

Automation Issue 74 TODAY

ASIA PACIFIC

**BUILD
MACHINES
OF TOMORROW,
TODAY**



- Redefining Machine Flexibility
- Better Warehouse Systems Start with Emulation
- Smarter Packaging Machines
- 8 Considerations to Automate Your Weighing System

**Rockwell
Automation**

Contents

- 05 News & Events**
The latest news and events from Rockwell Automation Asia Pacific
- 07 Cover Story**
Redefining Machine Flexibility
- 11 Case Studies**
- 15 Technology Watch**
Better Warehouse Systems Start with Emulation
- 17 Application Profile**
Smarter Packaging Machines to Improve Flexibility and Simplicity
- 19 Product & Solution Focus**
Introducing the latest and updated technologies and solutions for smarter operations

Automation Today Asia Pacific

Issue 74



This magazine is published 4 times a year by ROCKWELL AUTOMATION Inc. for Asia Pacific

Asia Pacific

2 Corporation Road #04-05/06, Corporation Place
Singapore 618494

Gurveen Kaur

Gurveen.Kaur@rockwellautomation.com

To subscribe or unsubscribe,
<https://map.rockwellautomation.com/subscribe>

Copyright© 2022 Rockwell Automation Inc. All rights reserved. The contents of this publication may not be reproduced in whole or part without the consent of the copyright owner.

Allen-Bradley, ArmorBlock, ArmorFlex, ArmorKinetic, ASEM, Automation Fair, Automation Today Asia Pacific, CENTERLINE, Compact 5000, CompactLogix, Connected Components Workbench software, Connected Enterprise, ControlLogix, Emulate3D, expanding human possibility, FactoryTalk, FLEX, Fix, GuardLogix, Guardmaster, Guardshield, Integrated Architecture, Installed Base Evaluation, iTRAK, Kinetic, LifecycleIQ, LISTEN.THINK.SOLVE, MagneMotion, Micro800, Micro850, Micro870, PanelView, PartnerNetwork, PharmaSuite, PlantPAx, Plex, POINT I/O, PowerFlex, Rockwell Automation, Rockwell Automation Assurance, Rockwell Software, Stratix, Studio 5000, ThinManager, TotalFORCE, VantagePoint, VersaView, are trademarks of Rockwell Automation, Inc.

EtherNet/IP is a trademark of ODVA, Inc.

Microsoft Azure is a trademark of Microsoft.

POWERCELL, RedAlert and Smart5 are trademarks of METTLER TOLEDO.

All other trademarks are the property of their respective owners.

EXECUTIVE MESSAGE

Reimagine Smart Machines



... **T**here's a reason smart manufacturing and digital transformation is changing our production processes and how we do business – smart machines and systems deliver better business outcomes.

This includes more efficiency, higher throughputs, faster start-ups, and greater product customization. And every industrial firm has these goals.

In this issue of Automation Today, we shed light on building smart machines that don't just deliver data, but rather, translate data into insights that drive better decision-making and offer greater flexibility to deal with increasingly complex requirements. We bring you information on technologies to take advantage of and examples specific to the packaging industry.

Additionally, find out how a mobile grain processing business in Australia upgraded their grain handling machine to comfortably deliver 36 tonnes per hour and better machine control by using a mix of Rockwell Automation technologies including our PowerFlex drives and CompactLogix safety processor.

We recently held our largest annual event, [Automation Fair](#), in Chicago, United States, and it was a great pleasure to see so many customers and partners in-person. If you attended the showcase, thank you for your support! I hope you gained valuable insights and fresh ideas on how to better connect your enterprise end-to-end. Included in this issue are the latest news and announcements from the event as well as information on new product launches including the FactoryTalk Design Hub suite of cloud-based software solutions.

If you are keen to learn more about the evolving state of manufacturing and our vision for the future, there are several virtual on-demand sessions available too. Check them out [here](#).

Lastly, as 2022 comes to close, I hope you had a fruitful past year and wish you a happy and more enriching 2023!

Scott Wooldridge

President, Asia Pacific
Rockwell Automation

Get to Know the Rockwell Automation PartnerNetwork™



Johannes zu Eltz

Vice President
Global Market Access
Rockwell Automation

●●● **D**igital transformation and ongoing optimization of IT/OT technologies are critical for the future of manufacturing. In an industry weighed down with increasing complexities around global competition, supply chain, security, and workforce shortages, customers are searching for trusted partners to help them become and stay successful. Customers need a strong partner ecosystem comprised of tested solutions and expertise that can help them tackle challenges both today and in the future.

The Rockwell Automation PartnerNetwork™ addresses these challenges by equipping customers with a market-leading partner ecosystem that helps achieve seamless and sustainable digital transformation with support and services in the following ways:

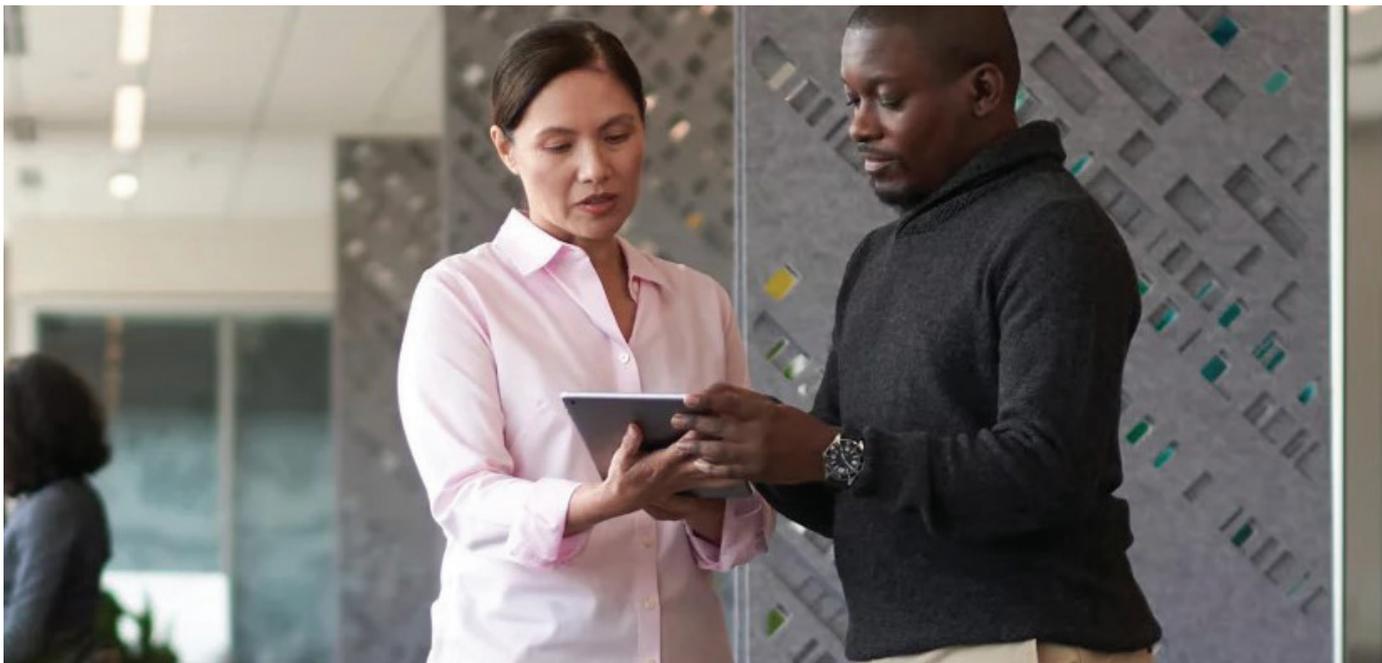
- **A holistic, end-to-end approach:** The Rockwell Automation PartnerNetwork provides access to the best people, products, and services to offer tailored, holistic, and innovative solutions for our customers. Our extensive ecosystem of highly skilled and best-in-class partners allows us to deliver market-leading technology and exceptional results along the entire business lifecycle and at any stage of our customer's digital transformation journey.
- **We help our customers press the easy button:** We take pride in our deep investment into our PartnerNetwork, our selection of market-leading partners, and our unmatched attentiveness to our customers. We do the heavy lifting with pre-integrated, tested and streamlined solutions so that the ease of doing business with us allows our customers to advance towards their goals faster, build secure, sustainable success, and have fewer risks.
- **The strongest and largest partner ecosystem in our industry:** For close to 100+ years, Rockwell Automation has cultivated a truly dominant place in North American industrial technology. We're proud of our success, but we didn't and aren't stopping there. We continue to expand into new regions, cultures, and verticals to help customers when and where they need it and our goals as to provide continually increased value to our customers, who benefit from an ever-growing ecosystem of smart manufacturing resources.

Who Makes Up the Rockwell Automation PartnerNetwork?

We know that no single company can be all things to all companies. That's why Rockwell Automation partners with leading companies that have experience delivering products or services that are designed to work with Rockwell Automation Solutions. They have broad domain knowledge, best-in-class solutions, and provide superior value and business outcomes. We differentiate ourselves by combining access to the top end-to-end industrial technology alongside expert support and services, to build trusted partner and customer relationships, and provide for a broad international presence.

Authorized Distributors

We have over 200 Authorized Distributors that partner with Rockwell Automation to provide our customers with exceptional industry knowledge and application expertise. Our Distributors provide simplified access to products and services in addition to being experts who offer local support and services to customers. Customers can expect to receive comprehensive management of electrical supply inventory, extensive training for employees, and quantifiable cost savings.



