

INDUSTRY BROCHURE

Installation Products

OEM system integrators and panel builders



Installation Products Division

- Wire and cable management
- Cable protection systems
- Boxes and fittings
- Connectivity and grounding
- Medium voltage

Thomas & Betts is now part of ABB's Installation Products Division, but our long legacy of quality products and innovation remains the same. From connectors that support wire buildings on Earth to cable ties that help put machines in space, we continue to work every day to make, market, design and sell products that provide a smarter, safer and more reliable flow of electricity, from source to socket.

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Designed to perform

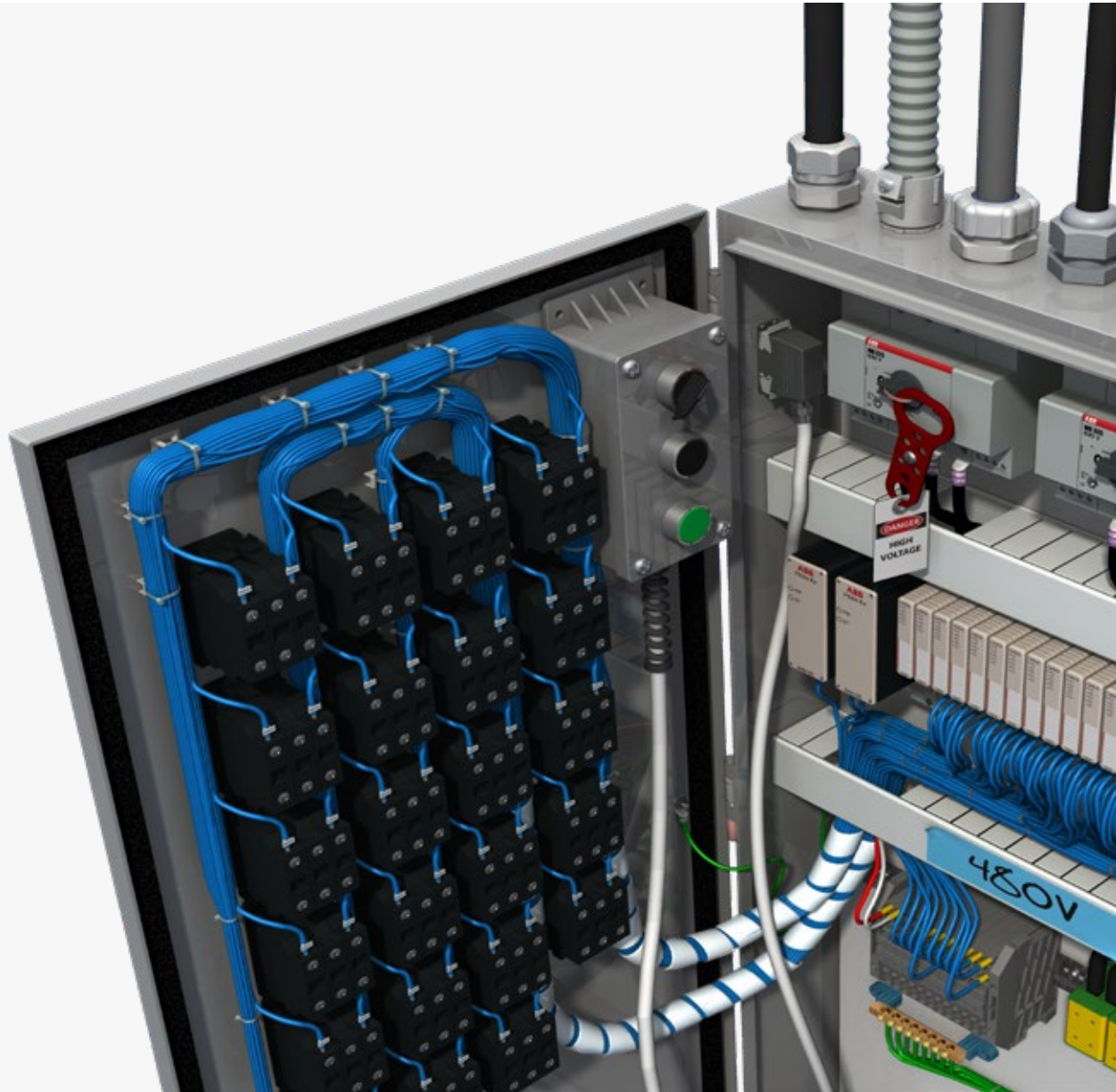


ABB understands the everyday challenges you face in the panel-building market. We're focused on providing you with electrical solutions that address the critical issues in your operation, enabling you to focus on your product's design, performance, quality, reliability, cost and customer installation schedule. Our family of electrical solutions matches specific application



Electrical system issues

for system integrators
and panel builders



Continuous operation
and sustainability



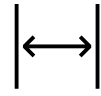
Safety and
contamination



Total project
cost reduction



SKU reduction



Space savings



Liquid ingress
protection



Grounding and bonding



Services and training

criteria from start to finish both inside and outside your electrical control panel, ensuring the quality, reliability and profitability of your project. And with the industry's most efficient distribution system, we're prepared to meet your ongoing electrical components needs now and into the future.

