

Grow your Maintenance, Repair, and Operational Supply (MRO) Offers

Diversify your business by expanding
your service offers.

Life Is On

Schneider
Electric

se.com/us

Table of contents



What is MRO and why should you offer it?

Learn how diversifying your offers with MRO benefits you and your customers.

Expand your revenue stream

Diversify your offers

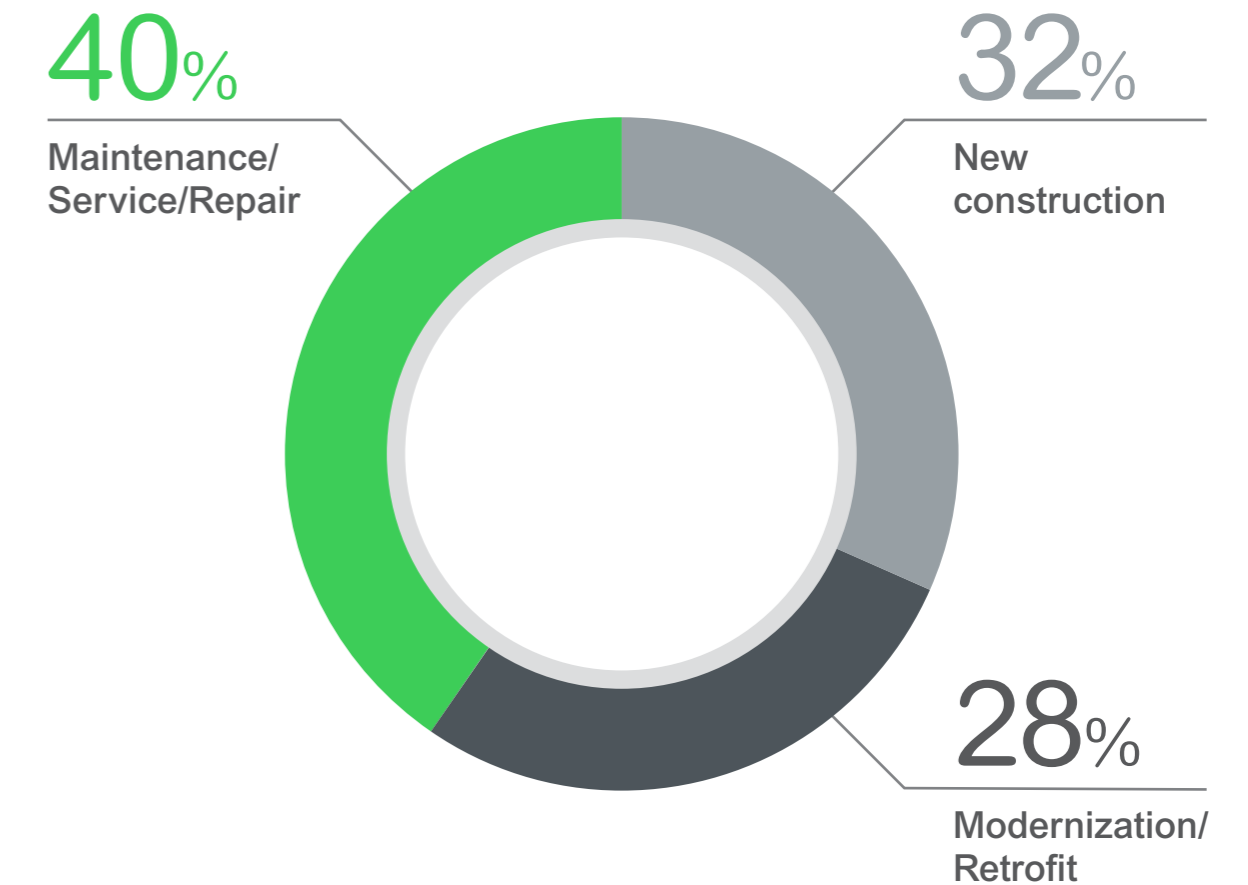
As a contractor, factors such as economic highs and lows, weather, and even politics can impact your business. An effective way to stabilize your revenue stream is to expand your business offerings to include operational solutions.