Original Equipment Manufacturer

Finding the right Original Equipment Manufacturer (OEM) is critical to the success of your manufacturing operation. OEMs pair their electrical and mechanical expertise with deep application knowledge to provide state-of-the-art manufacturing equipment. Serving all major industries and key OEM segments, from Automated Material Handling to Heavy Industrial Equipment, Rockwell Automation's OEM Partners offer solutions ranging from single machines to multipart lines and full facilities to meet today's manufacturing demands and enable a sustainable digital future.

More than 3,600 global OEM Partners work with Rockwell Automation to improve machine performance and help you gain the benefits. With extensive knowledge of Rockwell Automation technology, they can collaborate with you to design equipment for your specific needs.

System Integrators

Our community of over 3,700 System Integrator Partners offers extensive experience in the design, implementation, project management, and maintenance of complete automation solutions. From initial design and consultation through system development, commissioning, and support, they provide innovative solutions for control, power, and information applications to keep your processes online and in production. A Rockwell Automation System Integrator must demonstrate competencies in technologies and application expertise, sales success, and investment in collaboration with Rockwell Automation.

Technology Partners

To be the best in your industry, you need to align yourself with companies that are the best in their industries. We have close to 150 Strategic and Digital Technology Partners with more than 1,000 products that collaborate within the Rockwell Automation PartnerNetwork to deliver validated and more integrated solutions

that enhance the quality of your design and implementation projects when and where you need them.

Technology Partners are key to bringing innovation to the PartnerNetwork through their development of a wide range of products that complete and compliment the Rockwell Automation portfolio. This partnership links the technical and commercial resources of Rockwell Automation and the best-suited Technology Partner to bring additional functionality and more complete solutions to our mutual customers.

We're Better Together

Providing a holistic approach to transformation and collectively enabling customers is what we strive for every day with the PartnerNetwork. Our global partners deliver a complete set of solutions designed to help manufacturers succeed no matter what your business challenge may be. Meet and learn more about some of our partners, their solutions, and services [here](#).

We believe in our PartnerNetwork. That is what makes us strong, what makes us complete, and what helps us achieve results. **We are Better Together.**

Want to Join the PartnerNetwork?

As a Rockwell Automation PartnerNetwork member, you can leverage the global reach of our ecosystem to differentiate yourself in the marketplace. We can help you enhance your visibility, and we can solve customer issues together.

Learn more about the Rockwell Automation PartnerNetwork including how to become part of our partner community [here](#).

Rockwell Automation Completes Acquisition of CUBIC

Transaction expands global reach for intelligent motor control center offering

Rockwell Automation, the world's largest company dedicated to industrial automation and digital transformation, has completed the acquisition of CUBIC, a company that specializes in modular systems for the construction of electrical panels.

CUBIC, founded in 1973, serves fast-growing industries such as renewable energy, data centers, and infrastructure, and is headquartered in Brønderslev, Denmark. CUBIC will be reported as part of Rockwell's Power Control Business in the Intelligent Devices operating segment.

"This acquisition strengthens our portfolio of leading intelligent motor control technologies. We are excited to welcome the CUBIC team with their expertise in structural design, power systems, and global standards to Rockwell," said Bob Buttermore, vice president and general manager of Rockwell's Power Control Business. "CUBIC's efficient and flexible modular systems combined with Rockwell's intelligent devices and industry expertise will benefit customers by offering faster time to market, enabling broader plant-wide applications for intelligent motor control, and generating smart data to increase sustainability and productivity."

CUBIC's established partner model will allow Rockwell to expand its partner network for intelligent motor control offerings in Asia, Europe, and Latin America. Additionally, CUBIC will broaden Rockwell's market access in renewable energy and data center solutions.

"Rockwell's global leadership in industrial automation make it a perfect fit for CUBIC," said Jacob Moller Knudsen, CEO of CUBIC. "The combined portfolio will be compelling to new customers and partners in hybrid and process industries."

Ford Motor Company Selects Rockwell Automation to Advance Its Electric Vehicle Program

Collaboration will enable on-time successful launches to meet increased customer demand

Ford Motor Company has selected Rockwell Automation as its vehicle operations primary controls and solutions provider for its next three electric vehicle assembly sites. By jointly collaborating on assembly tooling designs and architectures that will increase speed to market, Rockwell can help machine builders to meet production customer demands and achieve on-time successful launches.

"We are strengthening the commitment to build world class electric vehicles for the future and fortifying the relationship between Rockwell and Ford that has been in place for more than 75 years," said Blake Moret, Chairman and CEO of Rockwell Automation.

"We look forward to working closely with Ford and its ecosystem over the next several years to accelerate business outcomes and advance the company's position as a global leader in the electric vehicle market."

"We're honored to be a part of Ford's journey to accelerate the rollout of EVs to customers," said Jane Barr, vice president, Global Industry Accounts at Rockwell Automation. "Our open-system approach ensures EV production aligns with the latest industry standards, regulations, and customer expectations."

Rockwell products and services will be utilized across Ford's automotive production complexes located in Oakville, Canada; Blue Oval City, Tenn.; and Avon Lake, Ohio.

To learn more about Rockwell's electric vehicle program, please [click here](#).

Rockwell Automation and Cognite Form a Strategic Partnership to Develop a Unified, Edge-to-Cloud Industrial Data Hub Offering for the Manufacturing Industry

With this first-of-its-kind offering, Rockwell will leverage Cognite Data Fusion to further unlock the value of data and advance digital innovation in manufacturing

Rockwell Automation, and Cognite, a global leader in industrial data software, announced a strategic partnership to further unlock the value of manufacturing data and accelerate technological change for the industry. The partnership combines Rockwell's FactoryTalk® software offering of next-generation edge connectivity to plant assets, operations management applications, and industry-tailored analytics with Cognite's leading Industrial DataOps platform, Cognite Data Fusion, to create an industrial data hub ready for enterprise-wide scaling.



With one of the largest footprints in industrial automation, Rockwell products create and process data worldwide. The partnership between Rockwell and Cognite will bring to market a unique, unified, edge-to-cloud industrial data hub that makes operational, engineering, enterprise, and visual data understandable and comparable for manufacturing across industries. The offering will transform raw data into high-impact applications for real-time decision making and improved workflows that ensure safe, productive, and sustainable operations. With Cognite's proven success in the Energy industry, this partnership will further enhance the edge-to-enterprise capabilities from Sensia, Rockwell's joint venture with Schlumberger.

"Manufacturers of all sizes struggle with getting access to, and value from, their data. A unifying information hub can provide a



single source of truth for all manufacturing data without a major investment in proprietary and costly platforms," says Rockwell's Brian Shepherd, senior vice president of Software & Control. "The bigger a company is, the harder it is to pull data together from all the different sources and then get meaningful analytic insights affordably. Our partnership with Cognite will directly address these challenges."

"We are excited to partner with Rockwell Automation to expand their FactoryTalk offerings and further enrich the data central to their applications," says Girish Rishi, CEO of Cognite. "Our mission at Cognite - to foster the development, operationalization, and scale of industrial Hybrid AI solutions - is echoed in this partnership. We look forward to working with Rockwell Automation to accelerate the industrial adoption of applied analytics and digital applications."

Rockwell Automation Names Robin Saitz Chief Marketing Officer



●●● **R**ockwell Automation announced that Robin Saitz has been promoted to vice president, Global Marketing and Chief Marketing Officer. She reports to Scott Geneux, senior vice president and Chief Revenue Officer.

In her new role, Saitz has global responsibility to lead marketing of Rockwell's full portfolio. With

a focus on driving demand and building the brand globally, she oversees industry strategy, marketing communications, analyst relations, demand generation, and commercial marketing.

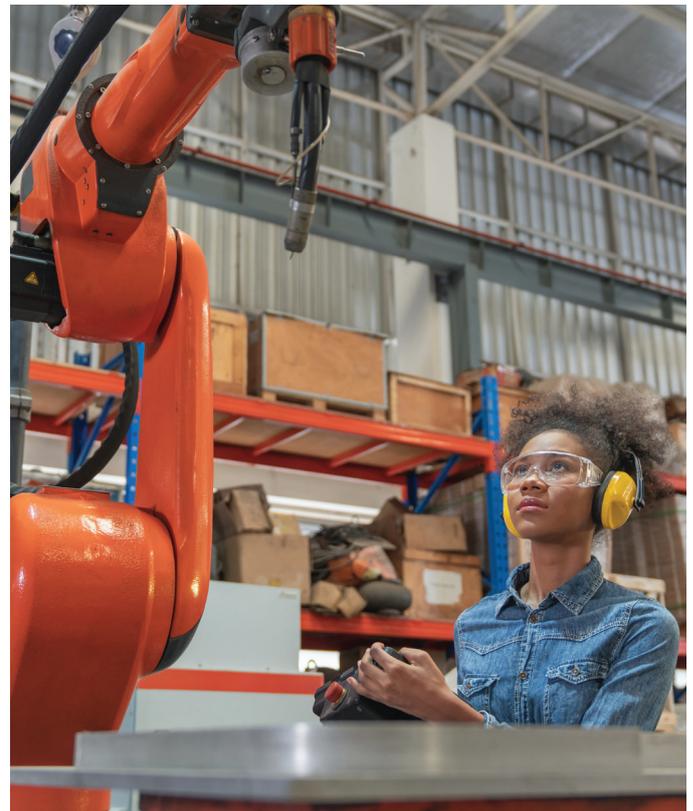
Saitz joined Rockwell as part of the [company's acquisition of Plex Systems](#), completed in September 2021. Most recently, Robin led marketing for software as a service in Rockwell's Software & Control business segment as the Plex & Fiix Chief Marketing Officer. [Fiix was acquired by Rockwell](#) in January 2021. The SaaS and Rockwell marketing teams will come together under Saitz's leadership.