Product selection guide

For OEM system integrators and panel builders



Product selection guide

Products	Continuous operation and sustainability	Safety and contamination
Blackburn®		
Grounding systems, flexible braids, ADR mechanical connectors, aluminum and copper lay-in lugs	•	
Carlon®		
Non-metallic enclosures	•	
Color-Keyed®		
Compression connectors — standard, narrow-tongue, 45° and 90° angled and stacking lugs	•	
Battery-powered and hydraulic compression tools and die systems	•	•
EZCODE®		
Safety labels, tags, signs, wire markers and barricade tapes		•
Kindorf®		
Modular metal framing system and accessories	•	
Seismic bracing system	•	•
Trapnut® strut fastener and Cobra® clamp		
Ocal®		
Corrosion-resistant PVC-coated conduit and fittings	•	
PMA®		
Flexible nylon cable protection systems — halogen-free, ATEX and divisible styles	•	•
Pos-E-Kon®		
Rectangular pin-and-sleeve connectors		
Russellstoll®		
DuraGard® industrial interconnect system and UniGard® IEC 309 rated pin-and-sleeve plugs, interconnections	•	
Shrink-Kon®		
Shrink-Kon® heat-shrink wire protection insulation and self-fusing tape	•	•
Sta-Kon®		
Automated, hydraulic, pneumatic, battery-powered and manual application tools		•
Crimped wire termination systems — rings, forks, splices, disconnects and wire joints	•	
Insulated and non-insulated ferrules and pin terminals	•	
Shield-Kon® coaxial grounding connectors		

**Sta-Kon®**

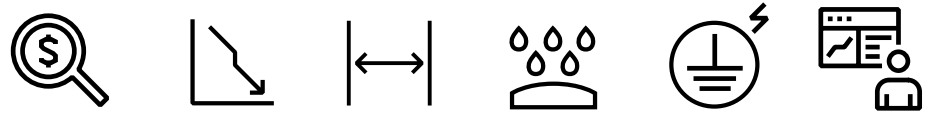
Product selection guide

For OEM system integrators and panel builders (continued)



Product selection guide (continued)

Products	Continuous operation and sustainability	Safety and contamination
STAR TECK®		
STAR TECK® fittings for jacketed metal-clad and Teck cables		•
Steel City®		
Device boxes and covers	•	
Solid and stranded wire grounding pigtails and clips		
T&B® Fittings		
Blackjack® grounding bushings		
CHASE® fittings — nipples and conduit hubs		
LU® universal conduit bodies — BlueKote® and stainless steel		
Form 8 conduit bodies — BlueKote® and stainless steel		
CorroStall® aluminum conduit boxes		
TITE-BITE® metal-clad and armored cable fittings		•
Bonding locknuts		
Multi-hole cord grips — metallic and non-metallic		
Ranger® cord connectors		
Wire-mesh strain-relief cord and conduit grips	•	•
T&B Liquidtight Systems®		
CHASE® fittings — liquid-tight conduit and cord fittings		
Liquid-tight cord connectors — steel, stainless steel, aluminum and non-metallic and Silver Grip® tray cord fittings	•	
Liquid-tight conduit and fittings systems — types A, B, C, ATX high-/low-temp. and XTRA FLEX®	•	
Revolver® liquid-tight grounding fittings		
Ty-Duct®		
Non-metallic and halogen-free wiring duct, bench-mount cutter, tools and accessories	•	•
Ty-Rap®		
Abrasion-protection sleeving and spiral wrap harnessing	•	•
Multi-colored nylon cable ties, fasteners and mounting accessories		
Low-smoke, flame-retardant UL94V-0 and detectable cable ties		•
Coated and uncoated stainless steel cable ties		
Ergonomic manual cable tie installation tools and Ty-Rap Tote® cable tie dispensers		•



Total project cost reduction	SKU reduction	Space savings	Liquid ingress protection	Grounding and bonding	Services and training
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STAR TECK®
Steel City®

T&B® Fittings

T&B Liquidtight Systems®

Ty-Duct®

Ty-Rap®

Challenge and commitment

Electrical control panels are an essential part of manufacturing. They ensure that the right amount of electrical power is sent to the right equipment at the right time, allowing the manufacturing process to be performed consistently and repeatedly.

Today's system integrators and panel builders must remain competitive while facing:

- Reduced or tight budgets
- Fluctuating raw material costs
- Increased competition
- Changing technology and global standards

Key business drivers include:

- Building high-performance, reliable and safe electrical panel boards
- Improving operational efficiencies and revenues while maintaining high quality
- Completing jobs on time and to specifications

Electrical control panels are used to control water pumping stations to irrigate farms, to keep our nation's food supply healthy and to keep parks and golf courses saturated with the right amount of water so you can enjoy an outdoor activity.

Electrical control panels are used in commercial building HVAC and lighting systems to ensure workers are comfortable and effective while at work. They are used nearly everywhere power is used, from industrial and commercial markets to institutional and residential markets.

System integrators and panel builders are increasingly being challenged to design a variety of panel types for different environments (approximately 80 percent of panels are unique) and to build and install their electrical control panels on time, at a competitive cost and with a high degree of reliability. Their panel boards are often required to operate 24/7 without interruption and in harsh environments.

The critical need for continuous clean power without downtime is key to many manufacturing processes as well as healthcare. The losses from power failure in an industrial plant can be huge; the loss of power in a hospital can threaten life itself.

ABB understands system integrators' and panel builders' electrical system issues and has solutions that will help them to:

- Increase personnel and equipment safety
- Improve revenues and profitability
- Ensure high-performance, high-quality and high-reliability electrical systems with extended life
- Reduce labor and installation costs while increasing productivity
- Build and install safer equipment with flexible design options
- Save space in their panels
- Keep up to date with new technologies and global standards
- Meet their customers' specifications and exceed their expectations
- Maintain high brand value and company reputation in order to gain market share

Panel board applications



Industrial



Commercial



Institutional



Agricultural



Recreational



Machinery



— ABB solutions help you build safe, reliable, high-performance panels.

Continuous operation and sustainability

ABB offers high-quality electrical system solutions for consistent, reliable connections to maintain your brand reputation.

