ArmorStart® distributed motor control solutions

On-Machine™ variable frequency drives and starters help improve your manufacturing productivity

A-B QUALITY

Allen-Bradley

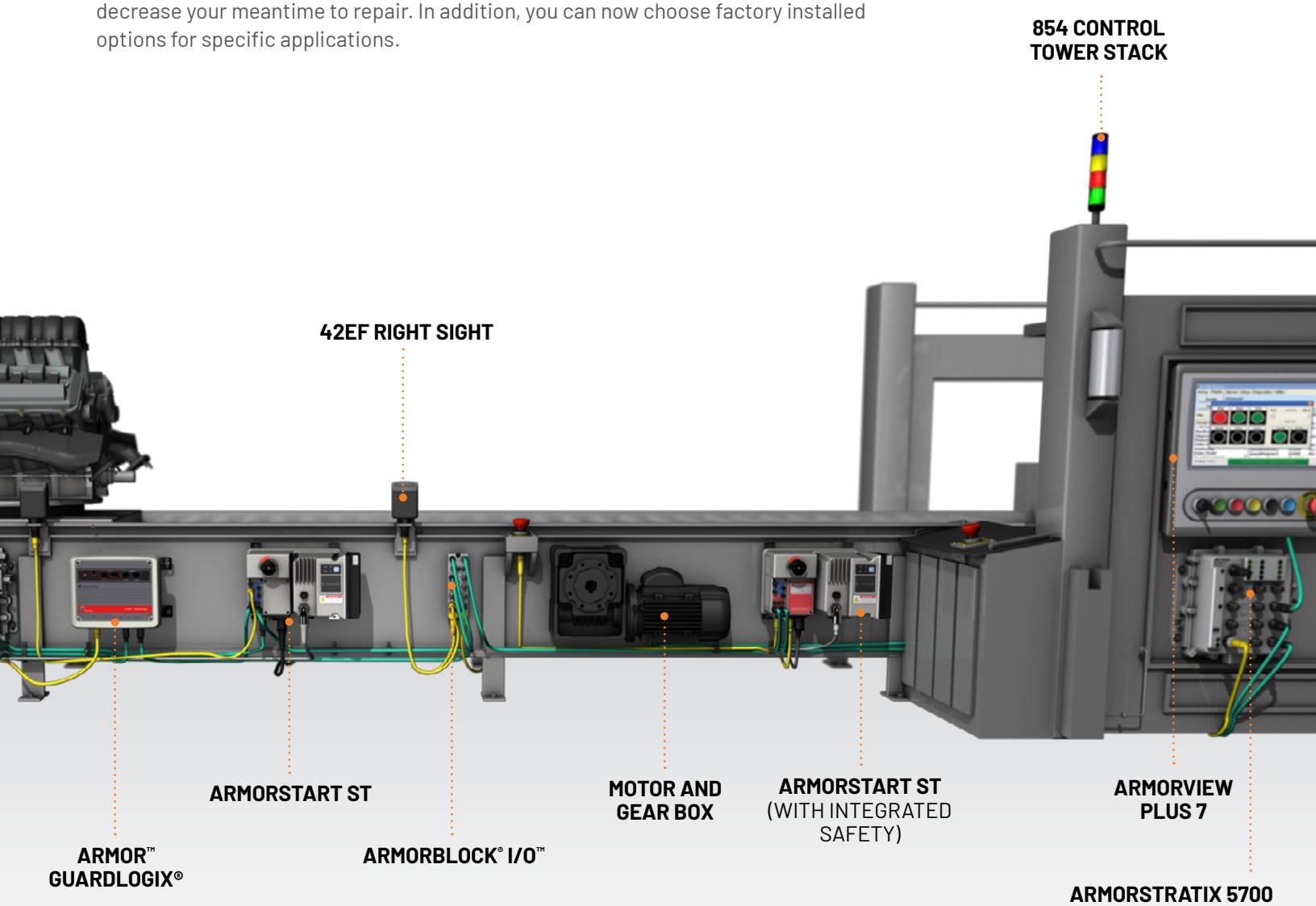
by ROCKWELL AUTOMATION

ArmorStart Distributed Motor Control Solutions pack a big punch in tight spaces.

