTURING	NEW! F19: Current State of Smart Manufacturing & The Connected Viewpoint	NEW! F29: SMART Manufacturing Basics to Get Started in The Digital World	NEW! F39: Industrial IoT Case Study - Real World Implementation	NEW! F49: Smart Manufacturing and Workforce Ready!	
STAMPING		NEW! S20: Understanding Servo Metal Stamping Presses - Proper Us- age, Troubleshooting and Maintenance	\$30: ANSI Z224.1 & OSHA 1910.147 Applications of Alternative Methods for Hazardous Energy Control	NEW! S40: Application of Real-Time Visual Monitoring Tool in Stamping	
		S21: Lubricants-1		NEW! S41: Lubricants-2	
WELDING FABRICATION		NEW! W200: The Welding Economy		NEW! W400: Robotic Welding for Job Shops	
WORKFORCE DEVELOPMENT	NEW! F200: Practicing Emotional Intelligence for Workplace Success	NEW! F211: The Future of Talent: Attracting and Retaining The Top Talent for the 21st Century	NEW! F212: Creating Career Path Programs That Empower & Engage	NEW! F213: Pushing Your Envelope How Smart People Overcome Self- Doubt and Live with Bold Enthusiasm	
WELDING					
CAREER PATH WORK-	W17: Getting Started in Underwater W	/elding		1:00 PM	3:00 PM
SHOPS	W18: Creating a WPS in 60 Seconds			1:00 PM	3:00 PM
	W23: SESSION 1: Additive Manufactur	W23: SESSION 1: Additive Manufacturing I			5:00 PM
PROFESSIONAL Program	SESSION 2: Modeling			1:40 PM	5:00 PM
PROGRAM	SESSION 3: Arc Welding			1:40 PM	5:00 PM
SPECIAL PROGRAMS	W30: AWS Prayer Breakfast			7:00 AM	8:30 AM