01 Carlon®

- Non-metallic enclosures

02 Sta-Kon®

- Crimp wire terminals
- Ferrules and pin terminals
- Shrink-Kon® heat-shrink wire protection

03 T&B® Fittings

- Cord fittings and cable glands

04 T&B Liquidtight Systems®

- Flexible conduit and fittings systems

System integrators and panel builders are under pressure to create high-reliability panels with technical features that solve complex processing problems. Panels must be produced quickly, able to run continuously in a variety of environments with high performance and at a lower installed cost. Loose connections are a serious issue. ABB products comply with industry standards, which helps your factory acceptance testing (FAT) go smoothly and eliminates rework. In addition, we offer components designed to provide long, reliable service in harsh, wet, corrosive and extreme-temperature environments.

Carlon® non-metallic enclosures

NEMA and JIC designs

- Lightweight, impact-resistant and non-metallic
- Withstands harsh, wet and corrosive environments

Sta-Kon® crimped wire termination systems

- Complete line of rings, forks, splices, pin terminals, disconnects and wire ferrules
- Longer, selectively annealed barrel for increased pull-out strength and lower crimping force
- UL listed and CSA certified
- Shrink-Kon® wire insulation provides superior conductor and connection protection



T&B® Fittings cord and cable fittings

- Exceptional strain relief
- Dependable seal against dust, oil and liquids
- UL listed and CSA certified

T&B Liquidtight Systems®

Liquid-tight flexible conduit and fittings

- Available in steel, stainless steel, aluminum and high-temp versions to suit various applications
- Withstand harsh, wet and corrosive environments
- Safe Edge® ground cone accepts raceway variations
- Suitable for grounding and bonding applications
- UL listed and CSA certified



01 **Carlon®**



02 **Sta-Kon®**



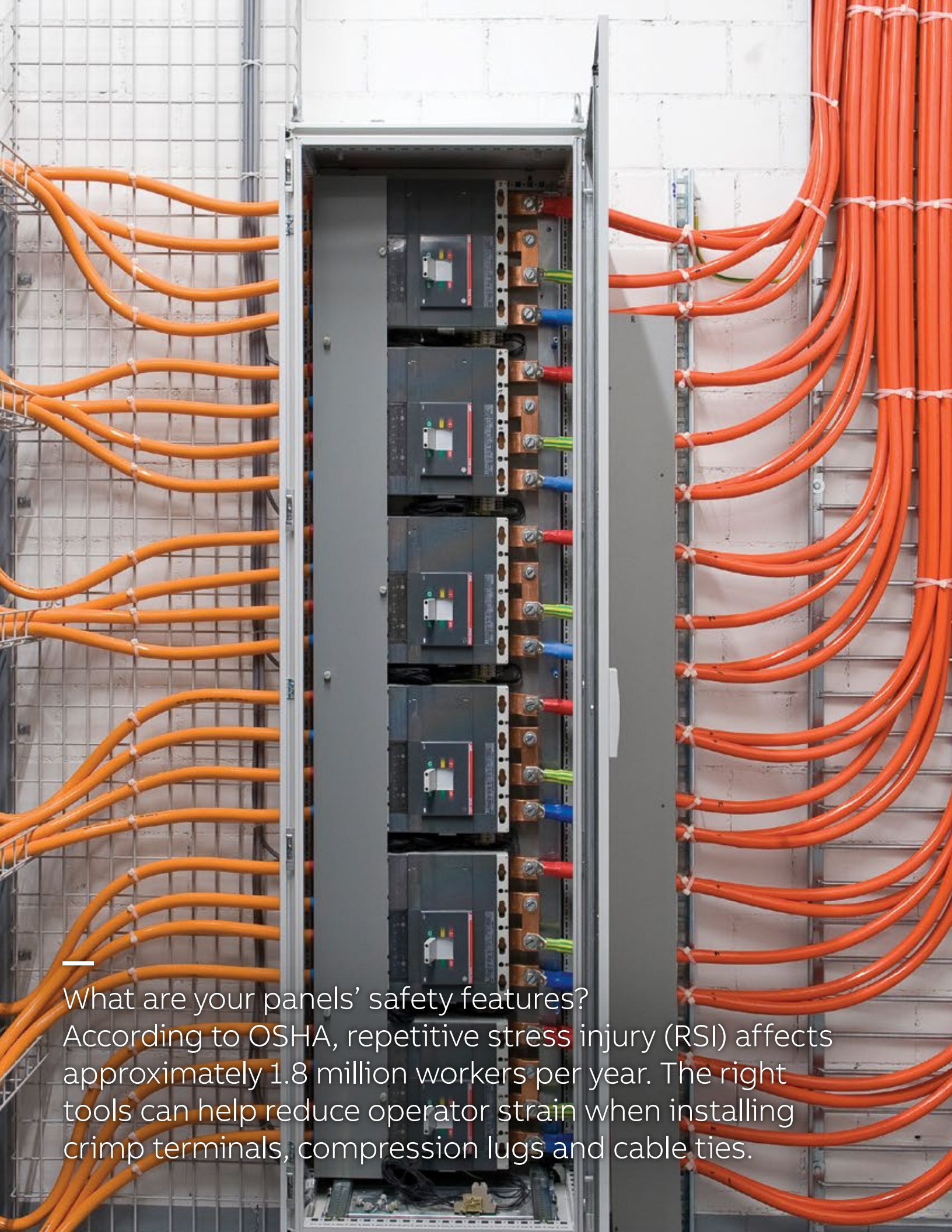
03 **T&B Fittings**



04 **T&B Liquidtight Systems®**



Panel boards are found in indoor and outdoor applications, exposed to various environmental conditions, such as high and low temperatures, ultraviolet light, rain, snow, liquids, chemicals and corrosive agents.



What are your panels' safety features?

