



Wire and cable management

Product overview



- ABB's Wire & Cable Management portfolio offers a complete fastening solution to improve the quality and speed of installations and aesthetics.

ABB's broad offering of wire & cable management solutions are designed to make the task of fastening, protecting, insulating and connecting wires easier and quicker for industrial applications, constructions, communications, utility and OEM professionals as well as do-it-yourself specialists. ABB Wire & Cable Management portfolio offers a complete line of fastening solutions to improve the quality and speed of installations.

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Wire & cable management

Premium wire & cable management solutions

When strength, reliability and performance are required, knowledgeable professionals turn to the original and the best source for wire & cable management solutions.

ABB's broad offering of wire & cable management solutions are designed to make the task of fastening, protecting, insulating and connecting wires easier and quicker for industrial applications, constructions, communications, utility and OEM professionals as well as do-it-yourself specialists. ABB Wire & Cable Management offer a complete fastening solution to improve the quality and speed of installations and aesthetics. Our ranges contain the following products:

Ty-Rap®

With an integral steel locking barb where extra strength is required.

Ty-Met™

Stainless steel cable ties specifically designed for hazardous areas, such as petrochemical, food processing, power stations, marine and offshore industries. Now with range extensions.

Ty-Fast®

The high quality all nylon tie for a variety of applications.

TwistTail™

Quick and easy to install - no tools required! Wrap the cable tie around the bundle of cables, bend the excess tail in two directions and twist. The tail breaks off leaving no sharp edges.

Electrical & mechanical spring steel fasteners

E-Klips is the market leading spring steel fastener brand, delivering robust, flexible and easy to install fixing solutions for a wide range of applications, including cables, pipework, trunking, ducting, cable tray, light fittings, conduit and suspended ceilings.

Insulate, protect & identify with Shrink-Kon®

A full heatshrink product range, including thin wall for general electrical applications, medium and thick wall for external and utility applications, preformed shapes such as end caps for sealing cable ends and breakouts for cable joints.

Metric compression lugs

Our Color-Keyed® lugs are made of 99.9% pure, oxygen-free copper. The Color-Keyed color coded crimping system assures the right die is used with the right lug resulting in an accurate, reliable crimp. With Spec-Kon® lugs we offer electrical wholesalers, panel builders and OEM manufactures compression lug solutions for any application and industry standard.



Wire & cable management

Range overview

— 01 Ty-Rap cable ties

— 02 Ty-Met stainless steel cable ties

— 03 Ty-Fast cable ties

— 04 TwistTail cable ties

— 05 E-Klips steel spring fasteners

— 06 ABB Wiring Duct

— 07 Shrink-Kon heat shrink technologies

— 08 Spec-Kon compression lugs

Ty-Rap® cable ties

The premium cable tie with a steel locking barb, available in a range of lengths and widths, with tensile strength up to 780 Nm. Ty-Rap cable ties can be supplied in a number of color options, to suit customer preference. Ergonomic fastening tools provide a rugged, long-lasting solution for rapid cable tie installation.

Ty-Met™ stainless steel cable ties

High mechanical strength, chemical durability and temperature resistance make Ty-Met cable ties the ideal solution in more aggressive environments. Available coated or uncoated, in ladder, ball-lock and releasable types.

Ty-Fast® cable ties

All-plastic cable ties are available in a variety of formats, including extra long, releasable or with identification tag, for low cost cable management.

TwistTail™ cable ties

Easy to install cable ties with a unique twist to break tail which leaves no sharp edges to scratch hands or cabling.

E-Klips steel spring fasteners

E-Klips steel spring fasteners offer simple and secure suspension of loads up to 72kg, with connections via cable or wire. Our E-Klips product portfolio includes various styles and sizing for securing cables and conduit.

ABB Wiring Duct

ABB Wiring Duct products offer a total solution for routing and concealing wiring in control panels.

Shrink-Kon® heat shrink technologies

Heavy, medium and thin wall tubing for insulation of bare Sta-Kon connectors and splices.

Color-Keyed® & Spec-Kon® compression lugs

ABB now offers a complete range of IEC & UL/CSA approved compression lugs in metric sizes. Color-Keyed and Spec-Kon compression lugs utilize compression tools with matching dies that forms connector & wire to provide an optimum electrical bond between connector & conductor.



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Ty-Rap®

High performance cable ties

Innovative design and engineered materials make Ty-Rap cable ties the perfect fastening solution where performance really matters. Often imitated but never equaled, Ty-Rap cable ties provide superior performance in any application.