= Intermediate

TUESDAY, NOVEMBER 12

Schedule-at-a-Glance

TECHNOLOGY	8:00 AM - 9:30 AM	10:00 AM - 11:30 AM	12:00 PM - 1:30 PM	2:00 PM - 3:30 PM	
3D/ADDITIVE Manufacturing		F60: Fundamentals of Additive Manufacturing	NEW! F70: Small & Large Format Printers for Additive Manufacturing	NEW! F80: How Additive Manufacturing Can Accelerate and Advance Your Design	
AUTOMATION		NEW! F61: Estimating and Job Costing for Industry 4.0 - The Science of Costing and the Art of Pricing	NEW! F71: The Full Potential of Automation and Lights-Out!	F81: IIoT Solutions to Better Manage Your Assets	
CUTTING		F62: Optimization of Cutting Metals with Fiber and Plasma Machining		F82: Comparative Cutting Innovations with Tech Tour	
	NEW! C50: Lean and Green Cleaning	NEW! C60: Mother Earth Still Needs Our Help		C80: Identifying and Solving Finish ing Defects - See It, Touch It, Fix It	
FINISHING	NEW! C51: Powder System Design for Success	NEW! C61: How It's Made: Knowing Where Your Powder and Equipment Come From		C81: Lean and Mean - Making Powder Systems Work	
	NEW! C52: 1K, 2K, New K and Fluid Delivery Methods	NEW! C62: Oven Selection Solved		C82: Make Safety	a Priority
FORMING &		F63: Effective Safeguarding Risk Assessment	NEW! F73: Dust Collection for Fabrication Processes	F83: Sheet Metal Design and Press Brake Automation	
FABRICATING		F64: Coil Processing: Blanking Techniques and Handling Solutions	NEW! F74: Roll Forming: Design and Welding Techniques	F84: Roll Forming: Justification an In-Line Punching, Cutoff Dies	
LASER		NEW! F65: Quality & Control for Laser Joining Systems	NEW! F75: Accelerated & Combination Lasers for Sheet Metal	NEW! F85: Traditional & Fiber Laser Cutting for High Performance	
LEAN	NEW! F56: Lean Principle: Leadership and the Lean Journey	F66: Lean Tools: VSM Addressing Differences Between the Office and Shop Floor	F76: Lean Tools: A3 Thinking- Developing People & Solving Problems	F86: Lean Tools: Standard Work for Quality and Improvement	
MANAGEMENT	F57: Building a Competitive Advantage: Know What Your Business is Worth and Tax Credit Advantages	NEW! F67: The Dark Cloud Behind the Silver Lining: Economy in 2020	NEW! F77: Planning for the Future: The New Dawn of Manufacturing and Technology	■ NEW! F87: ERP Systems: Selection & Avoiding the ERP Technology Grim Reaper	
MARKETING & SALES	NEW! F58: Customer Experience for Manufacturers to Create Digitally-Pow- ered Journeys That Help People Grow	NEW! F68: Sustainable Social Media Strategies	F78: Stengthen Your Marketing Through The Power of Story & Grow Your Revenue & Grow Your Team		
SMART MANUFACTURING	NEW! F59: Productivity, Performance & Quality Management for Smart Manufacturing	NEW! F69: Quit Making Excuses and Close the Loop - Now is the Time to Digitize	NEW! F79: From Rust-Belt to High-Tech: Transform, Ignite and Disrupt	NEW! F89: Artificial Intelligence for Machine Learning & Streamlining Quoting Process	
STAMPING	NEW! \$50: Materials-1	NEW! S60: Materials-2		NEW! S80: Materials-3	
STAPIPING	NEW! S51: Connectivity-1	NEW! S61: Connectivity-2		NEW! S81: Conne	ectivity-3
WELDING FABRICATION		NEW! W600: Resistance & Arc Welding For Better Weldability and Hazard Reduction		NEW! W800: Improving Light- weight Materials Joining Through Friction Welding	
WORKFORCE DEVELOPMENT	NEW! F214: Engaging Manufactur- ing's Next Generation Through Full Contact Innovation	NEW! F215: Conflict & Communication For Strong Leadership	NEW! F216: Leadership Skills & Devel (12:00 PM - 4:30 PM)	opment Workshop	
WELDING					
	W11: AWS Educational Overview of W	elding Codes and Standards - Day 1		8:00 AM	5:00 PM
SEMINARS	W12: Applied Welding Metallurgy	W12: Applied Welding Metallurgy			4:00 PM
	W13: WPS's for Weld Inspection and Test-Taking Tips			8:00 AM	12:00 PM
CONFERENCES	W16: 5th International Electron Beam			8:00 AM	5:00 PM
	W24: SESSION 4: Solid-State Processes			8:00 AM	12:00 PM
	SESSION 5: Surfacing & Dissimilar Joining			8:00 AM	12:00 PM
PROFESSIONAL	SESSION 6: Welding Metallurgy I			8:00 AM	12:00 PM
PROGRAM	SESSION 7: Neural Networks & Machine Learning			1:40 PM	5:00 PM
	SESSION 8: Additive Manufacturing II			1:40 PM	5:00 PM
	SESSION 9: Welding Metallurgy II			1:40 PM	5:00 PM
RWMA SCHOOL	W22: RWMA Resistance Welding School - Day 1			8:00 AM	5:00 PM
EDU. SESSIONS	W29: AWS/Weld-Ed Education Conference - Using Advanced Waveforms in Welding Education			9:00 AM	4:30 PM
SPECIAL PROGRAMS	W31: AWS Awards/AWS Foundation Luncheon			12:00 PM	2:00 PM
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= Basic

