THE ROAD TO MANUFACTURING SUCCESS



# **SHOW PROGRAM & EXHIBIT GUIDE**

### EXCLUSIVELY ASSEMBLY OCTOBER 24 – 26, 2017 DONALD E. STEPHENS CONVENTION CENTER ROSEMONT, IL

## THEASSEMBLYSHOW.COM



### **WELCOME TO THE ASSEMBLY SHOW 2017**





Dear ASSEMBLY Show Attendee,

Welcome to the fifth annual ASSEMBLY Show in Rosemont, IL!

As the assembly market's publication of record, we are thrilled to once again offer this dedicated assembly event, where manufacturing professionals can gather to learn about the latest products, innovative technologies and best practices.

This year's ASSEMBLY Show hosts nearly 300 exhibitors from around the world. Whether you're looking for an electric screwdriver, a dispensing valve, a robot or even a multistation automated assembly line, you'll find the best and newest technologies here at the ASSEMBLY Show.

In addition to a packed exhibit floor, the show also offers a comprehensive educational program. All totaled, the program features some 20 hours of educational sessions. With topics ranging from Industry 4.0 and intelligent pneumatics to robotics and leak testing, I'm confident you'll learn something to share with your colleagues back at the plant.

Of course, learning isn't just about booth visits and presentations. I encourage you to take advantage of the many networking events at the show, which will give you an opportunity to exchange valuable ideas with colleagues, friends and peers. I would especially urge you to attend the various "Tech Talk" sessions on the show floor at booth 2423 (See page 37 for details). Help a fellow professional solve a problem or get help with an issue of your own!

It is our pleasure to have you as our guest. If there is anything that I or the ASSEMBLY staff can do to make your visit more productive, enjoyable or positive, please don't hesitate to let us know.

It is my sincere hope that you will leave The ASSEMBLY Show better informed, better connected and better prepared to meet the challenges you face as an assembly professional.

Again, thank you for attending The ASSEMBLY Show.

Sincerely yours

Tom Esposito Publisher, ASSEMBLY Magazine







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### Superior Clamping and Gripping

© See us at The ASSEMBLY Show, Booth #105

# More than **1,200** Modules for your Robot

The unique standard line of modules for mechanical, sensor and power connections of handling modules and robots.



Feed-through Rotary feed-through DDF 2

> Connecting Adapter plate

> > Monitoring Collision and overload sensor OPR

> > > Joining and compensating Compensation unit TCU

#### Gripping SCHUNK gripper PGN-plus 2-finger universal gripper with multi-tooth guidance

Jens Lehmann, German goalkeeper legend, SCHUNK brand ambassador since 2012 for precise gripping and safe holding. www.schunk.com/Lehmann Changing Quick-change system SWS consisting of SWK (quick-change head) and SWA (quick-change adapter)

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Robotic Collision Sensors Auto-reset eliminates the need to enter the robot cell to reset the device. Utility Couplers Built-in engineered rotational compliance allows for large tooling misalignments.

#### **Robotic Tool Changers**

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Robotic Deburring Tools Air-actuated compliance allows for part and path variation.

> Force/Torque Sensors Measure force and torque with high overload protection and low noise.



### VISIT OUR BOOTH 513

### AGENDA AT-A-GLANCE

### **TUESDAY, OCTOBER 24**

1:00 – 4:00 pm Conference Room #10 & #12		WORKSHOP #2 The Road to Operational Excellence		
4:00 pm	Exhibit Hall Opens			
4:00 – 7:00 pm	The Taste of Rosemont Welcome Reception (on the exhibit fl	oor) Sponsored By schunk		
7:00 pm	Exhibit Hall Closes			
WEDNESDAY, OCTOBER 25				
9:00 – 10:00 am Conference Room #13	<b>KEYNOTE PRESENTATION</b> Faurecia's Digital Transformation Derek Harper, Faurecia North America	Sponsored By PROMESS		

10:00 am

**Exhibit Hall Opens** 

### LEARNING THEATER PRESENTATIONS

viving Assembly Line AGVs2

LEARNING THEATER #1 LEARNING THEATER #2

Exhibit Hall, Aisle #2100

11:00 – 11:40 am	Find Your First (or Next!) IIoT Win with IO-Link Will Healy III, Balluff Inc.	What's Driving Assembly Line AGVs? Rod Emery, RedViking	
	Sponsored By: BALLUFF sensors worldwide		
12:00 – 12:40 pm	Smart and Cyber Safe Production Environments Dave Garner, Desoutter Industrial Tools	The Starting Point for Robot Automation: A Beginner's Tour Rick Brookshire, Epson Robots	
	Sponsored By: Desoutter	Sponsored By: EPSON <sup>®</sup> Exceed YOUR VISION	
1:00 – 1:40 pm	Digitalization & the Future of Intelligent Pnematics Sandro Quintero, Festo Corporation	Finding Leak Testing Success Through Calibration and Validation Paul Chamberlain, LACO Technologies, Inc.	
	Sponsored By: FESTO	Sponsored By: CREATING VACUUM AND LEAK TESTING SOLUTIONS	
1:40 – 2:00 PM Booth #2423	Broken Bonds — Challenges in Adhesive Br Teresa McPherson, Adhesives & Sealants Indu		

### AGENDA AT-A-GLANCE

### WEDNESDAY, OCTOBER 25 CONT'D

LEARNING THEATER PRESENTATIONS     Exhibit Hall, Aisle #2100			
2:00 – 2:40 pm	Roller Forming — A Viable Assembly Solution Bryan Wright & Jacob Sponsler, Orbitform Sponsored By:	Industry 4.0: Comau's Open Sourch Approach Brent Kelso, Comau LLC Sponsored By:	
2:40 – 3:00 pm Booth #2423	My Robot Won't Do What I Say — Challeng Jim Beretta, Customer Attraction	ges in Robotic Assembly tech <b>talk</b>	
3:00 – 3:40 pm	Location Context for IIoT Platforms Adrian Jennings, Ubisense	Sponsored By: 📫 Ubisense	
4:00 – 4:40 pm	Just Smash It!	Sponsored By PROMESS	
5:00 pm	Exhibit Hall Closes		
5:00 – 7:00 pm	'Pub Night' Networking Reception	Sponsored By	

### THURSDAY, OCTOBER 26

10:00 am	Exhibit Hall Opens			
10:20 – 11	:00 am Just Smash It!		Sponsored By	PROMESS
11:00 – 11 Booth #24		<b>Challenges With Threaded Fastene</b> SEMBLY Magazine	rs	tech <b>talk</b>
LEARNING THEATER PRESENTATIONS         Exhibit Hall, Aisle #210			it Hall, Aisle #2100	
11:20 – 12	:00 pm How to Choose the for Your Assembly	-	6 10	Rexroth

3:00 pm	Exhibit Hall Closes		
1:20 – 2:00 pm	Ensure 100% Traceability and Quality of Your Products Using Microscan Automatic Identification and Machine Vision Systems Steve King, Microscan	Sponsored By	MICROSCAN.
1:00 – 1:20 pm Booth #2423	Our Kanban Canned—Challenges With Lean Manufacturing Austin Weber, ASSEMBLY Magazine		tech <b>talk</b>
12:20 – 1:00 pm	Solving the OT-IT Systems Conflict for IIoT Deployment Brandon Ellis and Keary Donovan, elliTek, Inc.	Sponsored By	<b>e</b> lliTek∝
	Gerald Berzins, Bosch Rexroth	Sponsored By	<b>Bosch Group</b>

### **SHOW INFORMATION**

### **ADMISSION**

The ASSEMBLY Show is for the TRADE ONLY and is limited to persons actively engaged with assembly equipment in the manufacturing industry. The ASSEMBLY Show is not open to the general public. No one under 18 years of age—including infants will be admitted. The ASSEMBLY Show reserves the right to request picture identification to verify age. There are no exceptions to our age policy.

### SHOW MANAGEMENT OFFICE

The ASSEMBLY Show office is located just inside the entrance of Exhibit Hall A.

### SPEAKER READY ROOM

The speaker ready room is located just inside the entrance of Exhibit Hall A.

### PRESS ROOM

The press office is located off the lobby across from Starbucks.

### **COAT CHECK**

Coat check is located in the level 1 lobby off of River Road.

### **FIRST AID**

First Aid is located on the ramp between Hall A & Hall B, just south of booth #1205.

### PHOTOGRAPHY

Unauthorized photography and/or video is not permitted and taking of photographs or videotaping in the exhibit hall is strictly prohibited. You must have a press badge, or have prior written approval to use a camera on the exhibit hall. If you use a camera without permission, you will be escorted off the exhibit hall and your badge will be confiscated. Audio or videotaping of The ASSEMBLY Show sessions is strictly prohibited.

### **EXHIBIT HALL HOURS**

- Tuesday, October 24 // 4:00 pm 7:00 pm
- Wednesday, October 25 // 10:00 am 5:00 pm
- Thursday, October 26 // 10:00 am 3:00 pm



# You're ready. We're set. *Let's move*.

Connected Automation: Explore tomorrow's assembly and handling solutions today.

**The Assembly Show** October 24-26, 2017 Rosemont, IL Booth 431 Your move?

Smart Assembly 4.0.

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### **KEYNOTE PRESENTATION**

**faurecia** 



### DEREK HARPER FAURECIA NORTH AMERICA

In 2015, Faurecia launched an initiative to transform itself into a digital enterprise. The company looked at every area where digital technology could enable gains in efficiency. These included applying simulation tools in R&D to increase innovation agility; capturing data from every machine and process to improve quality; and deploying collaborative engineering technology to improve communication with customers and increase knowledge-sharing within the company.

In this thought-provoking presentation, you will learn how Faurecia is capturing and analyzing data to prevent equipment failures, correct inefficiencies and increase productivity. You will discover how automated tracking of components via RFID tags is simplifying logistics and enabling real-time management of inventory flows and quality. You will see how real-time on-screen monitoring of production is replacing manual intervention, freeing employees for more valuable and rewarding work. And, you will learn how smart automation and collaborative robots are improving ergonomics and optimizing manufacturing.

Sponsored by



Derek Harper is the Vice President of Information Technology at Faurecia North America, based in Auburn Hills Michigan. In this role, Harper leads a team of more than 200 professionals located in 50 sites in the US, Mexico, and Canada. Harper's responsibility includes development and execution of the company's IT strategy with special focus on Digital Transformation, Manufacturing Execution Systems, SAP, and IT Operations.

Harper started his career as a controls engineer at Canedus Engineering in Oak Park, MI. He then moved to General Motors where he spent 17 years in various positions, including: Controls Engineer, Engineering Manager, Regional IT Manager, Mexico IT Launch Manager, and Senior IT Manager in charge of IT Operations and all North America Vehicle Assembly plants.





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### **PRE-SHOW WORKSHOP #1**

### Tuesday, October 24 • 1:00 – 4:00 pm • Location: Conference Room #12

### Industry 4.0

The fourth Industrial Revolution — **Industry 4.0** — is now upon us. We live in an increasingly smart and connected world. The number of physical devices or "things" connected to the Internet now exceeds the total number of people on the planet. For manufacturers, the implications of the Industrial Internet of Things (IIoT) are huge. According to a recent McKinsey Global Institute report, the IIoT has the potential to unleash as much as \$6.2 trillion in new global economic value annually by 2025. McKinsey also projects that 80 to 100 percent of all manufacturers will be using IIoT applications by then, leading to a potential economic impact of as much as \$2.3 trillion for global manufacturing alone. In this workshop, you'll learn how the IIoT can transform your assembly operation.



# 1:00 – 1:35 pm Industrial IoT Drives Innovations in Product Engineering Sal Spada, Arc Advisory Group

The Industrial Internet of Things has created a tremendous opportunity to close the loop in product design. The Connected Machine is a sensor that provides performance and operational data directly from the customer site with unprecedented volumes of big data. Up until now, machine builders have been focusing on providing preventative maintenance services in order to service machinery before it fails. However, the latest trend in connected machinery is to incorporate closed loop engineering into the design process using big data sets collected from the field machinery to analyze performance. However, the technological advancements and the increasing content of software defined machinery is paving the way for machine builders to incorporate Live Engineering into the product development phase. Creating the internal processes to properly manage Live Engineering as part of the product offering requires product management platforms that support this degree of continuous engineering of machinery.



# 1:35 – 2:10 pm Beyond the Edge of IIoT Victor Caneff, Banner Engineering Corp

Much has been written about the cloud, data security and analysis, M2M communication, networks, software options, etc... relative to IIoT. This presentation goes beyond edge computing to the sensor and connectivity level where critical data is generated and transmitted. Examples of information manufacturers are looking to access to improve operational efficiencies in the areas of Overall Equipment Effectiveness, Predictive Maintenance, Facility Monitoring and Logistics will be reviewed.



### 2:25 – 3:00 pm Creating the Future of Manufacturing Natan Linder, Tulip

Just like we all use tools like computers and mobile phones to augment our everyday lives, manufacturers need technology that gives power to the people on shop floors. Manufacturing technologies like automation, robotics, injection molding, machining, and 3D printing may produce parts, but it's people who ensure efficient operations and put those parts together to form cohesive, useful products. This session explores the implications of the Industrial Internet of Things for digital manufacturing by introducing an intelligent operating system for the digital shop floor, enabling real-time collaboration, integration, and analytics that bring people and machines together



# 3:00 – 3:35 pm How to Leverage Today's IIoT Technology to Drive Immediate Benefits JP Provencher, PTC

A growing number of manufacturers are turning data collected from connected machines and products into meaningful insights that translate to business value. As the number of connected devices grows into the billions, the demand for more and better information from IIoT data will be outpaced only by the growth of the data itself. In this session, you'll learn methods and technologies to gain the edge in operational efficiency, security and customer satisfaction.

### 3:35 – 4:00 pm Open Discussion and Q&A

### **PRE-SHOW WORKSHOP #2**

### Tuesday, October 24 • 1:00 – 4:00 pm • Location: Conference Room #10

### The Road to Operational Excellence

Manufacturers are increasingly embracing operational excellence to gain and sustain performance improvements throughout the enterprise. Much of this management philosophy is based on earlier continuous improvement methodologies, such as lean thinking, Six Sigma, OKAPI and scientific management. The focus of operational excellence goes beyond the traditional eventbased model of improvement toward a long-term change in organizational culture. In this workshop, you'll learn how to achieve operational excellence in your assembly plant.

### ▶ 1:00 – 1:35 PM

### Escape the Imrovement Trap: Five Ingredients Missing in Most Improvement Recipes

### **Brian McKibben,** The Cumberland Group - Chicago, Inc.

Despite a near universal acceptance of lean manufacturing methods, most companies rarely achieve anything more than an average level of improvement maturity. This session will identify the five critical ingredients required for successful improvement:

- A meaningful business value proposition and strategy that drives key improvement actions.
- An engaging environment where people can do their best work.
- A focus on meaningful metrics while avoiding irrelevant details.
- Process improvement efforts that maximize cross-functional process performance and foster deeper process understanding, innovation, and execution of best work practices.
- An executive mindset that focuses on customer value, people development, process performance, and business improvement outcomes, not solely on savings.

You'll learn a variety of ways to accelerate continuous improvement, including team-based operating methods, leaders' standard work, balanced operations performance metrics, and the AME Excellence Award self-assessment.



# 1:35 – 2:10 pm Operational Excellence: Lean's Next Frontier Kevin Duggan, Institute for Operational Excellence

In this session, Kevin Duggan will define Operational Excellence, explain how it differs from traditional lean tools, and detail the principles to achieve it. He'll also discuss the real goal of Operational Excellence – business growth – and share real-world examples of companies who have experienced remarkable results by achieving it.



### 2:25 – 3:00 pm Lean Implementation in High Mix, Low Volume and Other "Unique" Environments

**Darril Wilburn,** Honsha Associates

"It won't work here, we are unique." "We don't make widgets and we are not Toyota." "Our variety and complexity is too high, we can't do lean." These, and many others, are commonly heard reactions from management in high mix, low volume environments when their company is trying to implement Lean. In this session we will see and hear examples of organizations that utilize lean thinking and techniques to transform their operations. We will learn how companies utilize the Single Minute Exchange of Die (SMED) concept to realize the same lean objectives that drive traditional Lean operations.



# 3:00 – 3:35 pm The Smart Factory: Industry 3.5, Productions Vital Role in Manufacturing's Journey to Success

### **Patrick Lucansky,** Value Innovation Partners, Ltd.

Today manufacturers have networked equipment collecting data and storing it on servers, in varying clouds or in data lakes with little to no use of such information. What is possible today is this same equipment reporting elements of demand and flow to a workforce, oriented to a culture of continuous improvement, supported by machine learning. "Manufacturing management is challenged today to enable greater competitive advantages delivered consistently at higher speed, greater flexibility, higher quality, and at lower costs. To meet these challenges, operations will be required to greatly increase cycles of improvement, innovation and collaborative efforts across the organization."

### 3:35 – 4:00 pm Open Discussion and Q&A

### **TASTE OF ROSEMONT WELCOME RECEPTION**











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liberty tavern











### **TUESDAY, OCTOBER 24** 4:00 – 7:00 pm

Location: Right in the Exhibit Hall!

- Show Kick Off Right in the Exhibit Hall
- Local Foods Preview Exhibits

A staple to the event is the welcome reception that takes place on the exhibit hall, aptly named the Taste of Rosemont! Sample local fare and get a sneak peek of the exhibits, and tools.

Thank you to these participating restaurants for offering their services and delicious foods. Please consider dining at these establishments during your stay in Rosemont!

Sponsored By:

SCHUNK

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### PUB NIGHT NETWORKING RECEPTION



ASSEMB

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### WEDNESDAY, OCTOBER 25 5:00 - 7:00 pm

Location: Conference Center - Room #13

- Craft Beers
- Bag Toss
- Gourmet Burgers Giant Jenga
- Live Music

The ASSEMBLY Show is excited to bring back 'Pub Night' on the second evening of the show. Attendees and exhibitors will gather in the adjoining ballroom to kick back and relax over a pint, chat over burgers and make new connections while participating in pub-style games! This social environment will allow participants to make further connections with new professionals and continue to build relationships with existing business partners in a fun and exciting atmosphere.



### **NEW FOR 2017!**

### **NEW Tech Talks**



Tech Talks—held right on the show floor in booth 2423—are intended to provide an opportunity for manufacturing professionals to share solutions to common problems in product assembly. These 20-minute sessions will be facilitated by the editors of ASSEMBLY and other manufacturing

publications and organizations. No vendors, no sales pitches, no marketing hype, no bull. Just open, honest communication from one manufacturing professional to another.

### **NEW Just Smash It!**



How much force can a bowling ball handle before being pulverized? See for yourself in Learning Theater #1 at 4pm on 10/25 and again at 10:20am on 10/26 during the entertainingly destructive *Just Smash It* segment, where everyday items are put to the test to see how much force it takes to SMASH IT.

Presented by:

### **NEW TASTV**



Baltec

Throughout the exhibit hall and common areas TASTV will be your go-to source for onsite information and entertainment.

Watch video segments about sessions, weather, things to do around Rosemont, interviews, workshops, daily highlights and so much more.

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### **JUST SMASH IT!**



### **LEARNING THEATER #1**

WEDNESDAY, OCTOBER 25 4:00 – 4:40pm



### THURSDAY, OCTOBER 26 10:20 – 11:00am

How much force can a bowling ball handle before being pulverized? See for yourself during the entertainingly destructive *Just Smash It!* segment, where everyday items are put to the test to see how much force it takes to SMASH IT.

### Presenters:

**Glenn Nausley,** President, Promess Incorporated

John Boerema, New Business Development Manager, Promess Incorporated

**Mick Berge,** Digital Media Producer, Promess Incorporated

**Scott Spencer,** Applications Engineer, Promess Incorporated

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### TUESDAY, OCTOBER 24, 2017

#### 1:00 pm – 4:00 pm Location: Conference Room #12 WORKSHOP #2: INDUSTRY 4.0

The fourth Industrial Revolution—Industry 4.0—is now upon us. We live in an increasingly smart and connected world. The number of physical devices or "things" connected to the Internet now exceeds the total number of people on the planet. For manufacturers, the implications of the Industrial Internet of Things (IIoT) are huge. In this workshop, you'll learn how the IIoT can transform your assembly operation.

### 1:00 pm – 4:00 pm Location: Conference Room #10

#### **WORKSHOP #2: THE ROAD TO OPERATIONAL EXCELLENCE**

Manufacturers are increasingly embracing operational excellence to gain and sustain performance improvements throughout the enterprise. The focus of operational excellence goes beyond the traditional event-based model of improvement toward a long-term change in organizational culture. In this workshop, you'll learn how to achieve operational excellence in your assembly plant.

#### ▶ 4:00 pm **Exhibit Hall Opens**

#### 4:00 pm – 7:00 pm Location: Exhibit Hall

#### 'Taste of Rosemont' Welcome Reception

Our Tuesday evening welcome reception, aptly named the 'Taste of Rosemont', has become a staple to this annual trade show. Participants get to sample local fare and get a sneak peek of the various exhibits, tools and displays.

SCHUNK Sponsored By:

7:00 pm

**Exhibit Hall Closes** 

### WEDNESDAY, OCTOBER 25, 2017

9:00 – 9:05 am Location: Conference Room #13 **Opening Remarks** John Sprovieri, Editor in Chief, ASSEMBLY Magazine

9:05 – 9:10 am Location: Conference Room #13 **Assembly Plant of The Year Award Presentation** Austin Weber, Senior Editor, ASSEMBLY Magazine

#### ▶ 9:10 – 10:00 am Location: Conference Room #13 **KEYNOTE PRESENTATION Faurecia's Digital Transformation**

#### **DEREK HARPER**

Vice President of Information Technology, Faurecia North America

In this thought-provoking presentation, you'll learn how Faurecia is capturing and analyzing data to prevent equipment failures, correct inefficiencies and increase productivity. You'll discover how automated tracking of components via RFID tags is simplifying logistics and enabling real-time management of inventory flows and quality. You'll see how real-time on-screen monitoring of production is replacing manual intervention, freeing employees for more valuable and rewarding work. And, you'll learn how smart automation and collaborative robots are improving ergonomics and optimizing manufacturing.







### WEDNESDAY, OCTOBER 25, 2017 LEARNING THEATER PRESENTATIONS | LOCATION: EXHIBIT HALL, AISLE #2100 | THEATER 1

**THEATER 2** 

▶ 11:00 - 11:40 am

#### Find Your First (or Next!) IIoT Win with IO-Link



#### Will Healy III, Balluff Inc.

Manufacturers looking to improve maintenance reliability, reduce downtime and enhance factory performance are finding real value by implementing Industrial

IoT solutions in their facilities & processes. IO-Link is a universal, smart & easy to implement technology being explosively adopted in manufacturing automation and is a strong enabler of IIoT & Industry 4.0 applications. IO-Link is covered under IEC 61131-9 & IO-Link products are offered by all major automation suppliers across a wide set of factory automation IIoT applications. Major reasons like reduced machine build costs & increased overall equipment effectiveness (OEE) are cited as driving factors in their decisions. We will explore, with multiple real world case studies, just how easy IO-Link is to integrate & support, how the universal standard works, and how smart devices can enable & scale your next IIoT, Industry 4.0 or Smart Factory project.

Sponsored By: BALLUFF sensors worldwide

#### What's Driving Assembly Line AGVs?

#### Rod Emery, RedViking



As product lives become shorter and multimodel factories become the norm, the need for flexible assembly line technologies is growing. Automated Guided Vehicles (AGVs), with their

independent movement, variable speeds, and easily changed fixtures, create flexibility that traditional conveyance can't match. In this presentation, I'll review case studies on why AGVs might or might not be the best choice for your plant. I'll also address when battery-power is the best choice, and when it makes sense to use inductively powered battery-free AGVs. Last, I'll talk about ways to gradually phase in AGVs. to prove out their capabilities and give manufacturing teams time to become comfortable with this technology.

RedViking designs and builds assembly lines, including process design, machines, conveyance, quality systems, and MES. Located in Plymouth, MI, Raleigh, NC, and Corpus Christi, TX, we serve many manufacturing industries including automotive, aerospace, defense, and heavy equipment.



#### 12:00 - 12:40 pm

#### **Smart and Cyber Safe Production Environments**



Dave Garner, Desoutter Industrial Tools

Managing production assets continues to be a new source for cost reduction and process improvement. This is the combination of the digital and physical assets on our production floors.

As our devices get more intelligent, we have more ways to interact and manage them. This improves many aspects of production; Location management, security, preventative maintenance, guided processes, and even communicating with other devices on the floor.

We must also prepare to manage our digital assets. Information is one of the most important assets on the production floor. Production data is used for determining product build processes all the way to organizing and managing completed product data. It is essential that this information is managed as closely as our physical assets. Ensuring this information is secure, decentralized, documented, and uniform, will allow the foundation required to excel with the agility required for Industry 4.0.



#### **The Starting Point for Robot Automation: A Beginner's Tour**



**Rick Brookshire**, Epson Robots

From assembly and pick-and-place to material handling and packaging, the use of robots is on the rise in factory automation. Extremely customizable in even the most complex

applications, automation systems are beneficial for a wide variety of reasons. Taking the plunge into automation, however, can be confusing and daunting. With so many factors to consider, you may be wondering, "Where do I start?"

With over 35 years of experience in the automation industry, we have broken down the process, step-by-step, to guide you on your journey. This presentation will serve well as a starting point for those new to automation.

We will take you, step-by-step, to guide you on your journey touching on the following key areas:

- What to automate Know your process
- Identify your requirements Automation components
- Manpower—who will build it?

You will come away with a good understanding on how get started with robotics in automation and the key aspects to consider.

Sponsored By: EPSON

### WEDNESDAY, OCTOBER 25, 2017 LEARNING THEATER PRESENTATIONS | LOCATION: EXHIBIT HALL, AISLE #2100 | THEATER 1 TH

**THEATER 2** 

> 1:00- 1:40 pm

#### Digitalization & the Future of Intelligent Pnematics



### Sandro Quintero, Festo Corporation

The digital transformation in industry will influence all aspects of machine control, including pneumatics. Future solutions must facilitate a variety of control paradigms for

flexible operation, contextualized data for OEE and energy consumption, and local intelligence to compensate for faults, wear, etc. They must also support mobility and security to minimize downtime. Learn how the future of intelligent pneumatics can fulfill these digitalization requirements for IIoT /Industry 4.0, and support Cloud analytics for pneumatic systems.

Sponsored By: **FESTO** 

#### Finding Leak Testing Success Through Calibration and Validation



#### Paul Chamberlain, LACO Technologies, Inc.

The application of proper system calibration and validation is critical in producing a high degree of confidence in your production leak testing system—measuring leak rates

properly and identifying defective parts that could be leaking above your threshold limit is central to the success of your leak testing process.

Learn how the use of calibrated leak standards in your leak testing process should be used to calibrate and validate your system. We'll discuss how identifying the different types of leak standards and how integrating those into your leak test process will assist you in implementing a successful leak test protocol. We will review strategies that can be used for both air (pressure decay and mass flow) and helium tracer gas leak test methods.

Sponsored By: CREATING VACUUM AND LEAK TESTING SOLUTIONS



#### ▶ 1:40 – 2:00 pm Location: Booth #2423

Broken Bonds — Challenges in Adhesive Bonding

Teresa McPherson, Adhesives & Sealants Industry



Do you have a problem with an adhesive bonding application? Is the bonded joint failing prematurely? Are you wasting a lot of material during dispensing? Chances are, other engineers have had the same problem, too. Learn how they solved the problem at this Tech Talk, or help others solve their issues.