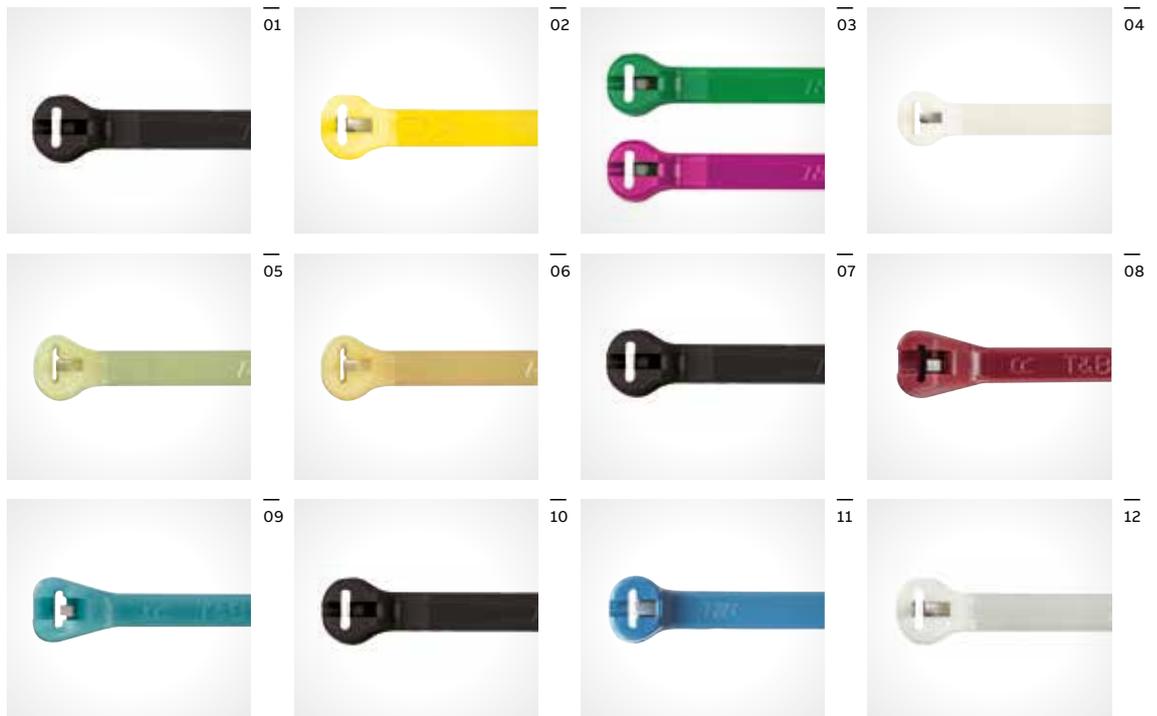
- 01 Standard
- 02 UV-resistant
- 03 Coloured
- 04 Flame retardant
- 05 Heat stabilised
- 06 Extra high temperature
- 07 Weatherable
- 08 ECTFE
- 09 ETFE
- 10 Railway certified
- 11 Detectable
- 12 Natural

The complete Ty-Rap portfolio includes cable ties specifically designed for the application. Whether the application requires resistance against extreme temperatures, flames, continuous sunlight and UV radiation, aggressive chemicals or requires heavy tensile strength, ABB has a cable tie solution. ABB also provides cable ties & tools, that help facilitate and speed up your assembly time or installation process.

Main benefits

- **The Grip of Steel®:** Ty-Rap's non-hydroscopic stainless steel locking device ensures maximum strength and extended useful life
- **Fewer stress points:** Ty-Rap's smooth, notchless body reduces the number of stress points, while ribs and stipples grip the bundle and prevent slipping specifically in vibrating applications
- **Snag free installation:** The low-profile head and its oval shape make it easier and safer to pull bundled cables through bulkheads
- **Performance in extreme & harsh environments:** Available in multiple materials to operate in corrosive, hot and cold and other demanding environments

Main products



Ty-Met™

Stainless steel cable ties

Ty-Met stainless steel cable ties are the ultimate solution to install your cables in extreme conditions and hazardous areas, indoor and outdoor, such as the petrochemical and food processing industries, power stations, mining, shipbuilding, offshore and other aggressive environments.