According to the [IBIS World 2018 report](#), operational solutions, such as maintenance, service, and repair activity, along with modernization and retrofitting work, represent 68 percent of the U.S. construction industry's revenue.

These solutions — [often referred to collectively as maintenance, repair, and operational supply \(MRO\)](#), make up the majority of work for all contractors and account for a proportionally larger share of revenue for smaller companies.

This guide details the products and solutions available to help you build out your MRO offerings, whether you are small, medium, and large company.

U.S. construction industry revenue sources



"Construction Industry in the US," [IBIS World, 2018](#)

Understanding MRO

What is MRO?

MRO is short for maintenance, repair, and operational supply. MRO includes the products and services necessary for the ongoing operation of electrical equipment.

MRO offers across the asset lifecycle

Contractors can offer MRO solutions throughout the entire equipment lifecycle.



MRO products and services include:

Planning

What are the equipment options?

- Design and feasibility studies



Installation

How to install and commission

- Start up
- Commissioning
- Extended warranty



Operations

How to operate and maintain equipment

- Preventive, corrective, and predictive maintenance
- Remote monitoring
- Spare parts
- Customer training
- Recurring services



Optimization

How to optimize performance

- Consulting services
- Arc-flash studies
- Remote monitoring



Renewal

How to renew the solution

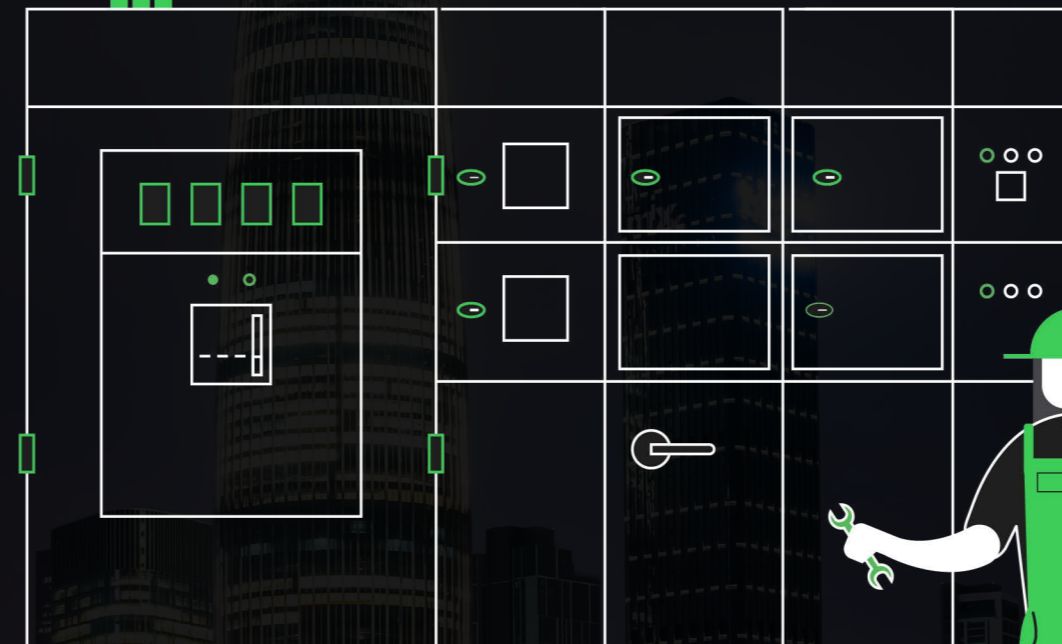
- Modernization (replacement and upgrades)
- End-of-life services

Who benefits from MRO?

Both customers and contractors benefit from MRO offerings.