### WEDNESDAY, OCTOBER 25, 2017

LEARNING THEATER PRESENTATIONS | LOCATION: EXHIBIT HALL, AISLE #2100 | THEATER 1

**THEATER 2** 

#### > 2:00 - 2:40 pm

#### Industry 4.0: Comau's Open Sourch Approach

Brent Kelso, Comau LLC



Industry 4.0, the digitalization of the manufacturing environment, is rapidly changing the industrial automation market and the consumer markets as well. Comau

is focused on leading this "new era of automation" with open, connected and easy to understand/use products and systems. Approaches to Industry 4.0 in areas such as digital workspace, advanced robotics, logistics and collaborative robots will be presented including a demonstration of this approach with Comau's recently launched innovative e.DO robot, developed in a modular perspective and in open-source from a team of Comau engineers working in collaboration with external partners.



#### **Roller Forming — A Viable Assembly Solution**



#### Bryan Wright & Jacob Sponsler, Orbitform

Static rollerforming uses spinning rollers and down-force to create an aesthetically pleasing lip. The non-impact nature of the process,



combined with its inherent precision and accuracy, make it possible to form delicate or brittle materials. Static rollerheads provide consistency and efficiency to your forming process.

Articulating rollerforming has rollerheads that come in from the side, and can be used to form a groove in a part, or when there are obstructions to clear in order to form a lip. 360° contact gives consistent action for the duration the part is being formed.

By adding process intelligence it is possible to accurately monitor and/or control the forming force, distance, and stroke during the rollerforming process.

#### Advantages

- Can accommodate a through spindle pressure pad to compress material before forming
- Minimizes scuffing, galling, and material pick up
- Allows the use of smaller tooling to form large diameter applications
- Requires less force than Orbital Forming







#### 2:40 – 3:00 pm Location: Booth #2423

My Robot Won't Do What I Say — Challenges in Robotic Assembly

Jim Beretta, Customer Attraction

Are you having difficulty with a robotics application? Perhaps your SCARA constantly drops parts, or maybe that six-axis robot isn't running guite as fast as you think it should. Other engineers have probably experienced the same issues. Learn what they did at this Tech Talk, or help others solve their problems.



### WEDNESDAY, OCTOBER 25, 2017 LEARNING THEATER PRESENTATIONS | LOCATION: EXHIBIT HALL, AISLE #2100 | THEATER 1

▶ 3:00 – 3:40 pm



Adrian Jennings, Ubisense

The Industrial Internet of Things (IIoT) or "Industry 4.0" describes a future in which context-aware smart systems can continually re-optimize themselves to make leaps in quality and efficiency, despite the growing complexity of manufacturing operations. Mr. Jennings argues that a critical context to enable such leaps is location. Indeed,

automotive assembly plants are a complex feat of coordination, ensuring that the correct tool is used in the target process, on the right vehicle, in the designated workstation, in the planned sequence and within a precise takt-time.

Mr. Jennings will describe case-studies highlighting the importance of location awareness for improving quality and reducing waste in assembly plants. These examples lead to a discussion of the requirements for a location-aware IIoT platform. Examples taken from practical deployments will highlight the need for scalability, from very small to very large, production-critical reliability and the importance of very low latency to manage industrial controls.

#### 4:00 – 4:40 pm Location: Learning Theater 1

#### JUST SMASH IT!

How much force can a bowling ball handle before being pulverized? See for yourself during the entertainingly destructive *Just Smash It!* segment, where everyday items are put to the test to see how much force it takes to SMASH IT.

Presenters: Glenn Nausley, President • John Boerema, New Business Development Manager Mick Berge, Digital Media Producer • Scott Spencer, Applications Engineer

#### ▶ 5:00 pm Exhibit Hall Closes

### 5:00 pm – 7:00 pm Location: Conference Room #13 'Pub Night' Networking Reception

The ASSEMBLY Show is excited to bring back 'Pub Night' on the second evening of the show. Attendees and exhibitors will gather in the adjoining ballroom to kick back and relax over a pint, chat over burgers and make new connections while participating in pub-style games! This social environment will allow participants to make further connections with new professionals and continue to build relationships with existing business partners in a fun and exciting atmosphere.

### THURSDAY, OCTOBER 26, 2017

10:20 – 11:00 am Location: Learning Theater 1

### JUST SMASH IT!

In case you missed it on Wednesday afternoon (or just want to see it again), a second *Just Smash It!* segment will take place on Thursday morning! Don't miss this 'smashing' experience!

Presenters: Glenn Nausley, President • John Boerema, New Business Development Manager Mick Berge, Digital Media Producer • Scott Spencer, Applications Engineer



#### 11:00 – 11:20 am Location: Booth #2423

We're Screwed — Challenges With Threaded Fasteners John Sprovieri, ASSEMBLY Magazine

Whenever there's a problem with a screwdriving application, the tool manufacturer invariably blames the fastener supplier—and vice versa. Maybe a sheet-metal screw is stripping all the time, or maybe that plastic boss is cracking constantly. You're not the first. Get help from fellow engineers at this Tech Talk, or help others solve their issues.





**THEATER 2** 

Sponsored By: 😳 Ubisense





### THURSDAY, OCTOBER 26, 2017

LEARNING THEATER PRESENTATIONS | LOCATION: EXHIBIT HALL, AISLE #2100 | THEATER 1 THEATER 2

### 11:20 am – 12:00 pm

### How to Choose the Right Transfer System for Your Assembly Operation

Sponsored By: Rexroth



#### Gerald Berzins, Bosch Rexroth

The demands on today's assembly operations intensify daily, and your assembly operations need to keep pace. The good news is: You have more choices than ever in transfer system technologies. The bad news? You have more choices than ever in transfer system technologies.

How can you make sure that the choices you make today will keep up with the extreme speed of innovation in the products your company manufactures?

Long-time Rexroth application engineering expert Gerald Berzins will discuss the conveyor technology choices you have, from manual production systems to high-speed, high-volume, fully automated systems. He'll also discuss how to build a system that can evolve from manual to automated as your production needs change, including a few thoughts on I4.0. Whether you're a long-time manufacturing pro or just getting started, you won't want to miss this informative session.

#### 12:20 – 1:00 pm

### Solving the OT-IT Systems Conflict for IIoT Deployment

Brandon Ellis and Keary Donovan, elliTek, Inc.





IT admins have two problems securing their company's networks: 1) Dumb Users 2) Smart Users...

No admins want the security problem of engineers' PCs entering their IT network, and no engineers want the process and QA risk of the office's PCs on their Operational Technology (OT) network. But why? Aren't they both hyper-diligent about the data integrity of their networks?



Smart Manufacturing has been made overly difficult because manufacturers are trying to converge systems that should be isolated from each other. Join us for a how-to workshop session to learn how an MES gateway appliance, rather than PC-based and OPC middleware solutions, protects both OT and IT network systems to deliver point-to-point communication between manufacturing devices (e.g. PLCs, vision systems) and ERP database servers (e.g. SQL, SAP).



## 1:00 – 1:20 pm Location: Booth #2423 Our Kanban Canned—Challenges With Lean Manufacturing Austin Weber, ASSEMBLY Magazine



Sponsored By: MICROSCAN.

Are you having trouble getting started on your lean journey? Sure, implementing 5S was easy, but instituting continuous flow, well, that's another story. It's OK. Come to this Tech Talk and pick the brains of fellow engineers, or help others solve their issues.

#### ▶ 1:20 – 2:00 pm

#### Ensure 100% Traceability and Quality of Your Products using Microscan Automatic Identification and Machine Vision Systems Steve King, *Microscan*

Microscan is known throughout the Pharmaceutical, Medical Device, Packaging, Electronics, Automotive and Document Handling industries as a premier provider of laser and imager based Automatic Identification and Machine Vision systems, and as having a reputation for delivering high quality, reliable products as well as world class applications and technical support.

Microscan's broad suite of code reading, code quality verification, inspection, gauging and guidance algorithms have been honed over the past 35 years. These capabilities are delivered through a scalable suite of industrial ready Smart Sensors, Smart Cameras and PC based systems using extremely powerful, yet simple and intuitive setup and runtime software suitable for use by the line operator all the way up to the engineering level.

This presentation will show you the benefits of employing this automation technology in your production environments through the demonstration of its use in common manufacturing applications. It will also introduce you to the entire suite of Microscan products, and provide a guide on how to pick the right components for your specific sensing needs.

### 3Arm America Booth 848

106 W. Ohio Ave. Mount Vernon, OH 43050 740-392-1549 www.3armamerica.com

The 3Arm ergonomic arms are the strongest, most dependable arms available in the world marketplace today. They can be used for assistance in assembly, grinding, deburring, off-line machining and manipulating applications. Wherever operator fatigue is concern for employee safety, productivity or quality, 3Arm has a solution. EuroLink has been the North American representative and importer since 2006.

### Adhesives & Sealants Industry Booth 1102

2401 W. Big Beaver Rd., Suite 700 Troy, MI 48084 248-786-1717 www.adhesivesmag.com

Adhesives & Sealants Industry provides quality and up-to-date content covering all aspects of using adhesives and sealants, formulating and manufacturing. Adhesives & Sealants Industry presents real-world solutions to processing, manufacturing and application problems, and covers key issues such as environmental regulation, legislative concerns and global trade.

### Adhesives Research Booth 1548

400 Seaks Run Rd. Glen Rock, PA 17327 717-235-7979 www.AdhesivesResearch.com

An industry leader for over 55 years, Adhesives Research (AR) creates pressure-sensitive and heat-activated engineered tapes (silicone, acrylic and rubber) for industrial bonding and assembly applications. AR strives to meet the needs of customers in markets such as automotive, construction, aerospace and highperformance textiles.

### Aero-Space Fasteners and Electronics Booth 1545

9270 Bryant Ave. S. Bloomington, MN 55420 800-234-4725 www.ascs.com

Aero-Space Fasteners and Electronics specializes in engineered fasteners, electronic components, cable assemblies, castings, plastics, mechanical hardware, printed circuit boards and more. Established in 1963, Aero-Space is an AS9120 certified and factory-authorized distributor. Through our large inventory and creative supply chain solutions, we partner with our manufacturers to provide the best customer service in the industry.



### Afag Automation AG Booth 600

820 Fessler's Parkway, Suite 210 Nashville, TN 37210 260-417-6452 www.afag.com/en

Afag produces world-class feeding, handling and parts transfer systems. Based upon a systematic approach of standardized components, these systems are engineered to provide lasting value. Pick-and-place systems provide speed and accuracy, while the feeding systems are smooth, quiet and reliable. Patented technology gives Afag solutions an edge like no other.

### AGCO Corp. Booth 1754

202 Industrial Parkway Jackson, MN 56143 507-847-2690 www.agcocorp.com

AGCO is a global leader in the design, manufacture and distribution of agricultural equipment. Through wellknown brands including Challenger, Fendt, GSI, Massey Ferguson and Valtra, AGCO delivers agricultural solutions to farmers worldwide through a full line of tractors, combine harvesters, hay and forage equipment, seeding and tillage implements, grain storage and protein production systems, as well as replacement parts. The AGCO facility in Jackson, MN, was awarded the Assembly Plant of the Year for 2017. Learn why this plant received this high honor by visiting them at The ASSEMBLY Show!

### Ahaus Tool and Engineering Inc. Booth 443

200 Industrial Parkway P.O. Box 280 Richmond, IN 47374 765-962-3571 www.ahaus.com

Ahaus designs and builds custom manufacturing equipment, ranging from workholding fixtures to special machines and fully automated cells. We pride ourselves on our team approach to deliver innovative equipment to help your manufacturing business be successful.



### AIMCO

**Booth 1205** 10000 S.E. Pine St. Portland, OR 97216 503-254-6600 www.aimco-global.com

Since 1970, AIMCO has been providing superior global assembly and critical bolting tooling solutions for the automotive, ag, off-road, electronics, aerospace, energy services and general assembly industries. AIMCO has become a leading importer and exporter of industrial power tools, and is the United States' exclusive importer for Japanese manufacturer Uryu Seisaku Ltd. In 1999, AIMCO began manufacturing its AcraDyne line, a complete line of DC controlled tools ranging from 1 to 12,000 newton-meters, custombuilt multiple spindle systems, and state-of-the-art tool controllers. Our service, repair and calibration labs provide fast turnaround on repairs. All electronic torque equipment meets NIST standards.

### AirBoss Air Tools Co. Ltd. Booth 1915

No. 1688, Zhongke Rd. Xitun District, Taichung City, 40760 Taiwan 886-4-2451-1968 www.twairboss.com

Airboss Air Tools is a manufacturer of industrial and professional air tools, such as air impact wrench, screwdriver, straight and angle grinder, turbolap, sander and other tools. AirBoss tools are known for their long lifetime, excellent performance and user friendliness. Our production process includes the most advanced manufacturing equipment from Japan, Switzerland and Taiwan. We follow a strict quality management system to ensure that our air tools perfectly fit your particular application with outstanding performance and create the highest value.

### Air-Vac Automation Booth 1602

30 Progress Ave. Seymour, CT 06483 203-888-9900 www.air-vac-automation.com

Air-Vac Automation manufactures high-precision robotic platforms for micro-assembly, dispensing, curing and inspection. Features include general pick and place, wafer ejecting, flipping, forming, bonding, marking, kitting and sorting, testing, in-line conveyors, stack tray feeders, vibratory feeders, waffle trays and dispensing, including jet, auger and time-pressure systems. Systems can be configured as tabletop platforms or full production cells. Accuracy down to 5 micron placements. Speeds up to 3 meters per second. From prototypes to production, we can integrate any of your assembly needs.

### Alfing Corp. Booth 1637

44160 Plymouth Oaks Blvd. Plymouth, MI 48170 734-414-5884 www.alfing.com

Alfing Montagetechnik GmbH (AMT) opened its doors in 1981. It is active in the fields of nutrunner technology, assembly machines and automation. The US subsidiary, Alfing Corp., was founded in 1992 and has since then established itself as a major supplier in the automotive and other large-scale manufacturing industries. Since its foundation, Alfing Corp. has sold over 300 manufacturing systems, special purpose machines and machining centers throughout the U.S. and Mexico.

### Alliance for American Manufacturing Booth 1717

711 D St. N.W., 3rd Floor Washington, DC 20004 202-393-3430 www.americanmanufacturing.org

The Alliance for American Manufacturing (AAM) is a nonprofit, nonpartisan partnership formed in 2007 by some of America's leading manufacturers and the United Steelworkers. Our mission is to strengthen American manufacturing and create new private-sector jobs through smart public policies. We believe that an innovative and growing manufacturing base is vital to America's economic and national security, as well as to providing good jobs for future generations. AAM achieves its mission through research, public education, advocacy, strategic communications and coalition-building around the issues that matter most to America's manufacturers and workers.

#### American Hakko Products Inc. Booth 1805

28920 Avenue Williams Valencia, CA 91355 661-294-0090 www.HakkoUSA.com

American Hakko Products Inc. is a manufacturer and supplier of Hakko soldering and desoldering systems, hot-air rework systems for surfacemount devices BGA rework systems, smoke and fume extraction systems, and CHP-brand hand tools, assembly tools, including torque-control electric screwdrivers and accessories, screw feeders, torque-tool calibration equipment, and static-control supplies for the production line.

### American Ultraviolet Booth 1245

212 S Mount Zion Rd. Lebanon, IN 46052 765-483-9514 www.americanultraviolet.com

Experienced provider of ultraviolet curing solutions since 1960.

#### APEX Assembly and Fabrication Tools Booth 2219

762 W. Stewart St. Dayton, OH 45417 800-845-5629 www.apex-tools.com

Since 1933, APEX has been delivering high-quality, robust solutions for both assembly and MRO applications. We take pride in our capability to provide customers with innovative, robust tools that increase productivity, operating efficiency and operator safety. APEX understands that it is all about durability and consistency. Hence our tools are designed to fit and perform better, and last significantly longer, than competitive tools.

### Appliance Design Magazine Booth 2002

2401 W. Big Beaver Rd., Suite 700 Troy, MI 48084 847-405-4044

www.appliancedesign.com

Appliance Design is published for the OEM design engineer in the commercial and consumer markets worldwide. The magazine has trends, new products, industry news and featured editorial that target the appliance, consumer electronic, HVAC and smart technology markets. Information is provided with an integrated approach that includes our monthly audited print magazine.

### Applied Robotics Inc. Booth 1800

648 Saratoga Rd. Glenville, NY 12302 518-384-1000 www.appliedrobotics.com Applied Robotics is an expert at bringing greater speed, flexibility and efficiency to your automationbased processes. Our product set is comprised of tool changers, collision sensors, grippers and other

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mechatronic accessories engineered to bring your automation concept to reality. Material handling, assembly, cutting, dispensing, machining and welding are just some of the many applications supported. With over 30 years of experience engineering complex robotic and automation equipment, Applied Robotics was the first company to develop automated tool changers and continues to engineer state-of-the-art solutions allowing our customers to stay at the forefront of their respective industries all over the world.



### © Aries Engieering Booth 631

130 Aries Dr. Dundee, MI 48131 734-529-8855 www.hypercyl.com

HyperCyl-EMA is a robust, servo actuator designed for precision assembly and forming applications. Capable of 0.0025-millimeter repeatability in sizes 1 to 25 tons, HyperCyl-EMA provides a heavyduty and supremely accurate alternative to hydraulics. HyperCyl hydropneumatic cylinders come in sizes from 1 to 200 tons. Five standard design configurations are available. HyperCyl provides a reliable, lowcost solution for all your high-force needs. Force and distance monitoring is offered along with a cleaner, more reliable technology versus hydraulics. Cylinders, presses and turnkey packages designed to your specifications are also available.



### Arthur G. Russell Co. Inc. Booth 721

750 Clark Ave. Bristol, CT 06010 860-583-4109 www.arthurgrussell.com

Arthur G. Russell designs and develops innovative automatic assembly systems for the medical device, consumer products and automotive industries. Automated visual inspection, testing, adhesive dispensing, and UV curing are typical processes integrated into our assembly systems. We specialize in high-speed mechanical systems designed for years of trouble-free use. Our ability to handle parts at high speeds led to specialization in ultra high-volume feeding devices. For over 70 years, we have been designing, building, installing and supporting world-class assembly, test, inspection and packaging systems.



### © ASG, Division of Jergens Inc. Booth 323

15700 S. Waterloo Rd. Cleveland, OH 44110 216-706-6419 www.asq-jergens.com

ASG, Division of Jergens Inc., has been offering products and solutions for assembly since 1976. With headquarters in Cleveland, subsidiaries in Shanghai (China) and Mumbai (India), and sales offices in Mexico and Europe, ASG offers a complete line of torque-control screwdrivers, workstation accessories, production aids, precision fastening equipment, and complete turnkey automation solutions through ASG Assembly, Industrial, Precision Fastening, and Automation Product Groups.

### ASSEMBLY

#### ASSEMBLY Booth 111

2401 W. Big Beaver Rd., Suite 700 Troy, MI 48084 248-362-3700 www.assemblymag.com

ASSEMBLY covers the processes, technologies and strategies for assembling discrete parts into finished products. We write about robots, conveyors, vision systems and other technologies for assembly automation, as well as workstations, power tools and other equipment for manual production. We publish articles on lean manufacturing, screwdriving, riveting, adhesive bonding, welding and other methods for assembling parts. ASSEMBLY serves 54,000 engineers and managers responsible for designing and manufacturing cars, computers, catheters, coffeemakers and everything in between. Our readers make large products in small volumes and small products in large volumes.

### ASSEMBLY Plant of the Year Booth 1754

2401 W. Big Beaver Rd., Suite 700 Troy, MI 48084 248-362-3700 www.assemblymag.com/ plantoftheyear

The Assembly Plant of the Year award, sponsored by ASSEMBLY Magazine, showcases world-class production facilities in America. The goal of the award is to identify a state-of-theart facility that has applied first-rate processes to reduce production costs, increase productivity, shorten time to market or improve product quality. Recipients of the award include AGCO (2017), Bosch Rexroth (2016), Polaris (2015), Stihl (2014), Northrup Grumman (2013), Ford Motor Co. (2012), Phillips Respironics (2011), Eaton Corp. (2010), Batesville Casket Co. (2009), IBM Corp. (2008), Schneider Electric/Square D (2007), Lear Corp. (2006), Xerox Corp. (2005), and Kenworth Truck Co. (2004).

### Assembly Tool Specialists Inc. Booth 1920

9002 Dutton Dr. Twinsburg, OH 44087-1931 330-425-4466 www.assemblytoolspecialists.com

Assembly Tool Specialists designs and manufactures high-quality, unique tools that prevent damage to products and prevent worker injuries on the assembly line. Our "No-Mar" gap and flushness gauges-including taper, square, pin, step and radius—are made of plastic, with easy-to-read measurements. Our fastening tools have "Spinz-Free" plastic sleeves to reduce and eliminate repairs, repainting and replacement of your finished products. We cover the pinch points between the power tool and fastener to protect your operators from injury. All of our products are proudly made in the U.S.A. by a member of the Women's Business Enterprise National Council.



#### Association for Advancing Automation **Booth 2238**

900 Victors Way, Suite 140 Ann Arbor, MI 48108 734-994-6088 www.a3automate.org

The Association for Advancing Automation (A3) is the global advocate for the benefits of automating. A3 promotes automation technologies and ideas that transform the way business is done. A3 is the umbrella group for Robotic Industries Association (RIA); AIA—Advancing Vision + Imaging; Motion Control and Motor Association (MCMA); and A3 Mexico. RIA, AIA, MCMA and A3 Mexico combined represent over 1,000 automation manufacturers, component suppliers, distributors, system integrators, end

users, research groups and consulting firms worldwide that drive automation forward



Asutec **Booth 1000** 816 E. Third St. Buchanan, MI 49107 888-674-2839 www.leanfactoryamerica.com

With creativity, German quality and customer focus, Asutec applies over 20 years of experience in the field of conveyor component technology. Regardless of your conveying platform or system configuration, Asutec's family of stops, dampeners, separators and positioning modules provide a ready, reliable and proven solution for material and traffic flow management. The company has partnered with Lean Factory America as their exclusive

channel to market in North America.



### C ATC Automation Booth 521

101 Mill Dr. Cookeville, TN 38501 931-528-5417 www.atcautomation.com

ATC Automation provides custom assembly and test automation for a variety of industries including transportation, energy storage, life science and consumer products. The size of ATC's automated systems ranges from complete "factories in a box" to small, lean systems that can be integrated into a current manufacturing process. ATC is an ISO 9001:2008 certified company with 40 years of experience building automated solutions.



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#### C ATEQ Corp. Booth 444

35980 Industrial Rd. Livonia, MI 48150 734-838-3100 www.atequsa.com

ATEQ manufactures fast and accurate leak and flow testing instruments for quality testing applications in every manufacturing industry. These high-quality, compact instruments are customized for each application to make sure it meets the designated leak rate specifications. While ATEQ specializes in differential pressuredecay leak testing instruments, other types of testing technologies are also available, such as electrical and tracer gas leak testing along with continuous, mass and laminar flow testing.



### © ATI Industrial Automation Booth 513

1031 Goodworth Dr. Apex, NC 27539 919-772-0115 www.ati-ia.com

ATI Industrial Automation is the world-leading, engineering-based developer of robotic accessories and robot arm tooling, including automatic tool changers, multiaxis force and torque sensing systems, utility couplers, robotic deburring tools, robotic collision sensors, manual tool changers, and compliance devices. Our robot end-effector products are found in thousands of successful applications around the world. Since 1989, our team of mechanical, electrical, and software engineers has been developing cost-effective, state-of-the-art end-effector products and solutions that improve robotic productivity.



#### Auer Signal / Sprecher + Schuh Booth 2042

15910 International Plaza Dr. Houston, TX 77032 877-721-5913 www.sprecherschuh.com/signaling

Auer Signal offers a wide variety of tower lights, beacons, horns, alarms, telephones and explosion-proof signaling devices. This complete line of signaling devices combines performance and reliability that are well-proven and used the world over. Sprecher + Schuh is the exclusive distributing partner of Auer Signal products in Canada and the USA.

#### Automated Drive and Design LLC Booth 1414

6350 Inwood Dr. Columbus, IN 47201 812-342-0809 www.adandd.com

Manufacturer of spherical products among other things. Our product line consists of mounting solutions for industrial devices, such as cameras, sensors, HMIs, lighting and any peripheral equipment that must be frequently repositioned.

### BALLUFF

### Balluff Inc. Booth 1105

8125 Holton Dr. Florence, KY 41042 859-727-2200 www.balluff.com

Everyday, Balluff products are increasing production throughput and product quality in hundreds of industries all over the world, improving manufacturing processes. We are one of the world's leading sensor manufacturers, providing innovative and practical sensing solutions for a wide range of applications and industries. We offer rugged and reliable products and support, along with unique capabilities that will make an impact on your bottom line as well as your production line.

### **Baitec**

### © Baltec Corp. Booth 731

121 Hillpointe Dr., Suite 900 Canonsburg, PA 15317 724-416-7587 www.baltecorporation.com

With over 45,000 riveting machines installed worldwide, Baltec is the global solutions provider for riveting equipment. At this year's Assembly Show, Baltec will be featuring a full range of products for any application. Highlighted by the new ER series of electrical riveters along with the HPP-25 process controller available on all Baltec riveters, Baltec is continuing to set new standards in riveting applications, process monitoring and control.



### C Banner Engineering Corp.

Booth 131

9714 10th Ave. N. Minneapolis, MN 55441 763-544-3164 www.bannerengineering.com

Banner Engineering is a global company and a globally recognized leader in the field of industrial automation. Banner sensors and vision sensors, LED lights and indicators, wireless and safety products are used by companies large and small, from industry leaders in the Fortune 500 to innovators just entering the market.

### Bielomatik Booth 1748

55397 Lyon Industrial Dr. New Hudson, MI 48165 248-446-9910 www.bielomatik.us

Bielomatik is a global company providing plastic automation and welding solutions to all industries for over 60 years. We offer engineering solutions and create value for our customers by manufacturing and

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assembling complex plastic welding machines for their production needs.

### Binder USA Booth 1812

3903 Calle Tecate Camarillo, CA 93012 805-437-9925 www.binder-connector.us

Binder USA is a subsidiary of Franz Binder GmbH and Co., a familyowned enterprise and one of the market leaders in the area of circular connectors. For over 55 years, Binder has been a technical leader and innovator serving the automation and medical industries. A combined total of 1,400 employees work at our headquarters in Neckarsulm, Germany, and subsidiaries in the United States, Singapore, China, Sweden, France, England and the Netherlands.

#### Bishamon Industries Booth 745

5651 E. Francis St. Ontario, CA 91761 800-358-8833 www.bishamon.com

Material handling and workpositioning equipment. Manufacturers of work-positioning equipment to improve productivity and ergonomics for the operator.

### Rexroth Bosch Group

### C Bosch Rexroth Corp. Booth 431

14001 S. Lakes Dr. Charlotte, NC 28273 800-739-7684 www.boschrexroth-us.com

Connect with our latest technology and product demonstrations and review your technical questions with our experts in Booth 431. Exhibits will highlight the latest in connected automation, including a new Open Mechatronics Demo that utilizes Open Core Engineering to control a multiaxis Cartesian system; ActiveMover, the new standard in high-speed, precision conveyors; TSplus and VarioFlow plus conveyor systems; CKL linear motor actuator for superfast pick-and-place; high-precision tightening systems: the new Active Cockpit production floor data visualization system; and more. Bosch Rexroth is your one stop for solutions in connected automation everywhere in your plant.

### Bossard North America Booth 1848

6521 Production Dr. Cedar Falls, IA 50613 319-277-5520 www.bossard.com

Bossard is an international engineering and logistics services company that specializes in supplying you with the correct fasteners for your applications

## Hands-Free Dispensing

Our JR-V dispensing robot is a great way to stop dispensing by hand in your facility. Simplified configuration and discrete I/O means connecting your existing dispenser can be done easilly. Lay down better beads and waste less material with this upgrade to your process. Purge button keeps your material ready between cycles. Share teaching data via the serial port to your PC.

Janome offer this system as an entry-point to robotic automation. Consider the JR-V, available in several sizes, for your next project.