WHO NEEDS AN ON-MACHINE SOLUTION AND WHY IS IT IMPORTANT?

Does your manufacturing or process application need to withstand harsh environments? Is your commissioning time critical? Floor space at a premium? Well, you might need an On-Machine solution. On-Machine functionality can help you build more machines faster. This can help increase revenue and decrease lead times, making for happier customers.

The ArmorStart family of distributed motor controllers is ideal for conveyor and material handling applications, capturing your need for controlling both light and heavy industrial solutions. It works well for group installations which will reduce your total number of components needed. ArmorStart controllers require no additional enclosure and can be mounted at the point of operation. You can mount the device near the motor or machine, which yields shorter cable runs. It offers LED status and diagnostic indication, which can decrease your meantime to repair. In addition, you can now choose factory installed options for specific applications.



TOUGHER FASTER STRONGER

ArmorStart Distributed Motor Control

When the going gets tough, Armorstart gets going. If your application demands a tough motor control product, Armorstart drives and starters deliver.

If you're a food and beverage manufacturer, you probably need to wash your equipment often. You might have to make sure the components on your machine can withstand whatever the water cleaning process dishes out. But ArmorStart products are water wash-down rated for tough environments to help you keep your food and beverage line clean.

Harsh environments can be demanding on automation components. They may be exposed to oil, dirt, high temperatures and humidity. Armorstart products can offer the protection you need in those harsh environments.

ARMORSTART SAFETY OPTIONS

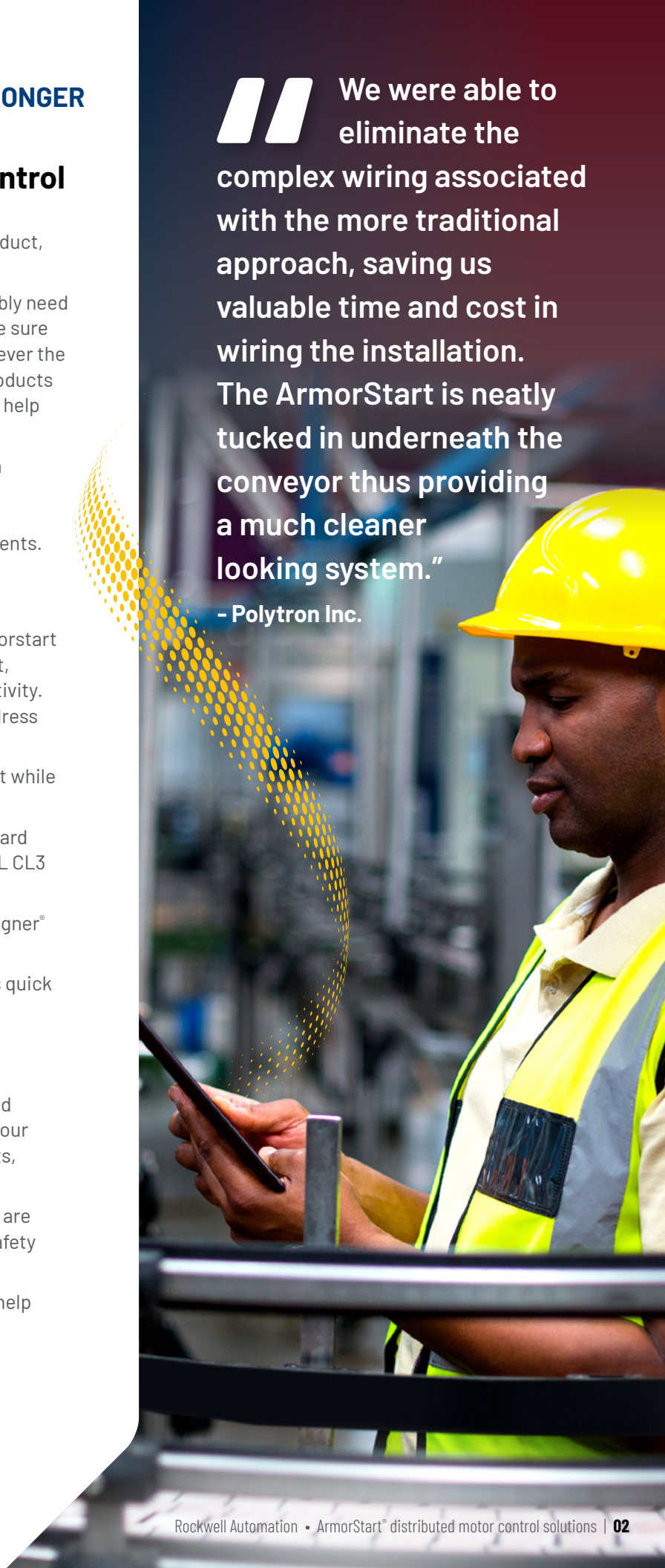
They say safety doesn't happen by accident. With Armorstart ST products, we're demonstrating just that. In the past, using safety solutions often meant sacrificing productivity. ArmorStart ST distributed motor control products address your productivity concerns by offering safety options.