- 01 Ball-lock
- 02 Ladder
- 03 Multi-lock strap
- 04 Releasable
- 05 Identification
- 06 Band on reel with separate heads

Our Ty-Met cable ties:

- Provide high mechanical strength combined with chemical durability and temperature resistance
- Have international approvals such as UL, Germanischer Lloyd, Lloyd's Register and Det Norske Veritas
- All types are available in 316 grade (marine grade) stainless steel, for extra corrosion resistance

Main products



Ty-Fast®

One-piece cable ties

Ty-Fast one piece cable ties offer an economical alternative made from quality nylon 6/6 (natural or UV stabilised black). Temperature range from 85°C to 40°C. The smooth edges are designed to prevent damage to wire insulation. Ty-Fast cable ties may be fastened with all standard ABB cable tie tools.

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01 Black
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02 Red
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03 Green
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04 Blue
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05 Yellow
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06 Brown

Features & benefits

- State-of-the-art robotic and raw material handling equipment assures product and material integrity throughout the manufacturing process.
- The integrally formed Polyamide pawl combines low insertion and high locking strength
- A rounded, low-profile head makes for less snags
- Tails have improved two-sided finger grip design that helps the operator grasp and pull ties snug
- Sure Grip tab keeps the tail from popping out while being threaded, then holds it securely for final tightening by hand or tool
- Quick and easy pull through increases productivity, reduces operator fatigue

Main products



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TwistTail™

Tool-free cable ties

How does it work? Wrap the Twist Tail cable tie around the bundle of cables, bend the excess tail in two directions and twist! The tail breaks right off, leaving no sharp edges to scratch your hands or your cables. It's as simple as that.

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01 Black
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02 White

Features & benefits

- New all-plastic cable tie, with unique, patent pending design
 - Quick and easy to install, no tools required
 - Strong, made of Polyamide 6.6, with 133N minimum tensile strength
 - Safe, tail breaks off neat and clean, with no sharp edges
- General purpose applications, indoor and outdoor
 - UL recognised
 - Available in 3 different lengths and 2 colours (white and UV-resistant black)

Main products



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No tools required - just fix and twist

Quick selection guides

Cable ties selection guide

Cable ties - Selection guide



Characteristics	Ty-Rap	Ty-Met	Ty-Fast	TwistTail
Length	92 - 1143mm	93 - 1400mm	112 - 1214mm	181 - 358mm
Tensile strength	Up to 780N	Up to 1117N	Up to 1120N	Up to 133N
Material	Polyamide 6.6 Polyamide 4.6 Polyamide 11 Polyamide 12 Polypropylene Fluoropolymer Detectable	304 Grade stainless steel 316 Grade stainless steel	Polyamide 6.6	Polyamide 6.6
Temperature min. (°C)	-60°C	-80°C	-40°C	-40°C
Temperature max. (°C)	+170°C	+150°C (coated) / +300°C	+85°C/105°C	+85°C
Colour	•	–	•	–
UV-resistant	•	•	•	•
Halogen free	•	•	•	•
Silicone free	•	–	•	•
Flammability rating	UL 94 V-2 UL 94 V-0 UL 94 HB	UL E49405	UL 94 V-2 UL 94 V-0	UL 94 V-2
Flame resistance	•	•	•	–
Mounting hole	•	–	•	–
Expansion anchor	•	–	•	–
Heat resistance	•	•	•	–
Integrated labelling area	•	–	•	–
Steel locking barb	•	–	–	–
Metal detectable	•	–	–	–
Tool-free installation	–	–	–	•
CE Mark	–	•	–	•
UL approved	•	•	•	–
UR approved	•	–	•	•
Lloyd's Register	•	•	•	–
Bureau Veritas	•	•	•	–
GL approved	•	•	•	–
VG/Mil. approved	•	–	•	–
RoHs Compliance	•	•	•	•