Let your lines start and end smoothly with Janome!

- Designed For Dispensing
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C See us at The ASSEMBLY Show, Booth #913

Jetting Coating Potting 2-Part

Syringe

JR-V Series



in your products. Bossard's employees encompass proven productivity in their work, ensuring our customers receive the highest quality in their products and services. Bossard's threetier concept of product solutions, application engineering, and smart factory logistics provide you with comprehensive support everywhere and locally. Bossard's goal is to help you reduce your hidden costs in fasteners and implement lean manufacturing to save you time and money.

BRANSON

makes it possible

### Branson Booth 821

41 Eagle Rd. Danbury, CT 06810 203-796-0400 www.BransonUltrasonic.com

Emerson leads the global assembly technology market by offering the Branson brand of material joining and precision cleaning systems. We offer ultrasonic: laser: vibration: hot plate: spin; infrared; thermal; and metal welding equipment. The breadth of Branson allows for a processneutral approach to application development that ensures customers receive the best solution to address product specifications, regulatory and budgetary needs, while providing competitive advantages in product design, development and robust manufacturing solutions for benchtop or automated processes. Part of Emerson since 1984, the Branson brand is now aligned with Automation Solutions, committed to providing customers with solutions to meet today's challenging marketplace.

### Built Systems Booth 919

11511 James St. Holland, MI 49424 616-795-4569 www.builtsystems.net

At Built, we are all about better. Better inspires custom height-adjustable ergonomic solutions suited for your company's manufacturing needs. Better means tools equipped to hold the really heavy stuff without shifting or giving out. Better means modular equipment ready to reuse time and again. Better means fully modular designs for higher cost-efficiency and quick adjustments out on the floor. Better isn't just about product, it is also about people producing products that give them a healthier way to work. Here, better is how we do everything. This is Built custom height-adjustable solutions for the manufacturing environment.

### C Tek Lean Solutions Booth 1211

18530 Starcreek Dr. Cornelius, NC 28031 704-895-0090 www.ctekind.com

C Tek Lean Solutions has for 20 years been providing our customers with lean solutions in kaizen, 5S and many of other continuous improvement programs with the EZ Build Lean Pipe and Connector System for building workstations, flow racks, kitting carts, towable carts, 5S boards and many other continuous improvement projects. As one of our main product lines, EZ Build is a 28-millimeter steel ABS resin-coated modular building system that is compatible with other products based on a 28-millimeter OD pipe available in 1 millimeter and 2 millimeter thickness. It is very robust and can provide you with substantial savings in excess of 25 percent for most components compared too other 28-millimeter systems. It is available for standard and static-dissipative applications.

### C&M Robotics Co. Ltd. Booth 1100

A-601, 168 Gasan Digital 1-Ro Geumchen Gu Seoul, 08507 South Korea 646-745-6340 (USA) www.cnmrobotics.com

C&M Robotics manufactures the Center Master, which automatically compensates for eccentric errors during insertion assembly. An AC servo press, the FlexPress provides outstanding performance for precise press-fit and delicate assembly. The IGI Plus graphic indicator allows for systematic quality control through the precise identification and resolution of nonconformity. Using our products in automated production lines will enhance productivity and cost savings.

### Cameron Manufacturing and Design Booth 2114

727 Blostein Blvd. Horseheads, NY 14845 607-739-3606 www.camfab.com

Robotics, automation, custom machinery, fabrication, sheet metal, ASME code welding, control panels, machining, engineering, design and analysis, project management, ITARregistered.

### Casco Manufacturing Booth 1543

600 Territorial Dr., Unit C Bolingbrook, IL 60440 630-771-9555 www.cascomanufacturing.com

Manufacturer of custom cable assemblies and wire harnesses. Coax, RS232/D-Sub, industrial cables, power cables, ground straps, ribbon, solder connections and dipping. Custom bundling, labeling, kitting and packaging. ISO 9001:2008 certified.

### Chongqing North Enterprise Co. Ltd.

#### Booth 1101

Room 1605, CITIC Bank Building Hong Qi He Gou, Ji Chongqing, 404100 China 86-236-763-5599 www.impactsocket.com.cn

Normeco might be the best manufacturer of impact sockets in China. We not only supply to the most famous automotive assembly plants in China, including GM, Toyota, Honda, Ford, VW and Volvo, but we also cooperate with overseas partners in promoting our products around the world.



### C Cincinnati Test Systems Booth 639

10100 Progress Way Harrison, OH 45030 513-367-6699 www.cincinnati-test.com

Cincinnati Test Systems is a world-

leading designer and manufacturer of standard and custom leak test systems and leak detection equipment. Leak testing is critical to ensuring proper product quality, safety and performance. There are numerous reliable leak test methods, each with unique characteristics that make it favorable for specific applications.



### Cirris Systems Booth 343

401 North 5600 West Salt Lake City, UT 84116 801-973-4600 www.cirris.com

Cirris Systems is a world leader in electrical test equipment. We manufacture a range of testers, software, adapters, and other tools to test wires, cables and harnesses. Our reach has extended beyond headquarters in Salt Lake City to sister divisions in China and Germany, including distributors or representatives in over 20 countries. We have placed 35,000 testers in the hands of over 7,000 customers on all seven continents. As an employee stock ownership plan company, employees at Cirris share responsibilities and benefits. Every employee-owner at Cirris focuses on promoting quality products and providing a gratifying customer experience.



### Columbia Marking Tools Booth 1141

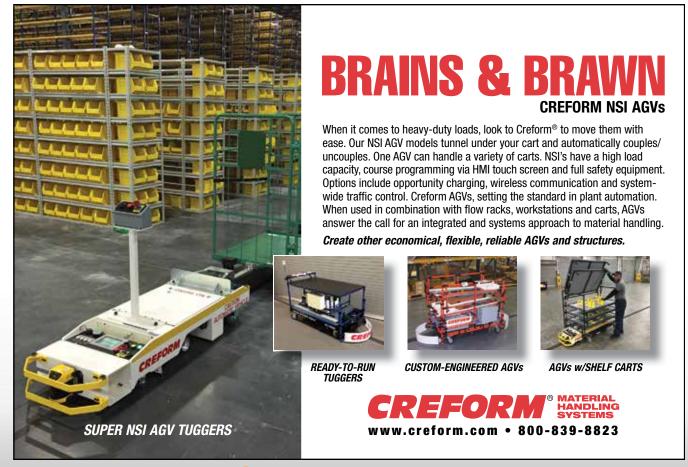
27430 Luckino Dr. Chesterfield, MI 48047 586-949-8400 www.columbiamt.com Helping you make your mark. Columbia Marking Tools provides a wide range of tools and machines to mark products.



#### Comau LLC Booth 1849 21000 Telegraph Rd.

Southfield, MI 48033 248-353-8888 www.comau.com

Comau, a member of the FCA Group, is a worldwide leader in delivering advanced industrial automation solutions that integrate products, technologies and services to help companies of all sizes increase plant efficiency while lowering operating costs and optimizing returns. For over 40 years, Comau has been driving the future of production automation by engineering lean and sustainable solutions and products.



C See us at The ASSEMBLY Show, Booth #831

Its comprehensive offering includes manufacturing and assembly solutions, powertrain machining, robotics and asset maintenance services for a wide range of industrial sectors. Comau unites talent, passion and experience to define new trends in automation.

### Contrinex Inc. Booth 1705

1421 Champion Dr., Suite 308 Carrollton, TX 75006 866-289-2899 www.contrinex.com

Contrinex is a global manufacturer of inductive and photoelectric sensors, RFID systems and safety light curtains. The company is a technology leader in the field of intelligent sensing and identification solutions for factory automation, including the harshest operating conditions and most extreme space limitations. Contrinex is leading in position sensors for Industry 4.0 applications.

### **Control Micro Systems Inc. Booth 801**

4420A Metric Dr. Winter Park, FL 32792 407-679-9716 www.cmslaser.com

Control Micro Systems Inc. is a leading source of turnkey laser systems with more than 30 years of experience providing laser machine tools to manufacturing industries. CMS offers systems for product marking, engraving, cutting, scribing, clear-onclear plastic welding, laser drilling and marking of pharmaceutical tablets, the manufacture of endoscopic products; and laser wire marking and stripping. A laser system integrator, CMS maintains a state-of-theart applications development lab, maintaining a broad range of laser technologies for practically any industrial application.

### Controlled Dynamics Booth 1631

1058 Overland Ct. Grafton, WI 53024 262-421-8867 www.controlleddynamics.com

Controlled Dynamics supplies modular structural aluminum framing that are an evolutionary leap! Controlled

Dynamics was formed with the primary goal of engineering a structural aluminum framing system that eliminates the need for repetitive realignment of assemblies and retightening of fasteners commonly experienced with traditional T-slot systems—especially when subjected to dynamic environments.

### Cosmo Solutions Technology Booth 937

40000 Grand River Ave., Suite 206 Novi, MI 48375 248-488-2580 www.cosmosolutions.us

For over 55 years, Cosmo has been providing air leak test and air flow test instruments to manufacturing facilities around the world. Cosmo equipment is known for its reliability, repeatability, accuracy, speed and cost effectiveness. Our current generation LS-R900 differential pressure decay air leak testers, as well as our AF-R220 laminar or mass-flow based flow testers, are intuitive and user friendly. Our customer base continues to grow as our products continue to meet and exceed customer expectations. We will be providing product demonstrations at our booth.



### Coval Vacuum Technology Inc. Booth 1500

901-100 Jones Franklin Rd. Raleigh, NC 27606 919-233-4855 www.coval-inc.com

Coval Vacuum Technology specializes in the manufacturing and distribution of vacuum components for the automation industry worldwide. With more than 30 years experience, Coval is a force for permanent innovation in the field of vacuum technology (suction cups, vacuum pumps, vacuum switches, spring compensators, peripheral devices).



### Crane Electronics Inc. Booth 1518

1260 11th St. W. Milan, IL 61264 309-787-1263 www.cran-electronics.com

Crane Electronics has been delivering solutions for torque management and control problems for over 45 years. Our knowledge and expertise satisfies the needs of the manufacturing industry for improved quality, safety, complete traceability and increased productivity. We work alongside some of the world's biggest brands across a variety of industries including automotive, aerospace, construction, marine and manufacturing. Our product range covers wrenches, transducers, data collectors, torque testers and system software enabling tool auditing, process capability assessment and process verification. We have an accredited service and calibration center, where we provide expert technical advice, high-quality support and dedicated customer service.



### © Creform Corp. Booth 831

1628 Poplar Dr. Extension Greer, SC 29651 864-989-1700 www.creform.com

Creform pipe-and-joint material handling system and automatic guided vehicle systems. Common structures include flow racks, workstations, stands, racks, display boards, information stations, carts and AGVs. Creform is commonly used as a tool to support lean manufacturing, kaizen, continuous improvement, and 5S programs, since structures can be easily reconfigured and recycled to meet changing needs. More than 700 components are available, including plastic-coated steel pipes, fittings and accessories. Structures are quickly designed and assembled. With

Creform's support, capitalize on the creativity of your associates to handle material handling challenges.



#### EXLAP<sup>®</sup> Curtiss-Wright/Exlar Automation Booth 1515

18400 W. 77th St. Chanhassen, MN 55317 952-500-6259 www.exlar.com

Curtiss-Wright designs and manufactures Exlar electric roller screw actuators, rotary servomotors, and integrated control solutions for a broad range of applications. Our unique roller screw linear actuator technology provides an efficient electromechanical replacement for hydraulic or pneumatic cylinders with forces up to 40,000 pounds and speeds up to 60 inches per second. We are able to deliver higher force in a smaller package than comparable ballscrew technology, as well as more flexibility, higher efficiency, and lower maintenance than traditional hydraulic and pneumatic solutions.



Industrial Manipulators

### Dalmec Inc. Booth 1646

469 Fox Ct. Bloomingdale, IL 60126 630-307-8426 www.dalmec-na.com

Supply pneumatic industrial manipulators for material handling, positioning and manipulating product. Used for picking parts and orienting them to place into an assembly.

#### Daniels Manufacturing Corp. Booth 1818

526 Thorpe Rd. Orlando, FL 32824 407-855-6161 www.dmctools.com

The world leader in tool systems and technology for the aerospace,

military and telecommunications industries. DMC is the recognized leading manufacturer for the aircraft, aerospace, and high-reliability electronics industries, with experience that spans six decades. Our products have been used on virtually every defense system, aircraft program, land or seagoing transport system, space exploration program, and in many other types of manufacturing and support activities. Our products include manual, battery-powered, pneumatic, electric and hydraulic crimping tools; backshell and accessory torque tools; contact insertion and removal tools; EMI and RFI shielding band tools: and Alphatron wire crimp pull testers.

### DataRealm Solutions Booth 2112

535 Griswold St., Suite 111 Detroit, MI 48226 313-989-4224 www.datarealminc.com

An engineering-first approach based on a decade of innovation using plant-level engineering and systems integration skills has allowed DataRealm to execute highly complex and demanding turnkey productivity solutions. DataRealm has strength at every point in the process-design, engineer, integrate, deploy and support—and has built an international reputation for exceeding expectations in demanding projects at some of the world's largest high-volume manufacturing plants. It is common for the company's credentialed engineers to take on and succeed in front-leading and challenging assignments and to produce superior results, on time and on budget.

### Deluxe Stitcher Co. Booth 1445

3747 N. Acorn Ln. Franklin Park, IL 60131 847-455-4400 www.deluxestitcher.com

We are a medium-size local manufacturer producing unique fastening machines for many different applications. Our stitching equipment can join metal to metal, metal to rubber, or basically any other nonsimilar materials to each other that would be difficult to fasten any other way.

### DEPRAG

### DEPRAG Inc. Booth 1931

640 Hembry St. Lewisville, TX 75057 972-221-8731 www.depragusa.com

DEPRAG is an assembly equipment manufacturer with over 85 years of experience. The corporate headquarters is located in Amberg, Germany, where over 350 active staff members design, manufacture and distribute handheld air tools, feeding and assembly systems. DEPRAG's worldwide net covers over 50 countries with more than 600 employees and subsidiary locations in the USA, Czech Republic, China, France, Sweden and United Kingdom. DEPRAG stands for durability, ergonomics, precision, reliability, accuracy and global presence. The North American subsidiary, DEPRAG USA, is located outside of Dallas, providing Mexico, Canada and the continental U.S. with quality screwdriving equipment and excellent service.



### © Design Tool Inc. Booth 1417

1607 Norfolk Pl. S.W. Conover, NC 28613 828-328-6414 www.designtoolinc.com

Design Tool is the industry leader in automatic screwdriver systems for all industries! Our systems feed and drive fasteners automatically for most assembly applications using screws, bolts, nuts, pins and nails. Our product line includes handhelds, turnkey fixtured or robotic systems, screw dispensing and counting, and automatic nailers. We build on any brand of screwdrivers and our machines increase productivity 50 to 60 percent without an increase in labor. Design Tool has been in business for 30 years and has produced over 20,000 machines. Please come visit our booth for a live demonstration of our systems in action!

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### Designetics Inc. Booth 2138

1624 S. Eber Rd. Holland, OH 43528 419-866-0700 www.designetics.com

With 30 years of industry experience. Designetics has designed and manufactured thousands of patented flow application systems to meet a wide range of specifications for applying primers, adhesives, sealants and other materials with varying viscosity characteristics to just about any type of surface. Because Designetics flow application systems are closed, they provide a high degree of environmental protection and chemical control, virtually eliminating noxious fumes. By addressing many of these issues, Designetics applicators save time and money by increasing productivity, worker safety, and environmental protection all while decreasing worker training, masking and cleanup.



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1815 Clubhouse Rd. Rock Hill, SC 29730 877-224-7377 www.desouttertools.com

Founded in 1914 and headquartered in France, Desoutter Industrial Tools is a global leader in power tools serving a wide range of assembly and manufacturing operations, including aerospace; passenger, commercial and recreational vehicles; military transportation; construction and agricultural equipment; power equipment; light assembly and general industry. Desoutter offers a comprehensive range of solutions (tools, services and projects) to meet the specific demands of local and global customers in over 170 countries. The company designs, develops, and delivers innovative quality industrial tool solutions, including air and electric screwdrivers, advanced assembly systems, advance drilling units, torque measurement equipment, and process control solutions.



Precision in Productivity<sup>™</sup>

### DESTACO Booth 313

691 N. Squirrel Rd., Suite 250 Auburn Hills, MI 48326 888-337-8226 www.destaco.com

DESTACO, a Dover company, is a global leader in the design and manufacture of high-performance automation, workholding and remotehandling solutions. The company serves customers in a variety of endmarkets, including the automotive, life sciences, consumer goods, packaging, aerospace and nuclear sectors. Built on a legacy of more than 100 years. **DESTACO** offers a comprehensive portfolio of products designed to engineer precise movement, placement and control solutions that drive productivity and uptime for manufacturers around the world. The DESTACO family of products consists of industry-leading brands such as DESTACO manual and power clamps. end effectors, CAMCO and Ferguson indexers, Robohand grippers and CRL manipulators and transfer ports.

#### Diakont Booth 1816 3853 Calla Fortunada

San Diego, CA 92123 858-551-5551 www.diakont.com

Diakont is a global leader in providing advanced motion control solutions for the power and utilities, aviation, automotive, and manufacturing industries. Diakont is proud to deliver peerless precision, service life, and reliability in its comprehensive line of electromechanical actuators, providing the consistent force and rugged durability needed in a diverse range of real-world industrial applications. With 20 years of experience in developing and manufacturing advanced actuators, Diakont has an impressive track record for incorporating innovative technologies such as optimized roller screw thread design, plasma-nitriding hardening processes. and a patented relubrication port that simplifies routine maintenance and reduces equipment downtime.

### Doerfer Companies Booth 813

1520 Elm Hill Pike Nashville, TN 37210 615-361-4111 www.doerfer.com Doerfer Companies is a leading global provider of engineering and manufacturing solutions for our customers, focusing on custom assembly automation, process automation, material handling, robotics, process development, and contract equipment manufacturing. Doerfer is differentiated by its proven ability to develop unique process technologies and to produce state-ofthe-art hardware, software, controls and information tracking solutions for clients who perceive their needs to be difficult or "impossible." Doerfer's engineering, assembly and manufacturing facilities showcase a strong global footprint, boasting over 1 million square feet and 1,000 employees.

### DOPAG US Ltd. Booth 1600

1445 Jamike Dr., Suite 100 Erlanger, KY 41018 859-918-5688 www.dopag.com DOPAG is one of the leading manufacturers of metering and mixing systems worldwide. With 10 foreign subsidiaries as well as different distributors, we are represented in more than 30 countries. Our wide range of products reaches from metering components for automotive suppliers to innovative solutions for the aerospace industry.

### Dozuki Booth 347

1880 Santa Barbara Rd., Suite 240 San Luis Obispo, CA 93401 760-707-8700 www.dozuki.com

www.dozuki.com

Dozuki is a provider of documentation software to help companies create and distribute visual work instructions, training documents and technical writing resources. We've helped our users reduce employee training time by up to 90 percent after switching from their outdated system of Word documents. Features include templates, version control, photo and video support, data capture, annotations, secure encryption, flexible API, and more.

# **TECH TALKS**

# **NEW Tech Talk Sessions**

At ASSEMBLY, we know that one of the top reasons you attend trade shows is for the opportunity to network with your peers. That's why we are pleased to announce something new: "Tech Talk" sessions.

Tech Talks—held right on the show floor in booth 2423—are intended to provide an opportunity for manufacturing professionals to share solutions to



LOCATION: Booth #2423

common problems in product assembly. These 20-minute sessions will be facilitated by the editors of ASSEMBLY and other manufacturing publications and organizations. No vendors, no sales pitches, no marketing hype, no bull. Just open, honest communication from one manufacturing professional to another. Been there, done that!

Are you having an issue with robotics, adhesive bonding, threaded fasteners or lean manufacturing? Or maybe you've learned a thing or two in the school of hard knocks? Come with a question or share your experiences! No registration necessary.

### TECH TALK #1 | Wednesday, October 25 | 1:40 – 2:00pm Broken Bonds — Challenges in Adhesive Bonding Moderator: Susan Sutton, Editor in Chief, Adhesives & Sealants Industry

TECH TALK #2 | Wednesday, October 25 | 2:40 – 3:00pm My Robot Won't Do What I Say—Challenges in Robotic Assembly Moderator: Jim Beretta, President & CEO, Customer Attraction

**TECH TALK #3 | Thursday, October 26 | 11:00 – 11:20am We're Screwed — Challenges With Threaded Fasteners** *Moderator:* John Sprovieri, Editor in Chief, ASSEMBLY Magazine

**TECH TALK #4 | Thursday, October 26 | 1:00 – 1:20pm Our Kanban Canned — Challenges With Lean Manufacturing** *Moderator:* **Austin Weber,** Senior Editor, ASSEMBLY Magazine

# For complete agenda and descriptions visit THE**ASSEMBLYSHOW.**COM

### **DPSS Lasers Inc. Booth 1244**

2525 Walsh Ave. Santa Clara, CA 95051 408-988-4300 www.dpss-lasers.com DPSS Lasers specializes in low-cost DPSS UV "quasi-CW" lasers and UV laser markers that are ideal for marking and engraving materials, such as plastic and metals. UV lasers are especially well-suited for packaging applications because they utilize photoablation or photochemical response rather than thermal ablation, which can damage many materials. High speed, large work area and very small spot size are additional benefits of UV lasers.

### Druseidt Elektrotechnik— Intercon **Booth 1444**

1125 Fir Ave. Blaine, WA 98230 800-665-6655 www.intercon1978.com Intercon is the North American distributor for Druseidt electrical products from Germany. Extreme flexibility, high-current cables, braided shunts, multilaminate shunts and Flex-E-Bars are just a few of the specialty items they manufacture for all OEMs and electrical and power distribution equipment.

### Dukane Booth 1617

2900 Dukane Dr. St. Charles, IL 60174 630-797-4900 www.dukane.com/us

Dukane designs and manufactures plastic welding systems for different manufacturing industries around the world. Known as an "industry-first" company for offering innovative plastic joining technology, we accept each project as an opportunity to develop solutions that fit the customer's assembly requirements. Backed by many patents, Dukane's welding systems give unmatched repeatability, reliability and control

to welding process. Our standard products are ultrasonic, vibration, hot plate, infrared, spin and laser welding systems. Our iQ servo-driven ultrasonic welding system with patented Melt-Match technology is proven to provide hermetic seal, repeatable process control, and drastically reduces scrap rate for our customers.



### C ECC Booth 345

5905 Green Pointe Dr., Suite G Groveport, OH 43125 614-409-9104 www.eccco.com Manufacturer of electrical functional test fixtures for seat assemblies, dash assemblies, headliners, front and rear end fascia, engine, window and sunroofs. Manufacturer of basic continuity test fixtures for wire harness building and testing.

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### eci SpinnOmatic Booth 1305

15400 Chets Way Armada, MI 48005 586-752-9100 www.ecispinnomatic.com

Eci SpinnOmatic is dominating the market with custom orbital forming machinery. With in-house design, manufacturing and assembly, the entire project can go from concept to run-off in one easy step. Eci SpinnOmatic is the only authorized SpinnOmatic spare parts distributor, with an extensive inventory. Changing the face of the industry to reflect eci guality standards and emphasizing customer satisfaction are our primary goals for 2017-2018. The team at eci SpinnOmatic is ready to assist you in any way possible and would appreciate the opportunity to work with you on all your orbital forming needs.

### Eco-Latch Systems LLC Booth 1749

W225 N4014 Duplainville Rd. Pewaukee, WI 53072 920-541-3404 www.boxlatch.com

Box Latch Products (BLP) are a reusable alternative to tape, staples and bands that have traditionally been used to close cardboard boxes. BLPs are an easy to use, cost effective and environmentally responsible alternative to tape. They are a convenient closing system for corrugated boxes and cartons, ideal for B2B and or closedloop systems. Businesses are able to reduce material costs (corrugated box and tape expenses) by anywhere from 10 percent to 90 percent following integration of Box Latch Products into their supply chains.

### Edgewater Automation Booth 645

481 Renaissance Dr. St. Joseph, MI 49085 269-983-1300 www.edgewaterautomation.com

Founded in 2001, Edgewater Automation designs and builds custom automation equipment for a wide variety of industries. Edgewater Automation has locations in St. Joseph, MI, and Spartanburg, SC, where engineering, machining and building all takes place. Featured four times on the Inc. 5,000 list of fastestgrowing companies in America, Edgewater Automation is constantly improving and growing in talent, experience and technology.



Brute force rarely achieves the desired purpose. But quite the opposite is true of our flexible, high-precision electromechanical joining systems: monitoring is integrated into the process, so you benefit from optimum quality assurance – and you'll cut your costs substantially. No matter where your production site is: We offer you complete, customized solutions and comprehensive service support worldwide.

### www.kistler.com

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### © eFlex Systems Booth 441

210 W. Tienken Rd. Rochester Hills, MI 48306 248-651-5979 www.eFlexSystems.com

eFlex Systems has over 30 years of experience in the design and implementation of advanced MES and production management software solutions. Our solutions allow manufacturers to guickly and easily standardize processes, improve guality, meet regulations, leverage their assets and get the data they need for operational decision-making. We integrate with both greenfield and brownfield lines and can target specific stations, plants or enterprisewide needs. All software modules are web-based, scalable and stored on one simple application platform. Run applications locally or in the cloud.

### Eisele Connectors Inc. Booth 1745

99 Monroe Ave. N.W., Suite 200 Grand Rapids, MI 49503 586-612-0510 www.eisele-connectors.com

Manufacturer and supplier of robust all-metal push-to-connect fittings, multiline connectors and tubing. Our PTC fittings are available in BSPP, BSPT, NPT, UNF and M threads for metric and imperial tubing. Our Multiline features a modular design to combine pneumatics, gases, liquids, cooling water and electronics in an easy-touse compact design. Our tubing is available in metric and inch sizes.

### eldec LLC Booth 2011

3355 Bald Mountain Rd., Unit 30 Auburn Hills, MI 48326 248-364-4750 www.eldec.net

eldec is an innovator of highly efficient inductive heating solutions

for brazing, heating, curing and shrink-fitting. Induction heating with state-of-the-art IGBT technology is especially productive using eldec mobile generators.

Outstanding generator technology and comprehensive expertise in all facets of the inductor coil design let us enhance proven applications and develop new solutions customized to the tasks at hand. Our expertise lies in customized solutions for the customer's specific induction project and manufacturing process. eldec is process and applications driven.

### elliTek Inc. Booth 2319

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Commander combines point-to-point telecommunications technology, firmware and hardware to offer manufacturers Industry 4.0 solutions. The technology communicates across patchwork systems; secures network systems while maintaining machine availability; and reduces outlay costs. Visit our booth for a hands-on demo and learn how to securely exchange data in minutes vs. months.

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### Enercon Industries Booth 2338

W140 N9572 Fountain Boulevard Menomonee Falls, WI 53051 262-255-6070 www.enerconind.com

Enercon offers atmospheric plasma and flame surface treating to improve surface adhesion of plastics, composites, glass and metals. Applications for plasma treaters include assembly, coating, potting and bonding. Plasma treatment cleans, etches and functionalizes surfaces to remove contamination, create bonding sites and activate the surface to promote adhesion.

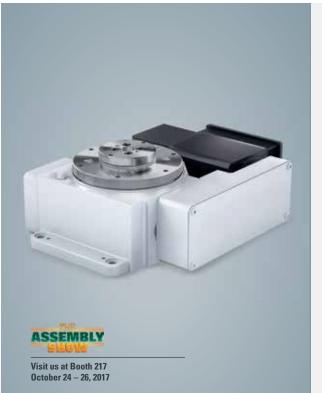
### Engineered Components Co. Booth 2013

1100 Davis Rd. Elgin, IL 60123 847-841-7000 www.engcomponents.com Since our founding in 1983, Engineered Components has grown to become the industry's most trusted fastener manufacturer and distributor. ECC offers an unparalleled range of fastener products, including stainless steel fasteners, proprietary encapsulated T-nuts, industry leading anti-corrosive coatings, as well as customized vendor managed inventory programs, and more. Please stop by our booth to learn more about our company. We look forward to meeting you!

