



Solar energy

Reliable cable management solutions for solar plants

MADE FOR REAL 

MADE FOR REAL 

**Proven performance
in solar installations**

Lower your OPEX costs by getting cable management right first time

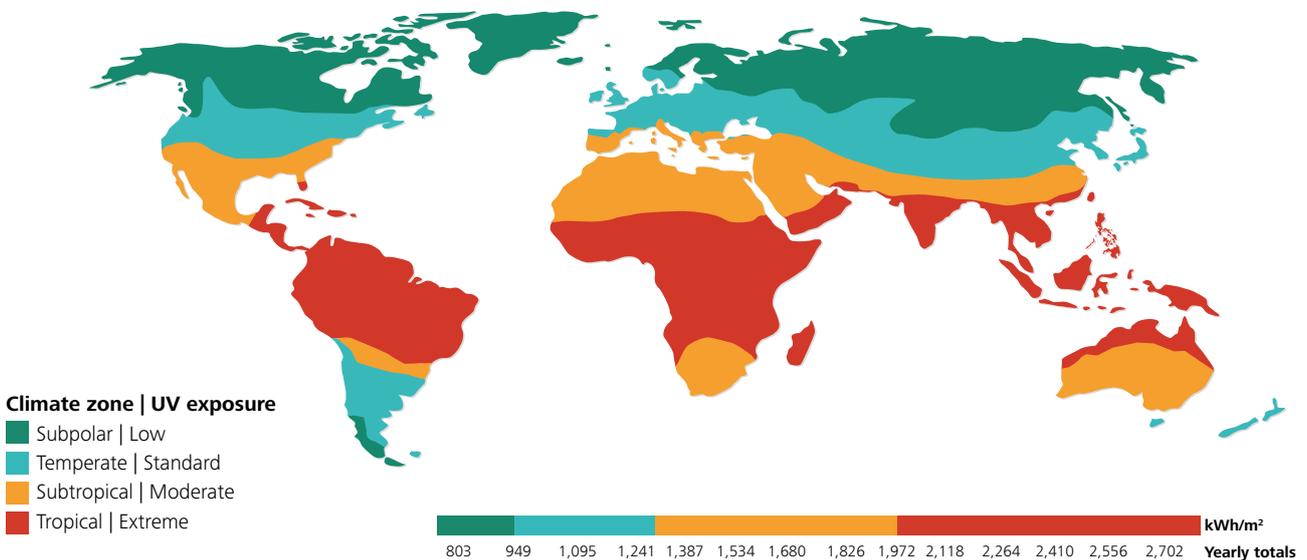
HellermannTyton products connect, fasten, route, protect and identify solar cables – bringing unmatched safety, reliability and longevity to PV installations – no matter how harsh the conditions they operate under.

Whether you're looking for a more reliable cable tie, more durable identification, or an experienced designer and manufacturer to act as your advisor for best practices focusing on your total cost of energy, HellermannTyton has expertise you can call on to help keep your operational expenditure as low as possible.

Climate considerations

Selecting the right cable management solution for solar installations depends on the climate and local environmental conditions specific to the region where the plant will reside. The boundaries between climate zones are dynamic and can vary tremendously according to regional topography and specific local climatic influences.

Long-term average of global UV horizontal irradiation (GHI)



Humidity, salt in the air and altitude all affect the performance of materials. Our product engineers are ready to advise you on the best combination for your local requirements.

Part design considerations

Even the best-made clips, mounts and ties in the world will fail prematurely if they don't fit the requirements of the application. Take frame holes, they are one of the most common points where fasteners fail. The holes' sharp edges slice away at plastic parts that move with the wind and expand during the daytime heat.

Trackers and floating PV only exacerbate the problem. Poor cable management choices at the outset can lead to severe, long-term issues over the lifetime of a solar plant.