By investing in MRO solutions, customers can:

- Improve operational efficiency
- Increase the lifecycle and value of electrical equipment
- Minimize business interruptions
- Minimize safety risks
- Save money associated with reactive maintenance



At the same time, contractors can:

- Stay connected to the customer by providing maintenance throughout the product lifecycle
- Build strong relationships with customers
- Ensure consistent revenue



Continue reading to learn about who we are and how we can help you add MRO offers to your business.

Resources to help you grow your business

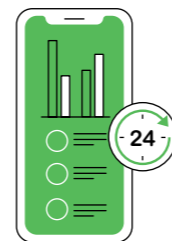
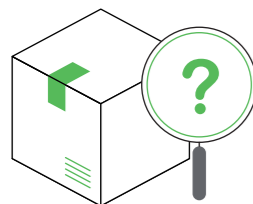
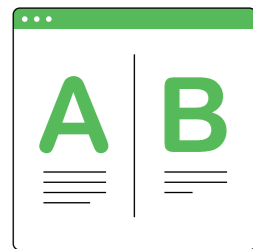
See a snapshot of our business, along with helpful tools to get started.

About us

Today's connected and digital world demands a level of expertise that understands how complex electrical systems integrate. At Schneider Electric,™ the goal for supporting the customers who install and deploy Square D™ products is straightforward: Innovate and simplify the connectivity of electrical distribution equipment for greater business efficiency.

For over 115 years, consulting engineers, contractors, homebuilders, and distributors have recognized Square D as the gold standard of efficiency, safety, and reliability. Recent advances in technology have opened the door to new Square D products and smart solutions, many of which are included in this guide.

Helpful tools



Let's dive in by exploring residential solutions.

About us

Residential solutions

Explore residential MRO offers.





Residential solutions

Residential MRO drives energy efficiency and enhanced safety.

Surge protection

Surge protection

Whole-home surge protection

Surge protection devices (SPDs) are required for services supplying all dwellings. SPDs block the shock caused by a surge at the load center, preventing damage.

There are two types of SPDs:

- Type 1 SPDs are installed before or after the main disconnect
- Type 2 SPDs connect to the load side of the service disconnect



Customer benefits

- Prevents damage to residential appliances and electronics
- Easy installation saves money

[Learn more](#)

Next, view the MRO offers for electrical distribution equipment.



Residential solutions

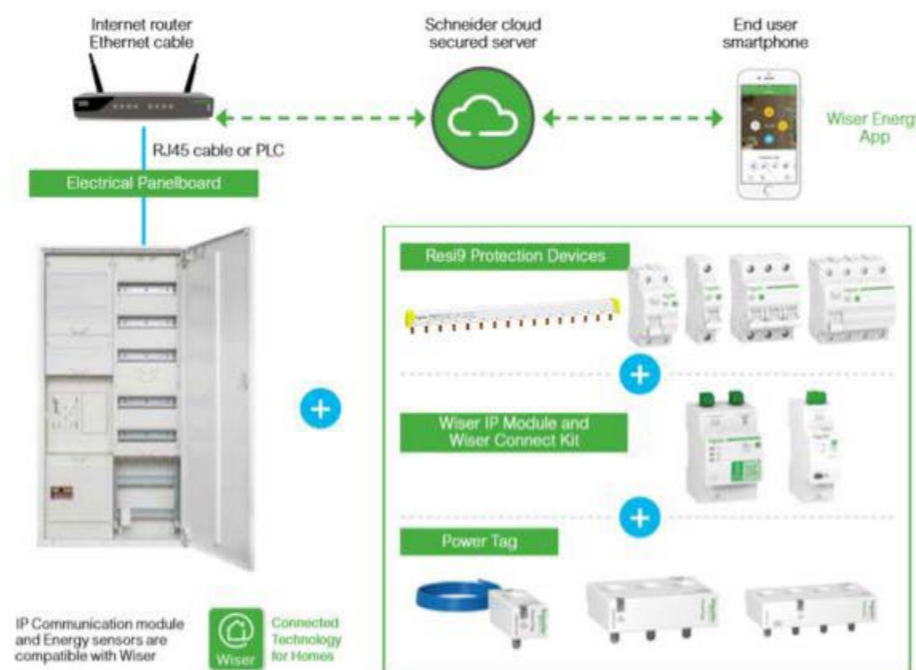
Residential MRO drives energy efficiency and enhanced safety.