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1 Industrial Circle Lincoln, RI 02865 401-726-4500 www.epoxysetinc.com

Custom formulator and manufacturer of engineered epoxy, urethane, silicone, grease and UV-cured systems for industrial applications in electronic, medical, semiconductor, optic, general assembly, automotive and aerospace industries. We specialize in unique



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custom-engineered formulations that are used as adhesives, sealants, encapsulants, pottings and coatings. Many products are BPA and halogen free, USP Class VI and ISO-10993-5 compliant. Our adhesives meet ASTM E-595-07 standards for outgassing and are nonhazardous for shipping.



### © Epson Robots Booth 531

1650 Glenn Curtiss St. Carson, CA 90746 562-290-5910 www.epsonrobots.com

Epson Robots is the global leader in PCcontrolled precision factory automation, with an installed base of well over 55,000 robots and a product line of hundreds of models of easy-to-use SCARA, Cartesian and six-axis robots based on a common PC-based platform. Building on a heritage of more than 35 years, Epson Robots today delivers robots for precision assembly and material handling applications in the aerospace, appliance, automotive, biotechnology, consumer product, electronics, food processing, medical device, pharmaceutical, plastics, semiconductor, and telecommunication industries.

### Ergotronix Inc. Booth 547

6408 Parkland Dr., Suite 101 Sarasota, FL 34243 877-SEE-ERGO www.ergotronix.com

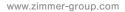
Ergotronix is a leading designer and manufacturer of ergonomic material handling equipment. We provide the best-quality work positioners, transporters, lifters and conveyor rollers making manufacturing environments safer and more efficient all while boosting productivity.

# *ESMA*

Esma Booth 1216 450 W. Taft South Holland, IL 60473 708-331-1855 www.esmainc.com

Esma is a leading manufacturer of surface-treatment equipment, including passivation, electropolishing and ultrasonic cleaning systems. The company's automated passivation systems are unique to the industry, moving fluids, not parts, during the process. Esma also manufactures benchtop electropolishing equipment and ultrasonic washers, as well as related chemistries.







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Manufacturing and sales of electric power tools, industrial robots and automatic assembly lines.

### Eternity Technology Corp. Booth 1700

1020 Milwaukee Ave., Suite 308 Deerfield, IL 60015 847-947-8121 www.szeternity.com

Headquartered in Shenzhen, China, Eternity Technology offers unequaled service, value and flexibility in electronics manufacturing services for customers across diverse industries, including industrial control, automotive electronics, financial equipment, smart device, green energy and medical device. To ensure the best quality, we have in-line solder paste inspection and AOI in all our surface-mount lines in addition to X-ray sample inspection. We have also implemented MES and warehouse management systems. We use 1D and 2D bar codes for our products to maintain materials and process traceability. As a one-stop EMS provider, we provide surface-mount PCB assembly, through-hole PCB assembly, double-sided surface-mount and mixed-technology assembly services to our customers.



### C Eubanks and Cablescan Booth 837

3022 Inland Empire Blvd. Ontario, CA 91764 909-483-2456 www.eubanks.com Wire strippers and wire markers for wire and cable ranging from 32 AWG up to 2/0. Tubing and ribbon cable cutters. Cablescan continuity testers for wire harnesses, cable assemblies and backplanes. High-voltage testers. Wire harness build-aids.

### Excelitas Technologies Booth 1738

2260 Argentia Rd. Mississauga, ON L5N-6H7 Canada 905-821-2600 www.excelitas.com/omnicure

Excelitas Technologies, a global leader and manufacturer of highperformance UV-curing systems, will be showcasing the latest OmniCure UV-curing solutions suited for a wide-range of applications. OmniCure offers innovative UV lamp and LED curing solutions that provide leading manufacturers worldwide with the most advanced, efficient and reliable UV-curing technology. Leveraging

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over 30 years of industry expertise, OmniCure delivers fast and consistent UV curing results to ensure customers benefit from the highest product quality and efficiency.

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Fabricating and Metalworking provides rich technical content and targeted advertising through print, online, video and other multimedia outlets. We serve a diverse audience of small-to-medium job shops, contract manufacturers, metal service centers, OEMs, and higher volume metal manufacturers who compete in markets ranging from aerospace, automotive and medical to energy, construction and mining.

### Fancort Industries Booth 1945

31 Fairfield Pl. West Caldwell, NJ 07006 973-575-0610 www.fancort.com

Fancort is a leader in automated solutions for the electronics assembly market. We are excited to announce the launch of the Dobot M1, a low-cost multifunction robotic arm. Also see us for robotic soldering, PCB depaneling, dispensing and industrial presses.

### FANUC America Corp. Booth 713

3900 W. Hamlin Rd. Rochester Hills, MI 48309 248-377-7000 www.fanucamerica.com

FANUC is the leading supplier of robotics, CNCs and factory automation solutions for manufacturing. Our innovative technologies and proven expertise help manufacturers maximize productivity, reliability and profitability. FANUC's wide range of standard and collaborative robots work in a variety of applications including assembly, material removal, material handling, packaging, painting, dispensing and welding, FANUC also offers simulation packages, application software, integrated vision products and 24/7 customer support.

### FasTest Inc. Booth 1138

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Since 1985, FasTest has manufactured quick connections and valves that

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compressed gas industries. Relying on core engineering skills, FasTest has secured over 50 U.S. and international patents that serve as the design platform for innovative products that enable our customers to improve testing, manufacturing process and productivity. FasTest also offers custom solutions for unique requirements and applications.



### Festo Corp. Booth 931

395 Moreland Rd. Hauppauge, NY 11788 800-993-3786 www.festo.com/us Festo operates with a simple, yet powerful manifesto: That intelligent automation isn't just about movement—it's movement with purpose. And it's not just about innovative products. It's about products that come with expert advice and differentiated customer support. Our aim is to help our customers make their products faster, smarter and more precisely. That's how they thrive instead of just survive. And when our customers win, we win.

We are Festo. And our purpose is to help people turn the power of intelligent automation into a catalyst for transformation.

### FIBRO Inc. Booth 1723

139 Harrison Ave. Rockford, IL 61104 815-229-1300 www.fibro.com

FIBRO is a leading global supplier for rotary tables and planetary systems. We offer the most comprehensive range of rotary table styles and sizes worldwide from a single source. Our tables are implemented in manufacturing processes as indexing or positioning axes. Thousands of units are used for automated production processes, assembly, welding and machining. The FIBRO program includes everything from modular standardized rotary tables to customized solutions, from micromanufacturing to heavy-duty applications. Excellent precision, durability, quality and value distinguish our product lines.



# Fives Cinetic Corp. and Fives DyAG

### Booth 2146

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Fives Cinetic is a global leader in the development and production of automated assembly, industrial washers, robotics and test systems. For more than 50 years, Fives Cinetic has engineered complete turnkey

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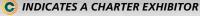
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solutions for automotive, heavy-duty truck, defense, aerospace and commercial product segments. Fives DyAG is a full-service engineering and integration company, providing engineering and integration services for a broad range of PLCs, robotics and machine vision, along with a line of software solutions. With professionally trained engineers, knowledge in automation, turnkey solutions and real-world project management experiences, we are positioned at the top of our industries.

### FLAGS Software Booth 1443

125 The Queensway Toronto, ON M8Y1H6 Canada 647-991-1105 www.flagssoftware.com

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6580 Snowdrift Rd. Allentown, PA 18106 610-973-8200 www.flexlink.com

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Baltec

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### **Fortville Feeders Inc. Booth 1344**

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### Forward Technology LLC **Booth 1538**

260 Jenks Ave. S.W. Cokato, MN 55321 320-286-2578 www.forwardtech.com

Forward Technology is a worldclass manufacturer that designs and builds a wide array of standard and customized plastic assembly and testing systems specially suited to thermoplastic parts. Forward manufactures systems for hotplate welding, vibration welding, infrared welding, spin welding and ultrasonic welding, as well as burst testing and custom leak testing.

Turnkey automated assembly systems comprised of our core product technology, with or without robotic integration, is our specialty. We also offer an extensive line of pass-through battery welding and leak testing equipment that are renowned within the battery industry.

### **Fulling Motor USA Inc. Booth 1509**

P.O. Box 1101 Park Ridge, IL 60068 847-894-6238 www.fullingmotorusa.com

Fulling Motor is a leading ISO 9001 and TS16949 certified manufacturer of technically advanced and innovative motion control products. Our extensive motor and gearmotor offering includes hybrid and permanent magnet steppers, brushless and brushed DC (including outrunner and slotless), AC servo and induction, and motor drivers, controllers, and integrated electronics. From concept to production, we offer engineered

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### **Fusion Systems Group Booth 1815**

4658 E. 355th St. Willoughby, OH 44094 440-946-3300 www.fusionsystemsgroup.com

Fusion Systems Group (FSG) specializes in the design, build and programming of turnkey, custom automation solutions. If you are looking to increase the quality and efficiency of product assembly, testing or inspection processes. FSG has the answers. We have been developing custom automation equipment to assemble a wide range of products since 1965. Each system is designed to incorporate automation on repetitive and critical operations. Whether fully or semiautomatic. FSG machines are built to be robust, minimizing the costs of use, maintenance, and training. Fusion Systems Group draws upon over 50 years of assembly expertise

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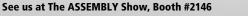
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to build turnkey automation systems that provide years of cost-efficient production.



### Gage Bilt Inc. Booth 943

44766 Centre Ct. Clinton Township, MI 48038 586-226-1500 www.gagebilt.com

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### **Genesis Automation Booth 1416**

3480 Swenson Ave. St. Charles, IL 60174 630-587-0444 www.genesisautomation.com

Genesis Automation is a single source, full service, automated system solutions provider. We design and build custom assembly, special process, and test equipment for a wide range of industries. Genesis applies proven design concepts, technologies, and processes to achieve successful completion of your project's requirements. Where proven

solutions do not exist, Genesis will develop them. Genesis Automation has been built upon the philosophy of being the best at what we do, not necessarily the biggest. Whether your needs are large or small, Genesis Automation helps you compete by creating reliable solutions for your every automation need

### Georg Utz Inc. **Booth 1342**

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Georg Utz Inc. specializes in developing creative and sustainable reusable plastic products in both injection molded and thermoforming solutions. We focus on returnable plastic containers, pallets, component holders and custom solutions for all markets. We offer in-house consulting, innovative development, state-ofthe-art prototyping and production processes. The Utz Group takes pride





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in its global leadership in designing, developing and manufacturing custom and standard solutions to optimize our customer's logistical processes.

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### GuangDong LiYuanHeng **Intelligent Automation Booth 1605**

Ma An Town, HuiCheng District Hui Zhou, 516057 China 973-960-1738 www.lyric-robot.com

Guangdong Lyric Robot Intelligent Equipment Co. Ltd. is a national hightech enterprise. It governs Huizhou Lyric Robot Precision Automation Co. Ltd., Bo Luo Lyric Technology Co. Ltd.

# Kyle Huebne Manager of Manufacturing Automation

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# FESTO

### For Kyle, automation is a team sport.

Festo helps him make customer dreams a reality.

Plexus is The Product Realization Company<sup>™</sup> - transforming customer concepts into products. For Kyle, the process starts and ends with collaboration. That's why when he needs a control or automation solution. he trusts Festo to provide the best advice. And the best products.

Solutions through teamwork. That's what moves Kyle. What moves you?



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and Suo Wo Technology Co. Ltd., and established an overseas R&D center in Switzerland. The company specializes in customization, research and development of high-end automation equipment, the overall integration of factory automation, and industrial robot system applications.

### Hamilton Caster Booth 545

1637 Dixie Highway Hamilton, OH 45011 513-863-3300 www.HamiltonCaster.com

Founded in 1907, Hamilton Caster is an industry leader in designing and manufacturing heavy duty industrial casters, wheels, carts and trailers for the automotive industry. Hamilton specializes in the custom design and manufacturing of large-capacity casters ranging from 1,000 to 43,000 pounds and industrial trailers ranging from 2000 to 100,000 pounds. Hamilton will be featuring their HPI swivel technology that outperforms conventional CNC-machined ball raceways and more than doubles the number of bearing contact points. The raceways are also 45 percent harder than conventional hardened raceways and the surface finish is an incredibly smooth 16 micro inches.

### HBM Test and Measurement Booth 1415

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HBM Test and Measurement offers high-accuracy standard and custom sensors and transducers, data acquisition systems, digital and analog load cells, load pins, strain gauges, torque sensors, amplifiers, indicators, controls and software for use in automated process control, high-speed dynamic weighing such as conveyor weighing, check weighing, batching, filling, packaging and scale applications. Software enables setup, calibration, fast Fourier transform, run, optimize and control. HBM offers custom-designed solutions with manufacturing in the United States, Germany and China.

### Heigl Technologies Booth 1720

7667 Cahill Rd., Suite 100 Edina, MN 55439 952-943-1441 www.heigltech.com

Heigl Technologies is a full-line distributor and packager of adhesives, sealants, coatings and dispensing equipment. Primary products include hot-melt adhesives and equipment, instant adhesives, epoxies, urethanes, silicones and UV adhesives and lights.



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### HERNON<sup>®</sup> MANUFACTURING, INC.

### Hernon Manufacturing Inc. Booth 1220

121 Tech Dr. Sanford, FL 32771 407-322-4000 www.hernon.com

Hernon is a worldwide innovator of high-performance adhesives, sealants, precision dispensing and UV LED curing equipment. With more than 39 years of engineering expertise, Hernon offers a complete line of unparalleled structural adhesives and epoxies, anaerobic, cyanoacrylates, impregnation resins, UV gasket resins, ammunition sealants, UV-curable adhesives and more to countless industries in nearly 60 countries around the globe today.

### Herrmann Ultrasonics Inc. Booth 1912

1261 Hardt Circle Bartlett, IL 60103 630-626-1626 www.herrmannultrasonics.com

Herrmann Ultrasonics is a worldleading company in the field of ultrasonic welding. For our customers, we assume both the role of consultant and application solution provider with regard to ultrasonic plastics joining technology. The company works closely with machine integrators providing local technical support and development lab capabilities. During the show. Herrmann Ultrasonics will demonstrate the Ultraplast AMG product line. This innovation is targeted toward custom machine builders and, in particular, large multi-head ultrasonic welding systems. The Ultraplast AMG meets the advanced requirements for Industry 4.0 connectivity with a variety of interfaces for secure communication and is network-ready.

### Hisco Booth 1941

54

6650 Concord Park Dr. Houston, TX 77040 713-934-1700 www.hisco.com

For more than 45 years, Hisco has delivered value to customers through

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### HIWIN Corp. Booth 1831

12455 Jim Dhamer Dr. Huntley, IL 60142 847-827-2270 www.hiwin.com

HIWIN Corp. manufactures an extensive line of both linear motion components and complete solutions. With a goal of supplying superior quality at the most competitive prices, the company offers a variety of precision ground and rolled ballscrews, linear guideways, electric actuators, ballscrew-driven stages, and linear motors, with many fully integrated value-added features.

### H-Locker Components Inc. Booth 1846

No.112, Lane 2, Sec.2, An Chung Rd. Tainan City, 70953 Taiwan 886-6-2450906 www.hlocker.com.tw

H-Locker specializes in CNC screw machined parts and assembly parts. From CNC screw machining, plastic to rubber, we offer parts that can be made with cold forging, hot forging, stamping, die casting and other procedures for industrial and automobile markets. Qualified with the ISO 9001: 2015, ISO/IEC 17025: 2005. We have factories in Taiwan equipped with CNC machining centers and multi-spindle equipment for achieving strict and high-quality parts.

### Homer City Automation Booth 1437

57 Cooper Ave. Homer City, PA 15748 724-479-4673

### www.homercityautomation.com

Homer City Automation is the exclusive manufacturer of Syntron parts handling equipment and Champion Drive's bulk material handling equipment. Our products include vibratory bowl feeders, rotary and centrifugal feeders, linear feeders, supply hoppers, and much more. HCA also has full job shop capabilities, specializing in fabricated metal products for food processing applications.

### Hoosier Feeder Co. Inc. Booth 1638

100 W. Morgan St. Knightstown, IN 46148 765-445-3333 www.hoosierfeedercompany.com

We are a family-oriented business with years of experience providing trusted and reliable solutions. We specialize in producing reliable and highly efficient equipment that orients parts, including vibratory feeders and centrifugal feeder systems.

### Hyla Soft Booth 1641

55 W. Monroe St. Suite 2575 Chicago, IL 60603 312-402-4673 www.hylasoft.com

Hyla Soft is a global company that provides technology solutions to improve productivity and efficiency within manufacturing engineering, manufacturing operations, and sales and operations planning processes.



### Hy-Tech Engineered Solutions Booth 1438

25 Leonberg Rd. Cranberry Township, PA 16066 724-776-6800 www.hy-techinc.com Hy-Tech Engineered Solutions, represented by its newly acquired brand Numatx Hydropneumatic Riveters, provides innovative solutions to a wide variety of industrial assembly applications. Along with its brands,



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ATP Industrial Tools, ATSCO Grinders, Ozat Sockets, Quality Gear and Thaxton Pipe Plugs, Hy-Tech has been a leader in air and hydraulic tool technology for almost 50 years.



### C IAC Industries Booth 1037

895 Beacon St. Brea, CA 92821 714-990-8997 www.iacindustries.com

Our sole mission is to improve the organization, function and atmosphere of our customers' production and assembly work areas, inspection stations and research laboratories. IAC workstations are unsurpassed in delivering improved efficiency anywhere workers are either seated or standing on the job. IAC products offer the advantages of ergonomics, modularity, adjustability and durability that cannot be duplicated in ordinary office furniture.

### IAI America Inc. Booth 1911

110 E. State Parkway Schaumburg, IL 60173 847-908-1400 www.intelligentactuator.com IAI manufactures the electric Elecylinder and ROBO Cylinder—smart, efficient alternatives to pneumatic cylinders. The company also offers wrist units, tabletop robots, high-speed SCARA robots, and Cartesian robotic positioning systems that can be used in a wide variety of applications requiring linear or rotational positioning.

### IC Flow Controls Inc. Booth 1842

112 Merle Ln., Unit 208 Normal, IL 61761 309-862-1800 www.icflow.com

IC Flow Controls will exhibit the

products of our sister companies, Beinlich Pumps, VSE Flow Meters and DST Magnetic Couplings. Our newly developed progressive cavity pump, VISCO.pump, is available in sizes ranging from 0.01 to 11 cc per revolution. It is a perfect solution to pump and meter fluids in a production environment. VISCO.pump has been designed for precise dosing of fluids and pastes and is especially suitable for abrasive media and for dosing and dispensing proportional to speed. Accuracy and repeatability is  $\pm 1$  percent. Visit our booth to learn more about metering pumps, precision flow meters and magnetic couplings.

### IKO International Inc. Booth 2015

101 Mark St., Unit G Wood Dale, IL 60191 800-323-6694 www.ikont.com

IKO specializes in quality needle bearings, linear motion rolling guides, precision positioning tables and machine



**C** INDICATES A CHARTER EXHIBITOR

components. Our linear motion rolling guides reduce linear motion friction in the positioning mechanisms of machines. With low cross-sectional height and high load capacity, our needle roller bearings exhibit rotational motion and incorporate a thin, needle-shaped roller into a rolling element. Created by combining precision machining technology with electronics, our direct-drive precision positioning tables feature a ballscrew or motor embedded between the bed and slide table. IKO guides, bearings and tables are used in a wide range of applicationssemiconductor, packaging, medical, CNC machines and automation.

### Illinois Pulley and Gear Inc. Booth 1442

611 Lunt Ave., Unit C Schaumburg, IL 60402 847-407-9595 www.ipgbiz.com

With a focus in customer service and quality parts, Illinois Pulley and Gear manufactures high precision components. Having over 90 years of combined experience in this industry allows us to continue to grow and manufacture solutions for your needs. We manufacture a large variety of high-quality timing pulleys. We stock and engineer, design and manufacture custom timing pulleys for OEM manufacturers. Additionally, IPG manufactures made-to-order commercial grade spur gears for OEM manufacturers. As of April 2016, we became ISO 9001:2008 certified.

### Imada Inc. Booth 1547

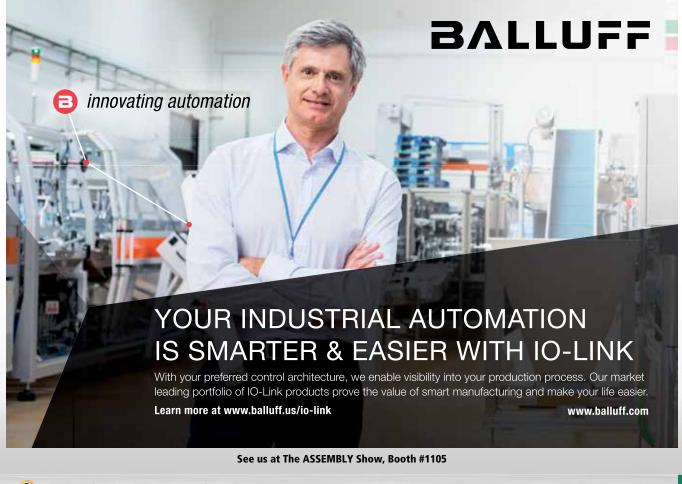
3100 Dundee Rd., Suite 707 Northbrook, IL 60062 847-562-0834 www.imada.com

Imada provides high-quality force and torque measurement instruments and accessories to the aerospace, automotive, medical, electronics, packaging and construction equipment industries. Our products are backed by our four-point customer service plan. We provide technical support by a knowledgeable and experienced sales and engineering staff. We offer fast delivery on most items from our in-house inventory. Custom applications are readily available. We offer fast calibration and repair with 24-hour turnaround emergency service. Imada is ISO 9001 certified and ISO/IEC 17025 accredited.

### The Industrial Controls Co. Booth 1715

N56 W24842 N. Corporate Circle Sussex, WI 53089 262-820-9900 www.icontrols.com

Custom industrial control panels and systems. Committed to your success. Controls are the nerve center of any system—the complex, intelligent interface between a system and the installation environment where it performs. The Industrial Controls Co. engineers, designs and fabricates systems and custom control panels across a host of industries and a range



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of applications—from prototype through large-scale production. The solutions we deliver provide you with the capabilities to embrace new challenges and grow your business.

### Inficon Booth 245

2 Technology Pl. East Syracuse, NY 13057 315-434-1100 www.inficon.com

Inficon is one of the world's leading developers, producers and suppliers of instruments and devices for leak detection in air conditioning, refrigeration and automotive manufacturing. Our helium, hydrogen and refrigerant leak detectors provide superior performance for leakchecking components, subassemblies, system tests and final tests in a variety of applications. Manufacturers trust Inficon leak detectors to ensure quality throughout their manufacturing and assembly operations.



### Ingersoll Rand Booth 1042

800-B Beaty St. Davidson, NC 28036 704-655-4000 www.ingersollrandproducts.com

Ingersoll Rand advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car, Ingersoll Rand, Thermo King and Trane—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency.



### © InterTech Development Co. Booth 642

7401 N. Linder Ave. Skokie, IL 60077 847-679-3377 www.intertechdevelopment.com Founded in 1973, InterTech is a world leader in test-centric assembly and test technology, specializing in automated leak and functional testing with seven patented mass flow and hydraulic technologies as well as proven expertise in helium mass spectrometry.

### Invaware Corporation Booth 2047

55 Samnah Crescent Ingersoll, ON N5C 3J7 Canada 519-485-8524 www.invaware.com

Invaware apps improve manufacturing systems to better meet customer requirements. Mr Narrative<sup>™</sup> allows the user to quickly capture and remember everything from day to day tasks to very involved and technical training documentation. Invaware HotList<sup>™</sup> provides a dashboard view of orders and critical part numbers, providing managers a quick view of where manufacturing issues are.



### Invotec Engineering Inc. Booth 1111

10909 Industry Ln. Miamisburg, OH 45342 937-886-3232 www.invotec.com

Invotec Engineering was started by two engineers with a common goal: solving manufacturing challenges with innovative solutions. Today, Invotec has over 80 employees dedicated to that mission. We build complex assembly, test and inspection equipment for customers in highly regulated industries. We specialize in applications with small- to mediumsized products or components, and our flexible approach allows customers to refine their product design while we engineer the equipment. Our technical solutions include complex assembly equipment, controls engineering, error proofing, machine vision systems, mechanical assembly systems, micro laser processing, precision joining, and test systems.



### IPR Robotics LLC Booth 541

2673 American Dr. Troy, MI 48083 248-591-3881 www.iprrobotics.com

IPR offers an extensive range of products with innovative systems and components for assembly and handling technology. The unmatched quality and reliability of IPR's products exceeds industry standards. IPR's product range includes 7th axes, gantries, rotary transfer units and shuttles. At The ASSEMBLY Show, IPR will introduce the IPM-90, designed for small robots, and the world's first Concrete Rail (patent application submitted). IPR also specializes in customized end-of-arm tooling, including grippers, compliance wrists, alignment devices, tool changers and load limiters. IPR provides the hands and feet of robots.

### **IPTE Booth 2031** 5935 Shiloh Rd. E., Suite 100 Alpharetta, GA 30005 678-807-0067

www.ipte.com

IPTE is a worldwide supplier of automation solutions for the electronic and mechanical manufacturing industry. With 25 years of experience, IPTE has proven itself to be a reliable high-quality supplier for turnkey assembly solutions and equipment for functional test, marking, depaneling, odd-form placement and conveying.

# IST America

**Booth 1601** 121 - 123 Capista Dr. Shorewood, IL 60404 815-733-5345 www.ist-uv.com

IST METZ GmbH develops, produces and sells UV systems for the curing of inks, coatings, silicones and adhesives.

The systems are used in both graphic applications and a variety of other industrial sectors. More than 35 years of expertise in UV technology make IST METZ an expert partner. With its global service and sales network, the company guarantees fast and reliable on-site support.



### C Isthmus Engineering and Manufacturing **Booth 1115**

4035 Owl Creek Dr. Madison, WI 53718 608-222-9000 www.isthmuseng.com

Isthmus Engineering and Manufacturing designs, builds and integrates custom automation equipment for applications worldwide. The company provides value-added engineering and manufacturing, from concept to

completion. Isthmus has a wide range of expertise, including precision assembly, custom material handling, web processing, and robotic and machine vision integration. Isthmus Engineering is a worker-owned cooperative.

### item America Booth 139

12105 Insurance Way Hagerstown, MD 21740 301-665-9772 www.item24.us

item is a pioneer and a market leader in Building Kit Systems for industrial applications. We are dedicated to providing reliable and innovative products to build machines, factory equipment and workstations. Our portfolio of 3,000 compatible components ensures that you can use the best modular solution for every task

# JANOME

### C Janome Industrial **Equipment USA Inc.** Booth 913

751 Landmeier Rd. Elk Grove, IL 60007 847-357-8870 www.ianome-ie.com

Welcome to Janome Industrial Equipment USA, the first overseas subsideary of the Janome Industrial Equipment Group headquartered in Tokyo. Janome as a whole is celebrating nearly 100 years in business producing industrial equipment with many patented technologies. Our goal has always been to manufacture innovative, affordable and flexible automation platforms. We are best-known for our desktop robots and servo-driven assembly presses. Since 2007, JIE USA has served the automation needs of our clients in the United States, Canada, Mexico and South America.