According to OSHA, repetitive stress injury (RSI) affects approximately 1.8 million workers per year. The right tools can help reduce operator strain when installing crimp terminals, compression lugs and cable ties.

Safety and contamination

ABB offers a variety of ergonomic manual, battery-powered and pneumatic/hydraulic installation tools for terminals, lugs and cable ties, providing consistency, efficiency and comfort and helping to reduce the risk of injury.

01 Color-Keyed® | Sta-Kon® | Ty-Rap®

- Battery-powered and hydraulic compression tools
- Wire termination compression tools
- Cable tie installation tools

02 EZCODE®

- Safety labels, tags, signs, wire markers and barricade tapes

03 PMA®

- Halogen-free nylon liquid-tight systems
- Hazardous location ATEX systems

04 STAR TECK®

- STAR TECK® fittings for jacketed metal-clad and Teck cables

NFPA 70E is the U.S. “Standard for Safety in the Workplace” that governs worker safety. UL 508A is the primary listing agency for U.S. industrial control panels. Safety issues for system integrators and panel builders encompass both the well being of personnel building the panels and protection of the employees and assets of customers who use the panels.

Many safety products are being designed into panels to identify and monitor critical processes, make them “touch safe” with arc flash protection, indicator lights, safety relays, touch screens, viewing windows, door ports, deadfront barriers and interlocked safety switches that offer emergency stop circuitry for added protection. For the safety of your employees, ABB offers a variety of ergonomic installation tools for terminals, lugs and cable ties, providing consistency, efficiency and comfort and helping to reduce the risk of injury. We also provide safety products to help protect your customers’ employees while working in your panel.

Color-Keyed® | Sta-Kon® | Ty-Rap®

Ergonomic application tooling

- Consistent installation of lugs, terminals and ties
- Save time and increase reliability and profitability with hydraulic and pneumatic tooling
- Reduced handle force and ergonomic design lowers the risk of repetitive motion injuries

EZCODE®

Safety labels, tags, signs, markers and tapes

- Help to ensure personnel and workplace safety, as well as regulatory compliance
- Highly visible and long-lasting materials
- Custom labels, tags and signs available

PMA®

Halogen-free nylon liquidtight conduit systems

- Free of halogen and cadmium — will not expose workers to hazardous smoke fumes
- Non-metallic fittings with metallic and non-metallic threads providing IP66, IP68 and IP69K ingress protection

STAR TECK®

Cable fittings

- Metal-clad and armored cable fittings provide exceptional mechanical strain relief
- UL listed and CSA certified



01 **Color-Keyed®** **Sta-Kon®** **Ty-Rap®**

02 **EZCODE®**

03 **PMA®**

04 **STAR TECK®**

Total project cost reduction

ABB offers total project cost reduction solutions to help you achieve savings.

01 Carlon®

- Non-metallic enclosures

02 Color-Keyed®

- Compression lugs — standard, narrow-tongue, 45° and 90° angled and stacking
- Battery-powered and hydraulic compression tools
- HEX-FLEX® die system

03 PMA®

- PACOF divisible flexible nylon conduit

04 Ty-Duct®

- Non-metallic wiring duct
- Complete line of tools and accessories

Increasing profitability while maintaining quality, reliability and safety requires continuous improvement of operational efficiencies. With global commerce increasing, many U.S. system integrators and panel builders are using more IEC components, which often cost less. The labor-to-materials-and-equipment mix changes with the level of panel design complexity, and with labor representing as much as 50 percent of panel cost, installation time reduction is an ideal way to reduce costs and increase profit margin. ABB offers total project cost reduction solutions to help you achieve savings in labor, materials, equipment and logistics.

Carlon® non-metallic enclosures

- NEMA and JIC designs
- Lightweight, impact-resistant and non-metallic
- Withstands harsh, wet, corrosive environments

Color-Keyed® compression connectors

- Compression connectors and tools
- Design, quote and order custom lugs easily with fast turnaround
- HEX-FLEX® die system yields superior terminations with fewer crimps for flex cable



PMA® PACOF divisible flexible nylon conduit

- Ideal for use with panel door joints
- Fast, easy installation for labor savings
- Can be opened and closed again in longitudinal direction at any time
- Specially modified polyamide 6 construction — self-extinguishing and free from halogen and cadmium
- Operating temperature of -40° C to 100° C

Ty-Duct® non-metallic wiring duct, tools and accessories

- Triple-restricted slots and universal mounting clip enable fast and neat internal wire bundling
- Two-point contact cover with writable protective film installs/removes easily, yet won't accidentally slip off
- Bench-mount cutter provides fast, dust-free operation



01 **Carlon®**

02 **Color-Keyed®**

03 **PMA®**

04 **Ty-Duct®**

—
In what areas of your operation could you reduce costs to increase your profit margin? Approximately 80% of panels are custom-built. The average panel is 3 ft. x 3 ft. in size and takes 40 hours to build.





Reducing inventory increases cash on hand. Fewer SKUs also means less time spent managing inventory — time savings that translate to lower operating costs.

SKU reduction

ABB has a heritage of innovation, and an important characteristic of many new ABB products is their ability to replace multiple existing SKUs with one.