These options help protect your people and equipment while reducing planned and unplanned downtime:

- One GuardLogix controller for both safety and standard control provide safety ratings up to and including SIL CL3 and PLe Cat 4.
- One software environment – Studio 5000 Logix Designer® application version 30 or later.
- ArmorStart ST with hardwired safe torque off offers quick start-up after a demand on the safety system.
- Safety and standard control operate on one EtherNet/IP network.
- ArmorStart ST integrated safety, provides networked safe torque off on EtherNet/IP. This helps simplify your machine design and minimizes required components, and reduces costs.
- Easier management of multiple safety zones, which are on the same network and share data between the safety and standard applications.
- Fewer components and smaller control enclosures help reduce machine footprint.

"We were able to eliminate the complex wiring associated with the more traditional approach, saving us valuable time and cost in wiring the installation. The ArmorStart is neatly tucked in underneath the conveyor thus providing a much cleaner looking system."

- Polytron Inc.



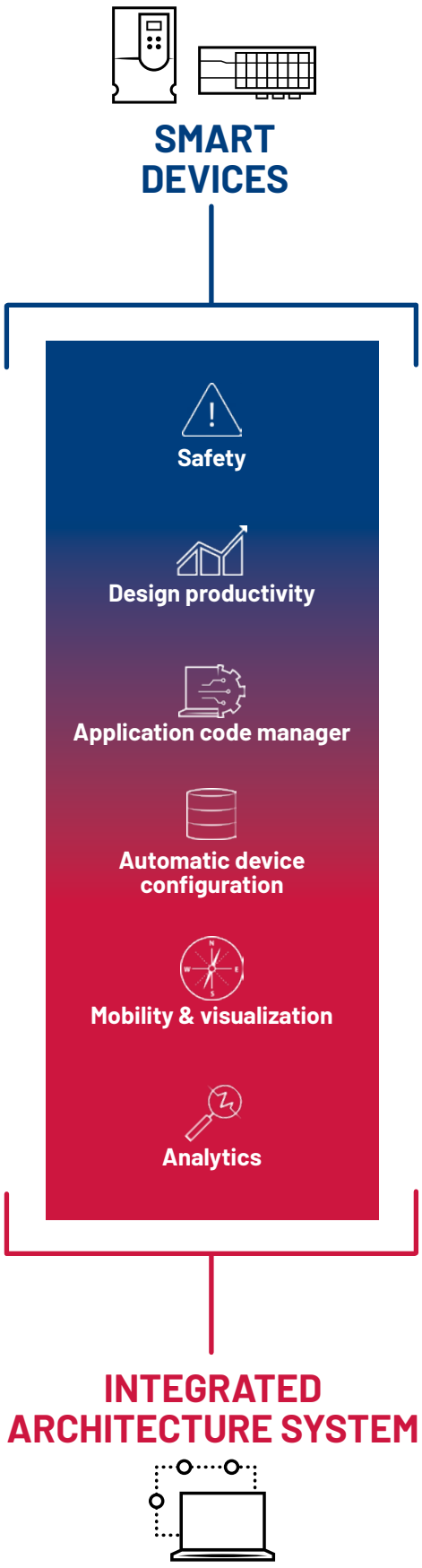
We all CAN just get along...