The Arthur G. Russell Company

See us at The ASSEMBLY Show, Booth #721

### Jenny Science Trading LLC Booth 145

Sandblatte 7a Rain, Switzerland 06026 41-41-455-44-55 wwww.jennyscience.ch/en

Our modular LINAX linear motor axes. ELAX linear motor slides, and the Web-browser-based XENAX Ethernet servo controllers meet the highest standards in terms of compact size, precision dynamics and user-friendly handling. With the integrated force function, these iron-core linear motors are not only positioners, but also sophisticated force sensors, allowing for force limitation, force control and force monitoring. The XENAX controller is available with functional safety (TÜV), UL certification and various communication protocols (EtherNet/IP, ODVA-approved, EtherCat, Profinet, etc.). We are proud to count Swatch, Philips, Bosch, Johnson & Johnson, and many more well-established companies among our client base.



### Kama Booth 1946

15 temmuz mah. Gulbahar cad. No:92 Istanbul, Turkey 34212 703-269-7285 www.kama.com.tr

Kama is a caster and wheel manufacturing company. We have been one of the leading companies in Europe for 61 years.

### Kilews West USA Inc. Booth 1623

6945 LTC Parkway Port Saint Lucie, FL 34986 772-293-0071 www.kilewswest.com

Kilews West USA was established in cooperation with Kilews Industrial Co. Ltd. of Taiwan, the global head office and main manufacturing location for Kilews electric screwdrivers and accessories. In January 2015, Kilews West USA opened its doors and commenced assembly and sales of Kilews brushless electric screwdrivers to the North and South American markets. Kilews Industrial is one of the largest manufacturers of low-torque, shut-off clutch electric screwdrivers in the world. Kilews Industrial markets product globally under the Kilews brand, as well as manufacturing private-labeled electric screwdrivers and accessories for several other prominent brands in the power tool business.

### King's Solution Corp. Booth 1649

No.457, Nanshang Rd., Guishan District Taoyuan City, 33392 Taiwan 886-3-3218768 www.injection.com.tw/en/index.html

King's Solution Corp. was founded in spring 2016 by King's Machinery & Engineering Corp., which has been dedicated to providing injection molding solutions for over 30 years. We have made thousands of custom injection-molding machines, including automation and turnkey solutions. Our team specializes in self-developed automation construction, pneumatic and hydraulic equipment, servo control, AOI, and industrial PC programming. We are committed to manufacturing smart machines as the front line of Industry 4.0. With reliable, sustainable innovative system applications, King's Solution is the best partner to help customers stand out as the leader in the market.



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### **Kistler Instrument Corp.**

### Booth 621

30280 Hudson Dr. Novi, MI 48377 248-668-6900 www.Kistler.com

Kistler Instrument is a leading manufacturer of electromechanical press systems, industrial sensors, process and production monitoring solutions, and the latest bolted joint and fastener analysis, testing and calibration systems. Our products are widely used to evaluate and optimize joining and assembly operations, control injection molding processes, perform fastener analysis and calibrate torque tools. With product centers, technical centers, sales and service offices located throughout the world, Kistler is a natural partner for supporting global manufacturing operations.

### Ko-ken Tools USA Booth 1448

10 Kidder Rd., Unit 4 Chelmsford, MA 01824 978-390-2468 www.kokenusa.com

Ko-Ken Tools is a fourth-generation, family-owned and operated business in Japan, with more than 140 employees. The focus of the business is entirely on sockets and socket wrenches. The entire manufacturing process is in-house at Ko-Ken, from design, cold forging, heat treat and plating.



### KolverUSA Booth 938

8D Industrial Way, Unit 1 Salem, NH 03079 603-912-5886 www.kolverusa.com

We are the North American branch of an Italian assembly tool manufacturer. Kolver offers a broad product line, including torque testers, reaction arms and precision electric screwdriving systems.

### Koops Inc. Booth 1802 987 Productions Ct.

Holland, MI 49423 616-395-0230 www.koops.com

Specializing in factory automation systems, Koops designs and builds innovative machines and equipment for world-class manufacturers across a broad array of industries. Our industry experience includes automotive, consumer products, medical, aerospace, and more. Excellent customer support, rocksolid engineering solutions and reliable project management have been the hallmark of our business.

We are a full-service integrator capable of providing turnkey projects from concept to completion. Our services include 3D mechanical design, electrical controls design, project management, production line integration, service and support.

### Kosmek USA Ltd. Booth 447

650 Springer Dr. Lombard, IL 60148 630-620-7650 www.kosmek.com

Kosmek is a world-leading expert on powered clamping and locating. From link and swing clamps, to expansion locating pins and pallet clamps, Kosmek has provided pneumatic and hydraulic component solutions to a variety of industries, including automotive, aerospace, agriculture, food processing, electronics, and many more.

### Kundel | Quick-Lift Systems Booth 1312

1510 Ridge Rd. Vienna, OH 44473 330-984-0302 www.quickliftsystems.com

Kundel's intelligent lifting devices move products precisely and easily. You can grip, flip, and ship your glass with very little effort. With Quick-Lift Systems, you can easily adapt lifting solutions to fit your unique conditions, thanks to our built-in functionalities. These systems can overcome even the most challenging situations, providing you with an optimal and efficient working environment. We offer a large and varied range of vacuumdriven grippers—all with the same high demands on safety and control. It ensures safe and smooth handling in your facility. Our intelligent lifting devices make lifting up to 660 pounds like picking up a set of car keys.



### LACO Technologies Booth 1238

3085 W. Directors Row Salt Lake City, UT 84104 801-486-1004 www.lacotech.com LACO Technologies is a leading manufacturer of vacuum and leak testing systems. Driven by innovation, service, and quality, we strive to be the best provider of standard and custom vacuum and leak testing solutions. Established in 1975, LACO Technologies serves customers across the United States and internationally. Owned by engineers, LACO is uniquely situated to provide innovative solutions for vacuum and leak testing applications. We work with diverse customer applications and are dedicated to creating the right solution to help our customers achieve their goals.



### 330.425.4466 sales@assytool.com



We manufacture tools that reduce the cost of poor quality and prevent injuries on the assembly line. We specialize in "Mutilation Prevention" tooling and "NO-MAR" gages. Our fastening tools have "SPINZ-FREE" sleeves to reduce and eliminate having to repair, repaint or replace finished products. They also cover the pinch point between the power tool and the fastener to prevent injuries. Our "NO-MAR" gages are made of plastic with easy-to-read measurements.







Visit our website to learn how our tools could help you do your job better & safer! AssemblyToolSpecialists.com

See us at The ASSEMBLY Show, Booth #1920

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### Lanco Integrated Booth 1005

12 Thomas Dr. Westbrook, ME 04092 207-773-2060 www.lanco.net

Lanco Integrated specializes in creating modular powered-and-free and camdriven assembly systems designed for future expansion and changes based on customer needs. After your system is delivered, we remain a diligent partner to maximize capabilities and maintain quality. From concept to design through manufacturing and after-sales service, no one covers the globe with more reliable or innovative products and service. Lanco Integrated offers a worldwide design, sales, manufacturing and service network committed to ensuring customers have local access to our wide range of systems and machine expertise. Lanco Integrated empowers global assembly.

### Lattice Technology Booth 2019

11000 Westmoor Circle, Suite 170 Westminster, CO 80021 720-330-3197 www.lattice3d.com

With software from Lattice Technology, your 3D engineering CAD model can be leveraged to downstream functions in your company. Your 3D CAD model is the exact definition of your product from a design engineering perspective, but it can serve so many other purposes. This is done using XVL. Common uses for XVL are design reviews with any stakeholder; assembly work instructions; procedural service instructions; assembly validation with 3D assemblies; and validation of manufacturing processes with equipment.



### Lean Factory America

### Booth 905

816 E. Third St. Buchanan, MI 49107 888-674-2839 www.leanfactoryamerica.com Our mission is to supply best-in-class manufacturing, assembly, material handling and automation products to the marketplace. These products aid in the elimination of waste, a cornerstone of lean manufacturing, by helping to eliminate errors, overproduction, inefficient processes, inventory, unnecessary transportation of product, and unnecessary movement of personnel. The result is increased manufacturing efficiency and profitability for the customer. Some of our exclusive brands include K. Hartwall material flow; Orgatex lean visual and material management; Green Frame aluminum structural framing: Asutec automation components; Movexx compact push-pull assists; WFI workstations; and Lean Factory's line of powered conveyor media.



### © Lista International Corp. Booth 1431

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Companies that assemble, inspect or package products can count on Lista's comprehensive offering of products, including Arlink 8000 modular workstations, Align adjustable height workstations, conveyor integration workstations, ESD-safe products and more. Rely on Lista in applications such as PCB and circuit assembly, medical products manufacturing, mechanical and electric parts assembly, and for all operations involving testing, inspection, packaging, warehouse and shipping.

### Loctite Booth 1323

One Henkel Way Rocky Hill, CT 06067 800-LOCTITE na.henkel-adhesives.com/industrial

Loctite from Henkel is a world leader in adhesives and sealants. Engineers and manufacturers rely on our structural bonding, instant bonding and machinery adhesives. Improve production processes and increase product reliability with Loctite. Integrate Loctite solutions—from our adhesives to our equipment dispensing solutions—into your design and manufacturing processes.

### Logomat Automation Systems Inc. Booth 2037

2595 Arbor Tech Dr. Hebron, KY 41048 859-283-1759 www.logomat-online.com

Logomat is a global supplier of precision palletized conveyor systems for assembly, test and material handling operations. Our innovative products have been used in the automotive, aerospace and appliance industries for over 30 years. We strive to provide a low-maintenance, costeffective solution that will become the starting point for your next production and test lines. Our LOGO!MAT series of roller conveyors and our new hightech E-Cart system can handle loads anywhere up to 3,000 pounds, with a variety of features available to suit your needs. Come see what solutions we have to offer you!

### LORD Corp. Booth 942

111 Lord Dr. Cary, NC 27511 877-275-5673 www.lord.com

With more than 40 years of experience in developing and manufacturing structural bonding solutions, our extensive line of acrylic, epoxy and urethane adhesives improve appearance, strength and durability, while offering you design flexibility and total cost savings. Compared to traditional fastening methods such as rivets, welds and tapes, LORD structural adhesives eliminate the costs associated with metal preparation and finishing operations to improve your manufacturing processes.

### LPKF Laser & Electronics Booth 1002

12555 S.W. Leveton Dr. Tualatin, OR 97062 503-454-4212 www.lpkfusa.com

LPKF's laser plastic welding technology has clear advantages: Higher joining quality; no particulates, chemicals or

solvents; known and trackable quality; protects sensitive electronic components; and the ability to weld complex and 3D shapes. Such advantages make laser plastic welding a standout option for many automotive, medical, and consumer electronics products.

### Magnum Venus Products Booth 846

2400 Cherahala Blvd., Suite 100 Knoxville, TN 37932 865-686-5670 www.mvpind.com

Magnum Venus Products (MVP) is the premiere manufacturer of composite application equipment. MVP products consist of pumping systems, spray guns, filament winding systems, and much more. MVP serves a multitude of manufacturers in a variety of industries, such as automotive, aerospace, transportation, marine, railway, oil and gas, wind turbine, among many others. MVP also has over 60 years of experience serving our customers, delivering highly customized solutions that support their manufacturing needs.



Visit us at: The Assembly Show, October 24-26, 2017, Booth#2023



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The cartridge expulsion unit A90 CV with new vacuum docking function enables the most secure docking process by far.



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### C Makita USA Inc. Booth 1223

1450 Feehanville Dr. Mount Prospect, IL 60056 800-867-8265 www.makitaassemblytools.com

Manufacturer of precision torque screwdrivers and nutrunners for assembly applications and cordless tools for maintenance in industrial environments

### Marco Systemanalyse und Entwicklung GmbH Booth 1701

Hans-Böckler-Str. 2 Dachau, 85221 Germany 49-81315161-0 www.marco.de

Marco has grown since 1982 from a small business to a medium-sized, internationally active group employing over 300 people. From its headquarters in Dachau, Germany, Marco operates service centres in China, Korea, Australia, Russia and Ukraine. In 1992, Marco invested in piezo technology in Hermsdorf. The manufacturing site there produces key components for durable, fast dispensing systems and ultrasound applications designed for OEM customers and the automotive industry. Marco is also a global market leader for robotic automation systems for mining machinery, based on a proprietary electrohydraulic control system suitable for harsh environments and difficult operating conditions.

### Mecademic Booth 2320

1390 Blvd. Rosemont Montreal, QC H2G 1V4 Canada 514-360-2205 www.mecademic.com

Mecademic designs, develops and manufactures the world's smallest, most compact and extremely precise industrial six-axis robotic arms. Our first robot, the Meca500, was commercialized a year ago and is already in use in more than 15 countries (North America, Europe and Oceania).

### Micro Automated Systems Group

**Booth 1316** 1199 Emerson St., P.O. Box 60619 Rochester, NY 14606 585-458-3150 www.microinst.com

Micro is a full-service systems integrator for custom assembly, test and robotic solutions. We design and build benchtop stations, lean systems and full production lines. Our team provides turnkey machines for leading medical device, aerospace, automotive, consumer product and technology companies. In addition to our automation expertise, Micro can support you with prototyping and development support, electromechanical design, software development, cable and control panel assembly, and precision CNC manufacturing. We are ITAR registered and AS9100C and ISO9001 certified. Founded in 1944, our strength is our experienced team of engineers, machine builders and toolmakers developed through our highly regarded apprenticeship program.

### Microscan Booth 2046

700 S.W. 39th St. Renton, WA 98057 425-226-500 www.miscroscan.com

Microscan is a global leader in machine vision, bar code reading and verification technology serving a wide range of automation and OEM applications. As an industry expert ranked among the top global machine vision and automation companies, Microscan helps manufacturers and service providers create error-free operations by applying innovative track, trace, and control automation tools. Microscan offers a full suite of machine vision systems, lighting, laser bar code scanners, 2D bar code readers and verifiers, handheld bar code imagers, print quality inspection systems and professional support and training services.

### Mid America Taping and Reeling Inc. Booth 1541

121 Exchange Blvd. Glendale Heights, IL 60139 630-629-6646 www.matr.com

Mid America is the leader for over 30 years in the electronic component automation preparation industry. With locations in both Illinois and Florida, same day service is still no extra charge. We specialize in surfacemount devices, axial and radial taping, programming, lead forming, baking and dry packing, along with 3D coplanarity inspection. Mid America manufactures custom carrier tape and reels. We carry other Americanmake products, such as cover tape and vacuum sealing machines. Mid America is an ISO-9001-2008 certified company along with 100 percent woman-owned business enterprise.

### Middlesex General Industries Inc. Booth 1806

2 New Pasture Rd., U7 Newburyport, MA 01950 781-935-8870 www.midsx.com

Middlesex is a leading worldwide supplier of clean-room, and cleanarea conveyor systems. Our products are used in the semiconductor, hard disk, biotech and solar industries. We offer factorywide conveyor solutions, conveyor modules, and conveyor parts to OEMs. Fast, clean transport with asynchronous, collision-free accumulation is key characteristics of our product.

### Mijin System Inc. Booth 2001

6101 Redwood Square Center, Suite 122 Centreville, VA 20121 703-992-0983 www.mijinsys.com

Our company specializes in designing and manufacturing industrial tools for various industries and companies across the globe, with our main speciality being spring balancers. With offices and factories in USA and Korea, our goal is to provide the best product and service in the shortest period possible. Mijin System Inc. USA was created to better service our clients and distributors in South and North America.



### Mikron Corp. Denver Booth 1838

8100 S. Potomac St. Engelwood, CO 80112 303-364-5222 www.mikron.com/automation

Mikron Corp. Denver stands for scalable and customized assembly and test solutions—from proof of principle to highest volumes for products you can hold in your hand. Mikron Corp. Denver is part of the Swiss division Mikron Automation which has over 40 years of experience and more than 600 employees working in Europe, USA and Asia. The assembly solutions are based on proven standard automation platforms that ensure the best quality and efficiency of your production equipment.

### Milagon, a Division of NSS Enterprises Inc. Booth 1916

3115 Frenchmens Rd. Toledo, OH 43607 800-889-4049 www.milagon.com

At Milagon, we provide the highest quality safety seating and matting systems available. Our WorkSeats and WorkMat Technologies feature an ergonomic combination of form and function utilizing unmatched design and materials. Our products are the most durable on the market and provide the lowest cost of ownership. In today's industrial and commercial workplaces, there is a growing need to improve safety standards with increased productivity while providing employees with a work environment that promotes health and comfort. Milagon can deliver the quality ergonomic seating and matting systems needed to ensure the right environment is in place for both the worker and the organization.





See us at The ASSEMBLY Show, Booth #943

### MJM Industries Booth 1301

1200 East St. Fairport Harbor, OH 44077 440-350-1230 www.mjmindustries.com

MJM Industries is a contract manufacturer of custom overmolded cable and wire harness assemblies serving the medical, military, industrial, test and measurement, automation, avionics, and transportation markets. From our state-of-the-art, 38,000 square foot facility located outside of Cleveland, MJM Industries produces complex wire harnesses, flat flexible cable assemblies, and special application cable assemblies, including power, signal and optics. Overmolded products include fluidic hoses, cables, connectors, sensors and direct overmold of electronic products. Our highly experienced engineering team offers product development, mold design and build and 3D printing. MJM Industries is UL, ISO9001:2008, ITAR and Mil Spec registered.



### C Mountz Inc. Booth 1315

1080 N. 11th St. San Jose, CA 95112 408-292-2214 www.mountztorgue.com

Making a safer world through accuracy and precision is the core purpose of Mountz. Since 1965, Mountz has provided torque tool solutions and metric fasteners to a variety of manufacturing industries. Mountz is an ISO 9001 registered and ISO 17025 accredited company. Look for the Mountz hexagon logo—it's a stamp for quality tools, service and knowledge in the field of torque control.



mta automation inc. © MTA Automation Inc. Booth 1523

50 River St. Old Saybrook, CT 06475 860-399-1141

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### www.mtaautomation.com

MTA Automation specializes in pointto-point soldering robots and precision dispensing. We offer four soldering technologies to suit a wide variety of applications: iron, laser, induction, and microflame. Soldering robots are available as semiautomated tabletop stations and fully automated cells. Our dispensing equipment precisely meters one- or multi-part materials from 100 nanoliters to 1,250 cubic millimeters with 99 percent repeatability. Dispensing units are available in a wide variety of platforms including multiple dispensing units on a single manifold.



### Multipress Booth 2120

1250 Refugee Ln. Columbus, OH 43207 614-228-0185 www.multipress.com

Manufacturer of hydraulic presses.

### Nanjing CUH Science and Technology Booth 1001

No.1 Xiaodong Rd., Chenguang, Qilin, Jiangning Nanjing, 211135 China 86-25-84730415 www.cuh-controller.com

We are a global leader in parts feeder controller R&D and manufacturing. We help bowl feeder manufacturers, assembly machine builders and factories in various industries to feed their components smoothly, efficiently and quietly. Our product line includes autotune frequency controllers, digital frequency controllers and digital voltage controllers.

### NECAL Corp. Booth 1612

1326 S. Water St. P.O. Box 426 Sparta, WI 54656 608-269-3000 www.necal.com

NECAL has been a manufacturer of

pressure-sensitive adhesives for over 40 years. Our products can be found nationwide in the automotive, major appliance, consumer electronics industries and more. NECAL provides unique thermo-bond dry film adhesive products, which are used widely in the automotive and electronics industry. This product strongly bonds to a wide array of surfaces. "Stick with us" for rapid order fulfillment: slitting and sheeting to order; no master roll order on stock items: design phase testing to ensure product performance.NECAL looks forward to serving your business needs.

### Nitto Kohki U.S.A. Inc. Booth 702

46 Chancellor Dr. Roselle, IL 60172 630-924-9393 www.nittokohki.com

Nitto Kohki U.S.A. Inc. was founded in 1969 to provide sales and service of machine tools and guick-connecting fluid couplings that are designed and manufactured by Nitto Kohki Co. Ltd. of Tokyo. We attained a position at the forefront of the industry, pioneering the development of unique, high-quality products based on the core technologies of fluid mechanics, precision engineering and more recently, electronic engineering. Through our products, Nitto Kohki has consistently offered customers advantages in terms of labor savings, improved working environments and efficient manufacturing.

# Quality Starts at the First Turn

### Nitto Seiko America Booth 2231

44425 Phoenix Dr. Sterling Heights, MI 48314 248-588-0133 www.nittoseikoamerica.com

Nitto Seiko America is the North American branch of Nitto Seiko Ltd. and a provider of industry leading screwdriving equipment. We offer the full range of screwdriving equipment: our own motors and controllers, handheld drivers, single-spindle drivers, multi-spindle drivers, feeder and robots. This allows us to provide all the equipment you need from a single source, from stand-alone motors and controllers, all the way up to turnkey robotic screwdriving systems.

### Nordson EFD Booth 1021

40 Catamore Blvd. East Providence, RI 02914 401-431-7000 www.nordsonefd.com

Nordson EFD is the world's leading manufacturer of precision dispensing systems. Our fluid dispensers, dispense valves, automated dispensing systems, syringe barrels, and precision dispense tips are trusted for applying controlled amounts of adhesives, sealants, oils and other high-performance assembly fluids. Accurate, repeatable fluid deposits help manufacturers improve process control, which reduces labor time, rework, material waste and cleanup while increasing output and product guality. EFD also offers a complete line of quality ISO 9001 certified solder paste for printing and dispensing.



### © Nordson Sealant Equipment Booth 1013

28775 Beck Rd. Wixom, MI 48393 248-412-7920 www.nordson.com/nse

Nordson Sealant Equipment is a worldwide leader in the design, engineering and manufacturing of meter, mix and dispense equipment and valves that apply ambient temperature one-part and two-part sealants, lubricants and adhesives. A division of Nordson Corp., we are known for our extensive portfolio of precision one- and two-component dispense valves and metering systems. Our newest products complement our existing valve lineup and expand our metering capabilities, providing our customers with superior performance by design. Specifically, the expanded product offering delivers an improved range of functionality in material supply, automation and precision dispensing, for a variety of materials and applications

### When the **Product** says it All



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### www.ecispinnomatic.com



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Afag, your partner for advanced flexible feeding demands. From the aflex component right through to the complete solution including actuators, vision and standardized software interfaces, we provide everything from a single source. Swiss precision. German engineering. American assembly and service.

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### Novagard Solutions Booth 1144

5109 Hamilton Ave. Cleveland, OH 44130 800-380-0138 www.novagard.com

Novagard Solutions is a manufacturer of premium silicone products used for a variety of applications, including UV cure, conformal coatings, and electrical potting and encapsulation.

### Nysus Solutions Booth 1823

403 Tomahawk Dr. Maumee, OH 43537 877-830-8624 www.nysus.com

Nysus Solutions is a provider of manufacturing execution software and process automation designed for the manufacturing industry. We offer a wide range of Web-based, custom software solutions to allow for complete process control and dramatic efficiency and guality improvements for various industries. Our hardware automation and process equipment can be easily integrated on an existing line or combined with our MES for a fully automated facility. Nysus Solutions prides itself on being experts on the latest technologies to improve customer processes. Our significant manufacturing background allows us to partner with customers to find the right solution for their operations.

### O.C. White Co. Booth 1811

4226 Church St. Thorndike, MA 01079 413-289-1751 www.ocwhite.com

O.C. White will display the revolutionary Super-Scope HD inspection and metrology system. This versatile inspection tool allows up to 80x magnification and choice of working distances from 6 inches to more than 12 inches. With onboard image and video capture, calibrated measurement, and still vs. live image comparison (all with no PC needed), this QA tool is an invaluable addition to any production facility. Also on display will be an exciting mix of our industry-leading Green-Lite LED magnifiers, as well as ProZoom microscopes and task lighting.

Experience the O.C. White advantage in person.

### OPS Solutions Booth 1513

48443 Alpha Dr., Suite 175 Wixom, MI 48393 248-374-8000 www.ops-solutions.com

Light Guide Systems (LGS), an OPS Solutions patented product, uses proprietary software and highpowered projector systems to guide and confirm completion of complex tasks. From assembly to quality control to training, LGS's technology provides the visualization, traceability and flexibility demanded by leading companies worldwide.



### © Orbitform

### Booth 505

1600 Executive Dr. Jackson, MI 49203 517-787-9447 www.orbitform.com

Since 1984, Orbitform has delivered over 9,000 assembly systems including orbital, radial and impact riveting; hot upset riveting; roller forming; palletized and low back-line pressure conveyors; and a standard line of assembly components. We also offer assembly analysis, tooling and fixture development, and lowvolume production runs. Whether you need a power head, bench machine, multiprocess workstation, multistation workcell, conveyor loop or fully automated assembly system, Orbitform is your one-stop shop. Increase throughput, improve quality, reduce scrap and maximize profits. Orbitform...solutions delivered.

### Orgatex GmbH & Co. KG Booth 1817

Albert-Einstein-St. 19 Langenfeld, Germany 40764 49-2173-106418 www.orgatex.com

Orgatex specializes in the development of customized solutions for the planning and organization of manufacturing processes and workflows. Equipped with extensive experience, we offer a range of products and variants for visualization; the flow of materials and essential material supply; organization in manufacturing processes; and process optimization.

### Origin Technologies Corp. Booth 1137

9238 Madison Blvd., Building 1, Suite 845 Madison, AL 35758 256-461-1313 www.origintech.com

With a combination of portability and flexibility through advanced algorithm definition, LaserGauge technology fills the void between mechanical gauging and coordinate measurement machines. Though unable to acquire three-dimensional part information, rapid on-line inspection of twodimensional features, such as gap and flush, welds or edge radius, becomes possible with almost no setup time.

### OSAAP America Booth 1446

10 Kidder Rd., Suite 4 Chelmsford, MA 01824 978-390-2468 www.ossapamerica.com

Real-time shadow board design with free CAD software! Simply take an image of the products you need shadow board control over. Upload the image into our free CAD software and design your board.

### Palm Labs Adhesives Booth 941

3063 Enterprise Rd., No. 32 Debary, FL 32713 321-710-4850 www.palmlabsadhesives.com

Palm Labs Adhesives is a growing U.S. company that solves bonding challenges with innovative adhesive formulations and advanced chemistries. Products include cyanoacrylates, methyl methacrylates, threadlockers, retaining compounds, gasket makers, epoxies and UV-cure adhesives. Mil-Spec and medical device adhesives, including custom formulations, are also available. Packaging options range from industrial, high-volume automatic dispensing to private-label consumer products designed for retail displays. Free technical services and free samples are



provided for qualified applications. Email inquiries to sales@palmlabsadhesives. com or call 321-710-4850. Bilingual (Spanish) customer service representatives are always available.

## Panasonic Assembly Tools

### Panasonic Booth 413

2 Riverfront Plaza, 5th Floor Newark, NJ 07102 201-392-4704 www.business.panasonic.com/ assemblytools

Panasonic's Assembly Tool Division offers high-quality production tools, including intelligent cordless shut-off tools, low-torque cordless clutch tools and cordless non-shut-off tools with torque ranges from 3 to 650 newtonmeters.

### Pannier Corp. Booth 1614

207 Sandusky St. Pittsburgh, PA 15212 412-323-4900 www.pannier.com

Automatic product identification and marking systems. Technologies include dot peen and laser marking systems, industrial ink-jet and flexo printers, impact stamping machines and tools, and high performance industrial tags for reliable product traceability. Services include consultation, system customization, mounting structures, part holding and fixturing, custom software interfaces and integration.



### C Patlite (U.S.A.) Corp. Booth 700

20310 S. Western Ave. Torrance, CA 90501 310-328-3222 www.patlite.com

For over half a century, Patlite has produced revolving warning lights and a variety of other dependable signal tower lights and audible products designed to enhance safety, security and productivity. Dedicated to the design and development of visual and audible signaling technology, Patlite offers the industry's most comprehensive selection of world-class quality rotating warning lights, audible alarms, voice synthesizers and signal towers. Patlite's dedication to quality, customer service, and willingness to meet the customer's needs have earned it top market share in Japan, producing over 18,000 products.