"Robin is an engineer turned marketer with a deep expertise in marketing across multiple industries," Geneux said. "With her outside-in thinking and customer focus, she will build on the strong foundation we have to further elevate our go-to-market approach and make Rockwell the first choice in industrial automation and information solutions."

"Rockwell is at the center of so many important industry initiatives including digital transformation, cybersecurity, and sustainability. Our solutions are critical to delivering successful business outcomes for our customers," Saitz said. "This is why I am honored and excited to lead marketing for such a well-respected company."

Prior to joining Plex, Saitz held CMO roles at Avecto, a cybersecurity solutions provider (acquired by BeyondTrust), and Brainshark, a sales enablement software company. Robin spent more than 20 years at PTC, including her role as senior vice president of Global Marketing and Operations. She started her career as an engineer in packaging design.

Saitz earned a bachelor's degree in engineering from Trinity College in Hartford, Conn., and a master's degree in engineering management from Northeastern University in Boston.



Redefining Machine Flexibility

... **D**eliver smarter, highly flexible machines that don't compromise throughput.

For years, machine builders have focused on improving the changeover time – and flexibility of their equipment. While the result has enabled an unprecedented increase in the number of SKUs produced, flexibility and throughput are not evenly matched across a typical plant floor.

In other words, a case packer loads pouches at 300 per minute, but the pouch filler cannot match that speed. An entire packaging line can change over in minutes. But the high-speed processing equipment that feeds it isn't as agile.

Under normal circumstances, manufacturers can sacrifice throughput on some equipment – and maintain flexible production and adequate supply. But when the pandemic struck, the surge in demand quickly tipped the scales in favor of maximizing plant throughput. And flexibility suffered.

Recent events have highlighted the next significant challenge for all of us that serve the industry: how do we build smarter, highly flexible machines – that don't compromise on throughput?

Technologies that Remove Boundaries

Optimizing machine performance is a top priority but many machine builders have discovered that incremental improvements to equipment based on conventional technology are no longer enough to achieve the flexibility customers demand.

Machines built with static mechanical parts, friction-based conveyance and a plethora of ancillary equipment may achieve high throughput running uniform product with fixed variables. But they are often unable to reach productivity objectives in a "high mix, low volume" world – no matter how much designs are tweaked.



Thanks to advances in mechatronics, the road to more flexible equipment is often the path to better throughput. Particularly in assembly, packaging and other applications, these technologies are leading the way:

● Robotics

Intrinsically flexible, robots use vision-guided line tracking – not mechanical rerouting – to address infinitely variable product shapes and sizes. Robots can change their recipe on the fly – and still meet production rate demands.

● Independent cart technology (ICT)

Conventional conveyance systems move product on a preconfigured path at a fixed speed. ICT boosts flexibility and throughput by intelligently moving carts based on where other carts are in the system.

● Automated changeover

With **smart servo motors and drives** on changeover mechanisms, machine setup for a new product configuration is achieved with the push of a button.

Because mechatronics replace complex mechanical designs, your machines can do more – with fewer components in much less space. And with **emulation and digital twin technology**, machine builders can test and confirm designs in the virtual world to help speed innovation with less risk.

More OEMs are using **unified machine control** strategies to integrate these technologies into their equipment – and plant architectures.

Take Data to the Next Level

One way to improve your customers' opportunity for success is to design your machines for information availability. This means standardizing on a control platform and network infrastructure that simplifies integration – and seamlessly and securely connects to analytics platforms and business systems.

It is likely that your machines and equipment provide descriptive alarming to help improve maintenance and uptime. An alarm that indicates a motor overload has tripped helps with troubleshooting. But a worker still must make multiple decisions about how to react in the moment.



With network connectivity to a robust historical machine database, analytics tools can create models that predict future behavior based on past performance and use machine learning to optimize operations. This can be as simple as predicting an anomaly to give an operator time to take preventative steps.

Or as sophisticated as enabling your machine to take prescriptive action autonomously – like slowing motor speed – to maintain thresholds and keep equipment running.

Open for Business

Machine builders must also reimagine what flexibility means today. Over the past decade, the virtual marketplace has grown exponentially. And the pandemic ramped up demand by making the convenience of online retail a necessity.

In addition, more manufacturers are moving away from wholesale and retail distribution altogether – and increasing their profit margins by selling directly to consumers online.

What's next? Tighter integration between the supply chain, e-commerce portals and MES systems to enable a faster, more flexible manufacturing response better aligned to demand.

And for OEMs, this means sharing the digital foundation of machines with customers early in the process. And designing equipment that's not only easily integrated in the production space – but also connects directly to applications across the enterprise and beyond.

Meet Expectations with Scalable Offerings

A scalable automation platform improves the flexibility of your offerings and delivers a “win” for both you and your customers.

A truly scalable offering provides options throughout every aspect of the platform – from controllers and I/O through to the human machine interface (HMI), batch process control and analytics.

With open communication protocols, your customers can capture the value of smarter equipment without a major upfront investment in automation infrastructure – and scale as they grow.

Machine builders have the opportunity to take advantage of reusable, plug-and-play enabled tools to streamline the design process as offerings expand. Additionally, they easily leverage applications and analytics developed from one system to another.

A Smarter Way to Work

Even the most agile machine cannot maximize throughput if it's not performing optimally. And over the past two years, we learned to take a more flexible approach to solving equipment challenges.

For OEMs faced with travel restrictions, remote connectivity to installed assets was the only way to service machinery and customers are increasingly warming to the technology.

The pandemic has also accelerated the adoption of other digital technologies that optimize machine performance – and support more flexible work paradigms. In particular, augmented reality platforms have made a significant impact. For example, this [collaborative remote assistance tool](#) uses augmented reality to enable workers to share real-time instructions and guidance without being physically on site.

Strategy for Success

The latest advances in mechatronics and digital technologies could improve machine flexibility or throughput on machines by 50% or more. So what steps can a machine builder take?

One piece of advice: This isn't a retrofit project.

To achieve the dramatic gains new technologies promise, you will likely need a “clean slate” approach to machine design. And have a vision of where your digital journey will ultimately lead – aligned with customer needs. Collaborative projects that take advantage of the natural “push and pull” between OEMs and their customers result in the most transformative, cost-effective machines.

Learn more about how to build [smarter machines and equipment](#) that improve flexibility without compromising throughput. [AT](#)



8 Key Considerations to Automate Your Weighing System

METTLER TOLEDO

... **W**eight-based control is an excellent choice for many machine builders and system integrators due to higher productivity and consistency of results when compared to other means. Moreover, an added benefit is that weight sensors or scales do not physically contact the products that they are measuring; this avoids cleaning and risk of cross contamination.

While this method can be used for processes measured in minutes or hours, it can also offer significant advantages for high-throughput systems with processes measured in seconds or less.

There are eight key considerations to take into account when crafting machines that function along the automation measuring chain. These considerations are:

1. Industrial Network Connectivity

Over the years, Industrial Ethernet (IE) has seen tremendous adaptation in factory automation due to its transmission speed and deterministic nature. IE is a key requirement to ensure good product quality and throughput in automated weighing process. Furthermore, IE devices facilitate easy, seamless and accurate integration into PLC control systems.

Unlike TCP/IP Ethernet, there are many specifications for IE defined by the automation company or sponsor. A common IE in process control for Rockwell Automation is EtherNet/IP. An ideal smart weighing automation system should support multiple IE protocols, be flexible to connect to different IE networks yet communicate in the same standardized manner.

The weighing data in OT has to follow certain tested and optimized protocol to streamline communication with the PLC. This is why METTLER TOLEDO developed the Standard Automation Interface (SAI). SAI was designed to make it easy for customers to quickly connect to METTLER TOLEDO's industrial automation components such as terminals, transmitters and automatic precision-weighing sensors. This protocol is developed for high-speed IE communication such as EtherNet/IP. SAI works with all strain gauge scales and smart devices like high-precision bench scales, floor scales, METTLER TOLEDO's POWERCELL® weigh modules, and scales that facilitate weighing from 11 grams to 1,000 tons without changing the automation controller program.

SAI also supports condition monitoring and RedAlert™ alarming that automatically notifies the automation system when the sensor or scale is incapable of sending accurate weight.

2. Ultra High Processing Speed with Continuous Accuracy

Consider how fast your device, or system, reacts to a change in weight. If you are a designer who expects higher productivity and better quality, speed also known as PLC update rate is your most critical factor. High update rate devices can provide the highest accuracy (trueness and repeatability) in the shortest time so your control system can make precise decisions at the right moment.

High update rate devices allow you to profile material flow so precise that you can refine your control variables and algorithms. With 960Hz ultra-high cyclical update rate from METTLER TOLEDO's IND360, your PLC will be able to make milliseconds control decisions.

You will also be able to automate your machine using lesser hardware such as extra feeders or valves while helping your customers achieve the highest level of processing quality with simpler maintenance.

4. Simplified Integration into Control System

Utilizing Certified Automation Interface will help to save you valuable engineering hours. Hence leveraging available Add-On Profiles (AOPs), Add-on-Instructions (AOIs), EDS device description files, PLC programming sample code, and expert level support make integration simplified, quick and easy.