Armorstart distributed motor control solutions makes it easier to play well with others. It easily integrates with other Rockwell Automation software tools and Allen-Bradley smart devices. With ArmorStart products, you can achieve premiere integration into the Logix family of PLCs and automation controllers. In addition, its plug and play abilities make for an easier install and replacement experience.

STUDIO 5000 LOGIX DESIGNER AND DEVICELOGIX

ArmorStart drives and starters can help you achieve a unique level of integration with Logix programmable automation controllers (PACs) within the Studio 5000® environment. Data used with ArmorStart is automatically generated to ease configuration and minimize manual programming of the required parameters and tags. It provides better access to system and machine level data and diagnostic information.

AmorStart distributed motor control solutions provide a user-friendly interface with EtherNet/IP or DeviceNet. DeviceLogix™ is stored in the unit and program file. It uses local logic control using basic logic functions.



Premier Integration

Premier Integration is the exclusive experience of using Allen-Bradley smart devices as part of the Integrated Architecture® system. Some of the benefits of premiere integration are below:

- Consolidating the PLC program and device configuration helps simplify commissioning time and reduce errors.
- Status, diagnostic, faults and event information are important to the Studio 5000 environment and the devices.
- Descriptive tag names are automatically generated, which saves time and reduces errors.
- Copy and paste function offers more drive efficiency and ease of use.
- Graphic AOP screens make device configuration faster with fewer complications.
- You can manage several safety zones, coexist on one network and share data between the safety and standard applications.
- Visibility to all machine events speeds response to allow the machine to return to full production.
- Lower your meantime to repair with automatic device configuration.

Portfolio attributes

INNOVATIVE DESIGN

- DeviceNet or EtherNet/IP
- Embedded Ethernet switch
- Device level ring
- Hardwired safe torque off
- Integrated safe torque off
- Integrated field safety I/O
- Easy to maintain or replace

SIMPLIFIED CONFIGURATION

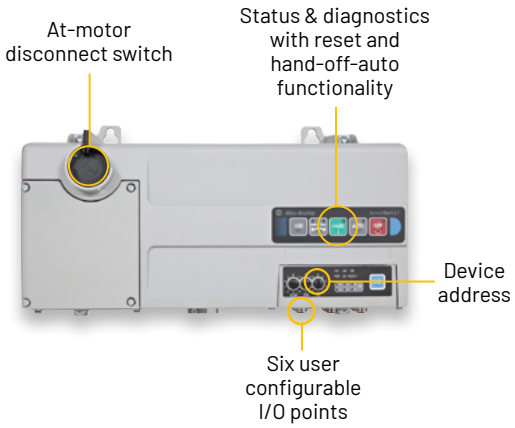
- Integrated field I/O
- Premier integration with Studio 5000
- DeviceLogix
- Local at-motor disconnect
- Quick cable connections
- IP66 or IP67 Type 4/12/13
- Digital and analog status and diagnostic information

How can ArmorStart help solve your On-Machine needs?

- Help reduce your labor costs with easier and simplified installation.
- Quick disconnect features help personnel eliminate wiring mistakes.
- You can achieve continuous integration of information, status and diagnostics throughout your entire organization.
- On-Machine functionality helps you support modular, scalable, and flexible machine and conveyor design.

ArmorStart LT

- Volts per Hertz VFD up to 2HP (1.5Kw)
- Full voltage starters to 5HP (3.3Kw)
- Automatic device configuration
- Water wash-down rated
- Local disconnect
- Local control option
- Configurable Field I/O point
- Mains free programming
- One box construction
- Suitable for group motor installation
- **Models 290, 291,294**



Communications

- Ethernet/IP with DLR support
- DeviceNet

Global Standards

- IP66 / Type 4/12
- UL listing for group motor installation
- CE, cULus, CCC, ODVA

Input / Output

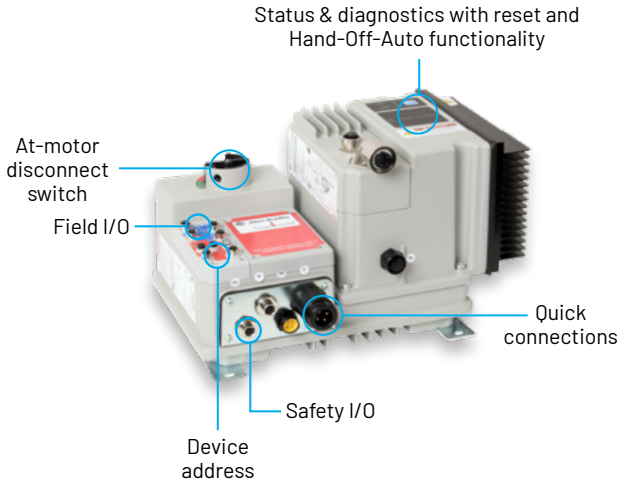
- Six user configurable I/O with quick connect