### PDM-Labs Inc. Booth 1519

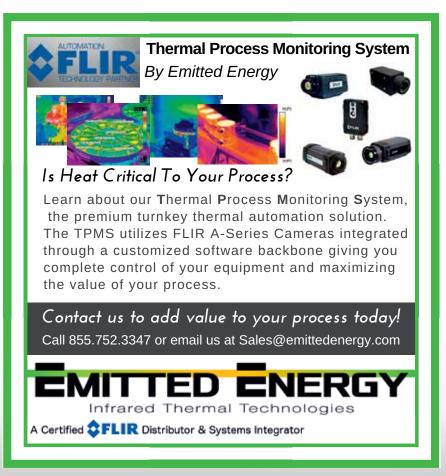
640 Cel River Rd. Rock Hill, SC 29730 803-909-8100 www.pdm-labs.com

Engineer and manufacture semiautomatic and fully automatic manufacturing systems, workstations and complete lines for demanding assembly, welding, joining and endof-line packaging applications. Our systems are known for precision, flexibility, reliability and innovative solutions. Experience in a wide variety of different industries.

### Performance Feeders Inc. Booth 1131

251 Dunbar Ave. P.O. Box 1067 Oldsmar, FL 34677 813-855-2685 www.performancefeeders.com

Performance Feeders is a leading manufacturer of custom parts handling equipment for industrial automation. Our product line includes vibratory feeders, centrifugal feeders, belt conveyors, step feeders, tray handling systems, vision systems, part isolation devices and a complete line of peripheral equipment. For more information, please visit our web site or browse our social media sites: www.linkedin.com/ company/performance-feeders and www.youtube.com/user/ PerformanceFeeders.



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### **Permabond Engineering** Adhesives Booth 646

223 Churchill Ave. Somerset, NJ 08873 800-640-7599 www.Permabond.com

Permabond is a global manufacturer of engineering adhesives and sealants for assembly, manufacturing, repair and maintenance. Product lines include anaerobics (threadlockers. retaining compounds, thread sealants and form-in-place gaskets), cyanoacrylates, epoxies, polyurethanes, MS polymers, structural acrylics and UV-curable adhesives. The varied technologies provide design engineers with the ability to choose an adhesive that meets design specifications. Many of our products have specific certifications such as MIL spec. Permabond offers custom formulating for unique requirements. Products are sold worldwide through authorized distributors. ISO 9001:2015.

### **Peter Parts Electronics Booth 1447**

6285 Dean Parkway Ontario, NY 14519 585-265-2000 www.peterparts.com

Now in our fourth decade, Peter Parts Electronics is a supplier of electronic parts and assemblies. We supply our customers with very high-quality parts at very competitive prices, and delivering some of the most extraordinary customer service on displays, sound products, power products and contract assembly.



### C Pfeiffer Vaccum/ATC **Booth 2005**

24 Trafalgar Square Nashua, NH 03063 603-578-6524 www.pfeiffer-vacuum.com

Pfeiffer Vacuum acquired ATC to provide a comprehensive range of leak detectors for the assembly market. ATC by Pfeiffer Vacuum manufactures an innovative Micro-Flow sensor for

leak testing using air. This technology offers an effective alternative to pressure decay testers with shorter cycle times, improved temperature stability, and lower measurement ranges. Pfeiffer Vacuum manufactures a wide range of ASM helium and hydrogen high-performance leak detectors with sensitivity down to 5x10-12 millibar liter per second. Suitable for leak testing a wide range of applications including automotive, refrigeration and air conditioning. aerospace, medical device and general engineering industries. The compact leak detectors are suitable for both global vacuum chamber testing and sniffing applications.



### C Physicom Corp.

### **Booth 1320**

50 Nashdene Rd., No. 107 Scarborough, ON M1V 5J2 Canada 416-754-3168 www.physicomcorp.com

Physicom provides fastening and joining tools and monitoring systems. We supply solutions using sensors and process monitoring equipment, as well as fully instrumented servo presses and nutrunners.

### **Plastic Assembly Systems Booth 1302**

19 Sargent Dr. Bethany, CT 06524 203-671-7376 www.heatstaking.com At Plastic Assembly Systems, we are committed to providing superior quality plastic assembly solutions, top-notch service and technical support. Our personal attention to detail on our plastic assembly equipment and to the individual needs of our customers is what sets us apart. In our ongoing quest to provide exceptional service, we offer a great deal of information about the various processes involved with assembling plastic products, as well as detailed welding equipment information as a courtesy to our customers. We offer plastic spin welding, ultrasonic plastic welding, and a wide range of new and used equipment.

# Portescap

### Portescap Booth 844

110 Westtown Rd. West Chester, PA 19382 610-235-5499 www.portescap.com

Portescap offers miniature motor technologies to solve the motion needs of a spectrum of end markets, from various industrial applications to medical devices that save, improve and enhance lives. We serve our customers through a breadth of innovative product technologies encompassing brushless DC, brush DC, can-stack motors, disc magnet motors and stepper linear actuators to optimize application performance.



### **Power Pusher, Division of Nu-Star Inc. Booth 2106**

1425 Stagecoach Rd. Shakopee, MN 55379 952-445-8295 www.powerpusher.com

For over 50 years, Power Pusher Co., a division of Nu-Star Inc., has specialized in pedestrian-operated, battery-powered, motorized tugs that are designed to meet safety and productivity initiatives while driving down maintenance and labor costs. Power Pusher's material handling tugs meet the diverse and challenging needs of our customers, pushing or pulling wheeled or semi-wheeled loads, mobilizing everything from carts, trailers, rail cars and roll cages to airplanes and modular buildings. Power Pusher industrial electric tug devices are a safe, cost-effective alternative to large expensive rideon material handling equipment, such as forklift trucks and tractors, enabling a single person to safely move thousands of pounds with total control and maximum visibility.

### **PowerSafe Automation Booth 2017**

129 N. Main St. Wolcottville, IN 46795 844-520-7233 www.powersafeautomation.com

PowerSafe Automation provides turnkey solutions for machine guarding systems, electrical, and industrial automation projects taking a concept from design through integrated field installation. We help make the process as seamless as possible understanding time is a highly valued commodity when creating safe automation levels.

### **Precision Valve &** Automation **Booth 1237**

1 Mustang Dr. Cohoes, NY 12047 518-371-2684 www.pva.net

Since 1992, PVA has supplied the

world with innovative fluid dispensing solutions that remain at the forefront of motion and application technology. PVA's customer-driven solutions are used worldwide in industries ranging from solar, semiconductor packaging, printed circuit board assembly, medical device manufacturing, and consumer electronics. Throughout the changing global manufacturing landscape, PVA remains committed to providing our customers with exceptional products and industry-leading global support that far exceeds expectations.

### Prevost **Booth 2116**

1200 Woodruff Rd., A-2 Greenville, SC 29607 864-284-6425 www.prevostusa.com

Your best source for premium products for distributing and treating compressed air!

### **PrimeTest Automation Booth 1212**

1101 Holland Dr., Suite 7 Boca Raton, FL 33487 561-912-9433 www.primetest.com

PrimeTest Automation is a full-service systems integration company with a talented in-house engineering team featuring mechanical, electrical, and software engineers. All systems are modeled using the latest in 3D design software, thoroughly reviewed with the customer, and manufactured in our facility in Boca Raton, FL. PrimeTest Automation offers a complete set of electrical, mechanical and pneumatic drawings with each system as well as detailed operations and maintenance manual. On-site training services are also available.





Booth #1837

Fenton, MO 63026 • 800-827-2526 • Email info@clrh.com

See us at The ASSEMBLY Show, Booth #1837



### See us at The ASSEMBLY Show, Booth #1220

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### Proline Booth 944

10 Avco Rd. Haverhill, MA 01835 978-521-2600 www.1proline.com

Modular ergonomic industrial workbenches. From basic four-leg stations, hand crank or electric height adjustable, technical systems, wire harness stations, clean room, LAN stations, ball transfers and packaging stations, cabinets and lab furniture. Many units in stock. Our optional accessories make it easy for you to configure a workbench to meet your needs.



### © Promess Inc. Booth 305

11429 Grand River Rd. Brighton, MI 48116 810-229-9334 www.promessinc.com

Promess is the leading manufacturer of highly adaptive servo controlled assembly presses, torque test systems and monitoring used by companies around the world to assemble and test products. Unique to Promess is its ability to develop new methodologies and concepts that challenge the traditional approach to assembly monitoring, manufacturing and functional testing.

### ProSuite Booth 2237

H. Consciencelaan 79 B-9950 Waarschoot Belgium 32-9378-4989 www.ProSuite.eu

ProSuite provides software solutions to drive your assembly factory paperless. This includes the integration of DC and manual tightening tools, resulting in full process control and traceability.



### Purex Inc. Booth 1645

2246 Palmer Dr., Suite 108 Schaumburg, IL 60173 847-460-8783 www.purexinc.com

Purex continues to deliver the most efficient and safety-conscious fume extraction technology in the world to improve product quality, reduce process costs and protect the health of personnel and the environment with clean air. Continually developing new technology. Purex ensures protection from "vent to atmosphere" environmental issues: processes comply with the most recent health and safety regulations; production lines work at maximum efficiency and equipment is kept clean; and people are protected from hazardous dust and fumes.

### QLS Booth 2000

131 Maple Row Blvd., Suite E500 Hendersonville, TN 37075 615-590-4265 www.qlsquality.com

QLS works with equipment manufacturers who depend on high-quality parts delivered to their assembly lines on a just-in-time basis. We are an extension of your quality team, providing instant response to suppliers who are having quality issues in OEM locations across North America.

### Quantum Storage Systems Booth 1901

15800 N.W. 15th Ave. Miami, FL 33169 800-685-4665 www.guantumstorage.com

Quantum is the fastest growing supplier of plastic bins, wire shelving and bin storage systems. We have great storage products, delivered quickly at the guaranteed lowest prices.

### Quickdraw Conveyor Systems Booth 1505

9650 Newton Ave. S. Bloomington, MN 55431 952-935-6921 www.gdraw.com

Quickdraw Conveyor Systems provides industry-leading clean and modular material handling solutions for assembly automation in lean manufacturing environments. The company's patented low-profile, open-center, slip-roller design provides a flexible and modular solution for conveyance in automotive component assembly, medical device assembly, microelectronics production, semiconductor and clean room applications.

### Radiant Vision Systems Booth 400

22908 N.E. Alder Crest Dr., Suite 100 Redmond, WA 98053 425-844-0152 www.radiantvisionsystems.com Radiant Vision Systems engineers advanced imaging solutions to critically evaluate the manufacturing integrity of device assemblies. Leveraging photometric light and color measurement systems, Radiant solutions offer the most sophisticated inspection technology for meeting quality expectations in high-value devices. High resolution and broad dynamic range capture the greatest pixel detail and contrast levels for detection of the most obscure defects, such as black screws on black surfaces or hairline dimensional measurements. Radiant's new in-line solution-the fully integrated VIS-I automated visual inspection stationfeatures a 29-megapixel ProMetric imaging photometer and the most extensive machine vision software tool library for production-level measurement and control.

### Rapid Coating Solutions Booth 546

6559 Diplomat Dr. Sterling Heights, MI 48314 586-255-7142 www.rapidcoatingsolutions.com

Providing high-performance elastomer coatings for scratch and marking protection in industrial applications.



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Designed as a tooling and nestprotective coating, applicable to aluminum, steel, stainless steel, glass-filled polymers, alloys and many other materials. Available in a smooth or textured finish with multiple color options. The material is FDA- approved. Applications include gripping devices, vibration trays, hoppers and chutes, roller coverings, conveyors, mixers and more.

# RedViking Booth 1531

46247 Five Mile Rd. Plymouth, MI 48170 734-454-0500 www.redviking.com

RedViking designs, builds and implements manufacturing and test solutions. We create elegant, highly engineered solutions for difficult manufacturing problems. From process design to information infrastructure to final assembly and test, we design and build systems to increase efficiency, provide greater flexibility, and improve quality. We're committed to sustainability in all aspects of manufacturing and our systems are designed to last. Whether you need to improve one process or create an entirely new line, RedViking has the experienced project management team to make sure you get the job done.



# C RFID Inc.

### **Booth 1313**

14190 E. Jewell Ave., Suite 4 Aurora, CO 80012 303-366-1234 www.rfidinc.com

Manufacturer and custom developer of RFID tags and readers. Owned, operated and made in the USA. 125 kilohertz low-frequency and 13.56 megahertz high-frequency short range, 915 megahertz ultra high-frequency long range, and 433 megahertz (active) ultra long range.

# Rinco Ultrasonics USA Inc. Booth 1538

87B Sand Pit Rd. Danbury, CT 06810 203-744-4500 www.rinco-usa.com

Rinco Ultrasonics has been an industry leader in the design and manufacture of ultrasonic welding machinery for more than 40 years. RINCO products are used to weld rigid plastic components and to cut food products and synthetic textiles. Rinco also has become a major contributor to the emerging market of flexible packaging with new patents for equipment and technology.



Custom **LEAK TESTING** Solutions For The Parts You Manufacture



C See us at The ASSEMBLY Show, Booth #444



# RiverStar Inc. Booth 1841

1705 Wilkie Dr. Winona, MN 55987 507-494-5209 www.RiverStarinc.com

RiverStar is a contract manufacturer that specializes in kitting, assembly and supply chain management for its partners. RiverStar can manage everything from sourcing and procurement of materials to inbound and outbound logistics, to production, customer service, warranty, and maintenance and repair operations.

# RivetKing Booth 1345

200 Paris Ave. Northvale, NJ 07647 201-750-1040 www.rivetking.com

RivetKing branded products and innovative rivet delivery systems are the culmination of over 100 years of experience in permanent mechanical fastening. With a wide range of solutions and expertise, let RivetKing help achieve your goals of extracting cost by reducing labor, cycle time and defects. Visit the booth for hands-on experience with revolutionary riveting systems like Kingset, for collated blind rivet autofeeding, or FreeSet for cordless tools with built-in process monitoring. Set rivets in confidence knowing your production and guality objectives have been achieved.



# Roemheld USA Booth 1837

927 Horan Dr. Fenton, MO 63026 314-305-7761 www.roemheld-usa.com

Roemheld USA is a worldwide market leader for providing engineered solutions of assembly and handling applications, hydraulic workholding clamps, zero point mounting systems, and production vises. Backed by longstanding experience and excellent technical support, it is Roemheld's guarantee to provide our customers with products of quality and durability specifically adapted to help create a more efficient and competitive production environment.

# Royal Adhesives & Sealants Booth 500

2001 W. Washington St. South Bend, IN 46628 574-246-5000 www.royaladhesives.com

Royal Adhesives & Sealants is a global leader in the development of high-performance products and solutions for industrial bonding and assembly applications. Our comprehensive range of products offer strong bonds, tight seals, and sound dampening capability that improve the overall manufacturing. production and assembly process. We are innovators, thinking beyond the status quo by manufacturing products that deliver on bonding strength and sealing capability with continuous improvement strategies that ensure structural integrity. We form partnerships with our customers, working together to build customized solutions that meet and exceed their expectations.



# Sankyo Automation Booth 705

10655 State Route 47 Sidney, OH 45365 937-498-4901 www.sankyoautomation.com

Sankyo is the worldwide leader in indexing technology and continues to develop innovation in motion control. Sankyo's core indexing system is based upon the roller gear cam mechanism, a simple combination of a globoidal cam and cam followers in a precision machined turret. The profile of the cam, and the rolling contact surfaces of the cam followers produce a perfectly smooth, controlled motion.

# S-B Industries Inc. Booth 1544

2275 Cassens Dr., No. 147 Fenton, MO 63026 636-343-1011 www.s-bgroup.com

S-B Industries solves demanding rivet applications with VVG-Honsel cordless and hydropneumatic rivet and rivet-nut setters. Built with German engineering, the Rivsmart cordless tools provide full process monitoring while the Rivdom models can tackle both production and off-line applications. When hydopneumatic tools are favored, the BZ and VNG riveters and rivet-nut setters offer high durability and worker comfort.



# Scheugenpflug Inc. Booth 2023

975 Cobb Place Blvd., Suite 218 Kennesaw, GA 30144 770-218-0835

www.scheugenpflug-usa.com

Scheugenpflug sets industry standards in adhesive bonding, dispensing and potting technologies, offering customer-tailored solutions from entry level to fully automated production. Scheugenpflug's innovative equipment design makes them a leader in processing highly viscous, highly filled and abrasive materials under atmospheric and vacuum conditions. Scheugenpflug also offers in-house lab testing, small-batch contract manufacturing, on-site installations, maintenance and repair, as well as equipment rental.

# Schleuniger

# © Schleuniger Inc. Booth 231

87 Colin Dr. Manchester, NH 03103 603-668-8117 www.schleuniger-na.com

Schleuniger is one of the leading international manufacturers of highprecision cable processing machines. Whether cutting, stripping, crimping, sealing, or marking, Schleuniger's automatic and semiautomatic machines process cables reliably, economically and precisely.

# Schmalz Inc. Booth 840

5850 Oak Forest Dr. Raleigh, NC 27616 919-713-0880 www.schmalz.com

Founded in 1910 in the Black Forest of Germany, Schmalz is a leading global supplier of automation, material handling and clamping systems. We provide customers in more than 50 countries and numerous industries with innovative, efficient vacuum technology solutions. Our many years of experience and our close relationships with our customers mean we understand your processes, which allows us to meet the highest standards. We help our customers everywhere with improving their production processes, which are made more efficient through the use of vacuum technology.



# © SCHMIDT Technology Booth 1123

280 Executive Dr. Cranberry Township, PA 16066 724-772-4600 www.schmidtpresses.com

As a leading manufacturer of precision assembly presses, SCHMIDT Technology has earned a welldeserved reputation for quality, innovation and outstanding customer service. This year, the company added the revolutionary torque-motor-driven TorquePress 520 to its family of servo-controlled presses that includes eight high-end servo presses and rack and pinion-driven electric presses. When compared to a servo press, our high-speed TorquePress has the same precise motion and accuracy, offers comparable monitoring capabilities. provides a more consistent speed

and is more economical. Whether your application requires a manual, pneumatic or hydropneumatic press, with or without integrated process monitoring, we have the perfect press for you.



# © SCHUNK Booth 105

211 Kitty Hawk Dr. Morrisville, NC 27560 919-572-2705 www.schunk.com

SCHUNK is a competence leader for gripping systems and clamping technology. More than 2,800 employees in nine plants and 33 directly owned subsidiaries ensure an intensive market presence. With more than 11,000 standard components, SCHUNK offers the world's largest assortment of gripping systems and clamping technology from one



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source. Since 2012, goalkeeper legend Jens Lehmann has been our brand ambassador for safe, precise gripping and holding.

# Schwerdtle Technologies Booth 2340

41 Benham Ave. Bridgeport, CT 06605 203-330-2750 www.schwerdtle.com

Decorating and assembly tooling manufacturer. Silicone bonded to aluminum sheets and rollers, custom soft touch gripper fingers, heat sealing dies, ultrasonic stitching wheels, part holding fixtures, push bars, CNC machining.

# Scout Systems Inc. Booth 1401

3902 W. Valley Highway N., Suite 104 Auburn, WA 98001 253-329-2460 www.scout.systems

Scout Systems provides a "bolton" application to standardize your production processes, increase productivity and reduce defects. Featured in magazines and academic journals, this three-year-old startup has attracted international exposure. By bringing together the best of modern technology under one easy-to-use platform, Scout Systems is modernizing manufacturing plants around the world. Using powerful cloud-based computing, customers can monitor every facet of their production process. Though incredibly simple to run, it is packed full of capabilities. If you are interested in achieving unprecedented growth in your facility's production capacity, we urge you to stop by and meet the founders.



# SCS Concept Americas LLC Booth 117

1700 Harmon Rd., Suite 3 Auburn Hills, MI 48326 248-419-4999 www.scsconcept.com

SCS Concept was founded in 2005. A young innovative company in the development and manufacturing of advanced quality control and production equipment. Offering customers a wide range of torque and angle wrenches, test benches, transducers, analyzers, software, calibration and service, including customized solutions for all industry segments where threaded fastening is used. Discover the freedom of SCS.

# SemahTronix Booth 1647

476 W. Industrial Park Rd. Flippin, AR 72634 870-453-6798 www.semahtronix.com

We specialize in mid- to low-volume "high-complexity" custom wire, cable harnesses, and high-level subassembly. Traditionally our business has tailored to the medical, military and aerospace industries. Our company is often chosen for first article manufacture due to our expansive capabilities in custom design, manufacture and functional testing of final assemblies with an exceptional level of quality.

# Silicon Valley Automation Booth 2041

13021 Emerald Ranch Ln. Forney, TX 75126 214-771-1777 www.sva-hardware.com

Silicon Valley Automation is the manufacturer and the worldwide distributor of unique, patented and inexpensive alignment kits. We are helping engineers and technicians to align and level various mechanical components and devices quickly and permanently with submicron precision, even if the devices are subjected to heavy mechanical vibrations. Our alignment kits are used by many businesses, but mostly by manufacturers of capital equipment for the semiconductor industry, lasers and other precise optical devices, as well as assembly machines. SVA was founded in San Jose, CA, in 1995, and evolved from an engineering consulting company to a manufacturer of alignment devices.

# sinbon

# Sinbon Electronics Co. Ltd. Booth 2038

4265 Gibson Dr. Tipp City, OH 45371 937-667-8999 www.sinbon.com

Sinbon Electronics, founded in 1989, is a leading solution provider of electronic component integration design and manufacturing, offering an extensive range of value-added services to our customers in medical, automotive, aviation, green energy, industrial and communication fields.

# SKF USA Inc. Booth 1900

890 Forty Foot Rd., Box 352 Lansdale, PA 19426 267-436-6000 www.skfusa.com

SKF is a leading global supplier of bearings, seals, mechatronics, lubrication systems and services, including technical support, maintenance and reliability services, engineering consulting and training. SKF is represented in more than 130 countries and has around 17,000 distributor locations worldwide. Annual sales in 2016 were \$9.1 billion and the number of employees was 44,868.

# SOLID Development Corp. Booth 1644

2224 Cleveland St. Evanston, IL 60202 773-850-6295 www.dreamtoproduct.com

SOLID Development makes your dream products. We design, prototype and assemble your products in our own secure facility in Evanston, IL. We leverage our engineering talent with our global supply chain to give you the best product at the best price. We can also enhance your existing design and manufacturing capabilities, lower costs and improve quality. Our engineers often work hand in hand with anyone from a president to a warehouse associate. We serve startups to multimillion dollar manufactures. We make products that work!

# Sonics and Materials Booth 1338

53 Church Hill Rd. Newtown, CT 06470 203-270-4600 www.sonics.com

Sonics and Materials was founded in 1969 by Bob Soloff, the father of ultrasonic welding. Bob was awarded the first patent for ultrasonically welding plastic components in 1965. Today, Sonics remains a leader in the field with worldwide sales of both turnkey welding systems, as well as ultrasonic components for integration. Sonics can assist with all of your plastic joining needs as our expertise also includes hot-plate welding, spin welding, staking and inserting. We take great pride in our ability to offer extensive applications expertise to help make your project a success right from the start.

# SPIROL

# SPIROL Booth 1041

30 Rock Ave. Danielson, CT 06239 860-774-8571 www.spirol.com

SPIROL is a leading manufacturer of a diverse line of engineered components and assembly equipment for fastening and joining. We can be found on four continents and 12 countries: Brazil, Canada, China, Czech Republic, England, France, Germany, Mexico, Poland, South Korea, Spain and the United States. Since 1948, SPIROL has been providing technical expertise in fastening, joining and assembly to the world's leading manufacturers.



# © Sprinter Marking Inc. Booth 442

1805 Chandlersville Rd. Zanesville, OH 43701 740-453-1000 www.sprintermarking.com

Automatic ink code-marking machines for date, lot, spot types of codes. Message sizes up to 2 square inches. Cycle speeds up to 350 characters per minute. Quick drying inks in a range of colors.

# Spyraflo Bearings Booth 1714

P.O. Box 2309 Peachtree City, GA 30269 770-631-9990 www.spyraflo.com

Spyraflo is a manufacturer of ROHScompliant and specialty bearings



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for a wide variety of industries and applications. Tell us what you're looking for—and what problems you're trying to solve—and chances are, we have a bearing that will not only meet your needs, but may also make your product better. That's because our unique self-clinching and self-aligning bearings give you more flexibility in engineering and may allow you to use less expensive construction methods. By designing these advantages into your product, you can improve performance and reduce costs.

# STAR Technology Inc. Booth 1741

200 Executive Dr. Waterloo, IN 46793 260-837-7833 www.star-technology.com

Star Technology, an ISO9001 certified company, has been an established leader and innovator in the development and formulation of one and two-part epoxies and urethanes since 1989. Our product line includes motor armature balancing epoxies; adhesives for medical devices; epoxy nesting and tooling compounds; and urethane and epoxy encapsulating and potting for electrical assemblies and subassemblies. Star Technology's conformal coatings protect your electronic assemblies from moisture and the environment, and our line of UV dual-cure formulations are perfect for any bonding or potting need that requires an instant cure. Stop by our booth to see our new metal and ceramic-fill repair compounds

# Starline Booth 1942

168 Georgetown Rd. Canonsburg, PA 15317 724-597-7800 www.starlinepower.com

Universal Electric Corp., the manufacturer of Starline, is a global leader in power distribution equipment. For more than 25 years, Starline products have provided industrial facilities, data centers, retail stores, health care facilities and schools with the most flexible, reliable and customizable power distribution systems on the market today. By continuing to promote the concepts of innovation and smart, yet simple, design strategy, the Starline brand has evolved to include four main product lines: Track Busway, Plug-In Raceway, Critical Power Monitor and DC Solutions.

# Stäubli Booth 613

201 Parkway W. Duncan, SC 29334 864-433-1980 www.staubli.com

Stäubli is an innovative mechatronics solutions provider with three dedicated activities: connectors, robotics and textile machinery. With a workforce of over 4,500, Stäubli has a presence in 25 countries and agents in 50 countries around the world.

# Stelron Components Inc. Booth 1405

1495 MacArthur Blvd. Mahwah, NJ 07430 201-529-5450 www.stelron.com

Stelron Components is a manufacturer of cam- and servo-driven equipment for automation. We offer individual units for part transfer and processing, as well as cycle on demand and synchronous transfer bases. We offer rotary indexing, precision link conveyors, pallet transfer and walking beam bases. We have integrated rotary assembly cells and custom rotary assembly bases. Single-axis linear, X-Y and linear-rotary pick-andplace and walking beam motion units for high-speed controlled motion for automation. Our products are used for dedicated loading and unloading or complete assembly bases. Cams and servos offer controlled motion for automation.

# strunk<sub>comect</sub>

# © Strunk Connect Automated Solutions Inc. Booth 1038

39 Scenic View Dr. Deep River, CT 06417 860-227-0683 www.strunk-connect.com

Resistance welding, laser welding, cable welding, complete process solutions, automatic welding modules, micro spot welding, automation for the wire industries, inverters and control systems, hot crimping and welding of magnet wire.



# Sturtevant Richmont Booth 1537

555 Kimberly Dr. Carol Stream, IL 60188 847-455-8677 www.srtorque.com

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# Sumake North America Booth 1201

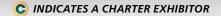
10 Northern Blvd., Unit 13 Amherst, NH 03031 603-402-9952 www.sumakenorthamerica.com

Sumake North America is your most reliable and comprehensive source of professional electric, cordless and pneumatic tools, compressors and accessories for electronic, automotive and industrial applications. CEcertified and manufactured to ISO 9001 quality management standards, all Sumake products meet international benchmarks of excellence for quality and packaging.