AOP: When integrating a new weighing system into a Rockwell Automation control system, the weighing device that is equipped with AOP shortens the configuration time needed to get the module up and running. AOP is a product of collaboration between Rockwell Automation and partners such as METTLER TOLEDO.

AOI: AOI is a set of ready-to-use instructions which can reduce the PLC programming effort by at least 50% based on existing customer feedback.

3. Plug and Weigh Communication Protocol

A smart, future-proof automated weighing system should be able to communicate to both Operational Technology (OT) and Information Technology (IT) networks or cloud services. Time-critical and deterministic process control data packets travel in the OT network, while process or machine condition monitoring data is sent via the IT networks, consumed by different business intelligence functions.

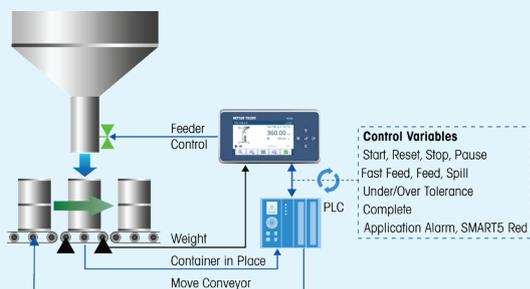
Furthermore, having a built-in web server makes setup and maintenance hassle-free whether you are remote or on-site. It reduces button pushing, errors and offers backup, restore and cloning. With this feature, your maintenance team can reduce the number of proprietary software tools to manage all equipment in the plant.

All these integration tools ensure the weighing devices send accurate weight and device condition data to your PLC/DCS for reliable operation, maximum uptime, and ultimate visibility.

5. Decentralized Controls with Wide Applications

Control system integrators usually spend huge amounts of time and effort on PLC programming in order to realize a fully functional and effective weighing process control. Furthermore, such PLC programming is not a one-size-fits-all. By relieving this task from the PLC controller to the automation terminal such as METTLER TOLEDO's IND360, engineers will be able to focus on weighing process optimization. Examples of weighing applications which can be fully controlled by the automation terminal are tank scale monitoring, dynamic weighing, rate control and filling/ dosing system.

For instance, in a filling/dosing application, you can offload the core functions to the weighing terminal to maximize the strengths of both the PLC and the automation terminal. The PLC initiates the filling operation while managing less time-critical tasks like moving the next container into place. This shared control allows the system to run much faster and use single speed control to reduce filling hardware to further speed up operations.



Decentralized filling control system. Photo credit: METTLER TOLEDO

These pre-programmed applications lead to improved process efficiency while standardizing maintenance through a single automation terminal.

6. Global Compliance

Your weighing equipment should fulfill both international and local compliance standards enabling streamlined procurement, faster implementation, and more efficient cross-border startup without the usual headaches associated with exporting equipment.

Some of the key global approvals are weight and measure relevant: OIML or NTEP; hazardous area applications: ATEX, IECEx or FM; Industrial Interface, Open Device Vendors Association (ODVA).

7. Events & Alarms Reporting

Operators in your facilities may be overwhelmed with information regarding the status of sensors and systems installed at your site, making it difficult for them act quickly when a problem occurs. This increases the risk of major problems that contributes to a longer downtime.

METTLER TOLEDO's IND360 Smart5™ alarm system follows the global industry standard NAMUR NE107. It offers instant visibility to process status and inventory levels so that you can be confident in your machine performance, avoid out-of-spec products, and eliminate excess waste to enhance productivity and save materials.

Built-in condition monitoring and Smart5™ alarms ensures continued high performance. The IND360 provides the operator specific instructions and guidance to quickly eliminate the root cause of any unexpected problems, giving you peace of mind.



Stop



Call Service



OoS / Wrong Step



Test Due



All Okay

METTLER TOLEDO's IND360 Compact Automation Terminal Smart5. Photo credit: METTLER TOLEDO

8. Installation Flexibility

An automation terminal that is flexible and versatile enough to accommodate various operating environments, be it harsh or



hazardous will be an advantage for you to ensure that it can fit into any application.

DIN Rail, Panel & Harsh Type Enclosures. Photo credit: METTLER TOLEDO

METTLER TOLEDO's IND360 compact automation terminal fulfills all eight key considerations highlighted above where it:

- Offers the opportunity to maximize equipment uptime, improve ease of operation and reduce time spent on training.
- Helps you to connect all weighing technologies across a broad range of capacities, boost machine performance and reduce commissioning time on every installation.
- Minimizes complexity by standardizing on one globally approved core technology.

Need more flexibility?

Visit the product page to see the different IND360 variants and benefit from full flexibility in your next project.



Read More

www.mt.com/IND360



Technology Partner

A ROCKWELL AUTOMATION PARTNER

LeMatic Extends Value with IIoT Technology



From proof-of-concept to aftermarket SaaS, this bakery equipment manufacturer is using new digital tools to redefine success.

Challenge

- Streamline proof-of-concept and machine development cycle – and improve customer data utilization, training and troubleshooting.

Solutions

- **Emulate3D™** dynamic digital twin software
- **ThingWorx** IIoT platform
- **Vuforia** augmented reality (AR) solutions

Results

- Optimizes proof-of-concept machine testing with emulation leading to \$1.8 million order.
- Improves access to critical information with expanded analytics and intuitive dashboards.
- Streamlines worker training, thanks to powerful AR tools.
- Enables development of new software as a service (SaaS) bundle – Auto iNet – to support optimal operation throughout machine lifecycle.

●●● **S**ince 1972, LeMatic has prided itself on delivering not only leading bakery solutions – but outstanding customer service throughout the lifecycle of their equipment.

“Our specific expertise is in slicing and primary packaging,” said Richard Kirkland, president, LeMatic. “While most of our customers today are large, wholesale bakers, we are developing equipment to help the mid-size baker get the job done.”

From headquarters in Jackson, Michigan, United States, the family-owned company supports an installed base extending across more than 40 countries. LeMatic is part of the **Rockwell Automation PartnerNetwork™** program.

Early Technology Adoption Drives Differentiation

LeMatic traces its success to its ability to quickly recognize evolving industry challenges and to harness the power of new technologies to address customer needs.

“Historically, LeMatic has been an early adopter of Rockwell Automation solutions,” said Kirkland. “We embrace new technology and devote much of our product development to incorporating it into our offerings.”

One example: The company now offers remote connectivity on all major equipment to better serve customers.

“Instead of spending 15 hours on a plane, I completed a 10-minute repair over Ethernet on equipment in Eastern Europe,” said Chris Wojton, controls engineer, LeMatic. “We also used remote connectivity and on-machine cameras to commission a bagger line in South America when we were unable to travel due to the pandemic.”



Impactful Proof-of-Concept with Emulate3D Software

LeMatic is also incorporating new digital tools into its machine development process.

For instance, the company recently used **Emulate3D** digital twin software to guide product design and customer engagement for a new machine, the P7 pattern former.

Built on a Rockwell Automation control platform, the P7 is a complex machine designed to arrange single packaged products into larger package configurations. The products enter the machine via conveyor single file and are intercepted on the fly by an overhead robotic gantry system. The system orients the product and releases the grouping to a retractable conveyor, which drops the product onto a tray.

“With Emulate3D, we used our CAD models to create a simulation and demonstrate machine operation to our customer during proof-of-concept,” explained Glen Wheaton, electrical engineer, LeMatic. “We also loaded the machine program into a PC to emulate exactly how products would run online – before any PLCs were purchased.”

The presale demonstrations of machine functionality ultimately led to a five-machine order valued at \$1.8 million.

New Insights. Better Troubleshooting. Faster Training.

LeMatic’s increasingly sophisticated machines produce a wealth of data. And in recent years, the company has keenly focused on helping customers capture and analyze that data to improve operations.



“Our goal is to help customers identify trends and use information to proactively address equipment issues,” Kirkland said. “Also, when machine data is shared at the corporate level, it can enable equipment and plant comparison – and help determine why something is working at one plant, but not another.”

To improve access to useful information, the company is developing Auto iNet, a customized software-as-a-service (SaaS) solution based on the **ThingWorx** Industrial Internet of Things (IIoT) platform. The platform connects disparate data sources – and provides a single source to collect, aggregate and access operational data through intuitive dashboards and analytics.



LeMatic also aims to digitalize all operation and maintenance manuals and incorporate augmented reality (AR) in the SaaS bundle, based on **Vuforia** AR solutions.

“Oftentimes, operators stay on the job six months or less,” said Kirkland. “Initially, the AR portion of our solution will be used primarily for repetitive training – to relieve supervisors from constantly training new workers.”

But the company envisions the AR capabilities to quickly expand beyond training to support operation and maintenance activities.

Not Just IIoT-Ready. IIoT-Implemented.

For LeMatic, the adoption of IIoT technology across its portfolio is just one more way the company supports its best-in-class vision.

“We’re serious about IIoT technology,” Kirkland said. “We are quickly getting to the day when I can tell a baker our machines aren’t just IIoT-ready – they’re IIoT-implemented.”

Learn more about solutions delivered by our **OEM Partners**. **AI**

Powering Unique Mobile Grain Handling Solution



Klean A Seed Yarrowonga enjoys the benefits of automation with an upgraded seed grading machine to comfortably deliver 36 tonnes per hour.

Challenge

- Klean A Seed required an increase in grain-handling capacity, which had to be designed within strict weight and size limits of the truck.
- Full cleaning and decontamination processes are required between customers, and need to be done efficiently in order to minimize downtime.