Quick selection guides

Cable tie tooling selection guides

Tooling for plastic ties - Selection guide

Part No.	Features	Tensioning	Cutting	For cable ties
Tooling for Plastic Ties				
ERG50 	Ergonomic hand tool with superior level of reliability and performance	Adjustable	Automatic	2.4mm to 4.8mm
ERG120 	Ergonomic hand tool with superior level of reliability and performance	Adjustable	Automatic	4.8mm to 7.6mm
ERG50P 	Ergonomic pneumatic tool with superior level of reliability and performance	Adjustable	Automatic	2.4mm to 4.8mm
WT199 	Semi-automatic MIL specified hand tool (MIL. Nr. MS-90387-1)	Adjustable	Automatic	2.4mm to 4.8mm
WT1-TB 	Basic tensioning tool, intended for maintenance and small batch use	Adjustable	Automatic	2.4mm to 4.8mm
WT197 	Semi-automatic MIL specified hand tool (MIL. Nr. MS-90387-2)	Adjustable	Automatic	4.8mm to 7.6mm
WT2-TB 	Basic tensioning tool, intended for maintenance and small batch use	Adjustable	Automatic	4.8mm to 7.6mm
L300-FR 	Rugged construction with field proven durability	Adjustable	Automatic	7.6mm to 9mm
WT3D 	Robust metal body with plastic hand-grips, designed for tensioning & cutting heavy-duty cable ties	Adjustable	Automatic	7.6mm to 12.7mm
L-500-EU 	Rugged metallic construction	Adjustable	Automatic	4.7mm to 13.3mm

Tooling for Ty-Met stainless steel ties - Selection guide

Part No.	Features	Tensioning	Cutting	For cable ties
Tooling for Ty-Met Stainless Steel Ties				
CT1-TB 	Tensioning hook provides extra-leverage for tensioning the ties	Basic	No cutting	Releasable Ladder Type & Strap Type
CT2-TB 	Basic hand tool	Basic	No cutting	Releasable Ladder Type & Strap Type
WT3S 	A robust metallic hand tool with rubber grips	Basic	No cutting	Ladder Type & Strap Type
CT3 	Economic tensioning tool	Basic	Manual	Ladder Type, Strap Type & Ball-Lock Type (width up to 12mm)
L600 	Tensioning tool	Basic	Manual (twist cut)	Ball-Lock Type (width: 4.6mm & 7.9mm)
CT4-TB 	Bantam tool, unique 3-way handle can be used in various positions with minimal access	Basic	Manual	Releasable, Ladder Type & Strap Type
CT5 	Adjustable tension setting tool with automatic cutting	Adjustable	Automatic	Ladder Type & Strap Type
CT6 	Adjustable tension setting tool with automatic cutting	Adjustable	Automatic	Ball-Lock Type (width: 4.6mm & 7.9mm)
CT7 	Tensioning and cutting tool, ratchet type	Basic	Manual	Ball-Lock Type (width: 12mm & 16mm)
CT8 	Tensioning and cutting tool, ratchet type	Basic	Manual	Bands on reel (all widths)

E-Klips

Electrical & mechanical fixings

E-Klips is the market leading spring steel fastener brand, delivering robust, flexible and easy to install fixing solutions for a wide range of applications.

- 01 Purlin clips for chain and wire
- 02 Girder clips for conduit
- 03 Girder clips for cables
- 04 Self-aligning purlin clip for threaded rod
- 05 Catenary wire, tensioners and accessories
- 06 Pipe hangers
- 07 Suspended ceiling clips
- 08 Girder clips/clamps for threaded rod
- 09 Decking clips

Features & benefits

- Quick, easy and reliable fixing to steelwork, no need for bracket making, drilling nuts or bolts
- Applications include: cables, pipework, cable tray, light fitting, conduit and suspended ceilings
- Reduced installation time, automation and OEM applications, inside and outside

- Ultimate corrosion protection - protected with our revolutionary Z600+ coating. This unique two-stage protective coating ensures that E-Klips fasteners remain protected from corrosion for a considerable period of time. Z600+ is an environmentally-friendly product which meets the requirement for a low solvent content material.
- FMRC approval - Factory mutual research corporation (FMRC)

Main products



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Wiring duct

Wire and cable management

Our wiring duct range includes premium quality duct for point-to-point wiring, ideal for electrical enclosures, machine building and data/communications panels and cabinets. Our ranges include imperial, metric and DIN duct in standard materials and speciality materials such as halogen free.

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01 Wide slot wiring duct
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02 Narrow slot wiring duct

Features & benefits

- Absence of burrs, rounded internal edges
- Dimensions and resilience of ribs guarantee repeated splaying during the wiring phase
- Controlled splaying of sides for guaranteeing a perfect seal of the cover in vertical sections and in the case of high temperatures
- Two prearranged trimming lines: one line at the basis of ribs in order to remove them by bending them towards the outside direction and another line at the basis of the wall in order to cut the edge when two connection ducts are used
- Cable holder moldings halfway along the straight section of the ribs in 80mm high ducts
- Fields of application: residential, industrial and commercial

Specifications

- RAL 7035 grey
- Dimensional stability from -40 to +100°C
- Halogen-free thermoplastic material
- Resistant to acids, oils and greases
- Standard 2-meter length