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SUS America is a wholly owned subsidiary of SUS Corp. Since 2015, SUS America has specialized in developing manufacturing equipment composed of aluminum and primarily



utilized by automotive, airline and machine manufacturers. SUS primarily uses aluminum as the foundation for its products due to reusability. modularity, rust resistance, lightweight profile and full recyclability. We can assist with your improvement and automation demands by utilizing our aluminum structures. Services include engineering design, development, mechanical build and installation.



# Swanson Agile Assembly **Booth 1718**

PO Box 1217 Erie, PA 16512 814-453-5841 www.agileassembly.com

Swanson's patented technology provides a new paradigm for the design and build of automatic assembly machines in partnership with machine builders and end users. Agile Assembly offers infinite opportunities to maximize performance and improve efficiency.

# Taica North America Corp. **Booth 1949**

3080 Olcott St., Suite D240 Santa Clara, CA 95054 408-500-2971 www.taica.co.jp/gel-english

Taica manufactures Alpha-GEL brand silicone parts and materials for a wide variety of applications. Products include: anti-vibration components, impact-absorbing materials, and thermally conductive pads and paste (used between the heat sink and hot electronic device). Alpha-GEL is a complete family of soft, durable and environmentally friendly silicones that can be used over a wide temperature range (-40 to 200 C). Industries include automation equipment, processing systems, manufacturing, factory automation, automotive and

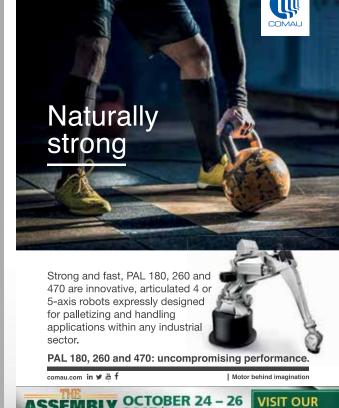
transportation, aerospace, marine, and consumer electronics. Come experience Taica products (and see our famous egg-drop demonstration) at booth 1949.

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**BOOTH1849** 

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# Techcon Systems Booth 1142

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Techcon: precision fluid dispensing equipment and solutions. Since 1961, Techcon has provided precision fluid and adhesive dispensing equipment to a range of service industries, including industrial assembly, aerospace, military, material packaging, medical device and electronics. Techcon products are renowned for their superior accuracy and durability, vielding improved industrial hygiene and enhanced productivity. Our latest innovation is an automatic robotic dispensing system, designed to reduce human error and further increase precision, while providing IoT features such as uploadable instructional files and remote monitoring and troubleshooting. Backed by our expert engineering team, Techcon, an OK International company, is delivering smarter, cleaner and more durable solutions.

# Tecnova Electronics Booth 1343

2383 N. Delany Rd. Waukegan, IL 60087 847-336-6160 www.tecnova.com

Tecnova Electronics is an ISO certified, turnkey electronic contract manufacturer and design engineering firm, specializing in product design and mobile apps, automated test systems, and manufacture of complex electronic assemblies for commercial and industrial applications.

# Telsonic Ultrasonics Inc. Booth 1031

14120 Industrial Center Dr. Shelby Township, MI 48315 586-802-0033 www.telsonic.com

Telsonic Ultrasonics Inc. continues to be the front runner in ultrasonic technologies; plastic welding, metal welding, cutting, punching, cleaning, sieving and vibration welding. Our reputation for quality products, engineering, and customer support continues to make us the first choice in North America. Visit our booth to see the newly developed technology for ultrasonics.



# Thermal Press International Inc. Booth 1512

341 Stealth Ct. Livermore, CA 94551 925-895-9210 www.thermalpress.com

Thermal Press International (TPI) manufactures a broad product line of precision machines and automation systems for thermal assembly: heat staking, heat sealing, medical film and port welding, threaded inserts, filter membranes, and adhesive patches for wearable medical technology devices. TPI provides innovative solutions for its global partners in the medical, automotive, telecom, consumer electronics and aerospace industries. TPI delivers a full complement of engineering services to support our clients: R&D, process development, product design engineering, process optimization, initial gualifications and

validation services. Let our team help you move from the drawing board to high-volume production smoothly and efficiently.

# TiMOTION Booth 1917

1535 Center Park Dr. Charlotte, NC 28217 704-708-6924 www.timotion.com

TiMOTION is a global manufacturer of electric linear actuators, lifting columns, height adjustable desks and more.

# TM Electronics, Inc SPECIALISTS IN LEAK, FLOW AND PACKAGE TESTERS

# TM Electronics Inc. Booth 1746

45 Main St.

Boylston, MA 01505 508-869-8400 www.tmelectronics.com

TM Electronics designs and manufactures fast, reliable air leak testers, flow testers, pressure decay testers, vacuum leak testers and other leak testing products and equipment, including customized testing fixtures that meet your needs in the automotive, appliance, electronic, medical, pharmaceutical and food processing industries.

# TM Robotics (Americas) Booth 2045

755 Greenleaf Ave. Elk Grove Village, IL 60007 847-709-7308 www.tmrobotics.com

TM Robotics is responsible for sales, service and support for Toshiba Machine's line of Cartesian, SCARA and six-axis industrial robots worldwide, excluding Asia. The extensive lineup includes single-axis belt and ballscrew actuators: two-. three- and four-axis Cartesian robots, 180-millimeter to 1,200-millimeter SCARA arms; and a wide variety of sixaxis models. Vision offerings include 3D bin picking solutions, as well as nocost vision-guided conveyor tracking software. Our home office includes warehousing, training, demonstration and showroom facilities near O'Hare airport.

# Toloma

# Tolomatic Inc. **Booth 2049**

3800 County Road 116 Hamel, MN 55340 763-478-8000 www.tolomatic.com

Tolomatic manufactures electric linear motion products: rodless electromechanical and electric rod actuators; servo actuators; integrated SmartActuator; ServoWeld resistance spot welding actuators; drives; motors; and configured linear motion systems. Pneumatic actuators include band, cable, and magnetically coupled cylinders and slides. Power transmission products include rightangle gearboxes, caliper brakes and clutches.

# **Tooling Tech Group Booth 1243**

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We market products and services for addressing the productivity, guality and ergonomic concerns of the industrial manufacturing base. We offer complete lines of torquecontrolled tools, power assembly

tools, pneumatic pulse tools and cordless pulse tools. Our focus is to offer high-quality, innovative solutions supported by more than 100 years of combined industry experience and customer service.

# TOX<sup>®</sup> **TUP** PRESSOTECHNIK

# C TOX-Pressotechnik LLC Booth 239

4250 Weaver Parkway Warrenville, IL 60555 630-447-4600 www.tox-us.com

TOX-Pressotechnik is an innovative company that builds machinery for product assembly. Our presses are powered by various methods and are used to produce anything from small electronic components to automotive and aircraft bodies. We employee many assembly technologies inside of our presses, including our own TOX joining technology, which can replace screws, rivets and spot welding for



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31805 Glendale St. Livonia, MI 48150 734-464-7430 www.trilogiqusa.com

Trilogiq USA are leaders in modular assembly solutions. Customers work with us to deliver ongoing productivity improvements. What drives our success is our design expertise and unmatched product range that delivers customers a choice of material. This can be steel tube and joints or lightweight composite materials that deliver uncompromising ergonomics and part protection. Customers can purchase bulk material or save time by ordering fully assembled solutions, including customized workcells, flow racks or material handling solutions.

# TSC Auto ID and Printronix Auto ID Booth 1514

3040 Saturn St., Suite 200 Brea, CA 92821 657-258-0808 www.tscprinters.com and www.printronixautoid.com

TSC and Printronix Auto ID offer an extensive line of feature-rich bar code printers, including our new ODV-2D printer and bar code validator, which is being introduced at show. The ODV-2D is the industry's first affordable, fully integrated solution with the ability to print and validate 1D and 2D bar codes. Whether it's our desktop, industrial and mobile bar code printers, or our RFID solutions, our products stand out for their userfriendly design, reliable performance and unmatched durability. We have a complete range of solutions for every application. Our excellent customer service and technical team are dedicated to helping our customers find the right printing solution.

# TSS Technologies Booth 446

8800 Global Way West Chester, OH 45069 513-772-7000, ext. 1139 www.tss.com

TSS Technologies provides custom automation solutions for most markets including life sciences, medical, consumer, semiconductor, solar, aerospace and industrial. We also provide systems integration of simple to complex automation systems, including robotics, vision, laser, welding, dispensing, marking and packaging. TSS provides contract manufacturing services for repetitive build equipment and products. We are ISO 9001;2008, ISO 13485, and FDA approved. We are AS 9100 certified and ITAR compliant. TSS has received numerous awards from Global 100 companies for our performance. including quality systems, on-time delivery and cost reduction.

# Tulip Booth 1937

561 Windsor St., B402 Somerville, MA 02143 617-702-2986 www.tulip.co

Tulip, a spinout from MIT, brings the power of Industrial IoT and advanced analytics to the manufacturing workforce through its app platform. This revolutionary self-service technology fills the gap between rigid back-end manufacturing IT systems and the dynamic operations taking place on the shop floor. Tulip's Manufacturing App Platform combines research in intelligent hardware, sensors, computer vision, assistive user interfaces and applied machine learning.



# © Tutelar Technologies Booth 346

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Tutelar Technologies is the creator of Ujigami PDMS, a browser-based, Industry 4.0 software solution that delivers the highest levels of quality, traceability and efficiency to your manufacturing. Ujigami is used by leading manufacturers in automotive, distribution, aerospace and more. Visit our booth to experience a live demonstration of Ujigami and discover what it can do for you!

# U.S. Tech Booth 2337

10 Gay St. Phoenixville, PA 19460 610-783-6100 www.us-tech.com

U.S. Tech, an international hightech electronics publication, reaches over 250,000 engineers, buyers, product specifiers and manufacturing and corporate managers each month online, in print and in digital formats. The newspaper focuses on new innovations in components, distribution and PCB design, manufacturing, assembly and test, as well as the business, supply chain and regulatory issues facing the electronics manufacturing and distribution sector.

# Ubisense Booth 1948

999 18th St., Suite 901 Denver, CO 80202 303-539-6922 www.ubisense.net

Ubisense is the world leader in location and identification enabling high-value manufacturing. Ubisense uses location data to discover relationships between products, processes and people, giving you unrivaled visibility and control of your business. Unlike traditional, fragmented data capture approaches, Ubisense consolidates information



from all your identification and tracking sources. That's why six of the top 10 Fortune 500 manufacturers have deployed Ubisense solutions at locations around the world.

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# **United Resin Corp. Booth 1242**

4359 Normandy Ct. Royal Oak, MI 48073 800-521-4757 www.unitedresin.com

United Resin offers technologically advanced epoxies for potting, insulating, adhesive and coating applications. Specializing in thermally conductive, RoHS and REACH compliant, UL approved, chip-onboard and surface mount adhesives and halogen-free systems. For over 47 years, all materials are manufactured to exacting specifications and our 3,600 systems can be tailored to your specific requirements. Current product discontinued? Unique application? Contact us.



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# Universal Robots Booth 2223

5430 Data Ct., Suite 300 Ann Arbor, MI 48108 517-243-7208 www.universal-robots.com

Universal Robots has reinvented industrial robotics with lightweight and collaborative robot arms. We believe that collaborative robotic technology can be used to benefit all aspects of task-based businesses-no matter what their size. Our robot arms are advanced tools that can be used by all levels of production staff to help increase productivity, reduce injury and boost morale. With a Universal Robots robot arm, you can automate and streamline repetitive or potentially unsafe processes, so staff can be assigned to jobs that provide them with new challenges.

# 

USUII LP

# **Booth 1613**

8640 N. Eldridge Parkway Houston, TX 77041 281-671-2000 www.uson.com

Uson is the premier provider and the industry pioneer of leak testing equipment, systems and solutions with over 50 years of experience. The automotive, industrial, medical device and packaging industries all count on Uson for creative, innovative testing to ensure they are bringing the highest quality products to market. You can too.

# Vega Tool Corp. Booth 1337

735 E. Remington Rd. Schaumburg, IL 60142 800-228-2969 www.vega-tool.com

Vega Tool is the exclusive importer and distributor for the Lobster brand of assembly tools. Offering a full line-up of pneumatic and battery powered rivet tools along with pneumatic rivet-nut tools, rivets and hand tools. At The ASSEMBLY Show, Lobster will introduce its first robotic riveting system and rivet feeder.

# ViscoTec America Inc. Booth 1215

1955 Vaughn Rd., Suite 209 Kennesaw, GA 30144 770-422-4281 www.viscotec-america.com

ViscoTec is a manufacturer of emptying and dispense systems. Based on volumetric dispense technology, these systems can handle very viscous, abrasive, solid-containing materials and offer extreme precision. Dispensing specialist for adhesives, solder pastes, fluxes, and twocomponent adhesives.

# Visual Workplace Inc. Booth 1606

7381 Ardith Ct. S.W. Byron Center, MI 49315 616-583-9400 www.visualworkplaceinc.com

Visual Workplace has been providing 5S, lean and safety products to manufacturing companies for 20 years. Our products include custom and do-it-yourself signage, dry erase boards and accessories, tool shadow boards, label printers and many other continuous improvement products. Our products focus on visual communication and visual management methods. Our goal is take the questions out of the workplace and provide critical information at the point of use. The team at Visual Workplace is committed to providing an extraordinary customer experience while delivering solutions to the communication challenges in the workplace.

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1241 Cascades Chateauguay, QC J6J 4Z2 Canada 855-201-4656, ext. 2712 www.vksapp.com

VKS is a multilingual and digital work instruction application that helps companies of any size in any industry increase quality, profitability and productivity. Trusted in over 30 countries, VKS displays advanced work instructions while monitoring your factory's performance, providing realtime data for more traceability. Our application is interactive, intuitive and easy to use. Standardize your work methods by digitally documenting your best practices within VKS! Get the most out of your factory using the perfect tool to sustain lean manufacturing!

# WEH Technologies Inc. Booth 1241

24903 Laguna Edge Dr. Katy, TX 77494 832-331-0021 www.weh.us

Innovation is our tradition. WEH is the leading manufacturer of guick connectors for leak and function testing. Since 1980, WEH has offered an innovative range of test connectors. As a long-standing partner to the international automobile, hydraulic and manufacturing industry, our experts have developed advanced solutions for many applications. Working in collaboration with our customers on demanding applications is a reality for us. Customer demands for special solutions are an everyday activity for us. WEH connectors have vastly improved productivity and enhanced test procedures in both safety and performance.



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Weiss North America is a high-quality manufacturer of cam-, servo-, and linear motor-driven automation components. The company supplies rotary index tables, palletized conveyors, linear motor-driven pickand-place units, cam- and servo-driven assembly chassis, ring index tables, and machine bases and tool plates.

# Wera Tools LLC Booth 648

6311 Inducon Corporate Dr., Unit 10 Sanborn, NY 14132 800-267-5541 www.weratools.com

Wera designs and manufactures unique tools that provide fastening solutions for the toughest challenges. Products include laser tip screwdrivers, Joker wrenches, and torque-limiting screwdrivers and wrenches.

# Wiring Harness News Booth 1902

P.O. Box 669 Schererville, IN 46375 708-594-7764 www.wiringharnessnews.com

Wiring Harness News is the only print and online trade publication devoted entirely to serving the wire, cable and fiber-optic processing industry. Produced bimonthly, it provides focused industry news, information and new product summaries.



# Zaxis Inc. Booth 843

2442 S. 2570 W. Salt Lake City, UT 84119 801-264-1000 www.zaxisinc.com

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# ZELTWANGER

LEAK TESTING & AUTOMATION

# Zeltwanger Leak Testing and Automation Booth 1616

4947 Fargo St. North Charleston, SC 29418 843-225-0571 www.zeltwanger.com/zeltwangerleak-testing-automation.html

Zeltwanger Leak Testing and Automation sells innovative assembly and leak testing systems using air as the test medium. We determine the particular testing needs of our U.S. customers, develop custom plans, and provide quality solutions that use superior technology.



# Zimmer Group US Inc. Booth 1423

1095 6th St. Court S.E. Hickory, NC 28602 828-855-9722 www.zimmer-group.com

Zimmer Group is based in Rheinau-Freistett, Germany, and is a familyowned and operated company. Today, the company is among the leading manufacturers in the automation industry, providing grippers, tool changers, crash protection, axis compensation, robot accessories and complete end-of-arm turnkey gripper systems. Our latest offerings include collaborative grippers, long-stroke grippers, three-jaw grippers, and parallel electric grippers with IO-Link capability to meet the demands of Industry 4.0 and IoT. As part of our motion control lineup, we manufacture shock absorbers, clamps and brakes for linear rail, and profile dampers.

# **2017 ASSEMBLY PLANT OF THE YEAR**

# AGCO Leads the Field With Lean Technology Wearable devices help build better tractors in Jackson, MN

# Austin Weber Senior Editor webera@bnpmedia.com

Whether it's a muddy soybean field in central Illinois, a frosty vineyard in France, a steamy sugar cane plantation in Brazil or a dusty wheat field in western Canada, tractors produced by AGCO Corp. are hard at work on farms, orchards and ranches around the world.

AGCO is one of the world's largest manufacturers of agricultural equipment. The company produces several brands of high-horsepower tractors, including Challenger, Fendt, Massey Ferguson and Valtra. Two of those brands are produced at the company's stateof-the-art assembly plant in Jackson, MN.

The factory is the recipient of the 2017 Assembly Plant of the Year award sponsored by ASSEMBLY magazine. This world-class plant was chosen for the 14th annual award because of the way it has applied cutting-edge technology to build complex products better, faster and more efficiently.

During the past five years, AGCO has invested more than \$50 million in the Jackson factory to increase production capacity and efficiency. The 52-year-old plant embraces plant floor innovations ranging from automated guided carts to cordless screwdrivers.

AGCO Jackson also recently launched a wearable technology initiative that uses augmented reality tools to enable assemblers to work more productively. More than 100 pairs of Google Glass are being worn by employees for quality inspections and assembly work. And, the plant has applied cutting-edge lean manufacturing principles to boost quality and drive continuous improvement efforts.

A wide variety of machines are assembled at AGCO's 1-million-square-foot factory. The facility is home to Challenger and Massey Ferguson high-horsepower wheeled row-crop tractors, as well as articulated and tracked Challengers.

In addition to building tractors, the flexible facility assembles three- and four-wheeled applicators. The self-propelled RoGator and TerraGator vehicles are used by farmers to spread many types of dry fertilizer and liquid chemicals.



"As an industry built on technology, the Jackson plant has embraced innovation on the plant floor," says Eric Fisher, director of operations. "We have led the world in Industry 4.0 and Internet of Things solutions.

"Farmers expect the best when they purchase AGCO equipment, and we intend to beat those expectations," adds Fisher. "With the continuous improvements we're making here, we provide our dealers and farmers the highest-quality agricultural equipment available."

The Jackson facility is one of AGCO's largest plants. It also produces the product with the highest margin contribution to the North American region.

"Jackson is much more of a low-volume, highcomplexity operation, having the longest and most complex supply chain within AGCO," explains Fisher. "But, what really makes it different is the culture.

"AGCO is a corporation that has grown through acquisition, so the cultures are a little different plant to plant," Fisher points out. "Workforce engagement and empowerment are strengths in Jackson."

The 2017 Assembly Plant of the Year award will be presented on Wednesday, Oct. 25, at 9 a.m., prior to the keynote address. You can see some of the products assembled at AGCO's award-winning factory in booth 1754. Also be sure to visit our Assembly Plant of the Year Wall of fame to check out the previous 13 winners. To read more about previous winners—and to apply for next year's award—visit www.assemblymag.com.

# Congratulations to the 2017 PLANT OF THE YEAR Award Winner:







Attend the Awards Presentation Wednesday, October 25 at 9:00 am in Conference Room #13 just before the Keynote Presentation

Visit AGCO and the Plant of the Year Display in BOOTH #1754



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Welcome Reception in Exhibit Hall Tuesday, October 24 | 4:00pm – 7:00pm

Networking Reception Wednesday, October 25 | 5:00pm – 7:00pm

# **QUALITY SOLUTIONS**

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**Tuesday, October 24** 1:00pm – 7:00pm 4:00pm – 7:00pm Welcome Reception Wednesday, October 25 10:00am – 5:00pm

**Thursday, October 26** 10:00am – 3:00pm



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Bosch Rexroth Corp.	431
Eco-Latch Systems	
C&M Robotics Co. Ltd	
Controlled Dynamics	
Coval Vacuum Technology Inc.	
Creform Corp.	
DEPRAG Inc.	
Design Tool Inc	
Desoutter Industrial Tools DESTACO	
Diakont	
Druseidt Elektrotechnik—Intercon	
Festo Corp.	
FIBRO Inc.	
Fives Cinetic Corp. and Fives DyAG	
Flex Craft	
FlexPipe Inc.	
HIWIN Corp.	
IKO International Inc.	
Illinois Pulley and Gear Inc	
IPR Robotics LLC	
item America	
Janome Industrial Equipment USA Ind	
Jenny Science Trading LLC	
Kama	
KolverUSA	
Kosmek USA Ltd.	
Mijin System Inc	
Nitto Seiko America	.2231
Orbitform	505
Patlite (U.S.A.) Corp	700
PowerSafe Automation	.2017
Schwerdtle Technologies	.2340
Silicon Valley Automation	.2041
SKF USA Inc.	.1900
Spyraflo Bearings	.1714
SUS America Inc	542
Taica North America Corp.	.1949
The Industrial Controls Co	.1715
Tooling Tech Group	.1243
Trilogiq USA Corp.	
Ubisense	
WEISS North America Inc.	217
Zimmer Group US Inc	

### AUTO ID, BAR CODING, PRODUCT MARKING AND LABELING EQUIPMENT

Balluff Inc.	.1105
Columbia Marking Tools	.1141
Contrinex Inc.	.1705
Control Micro Systems Inc	801

DPSS Lasers Inc.	.1244
elliTek Inc.	.2319
Fancort Industries	.1945
Graphic Products	.1441
Koops Inc	.1802
Microscan	.2046
Orgatex GmbH & Co.KG	.1817
Pannier Corp	.1614
RFID Inc.	.1313
Sprinter Marking Inc.	442
Tailored Label Products	.1711
TSC Auto ID and Printronix Auto ID	.1514
Ubisense	.1948

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Ahaus Tool and Engineering Inc443
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Alfing Corp1637
Aries Engieering631
Arthur G. Russell Co. Inc721
ASG, Division of Jergens Inc323
ATC Automation521
Auer Signal / Sprecher + Schuh2042
Automated Drive and Design LLC1414
Baltec Corp731
Bielomatik1748
Branson821
Cameron Manufacturing and Design .2114
Cincinnati Test Systems639
Comau LLC
DEPRAG Inc1931
Design Tool Inc1417
DESTACO
Doerfer Companies813
eci SpinnOmatic1305
Edgewater Automation645
Estic America Inc1923
Festo Corp931
FIBRO Inc1723
Fives Cinetic Corp. and Fives DyAG2146
Forward Technology LLC1538
Fusion Systems Group1815
Genesis Automation1416
GuangDong LiYuanHeng Intelligent
Automation1605
Invotec Engineering Inc1111
IPTE2031
Isthmus Engineering & Manufacturing1115

Koops Inc.1802Lanco Integrated1005Micro Automated Systems Group1316Mikron Corp. Denver1838Nordson EFD1021Nordson Sealant Equipment1013Orbitform505PDM-Labs Inc.1519Plastic Assembly Systems1302PrimeTest Automation1212RedViking1531Rinco Ultrasonic USA1538Sankyo Automation705Scheugenpflug Inc.2023SCHMIDT Technology1123Stelron Components Inc.1405Strunk Connect Automated Solutions Inc1038Swanson Agile Assembly1718Thermal Press International Inc.1512TOX-Pressotechnik LLC239TSS Technologies446WEISS North America Inc.217Zeltwanger Leak Testing & Automation217Zeltwanger Leak Testing & Automation217	
Micro Automated Systems Group.1316Mikron Corp. Denver1838Nordson EFD1021Nordson Sealant Equipment1013Orbitform505PDM-Labs Inc.1519Plastic Assembly Systems1302PrimeTest Automation1212RedViking1531Rinco Ultrasonic USA1538Sankyo Automation705Scheugenpflug Inc.2023SCHMIDT Technology1123Stelron Components Inc.1405Strunk Connect Automated Solutions Inc.1038Swanson Agile Assembly1718Thermal Press International Inc.1512TOX-Pressotechnik LLC239TSS Technologies446WEISS North America Inc.217Zeltwanger Leak Testing & Automation217	Koops Inc1802
Nikron Corp. Denver1838Nordson EFD1021Nordson Sealant Equipment1013Orbitform505PDM-Labs Inc1519Plastic Assembly Systems1302PrimeTest Automation1212RedViking1531Rinco Ultrasonic USA1538Sankyo Automation705Scheugenpflug Inc.2023SCHMIDT Technology1123Stelron Components Inc.1405Strunk Connect Automated Solutions Inc.1038Swanson Agile Assembly1718Thermal Press International Inc.1512TOX-Pressotechnik LLC239TSS Technologies446WEISS North America Inc.217Zeltwanger Leak Testing & Automation217	Lanco Integrated1005
Nordson EFD1021Nordson Sealant Equipment1013Orbitform505PDM-Labs Inc1519Plastic Assembly Systems1302PrimeTest Automation1212RedViking1531Rinco Ultrasonic USA1538Sankyo Automation705Scheugenpflug Inc2023SCHMIDT Technology1123Stelron Components Inc1405Strunk Connect Automated Solutions Inc.1038Swanson Agile Assembly1718Thermal Press International Inc1512TOX-Pressotechnik LLC239TSS Technologies446WEISS North America Inc.217Zeltwanger Leak Testing & Automation	Micro Automated Systems Group1316
Nordson Sealant Equipment1013Orbitform505PDM-Labs Inc.1519Plastic Assembly Systems1302PrimeTest Automation1212RedViking1531Rinco Ultrasonic USA1538Sankyo Automation705Scheugenpflug Inc.2023SCHMIDT Technology1123Stelron Components Inc.1405Strunk Connect Automated Solutions Inc.1038Swanson Agile Assembly1718Thermal Press International Inc.1512TOX-Pressotechnik LLC239TSS Technologies446WEISS North America Inc.217Zeltwanger Leak Testing & Automation	Mikron Corp. Denver1838
Orbitform505PDM-Labs Inc.1519Plastic Assembly Systems1302PrimeTest Automation1212RedViking1531Rinco Ultrasonic USA1538Sankyo Automation705Scheugenpflug Inc.2023SCHMIDT Technology1123Stelron Components Inc.1405Strunk Connect Automated Solutions Inc.1038Swanson Agile Assembly1718Thermal Press International Inc.1512TOX-Pressotechnik LLC239TSS Technologies446WEISS North America Inc.217Zeltwanger Leak Testing & Automation	Nordson EFD1021
PDM-Labs Inc.1519Plastic Assembly Systems.1302PrimeTest Automation1212RedViking1531Rinco Ultrasonic USA1538Sankyo Automation705Scheugenpflug Inc.2023SCHMIDT Technology.1123Stelron Components Inc.1405Strunk Connect Automated Solutions Inc1038Swanson Agile Assembly.1718Thermal Press International Inc.1512TOX-Pressotechnik LLC239TSS Technologies.446WEISS North America Inc.217Zeltwanger Leak Testing & Automation	Nordson Sealant Equipment1013
Plastic Assembly Systems1302PrimeTest Automation1212RedViking1531Rinco Ultrasonic USA1538Sankyo Automation705Scheugenpflug Inc.2023SCHMIDT Technology1123Stelron Components Inc.1405Strunk Connect Automated Solutions Inc.1038Swanson Agile Assembly1718Thermal Press International Inc.1512TOX-Pressotechnik LLC239TSS Technologies446WEISS North America Inc.217Zeltwanger Leak Testing & Automation	Orbitform505
PrimeTest Automation1212RedViking1531Rinco Ultrasonic USA1538Sankyo Automation705Scheugenpflug Inc.2023SCHMIDT Technology1123Stelron Components Inc.1405Strunk Connect Automated Solutions Inc.1038Swanson Agile Assembly1718Thermal Press International Inc.1512TOX-Pressotechnik LLC239TSS Technologies446WEISS North America Inc.217Zeltwanger Leak Testing & Automation	PDM-Labs Inc1519
RedViking1531Rinco Ultrasonic USA1538Sankyo Automation705Scheugenpflug Inc.2023SCHMIDT Technology.1123Stelron Components Inc.1405Strunk Connect Automated Solutions Inc.1038Swanson Agile Assembly.1718Thermal Press International Inc.1512TOX-Pressotechnik LLC239TSS Technologies.446WEISS North America Inc.217Zeltwanger Leak Testing & Automation	Plastic Assembly Systems1302
Rinco Ultrasonic USA1538Sankyo Automation705Scheugenpflug Inc.2023SCHMIDT Technology1123Stelron Components Inc.1405Strunk Connect Automated Solutions Inc.1038Swanson Agile Assembly1718Thermal Press International Inc.1512TOX-Pressotechnik LLC239TSS Technologies446WEISS North America Inc.217Zeltwanger Leak Testing & Automation	PrimeTest Automation1212
Sankyo Automation	RedViking1531
Scheugenpflug Inc	Rinco Ultrasonic USA1538
SCHMIDT Technology	Sankyo Automation705
Stelron Components Inc	Scheugenpflug Inc2023
Strunk Connect Automated Solutions Inc 1038 Swanson Agile Assembly1718 Thermal Press International Inc1512 TOX-Pressotechnik LLC239 TSS Technologies446 WEISS North America Inc217 Zeltwanger Leak Testing & Automation	SCHMIDT Technology1123
1038Swanson Agile Assembly	Stelron Components Inc1405
Thermal Press International Inc.1512TOX-Pressotechnik LLC239TSS Technologies.446WEISS North America Inc.217Zeltwanger Leak Testing & Automation	
TOX-Pressotechnik LLC239TSS Technologies446WEISS North America Inc.217Zeltwanger Leak Testing & Automation	Swanson Agile Assembly1718
TSS Technologies446 WEISS North America Inc217 Zeltwanger Leak Testing & Automation	Thermal Press International Inc1512
WEISS North America Inc	TOX-Pressotechnik LLC239
Zeltwanger Leak Testing & Automation	TSS Technologies446
5 5	WEISS North America Inc217
	5