Power Supply (Control Power)

- External 24V DC
- Internally sourced 24V DC

ArmorStart ST

- Sensorless vector control up to 5HP (3.3Kw)
- Full voltage starters up to 10HP (7.5Kw)
- Water wash-down rated
- Local disconnect
- Local control option
- Embedded field I/O points
- Modular construction
- Suitable for group motor installation
- Models 281, 284
  - **Standard (w/o function safety)**
  - **Hardwired safety (STO)**
  - **Integrated safety (STO)**



Communications

- Ethernet/IP with DLR support

Global Standards

- IP67 / Type 4/13
- UL listing for group motor installation
- CE, cULus, CCC, ODVA
- TUV

Input / Output

- Up to 6 input or 2 outputs and optional safety I/O

Power Supply (Control Power)

- External 24V DC

Product comparisons

Bank on ArmorStart Motor Control Solutions for your On-Machine needs.

ArmorStart Distributed Motor Controllers are a cost-effective, simple solution to your On-Machine architecture. These controllers use quick disconnects for I/O, communications, motor, three-phase, and control power while offering several communication options. They also provide a solution integrated into EtherNet/IP and DeviceNet networks and options for safety installations. A new ArmorStart model is now available with integrated safety. ArmorStart controllers are ideal for automotive, material handling, and packaging applications.

	ArmorStart LT	ArmorStart ST
MODELS	290, 291, 294	281, 284
POWER RANGE	0.37 ...2.2KW	0.37 ...7.5KW
VFD POWER RANGE	0.37 ...1.5KW	0.75 ...3.3kW
VFD CONTROL	V/HZ	SVC
HIGH FAULT SCCR	up to 10 kA	up to 65 kA
NETWORK	EtherNet IP and/or DeviceNet	EtherNet IP
LOGIX AOP CONFIGURATION	✔	✔
DEVICELOGIX	✔	✔
AUTO-DEVICE CONFIGURATION	✔	✔*
DUAL-PORT ETHERNET SWITCH	✔	✔
HARDWIRED SAFETY OPTION		✔
NEW EMBEDDED SAFETY I/O INTEGRATED SAFETY		✔*
EMBEDDED IO	6 configurable	4 inputs/2 outputs or 6 input*
ARMORCONNECT® COMPATIBLE	✔	✔
UL GROUP MOTOR LISTED	✔	✔
ENCLOSURE RATING	IP66/Type 4/12	IP67/Type 4/12/13
CONSTRUCTION	Single Box	Two box

* integrated safety version only

Workforce support & training

Remediate

Enable

Supplement

Optimize

People & asset safety

Hazardous energy control

Electrical safety

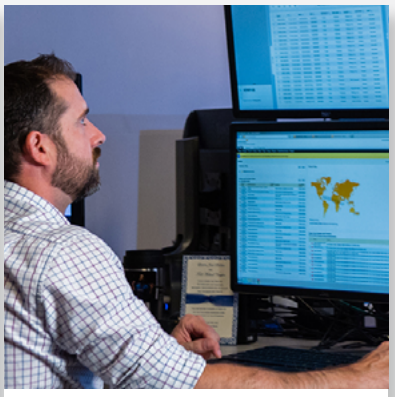
Machine safety

Asset & plant optimization

Inventory services

Asset modernization

Asset performance



Information infrastructure & security

Infrastructure development and management

Asset performance

Product & application lifecycle support

On-demand support | Integrated support | Managed support

ROCKWELL AUTOMATION **SERVICES**

For more information about how we can help you solve your unique business challenges, contact your local authorized Allen-Bradley distributor or Rockwell Automation sales office, or visit: rok.auto/services

Rockwell Automation

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