01 Color-Keyed®

- Compression lugs — standard, narrow-tongue, 45° and 90° angled and stacking
- HEX-FLEX® die system
- SMART® tools

02 STAR TECK®

- STAR TECK EXTREME® DIRECTOR™ jacketed metal-clad cable fittings

03 T&B® Fittings — rigid fittings

- Blackjack® grounding bushings
- LU® universal conduit elbows — BlueKote® and stainless steel

04 T&B® Fittings — cord and cable fittings

- Ranger® cord connectors
- Multi-hole cord grips — metallic and nonmetallic

Carrying excess inventory is as much of a drag on company profitability as inefficient production processes. The more item SKUs (stock keeping units) you maintain, the greater the complexity of tracking systems and expense to manage inventory — both of which result in revenue loss. ABB has a heritage of innovation, and an important characteristic of many new ABB products is their ability to replace multiple existing SKUs with one. Our SKU reduction solutions help you:

- Save space in your store room
- Reduce inventory items to manage
- Increase cash on hand

Color-Keyed® HEX-FLEX® die system

- Reduces installation time by providing a superior termination with fewer crimps for flex cable
- Color-Keyed connector and die matching system helps ensure proper connections

STAR TECK®

STAR TECK EXTREME® DIRECTOR™ jacketed metal-clad cable fittings

- Innovative range-taking design reduces inventory and speeds installation
- Allow angle adjustment from 90° to 180° to eliminate the need for a conduit elbow
- Easy to install — no disassembly required

T&B® Fittings

Blackjack® grounding bushings

- Dual rated for threaded and unthreaded conduit, aluminum and copper wire to cut inventory in half
- Speeds installation and improves aesthetics

LU® universal conduit elbows

- Can replace LL, LR, LB and C conduit bodies for a 4-to-1 SKU reduction
- Radius is the same as bent conduit — rated for 40% wire fill
- UL listed as an enclosure — splices allowed inside
- Available in BlueKote® finish, stainless steel or with Ocal® PVC coating

Ranger® cord connectors

- Cable range of 0.25" — twice that of ordinary strain-relief connectors — reducing inventory
- Smaller overall size to fit into tight spaces
- Choice of aluminum, steel, stainless steel and non-metallic materials



01 **Color-Keyed®**



02 **STAR TECK®**



03 **T&B® Fittings**



04 **T&B® Fittings**

Total project cost reduction

ABB offers products designed to maximize panel real estate, enhance wire management and help boost your panels' aesthetics.

01 Color-Keyed®

- Narrow-tongue lugs
- 45° and 90° angled lugs
- Stacking lugs

02 Pos-E-Kon®

- Rectangular pin-and-sleeve connectors

03 T&B Fittings®

- Metallic and non-metallic fittings
- Multi-hole cord grips
- CHASE® fittings
- Ranger® fittings

04 Ty-Rap®

- Abrasion-protection sleeving
- Spiral wrap harnessing
- Cable ties, fasteners and mounting accessories
- Ergonomic cable tie installation tools

When it comes to panels, space is money. The switch from analog to digital components requires less space and reduces wiring, saving space, labor, time and money. ABB offers products designed to maximize panel real estate, enhance wire management and help boost your panels' aesthetics. We also provide high-temperature solutions. Our space-saving panel solutions:

- Make your panels easier to build and maintain
- Keep your panel technicians and customers safer
- Reduce the size and cost of your panel enclosure and wiring

Color-Keyed® narrow-tongue lugs

- Consistent narrow width from barrel to tongue to fit into tight spaces
- Color-Keyed connector and die matching system helps ensure proper connections

Pos-E-Kon® rectangular pin-and-sleeve connectors

- Best use of space for multiple contacts in heavy-duty housings
- Rugged, industrial-grade connectors provide universal raceway flexibility
- Easy-lock, cam-action latch eliminates guesswork and speeds installation



T&B Fittings® cord and cable fittings

- Labor-saving metallic and non-metallic fittings to route cables into the panel
- CHASE® fittings feature compact and low profile cord connectors to save space inside the panel
- Ranger® fittings provide up to a 4-to-1 SKU reduction — purchase, stock and install one fitting versus four
- Multi-hole cord grips allow multiple smaller cords to be installed in the same fitting

Ty-Rap® cable ties, accessories and tools

- Low-profile head and smooth, molded body
- Available in high-performance materials to handle harsh and plenum environments
- Complete line of mounting bases, spiral wrap harnessing, abrasion-protection sleeving and installation tools