WEDNESDAY, NOVEMBER 13

Schedule-at-a-Glance

TECHNOLOGY	8:00 AM - 9:30 AM	10:00 AM - 11:30 AM	12:00 PM - 1:30 PM	2:00 PM ·	- 3:30 PM
3D/ADDITIVE Manufacturing	NEW! F90: The ROI of 3D Printing: Analyze the Cost of Implementing 3D Printing for Your Business	NEW! F100: Impact and Quality Considerations for Additive Manufacturing	F110: Lasers and Additive Manufacturing Processes	NEW! F120: Safely Adopting Additive Manufacturing on The Production Floor	
AUTOMATION	NEW! F91: Effective Automation for Joining in Emerging Technologies	NEW! F101: Integrating Robotic Automation into Your Process	NEW! F111: Which Robot Application is Right for Your Needs?	NEW! F121: Automating the Material Handling Process - Why Novis the Time	
CUTTING		F102: Advantages of Waterjet Cutting Machining Technology			
	C90: Architectural Coatings - Today and Future	NEW! C100: Conveying Effectively		NEW! C120: Quality Still Counts	
FINISHING	C91: Optimizing Powder Operations	NEW! C101: Mastering Batch Powder Coating Operations		NEW! C121: Powder Coating Troubleshooting	
	NEW! C92: Creative Finishing Solutions	NEW! C102: Choose Your Weapon - Finding the Right Liquid Applicator		NEW! C122: Automation Roadma for Liquid Finishing Operations	
FORMING &	NEW! F93: A Modular Approach to Turning Non-Value-Added Time on a Press Brake into Productive Time	F103: Press Brake Safety	NEW! F113: Alternative Forming Processes	NEW! F123: Press Brake Hurdles	
FABRICATING	F94: Roll Forming: Press Tonnage Rating and Welding Systems			F124: Coil Processing: Slitting Thir Materials, Leveling & Deburring	
LASER	AWF100: Laser Welding Workshop	(8:00 AM - 12:30 PM)		NEW! F115: The Use of Additive an Subtractive Lasers in Applications	
LEAN	NEW! F96: Lean Principle: Go to Gemba	NEW! F106: Lean Tools: Lean Production Shop to a Job Shop			
MANAGEMENT	F97: Ensuring Tomorrow: How to Effectively Choose and Prepare Your Successor	NEW! F107: Win the Inner Game: Free Yourself of Overwhelm and See Your Highest Potential Come True	NEW! F117: Diagnose Your Business: How to Free Yourself from Budget Limitations by Finding and Unlocking Hidden Money in Your Operations	F127: Enable the Transition to Next Gen - Family Business	
MARKETING & SALES	NEW! F98: Digital Recruiting Strategies & Data for Continuous Improvement	F108: Business Builders: Make Business Development a Competitive Advantage	F118: Protecting Original Design: The Importance of IP in Metal Forming	NEW! F128: A Marketing Framework: From Lead to Sale - Tool: & Tips for Fabricators & OEMs	
SMART MANUFACTURING	NEW! F99: The Smart Factory & Feasibility with Case Studies	Manufacturing: Zero-Downtime, Zero-Defects	NEW! F119: Prevent Digital Failure and Benchmark Your Performance	NEW! F129: Smart Manufacturing on Predictable ROI	
STAMPING	NEW! S90: Stamping-1	NEW! S100: Stamping-2		NEW! S120: Stamping-3	
JIANIPING	NEW! S91: Sensors-1	NEW! S101: Sensors-2		NEW! S121: Quality & Tooling	
WELDING FABRICATION		NEW! W100: Optimization of Welding Documentation and Continuity Efficiency Using Computer Software			
WORKFORCE DEVELOPMENT	NEW! F217: Operational Excellence for Significant and Sustained Performance With Incentive Pay		NEW! F219: Leading Innovation & Change Initiatives in Your Organization	NEW! F220: Manage, Mentor and Develop Your New Workforce & Staff for The Future	
WELDING					
	W11: AWS Educational Overview of V	Velding Codes and Standards - Day 2		8:00 AM	5:00 PM
SEMINARS	W14: "Welding" Don't Be Afraid to A	W14: "Welding" Don't Be Afraid to Ask		8:00 AM	4:00 PM
	W15: Stainless Steel Welding D1.6 Structure			8:00 AM	4:00 PM
CONFERENCES	W16: 5th International Electron Bean	n Conference - Day 2		8:00 AM	5:00 PM
CAREER PATH	WIS: Strantenational Electron Beam contenence Day 2 W19: Development of a New Standard for Metal Additive Manufacturing: AWS D20.1/D20.1M, Specification for Fabrication of Metal Components Using Additive Manufacturing			9:00 AM	11:00 AM
WORKSHOPS	Fabrication of Metal Components Usi	ng Additive Manufacturing			
	Fabrication of Metal Components Usi W25: SESSION 10: Plenary Session	ng Additive Manufacturing		8:00 AM	9:30 AM
	W25: SESSION 10: Plenary Session			8:00 AM 9:40 AM	9:30 AM 12:00 PM
	· · ·	ent Techniques			
WORKSHOPS PROFESSIONAL	W25: SESSION 10: Plenary Session SESSION 11: In-Situ Measurem SESSION 12: Honorary Sympo	ent Techniques sium for Prof. D. Olson I		9:40 AM 9:40 AM	12:00 PM 12:00 PM
WORKSHOPS	W25: SESSION 10: Plenary Session SESSION 11: In-Situ Measurem SESSION 12: Honorary Sympo SESSION 13: Industrial Techno	ent Techniques sium for Prof. D. Olson I logy I		9:40 AM 9:40 AM 9:40 AM	12:00 PM 12:00 PM 12:00 PM
WORKSHOPS PROFESSIONAL	W25: SESSION 10: Plenary Session SESSION 11: In-Situ Measurem SESSION 12: Honorary Sympo SESSION 13: Industrial Techno SESSION 14: Process Sensing	ent Techniques sium for Prof. D. Olson I logy I & Control		9:40 AM 9:40 AM 9:40 AM 1:40 PM	12:00 PM 12:00 PM 12:00 PM 5:00 PM
WORKSHOPS PROFESSIONAL	W25: SESSION 10: Plenary Session SESSION 11: In-Situ Measurem SESSION 12: Honorary Sympo SESSION 13: Industrial Techno	ent Techniques sium for Prof. D. Olson I logy I & Control		9:40 AM 9:40 AM 9:40 AM	12:00 PM 12:00 PM 12:00 PM