Real-time energy monitor

Real-time energy monitor

Wiser Energy™ home energy

Installs in a home's electrical panel and provides real-time data on energy use and savings through the Square D edition of the Sense app. This system can also be used to manage residential solar generation.



Customer benefits

- Gain 24 / 7 access to real-time energy use
- Receive instant alerts when appliances and devices switch on or off
- Calculate energy savings and better estimate monthly bills
- Install easily into a residential electrical panel by a licensed electrician
- Integrate with smart home devices
- Optimize solar generation

Next, view the MRO offers for electrical distribution equipment.

Electrical distribution solutions

Discover MRO for electrical distribution equipment.



[Learn more](#)

Electrical distribution solutions



Electrical distribution solutions

Electrical distribution MRO ensures reliable operations.

Circuit breakers

Circuit breakers

Molded case circuit breakers

PowerPact circuit breakers lead the industry in reliability and protection. New, replacement, and retrofit molded case circuit breakers are available from 15 – 3,000 amps.

Product range

- B-frame for 15 – 125 amps
- H-frame for 15 – 150 amps
- J-frame for 70 – 250 amps
- Q-frame for 75 – 250 amps
- L-frame for 70 – 600 amps
- M-frame for 300 – 800 amps
- R-frame for 240 – 3000 amps

Customer benefits

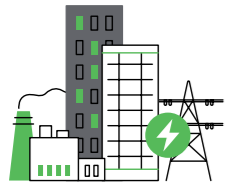
- Standardized ratings
- A wide range of field-installable accessories and operating mechanisms
- Available in most sizes in unit and I-Line models and 1 – 4 pole designs
- UL 489 listed, CSA, NMX, IEC certified for international applications

[Learn more](#)

« Previous

Electrical distribution solutions

Now, explore MRO for industrial processes.



Electrical distribution solutions

Electrical distribution MRO ensures reliable operations.

Circuit breakers

Circuit breakers

Square D I-Line Smart Cell

This module installs into an I-Line panelboard and adds instant communication of energy and status monitoring.



Customer benefits

- Fits into I-Line bus in place of a breaker
- Provides data to guide improved operations
- Installs into panels during regular maintenance

[Learn more](#)

Now, explore MRO for industrial processes.

Next



Electrical distribution solutions

Electrical distribution MRO ensures reliable operations.

Energy meters

Energy meters

Energy meter kits

All-in-one energy management solution to measure energy use and improve energy efficiency and cost savings. Ideal for:

- Energy code compliance
- Green certifications
- Cost allocation
- Tenant sub-metering
- Energy management
- Performance contracting
- Load shed and demand response

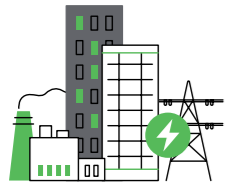


Customer benefits

- One part number for the kit, including meter LVCTs, and enclosure
- Compact
- Kit priced less than the cost of all individual components

[Learn more](#)

Now, explore MRO for industrial processes.



Electrical distribution solutions

Electrical distribution MRO ensures reliable operations.

Protective relays

Protective relays

ecoFit™ 50/51

Self-powered, digital single-phase retrofit relay serves as a direct plug and play replacement for many GE IAC relays.



Customer benefits

- Plug and play reduces install time and reuses existing wiring
- Multi-vendor curves to retrofit legacy equipment without coordination studies
- Self-powered
- Post-fault analysis includes disturbance recording, fault records, and event logs

[Learn more](#)

« Previous

Electrical distribution solutions

Now, explore MRO for industrial processes.



Electrical distribution solutions

Electrical distribution MRO ensures reliable operations.