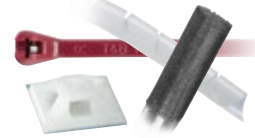
01 **Color-Keyed®**



02 **Pos-E-Kon®**

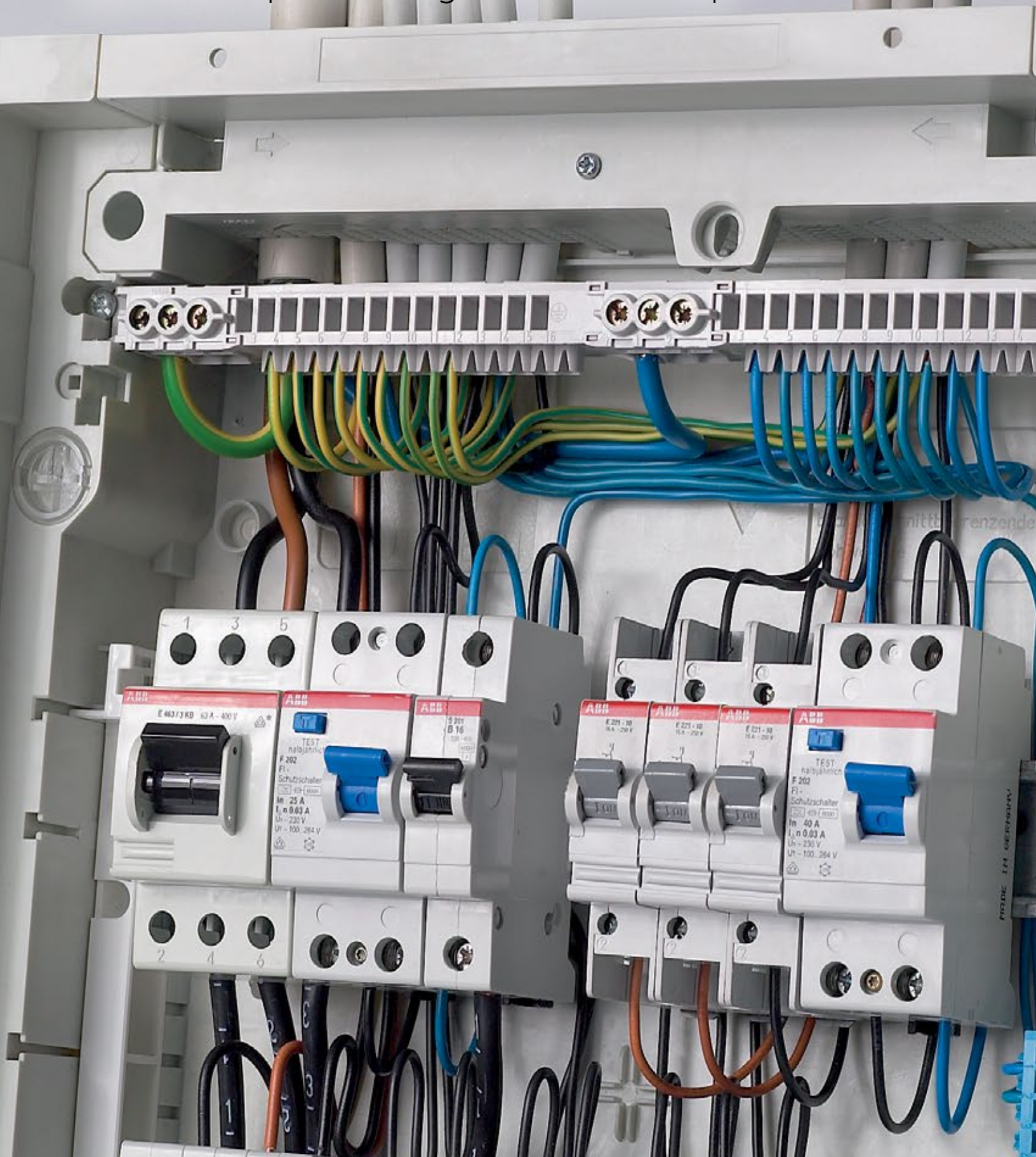



03 **T&B Fittings®**



04 **Ty-Rap®**

—
Would you like more space in your panels?
ABB offers space-saving solutions to help.





—
What NEMA and IP ratings
are required to prevent
liquids from getting into
your electrical control panels?

Liquid ingress protection

ABB offers you electrical system solutions that protect against liquid, moisture and dust ingress, which will help reduce corrosion and downtime, increasing electrical system lifecycle and improving operating revenues.

01 Shrink-Kon®

- Heat-shrink terminals
- Wire and connector insulation products

02 T&B Liquidtight Systems®

- ATX high-/low-temperature liquid-tight flexible metal conduit and fittings
- XTRA FLEX® non-metallic liquid-tight conduit, tubing and BULLET® fittings
- Liquid-tight conduit fittings
- Type A liquidtight flexible non-metallic conduit and fittings
- Ranger® series liquid-tight cord fittings

Electrical control panels are used in a variety of environments that can negatively affect their performance and lifespan, such as areas that have liquids and steam present from manufacturing processes or outdoor weather exposure. Lubricants and oils can also find their way into electrical systems. Panels installed in food and beverage processing plants may be exposed to high-pressure washdown cleaning procedures, while panels in paper mills must be able to withstand steam.

When specifying electrical components for electrical control panels, consider the following:

- Liquid ingress can deteriorate or short out an electrical system immediately or over time
- Electrical system components designed with round and sloped surfaces help to shed liquids and contaminants, rather than creating a shelf where they can collect

ABB offers solutions that protect against liquid, moisture and dust ingress, which will help reduce corrosion and downtime, increasing electrical system lifecycle and improving operating revenues.

Shrink-Kon® self-fusing tape

- Easy-to-install insulation for harnesses, wires or cables — no heat or adhesive required
- Just two layers form a moisture-proof, abrasion-resistant, dielectric seal for low- or high-voltage applications (600 V max.)

Shrink-Kon® heat-shrink insulation

- Provides superior conductor, connection and termination protection
- Helps to ensure continuous, reliable operation

T&B® Fittings

Ranger® series cord connectors

- Provide exceptional mechanical strain relief
- Create a dependable seal against dust, oil and other liquids
- Designed to handle the unique connection demands of flexible cords and power cables
- UL listed and CSA certified

T&B Liquidtight Systems®

Liquid-tight conduit fittings

- Withstands harsh, wet and corrosive environments
- Provides a water- and oil-tight seal where flexible metal conduit enters a box or enclosure
- Safe Edge® ground cone design accepts variations in raceway convolutions
- Suitable for both grounding and bonding
- UL listed and CSA certified

Type A liquid-tight flexible non-metallic conduit and fittings

- Create a liquid-, dust- and oil-tight seal
- Ideal for continuous flexing applications
- Suitable for operating temperatures from -20° to 60° C
- Fittings available in non-burning, non-dripping thermoplastic, steel and stainless steel materials



01 **Shrink-Kon®**



02 **T&B Fittings**



03 **T&B Liquidtight Systems®**



Grounding and bonding

ABB grounding and bonding solutions are designed to ensure personnel safety, eliminate lightning interruptions and protect critical equipment.