Solutions

- CompactLogix™ safety processor
- PowerFlex® 525 drive over Ethernet
- PanelView™
- PowerFlex 750 drive

Results

- **Increased capacity** – The new grain handling solution comfortably achieves 36 tonnes per hour, well above the level of 32 that was sought from the outset.
- **Faster cleaning** – With easy access to cleaning all parts of the truck, cleaning times can be reduced from 30 minutes to 5-6 minutes each time.
- **Greater machine control** – Rockwell technology has enabled greater control over the grain handling machine and its components.

●●● **A** VK Logic solution, powered by Rockwell Automation technology, is helping to enhance uptime and increase capacity for professional mobile seed grading business, Klean A Seed.

Major benefits of the new solution include an increase in capacity to 36 tonnes, quality assurance, better contamination control, and more efficient cleaning.

The technology involved recognizes that grain handling is a complex process that requires dedication to quality, hygiene, and uptime. To produce a clean, graded final product suitable for vendors or re-sowing, grains are typically taken offsite to a processing facility.

Carting seed to and from a processing facility adds delay and expense, so Pat Cummins established a mobile grain processing business, Klean A Seed, in Yarrowonga, Australia, about 100km west of Albury/Wodonga. Klean A Seed provides seed grading, grain processing, contamination control, and quality seed treatments.

“I work with farmers to treat winter cereals, like wheat and barley, and prepare them for sowing. Klean A Seed helps with pest and disease control, and our professional seed grading helps avoid blockages of planting machinery,” says Cummins, who has owned and operated Klean A Seed since 2009.

After years of providing a mobile seed grading service, Cummins noticed several areas that could be more efficient, produce higher quality results, and enhance profitability, if the right technology was used.

Taking mobile seed grading to the next level

After thorough research, Cummins engaged VK Logic, a specialist design, build, and automation company, to build a new truck utilizing the latest technology.



The new mobile seed grading machine features a unique telescopic arm, allowing the machine to fill multiple silos from the one position.

“There were a number of challenges in developing the Klean A Seed solution. Pat had a great vision for what he wanted to achieve, but there were restrictions in what could fit in the size and dimensions of the truck, while still keeping it roadworthy and safe for on-road and off-road use,” said Justin Van Klaveren, managing director, VK Logic.

VK Logic provides total end-to-end engineering solutions, including in-house engineering and fabrication, with a combination of mechanical, electrical, and automation expertise. Having design, building, and maintenance capabilities under one roof means projects can be completed more efficiently compared to engaging two or three separate companies.

“To keep the truck within certain dimensions and weight distributions, but to add such advanced technologies and processes, was one of the largest challenges of the project. We found Rockwell Automation’s technologies gave us the greatest flexibility to achieve these complex requirements,” added Van Klaveren.

VK Logic identified key areas that could be improved in the new truck build, including making it more user-friendly, giving the operator greater control over machines and processes, increasing capacity, and reducing maintenance downtime.

“We knew, given the complex requirements, that the best process control solutions could be achieved using Rockwell Automation technologies. Not only was Pat already familiar with Rockwell gear, but Rockwell Automation provides greater accessibility to support when out in the field, which is a crucial benefit to a business that spends its time in the countryside helping farmers,” said Van Klaveren.

New technology drives performance benefits

VK Logic designed a new mobile seed grader that utilized Rockwell Automation’s CompactLogix safety processor, PowerFlex 525 drive over Ethernet, PanelView, and PowerFlex 750 drive.

“Rockwell Automation had the best product offering and solutions to complement the new truck we were building, and the service is a valuable added benefit,” said Van Klaveren.

The unique design of the new mobile seed grader featured a range of innovative advances on previous designs, including:

- A conveyor belt with 3.6m telescopic function, so that Klean A Seed can transfer the treated seed directly into the customer’s silo. Further, the conveyor can then be adjusted, so that it can deposit seed into different silos within reach, without having to adjust the position of the truck
- Slide-out generator, for easy access and maintenance

- More electric motors, controlled via Rockwell Automation PLCs, which provides more control over the machine
- Flatbed type screens and rotary screens for grain processing

“VK Logic, a Rockwell Automation System Integrator Silver partner, has done an outstanding job of listening to customer needs, and developing the most efficient and user-friendly solution, one that will continue to deliver value year after year,” said Matthew Taylor, NSW account manager, Rockwell Automation.



Rockwell Automation technology gave Klean A Seed greater control over the machine, leading to efficiency and performance benefits.

Increased capacity and uptime

With the new truck now in operation, Cummins is experiencing a broad range of benefits in relation to capacity, user-friendliness, and maintenance.

“One of the major objectives of the project was to increase capacity. We nominated 32 tonnes per hour from the outset, and now that the truck is fully built, it is comfortably achieving 36 tonnes per hour, which is a great result,” added Van Klaveren.

Maintenance was another major consideration in the new truck’s design. To avoid contamination, and to provide quality assurance to customers, Klean A Seed needs to clean out the entire machine between customers.

VK Logic designed the truck so that the machinery tilts out, which makes access for cleaning significantly easier, thereby reducing downtime.

“We estimate that a 30-minute cleaning task has now been reduced to 5 or 6 minutes each time. When you consider how many customers Pat is serving, that time saving really adds up,” said Van Klaveren.

“We are proud of this solution, and the ongoing benefits it will deliver to Klean A Seed. Rockwell Automation gave us the technology features, the flexibility, and the service to recommend a robust solution to our customer, so it was an ideal partnership,” he concluded. **AI**

Better Warehouse Systems Start with Emulation

... **N**ow equipment suppliers and system integrators – and their customers – can mitigate risk, boost innovation and optimize complex and dynamic fulfillment operations

The explosion in online shopping has been a boon for small retailers, massive distribution and logistics companies – and everything in between.

Simply put, if you're not into e-commerce, you're not in the game.

But success in the digital marketplace requires more than generating online orders. Sellers must also meet consumer expectations for fast, efficient delivery within two days or less. And in today's competitive labor market, finding workers to improve fulfillment efficiency is increasingly difficult.

What's the upside? If you're a warehouse equipment supplier or system integrator, more customers will be turning to you for automated solutions that improve operations.

And with simulation and emulation tools, you can now deliver truly innovative technology – with less risk.

The Critical Role of Risk Mitigation

To support the new direct-to-consumer paradigm, companies both large and small are reevaluating and expanding warehouse operations. Even small retailers that never considered warehousing – much less automated distribution – are exploring investments that can deliver a more seamless buying experience.

As with any major transaction, customers carefully evaluate risk before any capex funding is released for a warehouse project. Here are a few key questions they will likely consider:

- Will the system really respond to dynamic changes as described?
- What if the spreadsheet calculations the equipment supplier provided aren't accurate?
- What if this solution isn't any better – and is perhaps worse – than what we currently have?
- Are we spending too much?

Mitigating these risks is key to your value proposition as a supplier. And simulation software is one of the most effective tools available to allay customer concerns. In fact, more warehouse operators now require simulation models as part of the proposal process.

Accurate Predictions. More Efficient Engineering.

You might have experienced the discomfort of an on-site commissioning not going as planned. When system design and control systems come together for the first time, there's always the risk that something will not operate as expected.

While a "can-do" spirit and last-minute design changes can often save the day, it's not an efficient way to work. And the inability to get it right the first time could erode your customer's confidence and compromise the startup date.



With simulation and emulation software like Emulate3D, you can build an accurate virtual model – or digital twin – of your system. Then, use this model to simulate operation in essentially any scenario. Experiment at flow rates far faster than real time. Run a limitless number of runs and variable combinations – and share the predictions with your customer. It's all possible in simulation.

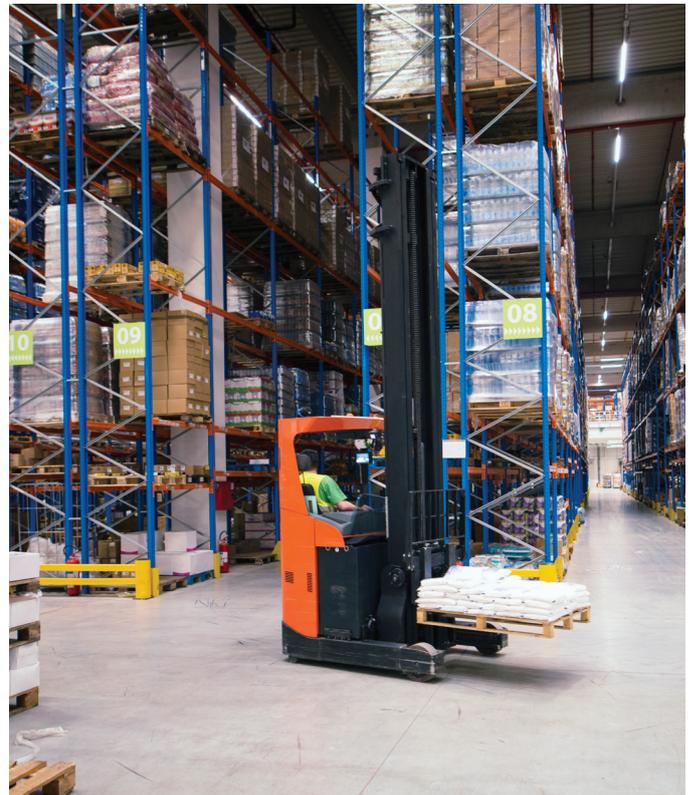
The software also goes a step further. It enables you to connect the literal PLCs and SCADA system to the model and emulate – or mimic exactly – operation in real time. As a result, you can validate the PLC code long before arriving on site.