Protective relays

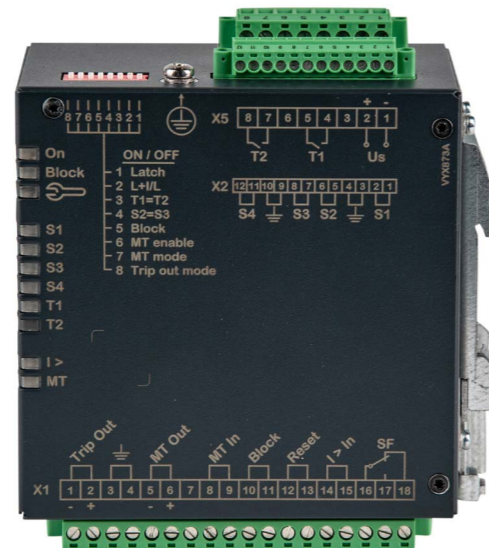
Protective relays

V125 arc-flash relay

Versatile, independently operated unit offers an optimized, cost-effective solution to reduce arc fault clearing times, minimize damage, and enhance system safety and reliability.

Customer benefits

- Entry-level arc-flash protection
- NEC compliant
- No configuration software needed



[Learn more](#)

Now, explore MRO for industrial processes.

Next

Industrial process solutions

View industrial process MRO offers.





Industrial process solutions

Industrial process MRO protects critical investments.

Drives

Drives

Altivar 320 variable frequency drive

Provides reliable control for asynchronous and synchronous motors from .25 hp to 20 hp, extending machine performance and availability. Includes built-in Altivar Logic, which allows the drive to control other operations such as alarms.



Customer benefits

- Designed to function in harsh environments
- Protected against corrosion with class 3C3 coated circuit boards
- Simple installation
- Includes out-of-the-box features such as a guard door lock and safe torque off

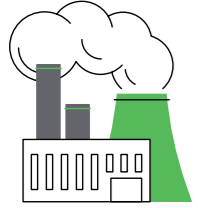
[Learn more](#)

« Previous



Finally, discover how to renew your existing equipment with modernization.

Industrial process solutions



Industrial process solutions

Industrial process MRO protects critical investments.

Drives

Drives

Altivar ATV12 variable frequency drive

Small footprint variable frequency drive (VFD) that can handle both simple and complex applications. This VFD a robust design and two set ups: baseplate-mounted and heat sink.



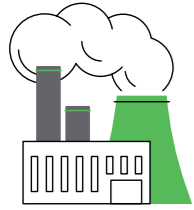
Customer benefits

- Compact size
- Easy to install, program, and commission
- Coated electronic boards
- Built-in features include EMC filter, integrated communications port, user-friendly navigation wheel, and optional multi-loader

[Learn more](#)

Finally, discover how to renew your existing equipment with modernization.

Industrial process solutions



Industrial process solutions

Industrial process MRO protects critical investments.

Drives

Drives

Altivar ATV212 fan and pump AC drive

Economical drive solution for HVAC and building automation pump applications in offices, campuses, data centers, and other commercial facilities.



Customer benefits

- Reduced harmonics without additional hardware
- Compatible with building management systems for fast installation
- Faster troubleshooting with optional remote-mount English text keypad
- Reduces energy costs by adjusting motor speeds to the required flow
- Lower operating costs compared to a conventional control system

[Learn more](#)

Finally, discover how to renew your existing equipment with modernization.

Industrial process solutions



Industrial process solutions

Industrial process MRO protects critical investments.

Drives

Drives

S-Flex

Wire-and-go variable frequency drive solution for HVAC and building automation pump applications.



Customer benefits

- Cost-effective solution
- Simple installation and start-up
- Reduced harmonics without additional hardware
- AHRI certified for high energy efficiency and low operating costs
- 480 V 1 – 100 hp and 208 V 1 – 4 hp units stocked

[Learn more](#)

Finally, discover how to renew your existing equipment with modernization.

Next

Industrial process solutions



Industrial process solutions

Industrial process MRO protects critical investments.