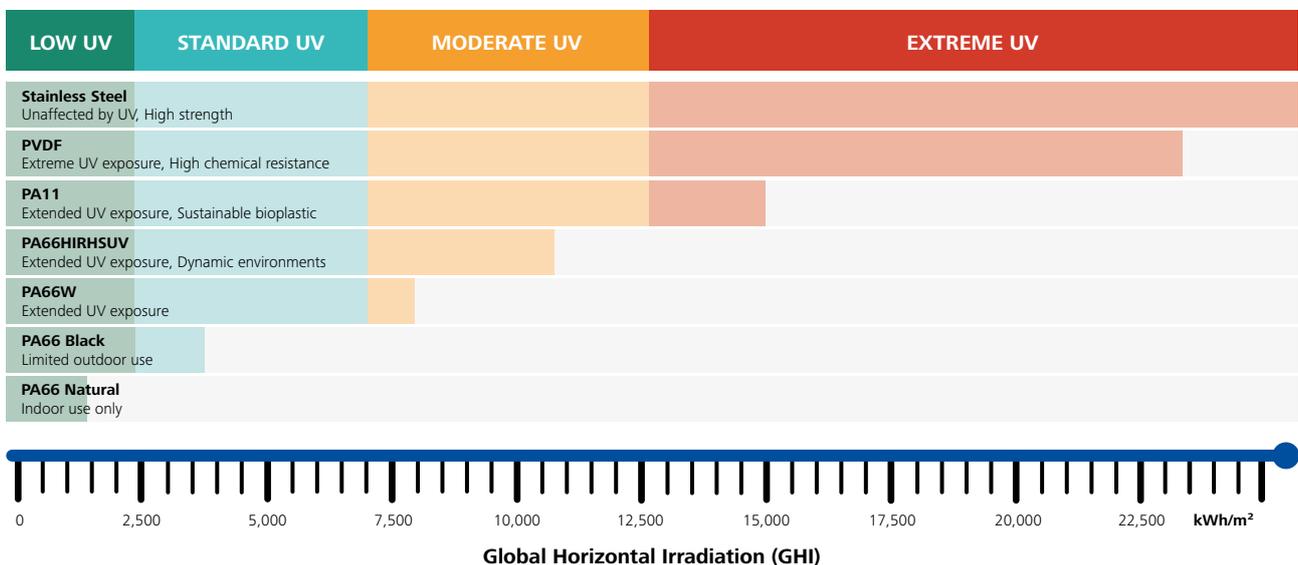
The hidden costs of poor cable management are several times greater than the cost of doing it right from the start.

Material considerations

Depending where in the world our products are deployed, we help customers make informed decisions based on environmental factors. Off-the-shelf materials are appropriate for many general-purpose applications, but not in solar. Here, the short-term savings of standard grade materials quickly transform into spiralling maintenance costs. Quality is not everything, but everything without quality is nothing.

That's why HellermannTyton offers cable management products for the solar industry from materials formulated with UV stabilizers, UV absorbers or exceptionally durable base plastics designed for long-term service and extended lifespans.

Plastic materials and their approximate performance under UV exposure.



Depending on your plant design and the expected UV and chemical exposure, we offer part solutions that outperform value-priced products. Even under extreme UV exposure, our new PVDF plastic material provides the most maintenance-free cable management you can get without resorting to stainless steel.

Approximate suitability of materials to climate zones

| Product base material | UV irradiation resistance | Humidity tolerance | Temperature range | Climatic zone |
|-----------------------|---------------------------|--------------------|------------------------------------|--------------------|
| PA66W | ☼ | ● | -40 °C to +85 °C, (+105 °C, 500 h) | Subpolar/Temperate |
| PA66HIRHSUV | ☼☼ | ●● | -40 °C to +110 °C | Temperate |
| PA11 | ☼☼☼ | ●●●(-) | -40 °C to +85 °C, (+105 °C, 500 h) | Subtropical |
| PVDF | ☼☼☼☼ | ●●●●(-) | -55 °C to +175 °C | Tropical |
| Stainless steel | ☼☼☼☼ | ●●●●(-) | -80 °C to +538 °C | Tropical |

(-)Also recommended for floating PV applications.
Please note: The above information is provided for information purposes only and is not a substitute for validation tests.