01 Blackburn®

- Grounding systems
- Flexible braids
- Aluminum and copper lay-in lugs
- ADR mechanical connectors

02 T&B® Fittings

- Blackjack® grounding bushings
- TITE-BITE® fittings
- Bonding locknuts

03 T&B Liquidtight Systems®

- Revolver® liquid-tight grounding fittings

A stable power supply is the backbone of any facility. Power failure or instability can cause safety, production and operational issues, significantly impacting a company's bottom line. Ineffective grounding can lead to voltage variances that damage electrical equipment or electronic devices, resulting in power loss and costly downtime. Many power problems stem from incorrect bonding of transformers, main electrical panels, subpanels, UPS systems and generators. ABB grounding and bonding solutions are designed to help provide electrical continuity and reliability and meet IEEE, NEC, UL and CSA requirements.

Blackburn® grounding systems

- Superior grounding and bonding of electrical systems and equipment
- EZGround® compression connectors provide a consistent, irreversible bond
- Mechanical connectors require no special tools

Blackburn® flexible braids

- Extra-flexible links for applications to 3,600 A
- Standard links for applications to 2,350 A

T&B® Fittings Blackjack® grounding bushings

- For grounding and bonding of threaded and unthreaded conduit, aluminum and copper wire
- Speeds installation and improves aesthetics



T&B® Fittings bonding locknuts


- Ensure positive bonding of conduit to enclosure
- Available in steel or aluminum

T&B Liquidtight Systems®

Revolver® grounding fittings

- Designed for use where an external bonding jumper is required for liquid-tight flexible conduit
- Revolving grounding ring provides flexibility in positioning for ease of installation





Are your technicians up to date on current NEC grounding and bonding and NFPA 79 safety requirements? ABB offers onsite NEC update training to help you keep your team abreast of changes.



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Do you have personnel
who could benefit from
additional training?

Services and training

The consequences of an improperly installed or maintained electrical system can range from costly downtime to a significant disaster. Proper training is essential.

-
- 01 Color-Keyed®**
- Product configurator
 - Lug Express program
-
- 02 Ocal®**
- Installer certification training

Electrical systems are becoming increasingly complex, requiring skilled technicians. Proper training can help you avoid expensive and often dangerous situations. Proper installation, maintenance and training not only help to ensure the safety of your workforce and reduce the occurrence of downtime, they also extend the lifecycle of the electrical system by reducing unnecessary wear and tear on assets. New high-tech equipment used in panels requires skilled technicians for programming and design. Most of their training comes on the job, and ABB provides services and training that will help you to:

- Maximize worker safety
- Reduce installation time
- Increase panel life and performance
- Grow your brand equity and gain repeat business
- Improve your revenues and profitability

Color-Keyed® compression

- Lug Express program provides quick turnaround on both standard and custom lug orders
- Product configurator enables online design of custom connectors
- Product specialists are available nationwide to train in the proper use and installation of Color-Keyed products
- Tech Services group provides expertise for call-in customers

Ocal installer certification training

- Onsite installation training
- Provides hands-on practice of clamping, cutting, threading, assembling and repairing the Ocal® PVC-coated conduit system
- Extends warranty from 2 to 5 years on a system installed by a certified contractor

Onsite grounding and bonding training

- Covers proper electrical safety protection and grounding of electrical services, equipment and raceway systems
- Conforms to National Electrical Code (NEC) regulations, UL 508 and NFPA 79 safety standards

T&B Tool Services

- Technical support and calibration services
- Tool rental programs available

Additional services and training

- Free online CAD Library for downloadable 2D and 3D models in 90+ native CAD file formats
- Mobile solutions vehicle for onsite demos of connectors, grounding and other products
- NEC update training provides an overview of the latest changes to the NEC



Installation Products for applications

01 Continuous operation and sustainability.

02 Corrosion and harsh environment protection.

03 Safety and contamination.

04 Emergency electrical solutions.

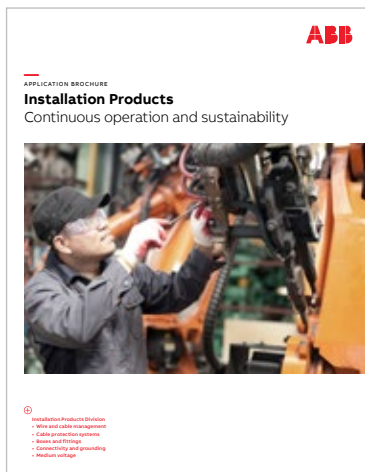
05 Total project cost reduction.

06 Liquid ingress protection.

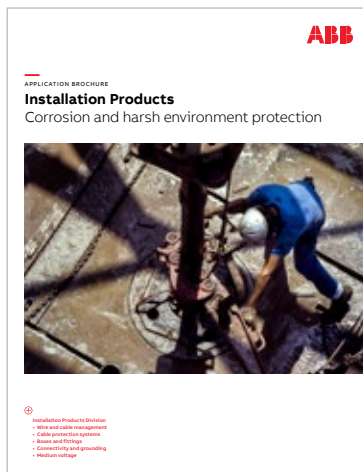
07 Extreme temperature protection.