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Detailed Education Program session descriptions, speakers, pricing, room locations and more can be found at **fabtechexpo.com/edu**.

= Advanced

THURSDAY, NOVEMBER 14

Schedule-at-a-Glance

TECHNOLOGY	8:00 AM - 9:30 AM	10:00 AM - 11:30 AM	12:00 PM - 1:30 PM	2:00 PM	- 3:30 PM
3D/ADDITIVE Manufacturing	NEW! F130: How MES Transfers Data Efficiently Through The Addi- tive Manufacturing Value Chain & Business Case Method				
AUTOMATION	NEW! F131: Sensors, Mainte- nance and Platforms for Leveraging Technology				
FINISHING	■ NEW! C130: Power Up and Hang On for Efficiency and Savings				
	NEW! C131: Using the Dirty Dozen to Optimize Your Powder Coating				
	C132: Test for the Best - Best Practices and Measurement Methods for Quality				
LEAN	NEW! F136: Lean Principle: Science of Lean Culture and Case Studies				
MANAGEMENT	F137: Making Better Decisions as a Business Leader & Tools for Management Success	NEW! F147: Financing to Enable Growth & Achieve Project Improvement			
SMART MANUFACTURING	NEW! F139: Smart Manufacturing to Successfully Implement the Trifec- ta; All in Real Time				
WORKFORCE DEVELOPMENT	NEW! F221: How to Win With Personalities & Team Engagement				
WELDING					
CAREER PATH	W20: Starting a Welding Inspection Business			8:00 AM	10:00 AM
WORKSHOPS	W21: Becoming a Certified Welding Accredited Test Facility for Testing Certified Welders			8:00 AM	11:00 AM
PROFESSIONAL	W26: SESSION 17: High-Energy Density Processes			8:00 AM	12:00 PM
PROGRAM	SESSION 18: Industrial Technology II			8:00 AM	12:00 PM

Detailed Education Program session descriptions, speakers, pricing, room locations and more can be found at fabtechexpo.com/edu.

EXPERIENCE LEVELS

Use this key along with the Schedule-at-a-Glance to find the education level that meets your needs.

- Basic...... Recommended for the attendee who is new to the industry or needs a refresher on the topic.
- Intermediate ... Designed for the attendee who already has a basic understanding of the subject matter.
- Advanced........ For the attendee with several years of experience who is seeking more in-depth information.



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