Test Drive Innovative Technology with a Holistic View

Direct-to-consumer fulfillment has fueled not only a higher volume of orders, but also a higher volume of small orders – and incredible variety in parcel size. Many existing facilities simply were not built to accommodate this type of product mix.

To optimize operations, many companies have deployed automated guided vehicles (AGVs) and automated storage and retrieval systems (ASRS). And to improve agility, more companies are exploring autonomous mobile robots (AMRs), **independent cart technology (ICT)** and other smart solutions. Technology suppliers have long provided tools that simulate operation – or the motion of a robotic arm or some other aspect of their offering. But those tools do not provide a “big picture” view of the warehouse in action.

That's where a holistic Emulate3D simulation and emulation solution can deliver greater value. With this solution, you can easily incorporate ICT, robotics and other technologies into your model using a rich content library. Then, virtualize the entire warehouse environment and use a common tool to test the impact of new technology on a dynamic product mix.



In other words, the holistic simulation solution enables end-to-end warehouse testing that can answer difficult questions, such as:

- “What happens when average package size dramatically changes?”
- “How will this new technology improve outcomes?”
- “Will it help me reduce my commissioning time?”
- “Which technology is the most cost-effective choice?” **AI**



Automation is the future

MHM Automation designs and supplies innovative, engineered solutions to the primary and logistics sectors worldwide.

- > Packaging
- > Palletising and conveying
- > Materials handling
- > Chilling and freezing
- > Reverse packaging



MHMAUTOMATION.COM



GOLD OEM Partner
ROCKWELL AUTOMATION

Smarter Packaging Machines to Improve Flexibility and Simplicity

●●● How new technologies can help address your customers' most pressing packaging challenges

Packaging machines today need to address two primary areas for manufacturers.

First, machines need to be designed to take advantage of smart manufacturing to give manufacturers a competitive edge. This means machines are information-enabled, can deliver real-time diagnostics, use contemporary safety technologies, and are easy to integrate.

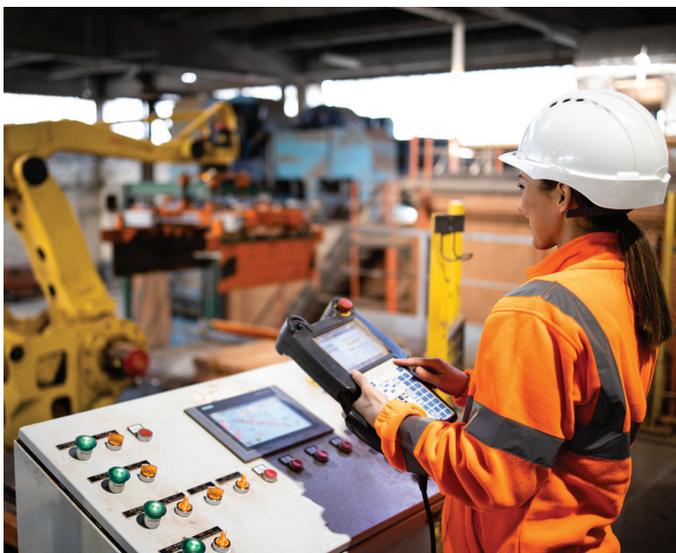
Smart manufacturing is still being shaped by the emergence of smart devices. Because of this, smart machines must be future-ready, with the capacity to easily scale up with additional connections and expansions.

Second, machines need to be high performing and help manufacturers meet their most pressing business needs to:

- Maximize productivity and efficiencies to remain competitive
- Improve packaging flexibility to accommodate expanded product varieties and more diverse packaging sizes
- Meet the needs of an aging and evolving workforce

This is where smart machines come in as part of the equation that can thrive in the Connected Enterprise where plant and enterprise-level systems converge.

Companies that invest in an enterprise-wide transformation strategy built upon an intelligent architecture will be best equipped to adapt to shifts in the market and capitalize on tomorrow's opportunities. Integrated technology provides access to the information needed to make decisions in real time and optimize operations in any situation.



Embracing Smart Machines

Key considerations when designing smart packaging machines for the Connected Enterprise include identifying how you can achieve the desired levels of connectivity and performance.

At the network level: A smart packaging machine should be able to communicate in real time across an IP-based, standard and unmodified Ethernet network infrastructure. EtherNet/IP™ is a proven and complete industrial Ethernet solution. It helps enable a simple network architecture and can handle discrete, continuous process, batch, safety, drive and motion applications.

At the system level: The packaging machine should take advantage of the next-generation Rockwell Automation **Integrated Architecture®** portfolio. It can reduce complexity, give users easier access to information, and improve responsiveness to changing market demands. Key elements in the Integrated Architecture portfolio include the **Studio 5000®** software that integrates multiple functions into one development environment.

This can help you speed the development of packaging systems for the Connected Enterprise. The **Allen-Bradley® CompactLogix™ 5380** controller provides up to 20% increased application capacity and is ideal for small to midsize applications that require low axis motion and I/O point counts.

For larger applications, the **Allen-Bradley ControlLogix® 5580 controller** provides up to 45% more application capacity. Both controllers include embedded 1-gigabit Ethernet ports to support the growing demands of smart manufacturing.

Improving Productivity and Efficiency

End users are looking to get the most from their packaging machines. They can do this by connecting machines, sensors and devices, and using intelligent software to improve control. Standardized machine functionality that is combined with standardized information reporting can help drive continuous OEE improvements across multiple sites.

You can use enabling, remote-access technologies and services, such as the **Allen-Bradley Stratix® 5700** managed industrial Ethernet switch, which manages secure, remote-access connections on the plant floor. Also, the remote monitoring and analytics service offers a simple and secure approach to monitoring equipment remotely. In addition, several members of the Rockwell Automation PartnerNetwork program provide cloud-based and remote-monitoring solutions.

Mobile technology expands traditional HMI system access to let operators be more productive. It can empower manufacturing operators, managers and supervisors to make timely decisions no matter where they are.

More Flexible Packaging Options

Higher SKU counts and more diverse packaging sizes have led to shorter production runs. As a result, manufacturers need greater machine flexibility and faster changeovers to maximize throughput. Traditional motor solutions that use rotary-driven chains, belts and gears can be rigid, with complex designs and little flexibility.

New machine solutions such as robotics technologies and independent cart technology are better suited for today's production needs. Our **iTRAK®** system replaces traditional mechanics with simple and effective software profiles. This can improve speed and flexibility in a diverse range of packaging applications. The **MagneMotion®** high-performance conveyor systems with servo-controlled, independent cart technology help more safely, quickly and easily transport products and heavy loads between machines and throughout a plant.

Integrating robotic technologies into a packaging system can allow for faster communication of control, safety and process information, and more accurate control of machine movements.

Design Machines for an Evolving Global Workforce

The global manufacturing workforce is in the midst of a massive transition. Skilled worker shortages have emerged as a threat to growth and productivity in multiple regions around the world. To help end users cope with these challenges, packaging machines should be designed for easy use by both newer and experienced workers, while also optimizing worker safety and productivity.

HMI faceplates with systemwide diagnostic functions and easy-to-understand display screens can help workers better detect issues and ease troubleshooting. Embedded help functions and user manuals can also help improve machine familiarity for inexperienced operators.

The **Allen-Bradley Kinetix® 5700 servo drive** can ease commissioning and maintenance for large machines. It uses Load Observer real-time tuning to lessen the need to tune each individual axis, which can reduce commissioning time by days, weeks or even months. Tracking Notch Filter technology helps prevent machine failures by detecting and removing resonant frequencies, and automatically making tuning adjustments over time.

Modernize safety

Contemporary safety systems that are integrated with machinery control systems can help reduce safety risks while also improving productivity. These systems are less prone to nuisance shutdowns than hardwired systems. They are also more ergonomic, reducing the probability that workers will override the systems and put themselves at risk.



Reducing Design Complexity

Machine design time is crucial to both meeting your customers' needs and improving your bottom line. Premier Integration consolidates controller programming, device configuration, and machine operation and maintenance activities into one software environment. This can help you reduce system complexity and cut design time in several key ways:

- The Studio 5000 development environment replaces the need for multiple tools with one platform for designing and configuring systems.
- Logix-based controllers can recognize specific Rockwell Automation components and automatically import their device profiles.
- Library management allows you to store, manage and reuse code from your programs, helping you cut development time and build on the outcomes of successful projects.

Device selection can also be key to reducing system complexity. For example, the **Allen-Bradley PowerFlex® 527** drive offers the benefits of Premier Integration but uses embedded instructions that are shared with Kinetix servo drives to streamline the configuration, programming and control of the drives.

For greater flexibility at a lower cost and shorter time to market with scalable and repeatable solutions to meet your manufacturing needs, we have put together more detailed information on packaging solutions based on what your production needs are for now and for the future. These range from vertical or horizontal form, fill and seal machines to cartoner and filling machines. More information [here](#). **AT**

HCH® *World advanced level created from China*

Heng Chang Machinery Co., Ltd(HCH)

A leading professional manufacturer of complete production lines for disposable hygiene products

Learn more at aqhch.com.cn/en/



Rockwell Automation Returns to Chicago for Automation Fair®, Launches Products to Aid Smart Manufacturing

●●● **N**ew products and innovations a main focus during manufacturing and technology event

Rockwell Automation, the world's largest company dedicated to industrial automation and digital transformation, showcased and introduced a number of new products and solutions coming to market at its recently held annual event [Automation Fair 2022](#).