08 Grounding and bonding.

09 SKU reduction.



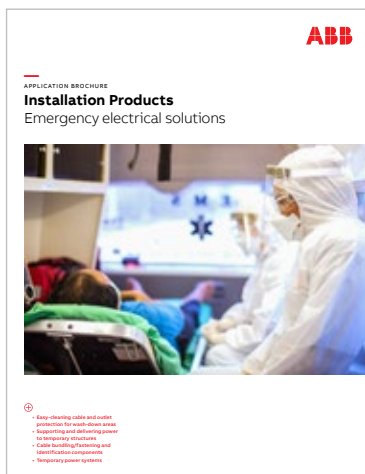
01



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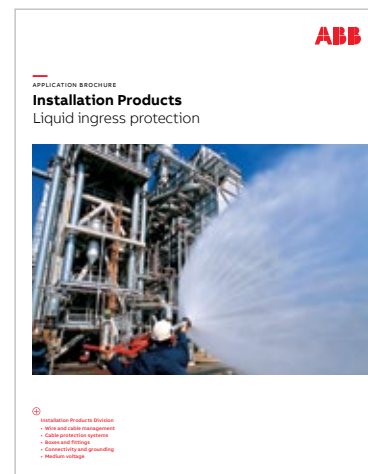
03



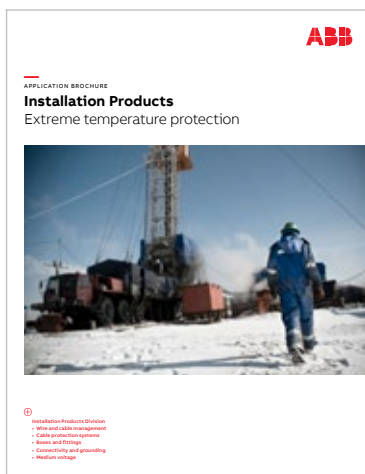
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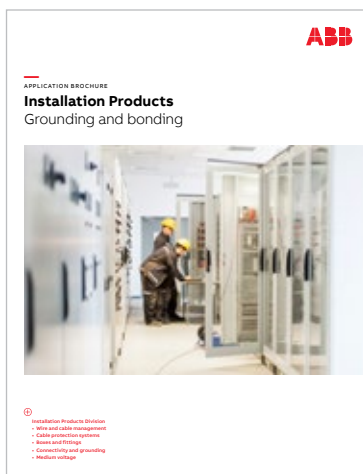
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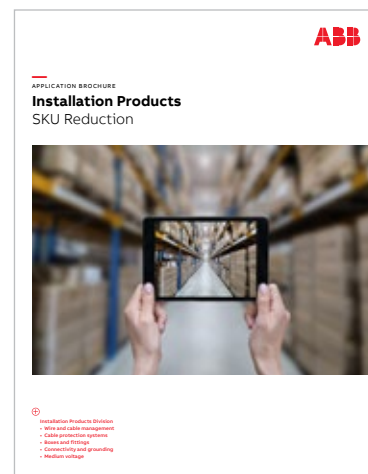
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Installation Products for industries

01 Commercial and institutional buildings.

02 Data centers.

03 Food and beverage industry.

04 Food and beverage industry - plant assessment.

05 Utility industry.

06 Power generation industry.

07 Chemical industry.

08 Oil and gas industry.

09 Wind power industry.

10 Renewable energy industry.

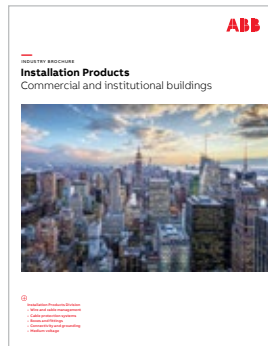
11 Water and wastewater treatment industry.

12 Single and multi-family housing industry.

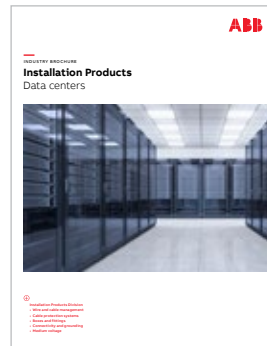
13 Rail industry.

14 Civil infrastructure industry.

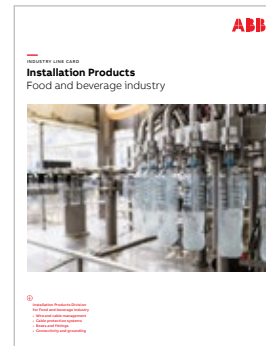
15 Metals and mining industry.



01



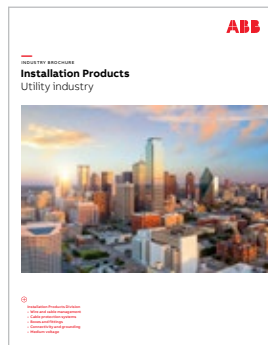
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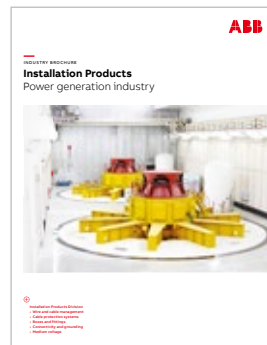
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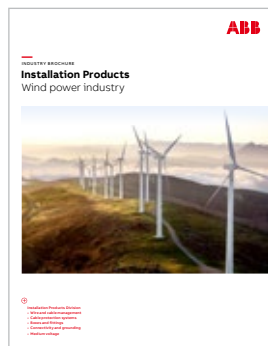
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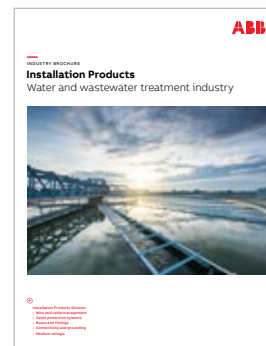
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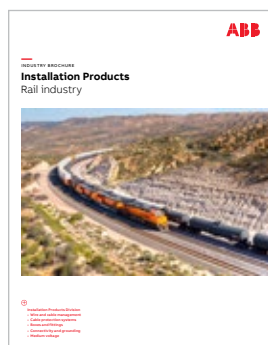
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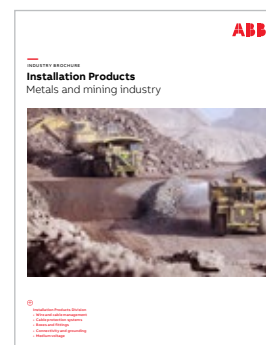
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