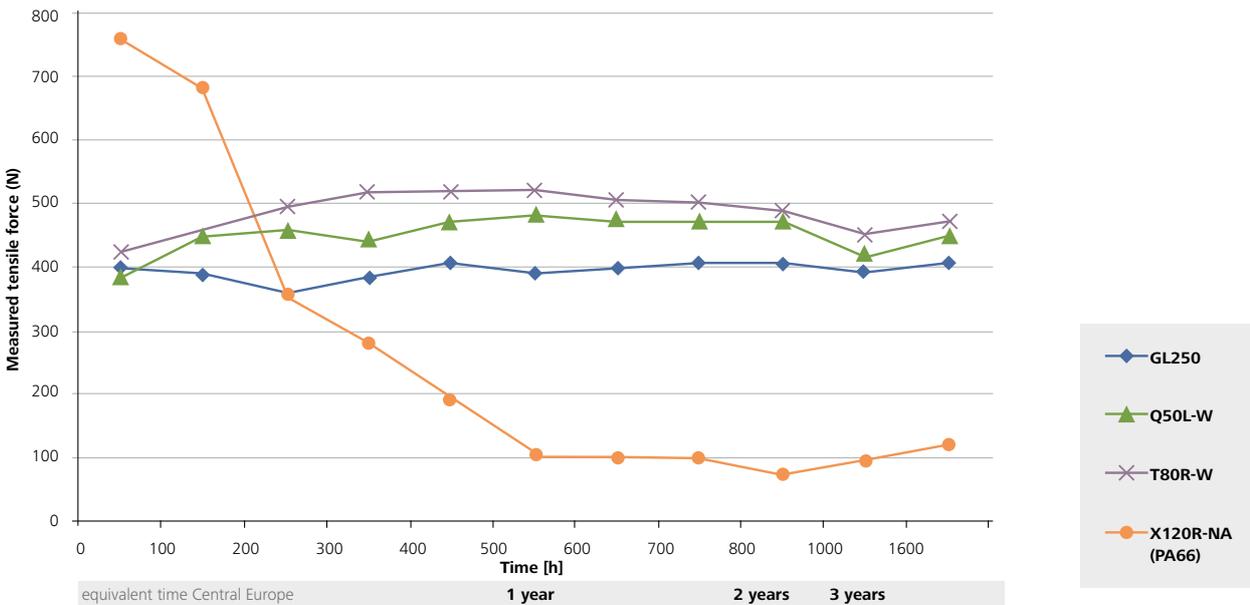
UV stability of HellermannTyton cable ties

How fast or slow do plastic materials degrade under ultraviolet (UV) irradiation? To find out, HellermannTyton commissioned the Fraunhofer Institute for Solar Energy Systems (ISE) to carry out extended UV weathering tests on HellermannTyton cable ties made from plastics with different properties.

Fraunhofer ISE fastened the cable ties under load to metal cylinders and exposed them to 156.78kWh/m² of UV for 1600 hours at controlled intervals. This amount of artificial irradiation complies with the assumption that Central Europe is exposed to natural solar irradiation of 1,000 kWh/m² per year, with about 5% of this being in the damaging UV range. This dose corresponds to approximately three years of Central European natural solar irradiation.

To determine the functional integrity of the cable ties after each UV exposure interval, loop strength tests were performed on specimens according to section 9.5.1 of DIN EN 62275:2010-07.

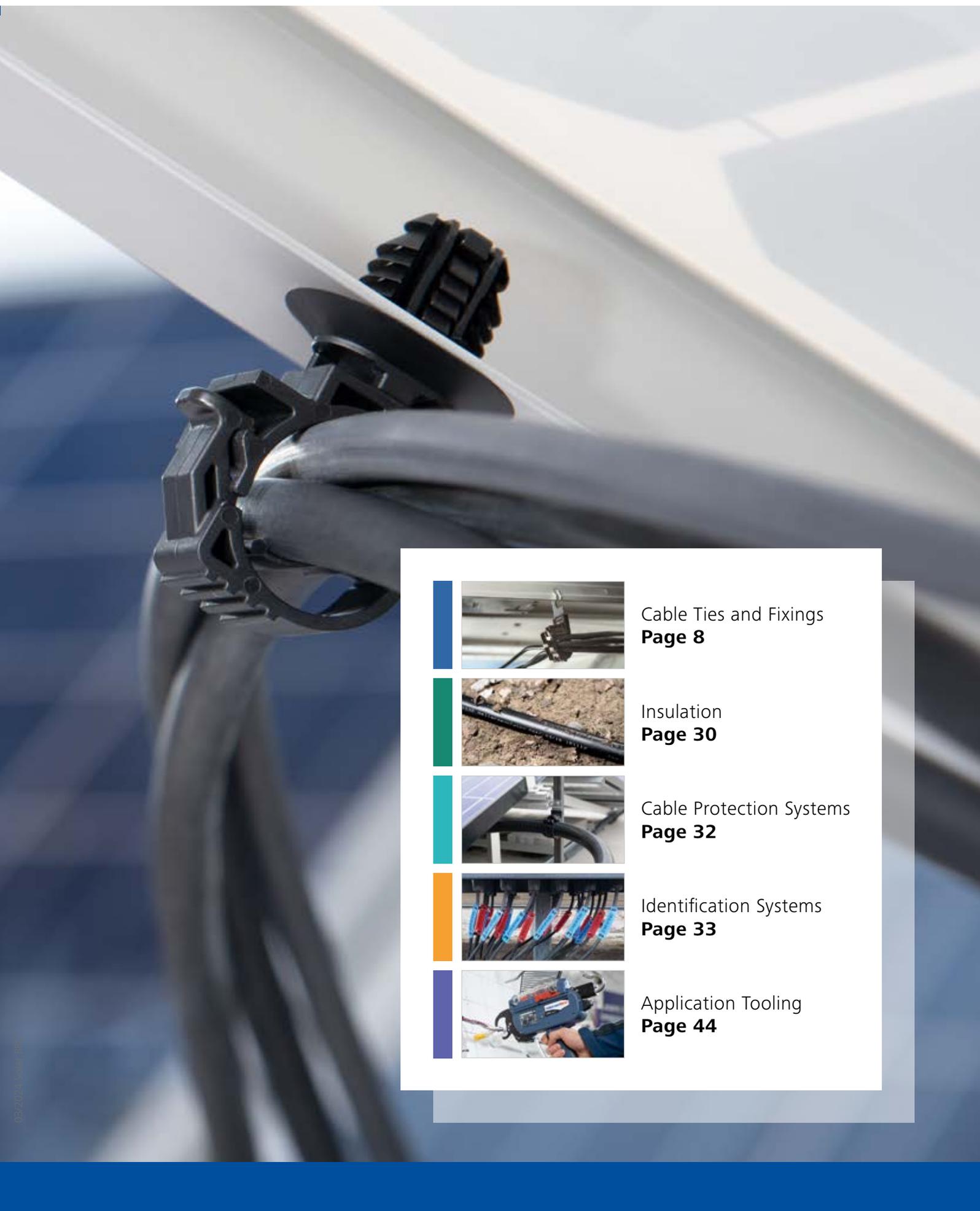
Mean results of the cable tie loop strength test after artificial UV weathering