Standards

- Material in compliance with VDE 0472 Part 815 Standard: Br + Cl < 0.2 %, F < 0.1 %
- Smoke toxicity index: 23.7 according to NF X70-100 and NF F16-101 Standards
- Smoke opacity index*: Dsm 336.2 (2mm) VOF4 230.3 (2mm) in compliance with NF X10-702 Standard (reference NF F16-101)
* In the event of fire, it is extremely important for the smoke opacity level to be as low as possible during the first 4 minutes in order to allow people to move away from the areas of risk
- On the basis of the values obtained during the smoke opacity and toxicity tests, the material falls within class F2 (in compliance with NF F16-101 Standard)
- Insulating, shock-proof, self-extinguishing material in compliance with UL 94 V0 Standard and resistant to abnormal heat and fire up to 960°C (glow wire test) in compliance with IEC 695-2-1 Standard
- Trunkings comply with the EN 50085-2-3 European Standard

Main products



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Shrink-Kon®

Thin wall, medium & thick wall tubing

Manufactured from crosslinked Polyolefin, these products are used to insulate bare Sta-Kon® and Color-Keyed® connectors and splices. They also provide a degree of strain relief and may be used to harness wires. Available in cut pieces or reels.

Shrink-Kon® Thin wall tubing

Manufactured from crosslinked Polyolefin, these products are used to insulate bare Sta-Kon and Color-Keyed connectors and splices. They also provide a degree of strain relief and may be used to harness wires. Available in cut pieces or reels.

Features include:

- Single wall non-lined 2:1 and 3:1 thin wall tubing
- 3:1 and 4:1 dual wall adhesive lined thin-wall PKG series provides excellent flexibility with environmental sealing capability
- Transparent heat shrink tubing for use on power connections and data connections
- Zero Halogen and flame retardant version for use in contained areas

Shrink-Kon® Medium wall tubing

Features include:

- More flexible than heavy-wall products, with excellent resistance to impact and abrasion
- Seals and protects cable splices and terminations
- Thermoplastic adhesive liner guarantees complete environmental protection and insulation

Thick Wall Shrink-Kon® Heat-Shrinkable Insulators

When it comes to moisture-proofing connections and terminations, ABB's heat-shrinkable tubing, cable breakouts and end caps have proven themselves over years of service to the industry. Made of thermally stabilised cross-linked polyolefin, these heat-shrinkable insulators can be used over lead, steel, aluminum, copper, standard plastic, and elastomeric insulating materials.

ABB heat-shrinkable insulators are designed to be easy to use. They provide an appropriate level of insulation and abrasion protection.



Color-Keyed® & Spec-Kon® Compression lugs

The ABB method of installing compression connectors on power cables is designed to provide a high degree of reliability in electrical wiring. This method allows electrical workers to make installations with little effort and at a considerable savings in time. The benefit, of course, is a high quality connection at a low installed cost.

01 Color-Keyed
compression lugs

02 Spec-Kon
compression lugs

Color-Keyed® system solution to provide the best and most reliable connection.

Color-Keyed is a system solution designed to meet the most stringent UL & IEC Class A testing requirements:

- Our Color-Keyed lugs are made of 99.9% pure, oxygen free copper
- The Color-Keyed color coded crimping system assures the right die is used with the right lug resulting in an accurate, reliable crimp
- Color-Keyed dies are designed to produce a circumferential, hex- or diamond-shaped compression rather than a simple indent resulting in assured high conductivity, exceeding IEC 61238-1 and UL standards.
- Circumferential compression creates large area of high pressure contact between cable and connector which in turn result in low resistance and high pull-out values

Color-Keyed® (IEC metric featuring color keyed system)

Available in:

- Straight 1 hole / 2 hole: wire sizes from 10mm² till 400mm² with metric bolt hole from M5 to M24
- 45°: Wire sizes from 10mm² till 240mm² with metric bolt hole from M6 to M16
- 90°: Wire sizes from 10mm² till 240mm² with metric bolt hole from M6 to M16

Spec-Kon (IEC metric)

Technical information:

- Copper tin plated metric compression lug for power cables for rated voltage up to 30kV. From 6 to 400 mm²
- Specially designed to accommodate both stranded (class 2) and flexible (class 5) power cables according to IEC 60228
- Hole inspection to ease installation control
- Chamfer barrel to assist installation work
- Comply to EN13600. Surface: tin plated
- Certification: Complies to IEC 61238 - CE declaration



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Additional information

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

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ABB

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