# BRAZING, SOLDERING AND WELDING EQUIPMENT

Air-Vac Automation	1602
American Hakko Products Inc	1805
Comau LLC	1849
Control Micro Systems Inc	801
Druseidt Elektrotechnik—Intercon	1444
Dukane	1617
Edgewater Automation	645
Eisele Connectors Inc.	1745
eldec LLC	2011
Emitted Energy	739
Fancort Industries	1945
Fusion Systems Group	1815
Genesis Automation	1416
Herrmann Ultrasonics Inc.	1912
Hisco	
Koops Inc	1802
Lanco Integrated	1005
LPKF Laser & Electronics	1002
MTA Automation Inc	1523
Nitto Seiko America	2231
Nordson EFD	1021
O.C. White Co	1811
PDM-Labs Inc	1519

Plastic Assembly Systems	.1302
Purex Inc	1645
Sonics & Materials	.1338
Strunk Connect Automated Solutions 1038	lnc
Telsonic Ultrasonics Inc	1031
Thermal Press International Inc	.1512
TOX-Pressotechnik LLC	239
ViscoTec America Inc	.1215

### CLEANING EQUIPMENT AND SUPPLIES

Branson	821
Esma	.1216
Hisco	.1941
O.C. White Co	.1811

### CONTRACT ASSEMBLY AND ASSEMBLY-RELATED SERVICES

C Tek Lean Solutions	1211
Casco Manufacturing	1543
Doerfer Companies	813
Dozuki	347
eFlex Systems	441
Eternity Technology Corp	1700
Mid America Taping and Reeling In	c1541
MJM Industries	
Orbitform	505
Peter Parts Electronics	1447
Plastic Assembly Systems	
QLS	2000
Rapid Coating Solutions	
RedViking	1531
RiverStar Inc	1841
SemahTronix	1647
SINBON Electronics Co. Ltd	2038
SOLID Development Corp	1644
SUS America Inc	
Tecnova Electronics	
The Industrial Controls Co	1715
Thermal Press International Inc	
TSS Technologies	446

# CONVEYORS, MATERIAL HANDLING SYSTEMS, AND LIFTING EQUIPMENT

600
1602
1637

Applied Robotics Inc.	.1800
Auer Signal / Sprecher + Schuh	.2042
Bishamon Industries	745
Bosch Rexroth Corp.	431
C Tek Lean Solutions	.1211
Creform Corp	831
DESTACO	313
Ergotronix Inc.	547
Excelitas Technologies	.1738
FIBRO Inc.	.1723
FlexLink Systems Inc	.1905
FlexPipe Inc.	.1620
Fortville Feeders Inc	.1344
Georg Utz Inc	.1342
Glide-Line	.1411
Hamilton Caster	545
Hoosier Feeder Co. Inc	.1638
IAC Industries	
IPR Robotics LLC	541
item America	139
Jenny Science Trading LLC	145
Kama	.1946
Kundel   Quick-Lift Systems	.1312
Lanco Integrated	.1005
Lean Factory America	905
Logomat Automation Systems Inc	
Middlesex General Industries Inc	.1806
Mijin System Inc	.2001
Orbitform	
Performance Feeders Inc.	
Power Pusher, Division of Nu-Star Inc.	2106
Quantum Storage Systems	
Quickdraw Conveyor Systems	.1505
RedViking	.1531
Schmalz Inc	840
SUS America Inc	542
Trilogiq USA Corp	
UNEX Manufacturing Inc 1231 &	
WEISS North America Inc.	
Zimmer Group US Inc	.1423

### DISPENSING AND CURING EQUIPMENT

Air-Vac Automation1602
American Ultraviolet1245
Designetics Inc2138
DOPAG US Ltd
Excelitas Technologies1738
Fancort Industries1945
Fluid Research1219
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Koops Inc1802
Loctite
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GmbH1701MTA Automation Inc1523Nordson EFD1021Nordson Sealant Equipment1013O.C. White Co1811
GmbH1701MTA Automation Inc1523Nordson EFD1021Nordson Sealant Equipment1013O.C. White Co1811Palm Labs Adhesives
GmbH1701MTA Automation Inc1523Nordson EFD1021Nordson Sealant Equipment1013O.C. White Co1811Palm Labs Adhesives941Precision Valve & Automation1237
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GmbH1701MTA Automation Inc1523Nordson EFD1021Nordson Sealant Equipment1013O.C. White Co1811Palm Labs Adhesives941Precision Valve & Automation1645Scheugenpflug Inc2023

# ELECTRICAL, ELECTRONIC AND FIBER OPTIC COMPONENTS AND SUPPLIES

Aero-Space Fasteners and	
Electronics	1545
Banner Engineering Corp	131
Binder USA	1812
Casco Manufacturing	1543
Contrinex Inc.	1705
Druseidt Elektrotechnik—Intercon	1444
Excelitas Technologies	1738
Jenny Science Trading LLC	145
MJM Industries	1301
O.C. White Co	1811
Peter Parts Electronics	1447
SemahTronix	1647
SINBON Electronics Co. Ltd	2038
Starline	1942
Taica North America Corp	1949
Tapeswitch Corp.	1845
The Industrial Controls Co	1715
United Resin Corp	1242

### FASTENERS AND PRECISION FORMED PARTS

Aero-Space Fasteners and	
Electronics	1545
Bossard North America	1848
Eco-Latch Systems	1749
C Tek Lean Solutions	1211
Controlled Dynamics	1631
Deluxe Stitcher Co.	1445
Druseidt Elektrotechnik—Intercon	1444
Engineered Components Co.	2013
Flex Craft	805
Gesipa	2018
H-Locker Components Inc	1846
Mountz Inc.	1315
RivetKing	1345
SPIROL	1041
Taica North America Corp	1949

### FORMING AND RIVETING MACHINES

### Aero-Space Fasteners and

Electronics	1545
Aries Engieering	631
Baltec Corp	731
Deluxe Stitcher Co	1445
Desoutter Industrial Tools	331
eci SpinnOmatic	1305
Fancort Industries	1945
Gage Bilt Inc	943
Gesipa	2018
Hy-Tech Engineered Solutions	1438
Koops Inc	1802
Orbitform	505
RivetKing	1345
S-B Industries Inc	1544
SCHMIDT Technology	1123
Thermal Press International Inc	1512
TOX-Pressotechnik LLC	239
Vega Tool Corp	1337

### INDUSTRY ORGANIZATIONS AND ASSOCIATIONS

Alliance for American Manufacturing.1717	7
Association for Advancing	
Automation2238	3

### **INDUSTRY PUBLICATIONS**

1102
2002
111
2016
2337
1902

### INJECTION MOLDING MACHINERY

King's Solution	Corp	
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### INSPECTION EQUIPMENT: ACOUSTIC, OPTICAL AND X-RAY

Assembly Tool Specialists	1920
Banner Engineering Corp	131
Contrinex Inc.	1705
elliTek Inc	2319
Epson Robots	531
Nysus Solutions	1823
O.C. White Co	1811
Origin Technologies Corp	1137
QLS	2000
Radiant Vision Systems	400

### MOTION CONTROL, POSITIONING AND INDEXING EQUIPMENT

3Arm America	848
Afag Automation AG	600
Air-Vac Automation	1602
Bosch Rexroth Corp.	431
Cameron Manufacturing and Desig	n .2114
Curtiss-Wright/Exlar Automation	1515
DESTACO	313
Diakont	1816
Epson Robots	531
FANUC America Corp.	713
Festo Corp	931
FIBRO Inc.	1723
FlexArm Inc	1938
Fulling Motor USA Inc.	1509
HIWIN Corp	1831
IAI America Inc	1911
IKO International Inc.	2015
Illinois Pulley and Gear Inc	1442
IPR Robotics LLC	541
Jenny Science Trading LLC	145
Kama	1946

Lanco Integrated	1005
Nitto Seiko America	
Orbitform	505
Peter Parts Electronics	1447
Portescap	
Promess	
Roemheld USA	
Sankyo Automation	705
SCHUNK	105
SKF USA Inc	
Spyraflo Bearings	1714
Stelron Components Inc	1405
Swanson Agile Assembly	1718
TIMOTION	1917
Tolomatic Inc	2049
WEISS North America Inc.	217
Zimmer Group US Inc	1423

# PACKAGING EQUIPMENT

Afag Automation AG	600
Applied Robotics Inc.	1800
Auer Signal / Sprecher + Schuh	2042
Eco-Latch Systems	1749
Branson	821
Coval Vacuum Technology Inc	1500
Dalmec Inc	1646
DESTACO	313
Edgewater Automation	645
Eisele Connectors Inc.	1745
FIBRO Inc.	1723
Georg Utz Inc.	1342
Hisco	1941
Hoosier Feeder Co. Inc	1638
IAC Industries	1037
IPR Robotics LLC	541
Isthmus Engineering & Manufacturing.	
Koops Inc	1802
Mikron Corp. Denver	1838
PDM-Labs Inc.	1519
Rinco Ultrasonic USA	1538
WEISS North America Inc.	217

### PARTS FEEDERS AND POSITIONING EQUIPMENT

AIMCO	.1205
Air-Vac Automation	.1602
ASG, Division of Jergens Inc	323
Design Tool Inc	.1417
Desoutter Industrial Tools	331
DESTACO	313

FIBRO Inc.	1723
Fortville Feeders Inc.	1344
Homer City Automation	1437
Hoosier Feeder Co. Inc.	1638
IPR Robotics LLC	541
IPTE	2031
Koops Inc	1802
Mid America Taping and Reeling Inc	1541
Mikron Corp. Denver	1838
Nanjing CUH Science & Technology	1001
Nitto Seiko America	2231
Orbitform	505
Performance Feeders Inc.	1131
SPIROL	1041
WEISS North America Inc.	217

### PCB ASSEMBLY EQUIPMENT AND TOOLS

Air-Vac Automation1602
Applied Robotics Inc
Control Micro Systems Inc801
DEPRAG Inc
Design Tool Inc1417
Desoutter Industrial Tools
Edgewater Automation645
Fancort Industries1945
FlexLink Systems Inc1905
Hisco1941
IPTE2031
Janome Industrial Equipment USA Inc 913
Mid America Taping and Reeling Inc1541
MTA Automation Inc1523
Nitto Seiko America2231
O.C. White Co1811
Plastic Assembly Systems1302
Purex Inc1645
SCHMIDT Technology1123
Sumake North America1201
Thermal Press International Inc1512

# PLASTICS JOINING EQUIPMENT

Bielomatik	1748
Branson	821
Dukane	1617
Forward Technology LLC	1538
LPKF Laser & Electronics	1002
Plastic Assembly Systems	1302
Rinco Ultrasonic USA	1538
Sonics & Materials	1338
Telsonic Ultrasonics Inc	1031

Thermal Press International Inc.....1512

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Aero-Space Fasteners and	
Electronics	1545
Aries Engieering	631
Asutec	1000
Balluff Inc	1105
Coval Vacuum Technology Inc	1500
Dalmec Inc	1646
Eisele Connectors Inc.	1745
FasTest Inc	1138
Festo Corp	931
FIBRO Inc.	1723
Flex Craft	805
Hy-Tech Engineered Solutions	1438
IPR Robotics LLC	541
Kosmek USA Ltd	447
Loctite	1323
Mijin System Inc	2001
Nitto Kohki U.S.A. Inc	702
Orbitform	505
Prevost	2116
Roemheld USA	1837
TIMOTION	1917
Tooling Tech Group	1243
WEH Technologies Inc	1241
Zimmer Group US Inc	1423

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American Hakko Products Inc1805	
APEX Assembly & Fabrication Tools2219	
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Assembly Tool Specialists1920	
Bosch Rexroth Corp431	
Chongqing North Enterprise Co. Ltd 1101	
Crane Electronics Inc1518	
Daniels Manufacturing Corp	
DEPRAG Inc1931	
Design Tool Inc1417	
Desoutter Industrial Tools	
Druseidt Elektrotechnik—Intercon1444	
Estic America Inc1923	
FasTest Inc1138	

FlexArm Inc	
Gage Bilt Inc.	943
Gesipa	
Hy-Tech Engineered Solutions	1438
Ingersoll Rand	1042
Kilews West USA Inc	1623
Kistler Instrument Corp	621
Ko-ken Tools USA	1448
KolverUSA	938
Makita USA Inc	1223
Mijin System Inc	2001
Mountz Inc.	1315
Nitto Seiko America	2231
Panasonic	413
Physicom Corp	1320
Prevost	
RivetKing	1345
S-B Industries Inc	
SCS Concept Americas LLC	117
Sturtevant Richmont	1537
Sumake North America	1201
TorqTec LLC	1737
Vega Tool Corp	
Wera Tools LLC	

### PRESSES AND SEAL AND O-RING INSTALLATION MACHINES

Aero-Space Fasteners and
Electronics1545
Aries Engieering631
Auer Signal / Sprecher + Schuh2042
Baltec Corp731
C&M Robotics Co. Ltd1100
Columbia Marking Tools1141
Fancort Industries1945
Janome Industrial Equipment USA Inc913
Kistler Instrument Corp621
Koops Inc1802
Multipress2120
Orbitform505
Physicom Corp1320
Plastic Assembly Systems1302
Promess
SCHMIDT Technology1123
Sonics & Materials1338
Thermal Press International Inc1512
TOX-Pressotechnik LLC239

### PROGRAMMABLET CONTROLLERS, SOFTWARE, MACHINE CONTROLS AND DATA ACQUISITION DEVICES

AIMCO	1205
ASG, Division of Jergens Inc	
Bosch Rexroth Corp.	
C&M Robotics Co. Ltd.	
Crane Electronics Inc	
DataRealm Solutions	
Design Tool Inc	
Desoutter Industrial Tools	331
Dozuki	347
eFlex Systems	441
elliTek Inc.	2319
Epson Robots	531
Fancort Industries	1945
FLAGS Software	1443
GuangDong LiYuanHeng Intelligent	
Automation	
HBM Test and Measurement	
Hyla Soft	
Ingersoll Rand	
Jenny Science Trading LLC	
Kistler Instrument Corp	
Lattice Technology	
Nanjing CUH Science & Technology .	
Nysus Solutions	
OPS Solutions	
Patlite (U.S.A.) Corp	
Physicom Corp	
Promess	
ProSuite	
RedViking	
Scout Systems Inc.	
Sturtevant Richmont	
The Industrial Controls Co	
Tulip	
Tutelar Technologies	
Ubisense	
VKS	1731

### ROBOTS, GRIPPERS AND ROBOT ACCESSORIES

Afag Automation AG	600
Ahaus Tool and Engineering Inc	443
Air-Vac Automation	.1602
American Hakko Products Inc	.1805
Applied Robotics Inc.	.1800
ASG, Division of Jergens Inc	323
ATI Industrial Automation	513
Automated Drive and Design LLC	.1414

C&M Robotics Co. Ltd.	
Comau LLC	
Coval Vacuum Technology Inc.	
DataRealm Solutions	
DEPRAG Inc.	
Design Tool Inc	
Desoutter Industrial Tools	
DESTACO	
Druseidt Elektrotechnik—Intercon	
Edgewater Automation	
Eisele Connectors Inc.	
Epson Robots	
Fancort Industries	
FANUC America Corp.	
Festo Corp.	
Fluid Research	1219
GuangDong LiYuanHeng Intelligent Automation	1605
HIWIN Corp.	
IAI America Inc	
IPR Robotics LLC	
Janome Industrial Equipment USA Inc.	
KolverUSA	
Koops Inc	
Kundel   Quick-Lift Systems	
Loctite	
Mecademic	
MTA Automation Inc	
Nitto Seiko America	
Nordson EFD	
Nordson Sealant Equipment	
Nysus Solutions	
Schmalz Inc	
SCHUNK	
Schwerdtle Technologies	
Staubli	
Techcon Systems	
TM Robotics (Americas)	
Universal Robots	
WEISS North America Inc.	
Zimmer Group US Inc	
	,25

### SOLDER, SOLDER PASTE AND FLUX, BRAZING ALLOYS AND FLUX

Air-Vac Automation	.1602
Hisco	1941
O.C. White Co	1811

# TEST, MEASUREMENT, CALIBRATION AND MOTION ANALYSIS EQUIPMENT

About Teel and Engineering Inc.	442
Ahaus Tool and Engineering Inc	
AIMCO Air-Vac Automation	
Aries Engieering	
ASG, Division of Jergens Inc.	
Assembly Tool Specialists	
ATEQ Corp	
Automated Drive and Design LLC	
Balluff Inc	
Cincinnati Test Systems	
Cirris Systems	
Cosmo Solutions Technology	
Crane Electronics Inc	
DEPRAG Inc.	1931
Desoutter Industrial Tools	331
ECC	345
Emitted Energy	739
Eubanks and Cablescan	837
FasTest Inc	1138
Forward Technology LLC	1538
HBM Test and Measurement	1415
IC Flow Controls Inc	1842
Imada Inc	1547
Inficon	245
InterTech Development Co	642
IPTE	
Kistler Instrument Corp	
LACO Technologies	
Mountz Inc.	
Nysus Solutions	
O.C. White Co	
PDM-Labs Inc	
Pfeiffer Vaccum/ATC	
Physicom Corp	
Promess	
RedViking	
SCS Concept Americas LLC	
Sturtevant Richmont	
Sumake North America	
TM Electronics Inc.	
Tulip	
Ubisense	
ULVAC Technologies Inc.	
Uson LP	
WEH Technologies Inc.	
Zaxis Inc.	843
Zeltwanger Leak Testing	1010
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# **PRODUCT SHOWCASE**

Nearly 300 exhibitors are here at the Donald A. Stephens Convention Center to display the latest in assembly machines and systems during the fifth annual ASSEMBLY Show. In the following pages, you'll find information about some of the state-of-the-art equipment and technology that will be on the show floor. Read through this showcase and challenge these suppliers to show you how their products can make your assembly operations even more competitive.

# **Process Monitoring System**

The maXYmos TL captures, plots and analyzes the XY curves of two variables in an assembly process, such as force and distance in a press-fitting operation. XY measurements of this kind can be used to monitor the quality of an individual manufacturing step, a series of steps, or an entire product. Combined with Kistler's piezoelectric sensors, the system ensures



robust and accurate measurements of process and quality data, even when ambient conditions are difficult, where installation space is limited, or if the forces are very small. An Ethernet TCP/ IP network is used for transmitting measurement data, remote maintenance and channel cascading. Data can be exported in multiple formats, such as Q-DAS, XML, CSV and PDF. Optional equipment includes a display module with 10.4-inch color touch screen and front-facing USB port.

### Kistler Instrument Corp. • Booth 621 www.kistler.com • 248-668-6900

# **Orbital Riveting**

Orbital riveting and forming is a cold forming process using a peen tool held at a fixed angle to create a sweeping line of pressure around the part, progressively forming the material with each rotation. Rivets are formed using approximately 80 percent less force than when using a standard press. Orbital forming allows for the creation of articulating hinge joints. With less downforce on the rivet, there is minimal swelling of the rivet shank, allowing finished parts to articulate smoothly.



### Orbitform • Booth 505 www.orbitform.com • 517-787-9447

# **Assembly Presses**

Schmidt Technology provides a full line of press systems, including manual rack-and-pinion presses, toggle presses, pneumatic

presses, hydropneumatic presses, electric presses, and fully automated servo presses. A variety of options are available to enhance control of the pressing process, including micron-level end-of-stroke adjustment; rate control; end-of-stroke sensing; interchangeable tooling; slide table, and multiple frame sizes. In addition, several options are available for press force monitoring and control. For example,



the PressControl 600 dynamically monitors press force and displacement while giving the flexibility to stop the press stoke if parameters are not correct.

SCHMIDT Technology • Booth 1123 800-959-1218 • www.schmidtpresses.com

# **Tool Changer**

The QC-160 tool changer provides flexibility to robot applications by allowing the robot to automatically change end-effectors, such as grippers, vacuum cup tooling, pneumatic and electric

motors and weld guns. Like all ATI tool changers, the QC-160 features the company's patented fail-safe locking mechanism, which prevents inadvertent unlocking due to gravity, vibration, or acceleration. No-touch



locking technology allows up to 0.1 inch plate separation when locking. All locking parts are made of Rc58 stainless steel. Locking force at 80 psi is 7,000 pounds. The tool changer has a static moment capacity of 24,000 inch-pounds in the XY axes and 20,000 inch-pounds in the Z axis. Long-life bushings are used for pneumatic pass-throughs. The device mounts directly to most 200-kilogram payload robots and supports the 125-millimeter ISO mounting pattern.

### ATI Industrial Automation • Booth 513 919-772-0115 • www.ati-ia.com ATI Industrial

# **Automatic Screwdriving System**

The DTI 5000 automatic inline screwdriver system is available in several different configurations, including standard, rigid, retracting barrel and counterbore tip designs. These machines are custom-designed for vertical applications with the nosepiece jaws fitting the customer's part. Inline screwdriver assemblies can be designed for a wide range of applications and fastener types,



including screws, bolts, nuts, pins or nails. The standard screw feeder system cycles quickly, delivering screws in less than one second in many applications. The rigid units maintain contact between the bit and the fastener to locate the screw in predrilled or misaligned holes. The retracting barrel feature is offered in both rigid and non-rigid designs. This system retracts the barrel fully when the driver starts, so that the driver components do not contact the work surface when the screw is driven. The counterbore tip design is ideal for screws located in counterbored or recessed holes. The system is offered with an auto shut-off clutch to maintain the correct fastener torque while reducing operator fatigue due to torque reaction. These systems are also available in a drive-to-depth configuration, where the fastener is driven to a specific depth rather than a set torque value.

Design Tool Inc. • Booth 1417 www.designtoolinc.com • 800-627-3674

# **PRODUCT SHOWCASE**

# **Pick-and-Place Module**

The HP70 pick-and-place module achieves more than 100 cycles per minute with repeat accuracy of 0.01 millimeter. Key to the system's design is a new drive concept that works with two linear motor axes that feature a



"knuckle" design on the Y-Z axes. This virtually eliminates the need for another linear motor for the Z axis. Essentially, two horizontal axes with 125-, 225-, or 325-millimeter stroke lengths are arranged in parallel above one another and then connected via a kinematic unit. This guarantees a vertical stroke of 70 millimeters. The device's two axes do not run vertically towards one another. If a unit has one horizontal axis and one vertical axis fitted next to one another, it becomes wider. However, by arranging the horizontal axes in parallel above one another a more compact unit is achieved. The device only brakes on one axis when transitioning from full-speed horizontal movement to vertical movement. The time-consuming start of a second axis is eliminated.

### Weiss North America Inc. • Booth 217 www.weissna.com • 440-269-8031

# **Electromechanical Press**

The EMAP (electromechanical assembly press) brings the same kind of closed-loop precision and repeatability to press and assembly work that CNC machine tools bring to metal-cutting operations. This capability is the result of an advanced computer system, on-board force and distance sensors, and an encoderequipped servomotor that drives a ballscrew ram. The ram's force level and position are continuously monitored to prevent bounce and drift, while improving product quality and output. More than 30 different presses are available, with capacities ranging from less than an ounce to more than 200,000 pounds. All models are quiet, energy efficient and require little maintenance.



### Promess Inc. • Booth305 www.promessinc.com • 810- 229-9334

# **Module Monitors Air Consumption**

Manufacturers can use the upgraded MSE6-E2M module to optimize compressed air consumption of production equipment and alert plant personnel to system leaks. Consisting of a solenoid valve integrated with pressure and flow sensors, the compact module flows up to 5,000 liters of air per minute. It provides real-time values for flow rate and air consumption so operators are aware when an air leak has occurred. This data includes the amount of air consumed per product batch, and



pressure and flow at the time of a malfunction or bad product batch. The module also automatically shuts off the air supply in standby mode to reduce energy consumption. Operators can easily program the module and connect it to an MS air preparation unit.

### Festo Corp. • Booth 931 www.festo.us • 800-993-3786

# **Direct-Acting Pneumatic Presses**

Because DA (direct-acting) series pneumatic presses are modular, they can be exactly sized for an application to optimize their price-performance ratio. Standard stroke lengths range from 40 to 120 millimeters in 20-millimeter increments, although special lengths may be requested. The presses produce a constant force over the whole stroke length and can be integrated with the company's IPC controllers for individual workstations. A right-angled gearbox allows for simple height adjustment of the



press head. Press cylinders are double-acting, pre-greased and suitable for oil-free operation. The presses are quiet (less than 75 decibels) and practically maintenance-free, as all moving parts are mounted in bearings. A side-mounted measuring strip ensures fast reproduction of settings during tool changing.

# BalTec Corp. • Booth 731 www.baltecorporation.com • 724-873-5757

# **Compact Magnetic Gripper**

Instead of relying on compressed air or vacuum, the EGM-M monopole gripper operates with electro-permanent magnets that require a short current pulse (300 millisecond) for actuation and deactivation. An extensive magnetic field is created, thereby ensuring that ferromagnetic parts remain securely gripped even in



the case of an emergency stop or a sudden loss of power. The gripper is small (26 by 98 millimeters), but precise and powerful enough to handle parts weighing up to 10 kilograms. It can be positioned anywhere on the workpiece, combined with larger units and is available with one, two, or four pole pairs in different arrangements, along with pole extensions.

SCHUNK Inc. • Booth 105 www.schunk.com • 919-572-2828

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# **FLOOR PLAN**