One of the new solutions introduced this year will help machine builders simplify designs, reduce costs, and create the next generation of performance machines with the portfolio of on-machine products.

On-Machine™ solutions are a decentralized equipment design approach that helps reduce the challenges of cabinet-based solutions for OEMs and end users. Offering a simpler, more modular approach to machine design lowers total costs, saves floor space and minimizes time to deploy. This technology can speed design installation and maintenance and improve productivity and flexibility—important capabilities to address in today's manufacturing environment.

"It's always powerful to release new products and solutions to our partners and customers during Automation Fair," said Tessa Myers, senior vice president, intelligent devices, Rockwell Automation. "We get instant feedback throughout the week as we delve deeper into our customer's needs and how we can help bring their entire Connected Enterprise to life with new product offerings now and even into the future."

Rockwell Automation offers drives and distributed I/O that are a scalable solution designed to help meet rigorous application needs:

Armor Kinetix® near-motor & integrated drive-motor servo solutions

The new ArmorKinetix distributed servo drives are equipping manufacturers with decentralized motion control solutions that helps them simplify designs and build smarter machines. These new servo drives provide the high-performance of the Kinetix® 5700 platform in a compact, On-Machine™ form factor to help create systems that are more efficient, flexible and cost-effective than ever before with options for a near-motor drive or an integrated drive-motor solution. ArmorKinetix will be available for customers early 2023.

ArmorBlock 5000™ I/O - Distributed I/O blocks with IO-Link technology

ArmorBlock 5000 I/O offers easy distributed monitoring and control through its IO-Link capabilities, enabling increased operational visibility and agility. The industrially-hardened blocks are optimized for On-Machine use to help meet demanding IP66, 67 and 69K

application requirements in harsh environments.

ArmorBlock 5000 I/O will be available for customers the second quarter of calendar 2023.

Armor™ PowerFlex®—A drive for the most demanding applications

Armor PowerFlex drives are a new generation of On-Machine VFD motor control solutions that provide an integrated, near-motor solution where reducing installation time and cost are most critical. Armor PowerFlex drives combine an innovated design that reduce installation costs, installation time and unplanned downtime. They provide integrated gigabit dual-port EtherNet/IP™, a variety of motor control options, flexible mounting options and hardware and network safety features.

Rockwell Automation Speeds Time to Market for New Industrial Automation Design, Launches FactoryTalk Design Hub

●●● **N**ew offering utilizes five core solutions as it merges improved collaboration and productivity for design teams.

Rockwell Automation announced the launch of [FactoryTalk® Design Hub™](#). Industrial organizations can now transform their automation design capabilities with a more simplified, productive way to work powered by the cloud. Teams of all sizes, skillsets, and locations can work smarter through enhanced collaboration, improved lifecycle management, and on-demand access to cloud-based software. The result is increased design productivity, faster time to market, and systems that cost less to build and maintain.

"In this new age of 'work from anywhere,' having centralized, on-demand design tools is critical for businesses to scale production and easily adapt to evolving customer needs," said Brian Shepherd, senior vice president, Software & Control at Rockwell. "FactoryTalk Design Hub gives manufacturing engineers access to the full breadth of Rockwell Automation tools and capabilities in a centralized nexus for successful design and collaboration across their team and the greater enterprise."

FactoryTalk Design Hub improves development and deployment of automation projects for industrial organizations, while adhering to the latest security standards and information technology (IT) best practices. It enables teams to access designs on demand from any web browser with software that is always up to date and flexibly scales users and compute capacity to meet project workload demands.

"The digital transformation of automation design capabilities requires both the cloud to maximize control system developers' productivity, and it also requires that all software tools are connected to each other by a digital thread to maximize collaboration, scalability, and productivity," according to Craig Resnick, vice president, ARC Advisory Group. "Rockwell Automation's FactoryTalk Design Hub enables seamless digital thread connectivity between

its design, visualization, digital twin, storage, and remote access software tools that provide control system developers with immediate on-demand access to all automation designs as needed regardless of their location, helping these companies to accelerate their initiatives ranging from digital transformation to IT/OT convergence.”

Companies are looking for better ways to solve their most pressing problems. Traditional software design approaches limit collaboration, scalability, and productivity. FactoryTalk Design Hub addresses these three primary concerns for all automation workflow design needs.

“I’m really excited that Rockwell Automation is putting the resources behind this type of development on behalf of control system developers everywhere,” said Doug Hoffer, senior automation engineer at Samuel Engineering. “This could become a really significant way to tie cloud functionality and analytics to the control system development process.”

FactoryTalk Design Hub includes five core solutions:

FactoryTalk Design Studio



FactoryTalk® Design Studio™ is a new cloud-native software product built from the ground up to improve system design efficiency. Available anytime, anywhere using only a web browser, there are no downloads or installs required and no software maintenance responsibility. Beginning with controller design, FactoryTalk Design Studio reduces development time by leveraging modern software development practices and an integrated version control system. Teams can collaborate more easily than ever with automated tools to share and merge changes, and project sizes can scale dynamically with support for multiple controllers in a single project. FactoryTalk Design Studio is ready to change the way industrial automation systems are created.

FactoryTalk Optix Software

FactoryTalk® Optix™ is a new product addition to the Rockwell Automation visualization portfolio. Known as “visualization for visionaries,” FactoryTalk Optix is the first cloud-enabled HMI product to be launched within FactoryTalk Design Hub. With FactoryTalk Optix Studio, users can design, test and deploy applications directly from a web browser. Optional cloud-based connectivity enables new collaborative workflows that allow modifications to be made from anywhere, anytime. FactoryTalk Optix is designed to improve processes, efficiency, and deliverables using a scalable, modern platform.

FactoryTalk Twin Studio

FactoryTalk® Twin Studio™ is an end-to-end automation design solution where users can design, program, simulate, emulate, and virtually commission in one cloud environment. The cloud-hosted ecosystem employs Rockwell’s best-of-breed software products and is accessible from anywhere using a web browser. FactoryTalk Twin Studio allows users to develop their next project better and faster by moving seamlessly across Rockwell design solutions, collaborating with teammates in real time.

FactoryTalk Vault

FactoryTalk® Vault™ provides secure, cloud-native centralized storage for manufacturing design teams. With its modern version and access control, FactoryTalk Vault with advanced Design Tools allows for greater insights into designs through in-depth analysis of controller projects. Teams can now spend more time working on projects and less time searching for files or working from outdated versions.

FactoryTalk Remote Access Solution

FactoryTalk® Remote Access™ enables secure connections to equipment, allowing teams to respond to needs faster and rapidly resolve production issues from anywhere. FactoryTalk Remote Access quickly connects domain experts to critical issues, no matter the physical location of either, increasing support response time and reducing the costs associated with travel and asset downtime.

FactoryTalk Design Hub and its core components will all be generally available by the beginning of 2023. [Click here](#) to learn more about Rockwell Automation’s FactoryTalk Design Hub.

Rockwell Automation Introduces Intelligent Edge Management Solution

●●● **F**actoryTalk® Edge™ helps customers tap Industrial digital transformation at the edge and unlock higher value edge use cases at enterprise scale

Rockwell Automation is delivering an intelligent edge management and orchestration platform with an edge application ecosystem – based on zero trust security and open industry standards – accelerating digital transformation for industrial customers.

As industrial manufacturers pursue digital transformation, they are looking to scale digital transformation initiatives via innovations in AI, analytics, MES systems, etc., and tap real-time intelligence closer to the source of industrial data. This has created pain points around application latency, device management, and security issues – underscoring the need for a balanced edge to cloud deployment. Industrial Transformation (IX) leaders need an end-to-end, intelligent edge management solution to execute a robust edge computing strategy that can maximize overall deployment success, control devices from anywhere, and manage app deployment on devices – while improving security posture.

Further enriching the current Rockwell edge offerings – [FactoryTalk® Edge Gateway™](#) and [ASEM™ industrial computers](#) – [FactoryTalk® Edge™](#) is a SaaS solution for intelligent,

centralized edge management and orchestration. Accessible from anywhere, FactoryTalk Edge is an essential infrastructure layer to realize higher productivity and efficiency while managing edge devices and app deployment from a single pane of glass. With superior security posture built on a zero-trust model, it provides flexibility for complex future use cases and catering to any hardware or cloud provider. FactoryTalk Edge Gateway edge app is included and empowers customers to contextualize and package industrial data at high speed into flexible information models. FactoryTalk Edge can be deployed on pre-certified ASEM VersaView® 6300B edge compute nodes, accelerating deployment speed.

“As our customers are building towards the Connected Enterprise Production System, they are finding it hard to get data out of silos, manage distributed compute surfaces, and deploy software quickly,” says Brian Shepherd, senior vice president, Software & Control at Rockwell Automation. He continues, “By combining our hardware with edge orchestration capabilities and making it easy to deploy applications to the edge, we expect our customer to scale their digital transformation initiatives faster and gain greater value from their edge applications.”

Chantal Polsonetti, VP Advisory Services, from ARC Advisory Group says, “As industrial organizations apply various technologies to solve edge use cases and scale, one aspect will stand out: the need for a secure, cost-effective edge infrastructure capable of managing an increasing number of distributed devices at scale. As the universe of industrial use cases continues to expand, OEMs, solution providers, and end customers are quickly realizing the need for this type of foundational infrastructure solution to enable edge implementation and management at different plant sites. FactoryTalk Edge gives them one solution to operate and scale their DX initiatives at the edge so their time can be spent on solving the next big problem.”