Limit switches

Limit switches

Square D 9007 C heavy-duty compact limit switches

Top-selling limit switch with a large installed base and versatility to meet requirements for most industrial applications. Features include heavy-duty metal body, UL listing, CSA certification, and NEMA enclosure ratings 1, 2, 4, 6, 6P, 12, and 13.



Customer benefits

- Easy to install and maintain
- Flexible design includes 20 operating heads, over 200 arms, and five body styles including compact and hazardous-location
- Industry-standard product line known for high-quality and rugged construction

[Learn more](#)

Finally, discover how to renew your existing equipment with modernization.

Industrial process solutions



Industrial process solutions

Industrial process MRO protects critical investments.

Power supplies

Power supplies

Modicon power supplies

This module plugs directly into a control cabinet and provides 5, 12, 15, 24, or 48 V DC to products.

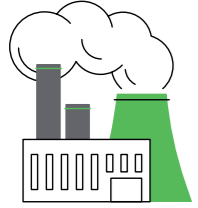


Customer benefits

- Competitively priced
- Compact design optimizes cabinet space with up to 50 percent space savings
- Easy to install and maintain
- Mounting options include DIN rail or panel-mount
- Flexible power requirements to accommodate future upgrades
- Allows for easy addition of HMI to the control panel or Ethernet to SCADA

Finally, discover how to renew your existing equipment with modernization.

Industrial process solutions



Industrial process solutions

Industrial process MRO protects critical investments.

Pre-wiring system

Pre-wiring system

Modicon pre-wiring system

This simple solution enables the connection and adaptation of control signals, particularly for retrofitting legacy systems.



Customer benefits

- Plug and play solution
- Reduces time to retrofit
- Compact design
- Minimizes maintenance and troubleshooting time

[Learn more](#)

Finally, discover how to renew your existing equipment with modernization.

Industrial process solutions



Industrial process solutions

Industrial process MRO protects critical investments.

Programmable logic controllers (PLC)

Programmable logic controllers (PLCs)

Modicon M221 Nano PLC

Quick-install controller for basic machine automation offers instant access to maintenance and machine visualization when used with SoMachine™ Basic software.



Customer benefits

- Space-saving design
- Easy to install and configure
- Expandable
- Use with WebVisu to reduce maintenance and troubleshooting time
- Allows for easy addition of HMI to the control panel or Ethernet to SCADA

[Learn more](#)

Finally, discover how to renew your existing equipment with modernization.

Industrial process solutions



Industrial process solutions

Industrial process MRO protects critical investments.

Relays

Zelio plug-in relays

Direct, easy replacement of general-purpose and interface relays. The Zelio lineup includes:

- RSL series (6 mm wide)
- RSB and RXG series (16 mm wide)
- RXM miniature ice cube relays
- RUM universal relays
- RPM power plug-in relays
- RPF power relays



Customer benefits

- Direct replacement for legacy equipment
- Full-feature cover speeds troubleshooting and verification
- UL listed, RoHS and REACH compliant

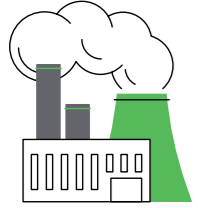
[Learn more](#)

Finally, discover how to renew your existing equipment with modernization.

Relays

« Previous

Industrial process solutions



Industrial process solutions

Industrial process MRO protects critical investments.

Relays

Zelio™ Logic Nano PLC

Space-saving, easily configurable smart relay that plugs directly into the control cabinet to control a machine or process.



Customer benefits

- Simple to install and configure
- Flexible offers
- Enables on-site and remote monitoring
- Costs less than traditional relay / timer
- Allows for easy addition of HMI to the control panel or Ethernet to SCADA

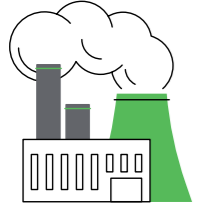
[Learn more](#)

Finally, discover how to renew your existing equipment with modernization.

Next

Industrial process solutions

Relays



Industrial process solutions

Industrial process MRO protects critical investments.

Transformers

Industrial control transformer

Designed for advanced voltage regulation and can accommodate a high inrush current from contactors, starters, and relays.



Customer benefits

- Available in 50 V to 200 V
- Manufactured with advanced insulating materials
- Competitively priced
- North American system voltages available in four warehouses (for 120 V and 24 V control circuit requirements)

[Learn more](#)

Finally, discover how to renew your existing equipment with modernization.

Transformers

Industrial process solutions



Industrial process solutions

Industrial process MRO protects critical investments.

Universal safety modules

Preventa™ XPS Universal safety modules

Plugs into the control cabinet to add advanced diagnostics and offer visibility into the safety chain solution. Product conveys more than 40 diagnostic messages without an additional fieldbus interface.



Customer benefits

- Safety messages reduce downtime
- Greater visibility into machine safety
- Optimizes energy efficiency
- Costs less than traditional relay / timer-based control schemes
- Allows for easy addition of HMI to the control panel or Ethernet to SCADA

Finally, discover how to renew your existing equipment with modernization.

Universal safety modules

Learn more

Industrial process solutions



Industrial process solutions

Industrial process MRO protects critical investments.

Ground fault circuit protection

Ground fault circuit interrupters

Per the 2020 National Electrical Code, ground fault circuit interrupters (GFCIs) are required for 125 – 250-volt receptacles in areas that are at an increased risk of shock from electrical hazards, such as basements and within six feet of a sink.

Customer benefits

- Reduces the risk of shock and electrical fires
- Prevents damage to appliances and devices

Finally, discover how to renew your existing equipment with modernization.

Ground fault circuit protection



Learn more

Industrial process solutions



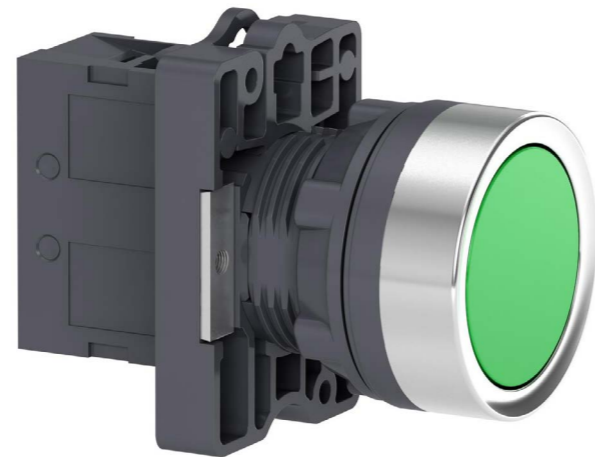
Industrial process solutions

Industrial process MRO protects critical investments.

Pushbuttons

22 mm and 30 mm push buttons

Industry-leading Harmony™ 22 mm and 30 mm pushbuttons contain features that enhance safety and reliability while reducing installation and maintenance times.



Customer benefits

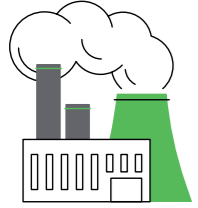
- Flexible and adaptive design
- Robust construction for harsh conditions
- Extended mechanical life up to 10 million uses
- Three components for simple installation
- Shake-proof terminal screws minimize maintenance
- Finger-safe contact blocks

Finally, discover how to renew your existing equipment with modernization.

Push buttons

[Learn more](#)

Industrial process solutions



Industrial process solutions

Industrial process MRO protects critical investments.

Motor controls

NEMA combination starters

Comprehensive motor control solution includes common accessories such as a fusible disconnect switch, electronic overload, and LED pilot lights.



Customer benefits

- One catalog number that includes many accessories including 30mm selector switch, and LED pilot lights
- Easy maintenance with fusible disconnect switch
- Foam-in-place cabinet seals protect from harmful elements
- Flexible fit
- Service by replacing contacts and coil, not the full unit

[Learn more](#)

Finally, discover how to renew your existing equipment with modernization.