Rockwell Automation Simplifies Sizing, Selection of Motion Control Components with New FactoryTalk Motion Analyzer

Machine designers can save time and access the data they need to optimize their motion designs with new FactoryTalk® Motion Analyzer software. The software enables users to select,



analyze and validate their system components using new intuitive workflows and comparison tools. It is now available for download on the Rockwell Automation website.

FactoryTalk Motion Analyzer consists of a comprehensive component library that allows the analysis of a wide-variety of user-defined applications. Designers can select their system using a combination of Kinetix® motors, Kinetix drives, select PowerFlex® drives and third-party components such as gearboxes from Rockwell Automation Technology Partners. They can maximize the efficiency of their work by choosing from pre-built application templates or by starting with a blank template and adding components and motion profiles to define the ideal machine.

Feature-rich analysis tools facilitate a better understanding of a machine’s operating condition and make optimizing solutions easier, enabling robust system designs that operate at the highest level of performance and energy efficiency.

Rockwell Automation Simplifies Smart Machine Development, Improves Micro800 Controllers and Design Software

Machine builders can save engineering time and costs with the enhanced Allen-Bradley Micro850 and Micro870 2080-Lx0E controllers using the latest Connected Components Workbench software from Rockwell Automation.

The improved 2080-Lx0E controllers offer greater connectivity and design efficiency through the new Class 1 implicit messaging capability with up to eight EtherNet/IP devices support. The 2080-Lx0E controllers streamline integration of controller to drives, supporting PowerFlex 520 series and Kinetix 5100 drives over EtherNet/IP with pre-defined tags and pre-developed user-defined function block (UDFB) instructions. More significant is the easy programming and simpler workflow through a familiar and intuitive design environment.

Connected Components Workbench software version 21 is the required minimum to support the Class 1 implicit messaging capability in Micro850 and Micro870 2080-Lx0E controllers. The controller and software enhancements can help drive industrial operations productivity while lowering costs. Users can benefit from a more connected and simplified control system for their automated designs.



Users can minimize programmatic efforts and troubleshooting time, which simplify the development of standalone machines that are built with the Rockwell Automation **Micro Control System**. The expanded smart capabilities allow users to develop and deploy automation projects faster, which can accelerate time to market and drive business growth.

Rockwell Automation Enables Better Asset Management and Visibility with My Equipment Subscription

●●● **T**he launch of My Equipment Digital enables new functionality with digital collection and updating of industrial automation asset data through the use of network-based devices. The digital collection method includes firmware information and a one-time vulnerability assessment.

Customers can self-manage and track their installed base automation assets through their My Equipment subscription, enhancing their ability to reduce operational costs, improve asset utilization and decrease enterprise risk. The self-manage feature can be added to an Installed Base Evaluation™ (IBE® service) and is included in the My Equipment Digital and My Equipment Managed offerings.

With My Equipment, customers can:

- Mitigate network risks if legacy products and/or unmanaged switches are found
- Review their modernization potential to determine risks and productivity improvement opportunities by identifying which older products may be less expensive to repair than to buy new
- Provide adequate remote support coverage by confirming that the most prevalent technical segments are covered
- Reduce costs through the optimization of asset and spares strategies by comparing storeroom data to the installed base, and the identification of warranty savings

Customers are empowered to take a more active role in asset management with My Equipment Digital, part of myRockwellAutomation.com portal. To learn more, click [here](#) or contact your Allen-Bradley® Authorized Distributor.

Rockwell Automation Increases VFD Output Frequency for High-speed Motor Applications

●●● **D**emanding manufacturing environments, such as utility, oil, gas and mining operations rely on medium voltage power to drive large industrial motors – often running 24 hours a day. Meeting these needs, Rockwell Automation announces new enhancements to medium voltage PowerFlex® 6000T variable frequency drives (VFDs).

PowerFlex 6000T drives with **TotalFORCE® technology** deliver more than just high-performance motor control. The VFDs deliver real-time operating system data that can help increase productivity and energy savings.

- To meet customer demand for greater output frequency range, Rockwell Automation expands the PowerFlex 6000T variable frequency drive range up to 120 Hz.
 - ✓ The new output frequency range meets the needs for high-speed industrial applications, including turbines, compressors and pumps.
- The PowerFlex 6000T motor controller also offers the new RealSine™ solution. The option helps reduce input harmonics to lower levels than the industry standard. Ranging from 2.4...4.16 kV up to 215 A, each individual secondary winding is specially phase-shifted to achieve 54 or 72 pulse respectively – compared to typical 18 or 24 pulse designs.
 - ✓ The new design offers up to 30% improvement in total harmonic current distortion at the drive primary side. By reducing harmonic distortion, the VFD improves system efficiency, reduces energy cost and minimizes power distribution issues on the factory floor.

PowerFlex VFDs are manufactured on four continents, making this energy-saving factory-ready motor control technology available to markets around the world.

Rockwell Automation Expands Threat Detection Offering through Managed Services

●●● **R**ockwell Automation launched the new **Threat Detection Managed Services** offering in early 2022 providing customers with application-level, real-time monitoring, and response services to help detect, identify, contain, eradicate, and recover from a cyber incident.

The Threat Detection portfolio is evolving to offer new services that will enable Rockwell Automation to better meet its customers' needs with:

- 24/7 security alert monitoring
- 24/7 hardware health monitoring
- System tuning
- Software update administration
- Backup administration
- Value reporting
- Training

These new services are available to customers as a cloud-based service backed by trained and certified information technology and operational technology (IT/OT) professionals for both the Cisco and Clarity threat detection software.

Speeding up automated manufacturing with METTLER TOLEDO's IND360

METTLER TOLEDO, a Rockwell Automation Technology Partner launches the new IND360 ODVA-compliant automation weighing terminal with custom Add-On Profile

Production industries demand faster machines that provide more real-time control over high-speed industrial Ethernet networks. Smart automation technologies fulfill this demand and provide cost savings, secure processes and high throughput.

METTLER TOLEDO's IND360 boosts machine productivity by delivering precise and accurate weight to an automation network at 960 cycles per second to vastly improve weight-based control algorithms. Advanced condition monitoring, heartbeat, and Smart5 NAMUR NE107 prioritized alarming ensures that quality is never jeopardized due to undetected errors.

Boost productivity with faster weighing performance

Faster weight processing with IND360 makes PLC/DCS operation more efficient by allowing users to cyclically select and consume seven user-selectable floating-point variables and scale status (condition monitoring) via EtherNet/IP all in real time. Faster PLC control allows significant increases in machine speed and throughput while improving quality. Hundreds of control variables are available for every range of application.

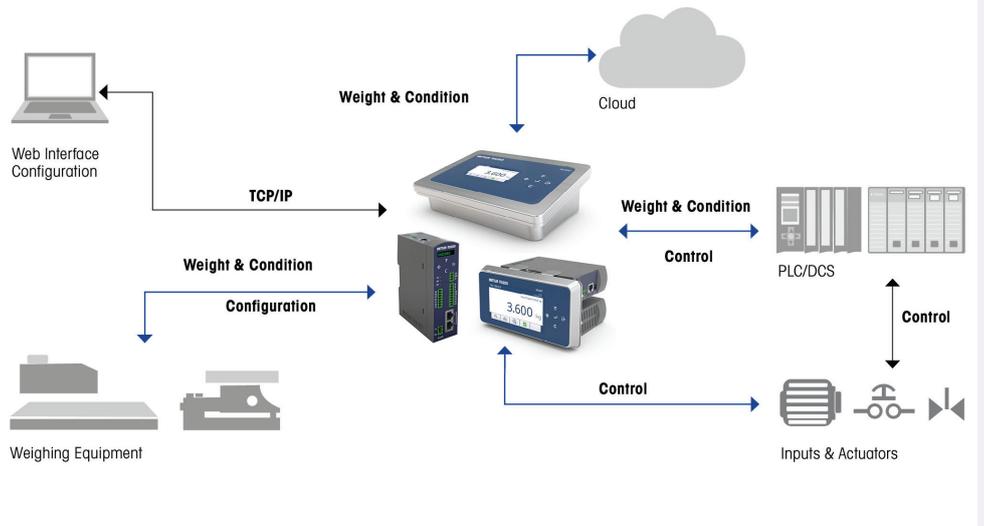
Need more flexibility?
Visit the product page to see the different IND360 variants and benefit from full flexibility in your next project.



Read More
www.mt.com/IND360



Connection Drawings IND360 Automation Indicators



Smartest way to integrate weighing

IND360 works with all strain gauge scales and smart devices like high-precision bench scales, floor scales, POWERCELL weigh modules, and scales that facilitate weighing from 11 grams to 1,000 tons. Easy configuration through a local or remote web interface enables automatic scale adjustment. A complete system is setup up in minutes; "setup-cloning" expedites integration of multiple devices used in a ring topology.

One solution for a multitude of workplaces

IND360 is available as a transmitter or an application terminal with built-in control functions with local discrete I/O and analog output, making it one of the most versatile products for most weighing processes. All functions may also be controlled by the PLC or DCS for full flexibility.

Global Compliance

Global approvals, which enable cross-border consistency, including OIML, NTEP, CPA (metrology); FCC, CE (EMC); IEC/EN61010, UL (safety). For firms operating globally, IND360 is sold worldwide and serviced locally in over 40 countries by competent personnel.

expanding human possibility™



**Rockwell
Automation**



Allen-Bradley



FactoryTalk