Motor controls

« Previous

Industrial process solutions



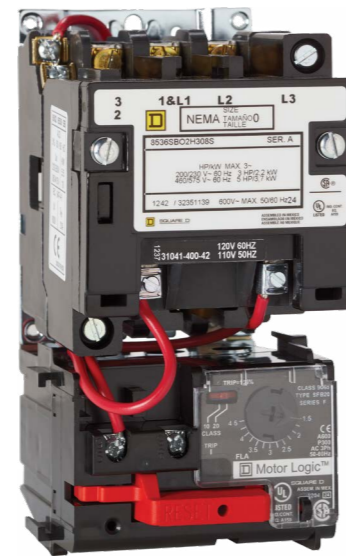
Industrial process solutions

Industrial process MRO protects critical investments.

Motor controls

NEMA Type S open starters

Class 8536 and Class 8736 Type S magnetic starters switch AC inductive motors with a variety of overload relay options. Designed for operation up to 600 VAC, 600 hp, and with a max of 810 A.



Customer benefits

- Use with four overload relays:
 - » Motor Logic solid state
 - » TeSys T communication solid state
 - » Adapted bimetallic
 - » Melting alloy
- Robust design and reliable build for long mechanical life and electrical endurance
- Replace worn or damaged parts rather than the entire product
- Simple catalog number for fast, easy orders

[Learn more](#)

Finally, discover how to renew your existing equipment with modernization.



Industrial process solutions

Industrial process MRO protects critical investments.

Motor controls

TeSys D green IEC contactor and LR9D electronic overload relay

Flexible and reliable motor protection for pumps, material working, material handling, packaging, and HVAC.



Customer benefits

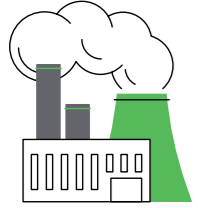
- Reduces energy consumption with less heat generation
- Wide-coil voltage range increases ride-through during poor power conditions
- One system replaces multiple parts when maintenance is needed

[Learn more](#)

Finally, discover how to renew your existing equipment with modernization.

Motor controls

Industrial process solutions



Industrial process solutions

Industrial process MRO protects critical investments.

Motor controls

TeSys MD enclosed motor disconnect

Compact motor disconnect ideal for various environments.



Customer benefits

- NEMA 4X enclosure meets code compliance in many environments
- Padlock in “off” position for maintenance

[Learn more](#)

Finally, discover how to renew your existing equipment with modernization.

Modernization solutions

Review MRO offers to renew existing equipment.





Modernization solutions

Modernization renews your existing equipment.

Upgrade existing aging electrical equipment and infrastructure with new technologies that enhance safety and improve your equipment reliability, performance, and connectivity.

Solutions available

- 300+ direct replacements solutions for LV and MV breakers
- Retrofill solutions for legacy Square D breakers, P-frame breakers, and bolted pressure switches
- Motor control center bucket direct replacement solutions for Square D Model 4, GE 7000 / 8000 series, and Telemecanique™ 5600
- Retrofill solutions for motor control center buckets

Customer benefits

- Reduce initial investment by reusing existing electrical infrastructure
- Decrease planned downtime
- Plan phased upgrade over time
- Designed and tested per ANSI requirements
- Backed by a one-year warranty
- Address environmental concerns
- Monitor performance of existing equipment
- Add or enhance digital connectivity

[Learn more](#)

Connect with your sales representative to get started.

Modernization
solutions

CHAPTER 7

The next step

Get started by speaking with your sales representative.

By offering MRO solutions such as the ones listed in this guide, you can diversify your business and increase revenue. Whether your customers are in the planning, operations, or renewal phase, there are products and services available for applications of every size and across all industries.

Contact your local sales representative to determine which MRO solutions for your specific application.

Square D Field Services 888-SquareD

Next step

Life Is On

Schneider
Electric

se.com/us