Fraunhofer ISE also collected data for T80R-W cable ties in real-time over three years at two outdoor locations, in south-western Germany and in the Negev Desert, Israel. These real-time findings affirm that the results of the accelerated UV exposure under laboratory conditions are indicative.

Natural-coloured polyamide 6.6 cable ties showed significant UV damage after only 200 hours in the test chamber. The loop tensile strength of this non-UV-stabilised material dropped to less than 50 percent of its initial value. In contrast, the T80R-W ties (UV-stabilised polyamide 6.6) and the GL250 ties (polyamide 11) showed only negligible degradation from UV exposure.

The UV-stabilised polyamide 6.6 material is reliable at this UV exposure. Importantly, 3 years of solar irradiation exposure in the Negev Desert equals approximately 6 years in Central Europe, depending on the specific local conditions. Data from the separate field test on T80R-W cable ties at a Central European location also affirmed this.



Cable Ties and Fixings
Page 8



Insulation
Page 30



Cable Protection Systems
Page 32



Identification Systems
Page 33



Application Tooling
Page 44



Cable Ties and Fixings

Cable ties, inside serrated

Cable ties for outdoor use (UV-resistant)

T-Series in PA66W/UV black

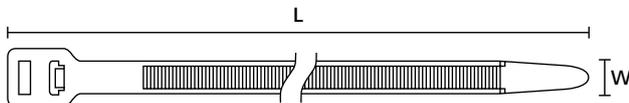
For the solar industry, HellermannTyton offers a wide range of cable ties made of UV stabilised PA6.6 material. This material provides additional protection against UV radiation for long-term outdoor use in temperate climate zones. This tie is available in various styles, tensile strengths and bundle diameters.

Features and benefits

- UV-resistant black cable tie available in a wide range of sizes
- UV-stable with 2% carbon black according to ASTM D6779
- Made from high quality plastic, allows for good recycling
- Inside serration for a strong hold onto bundles
- Easy application either manually or with a processing tool
- Simple to insert due to bent tail



UV-resistant T-Series cable ties (PA66W/UV).



T250-series



T-Series

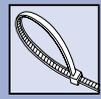
| TYPE | Width (W) | Length (L) | Bundle Ø max. | N | Material | Colour | Pack Cont. | Tools | Article-No. |
|----------|-----------|------------|---------------|------|-------------|------------|------------|---------------|-------------|
| T18R | 2.5 | 100.0 | 22.0 | 80 | PA66W | Black (BK) | 100 pcs. | 1-2;4-6;25 | 111-01960 |
| T18I | 2.5 | 145.0 | 35.0 | 80 | PA66W | Black (BK) | 100 pcs. | 1-2;4-6;25 | 111-02360 |
| T18L | 2.5 | 205.0 | 50.0 | 80 | PA66W | Black (BK) | 100 pcs. | 1-2;4-6;25 | 111-02160 |
| T30R | 3.5 | 150.0 | 35.0 | 135 | PA66W | Black (BK) | 100 pcs. | 1-2;4-6;25 | 111-03260 |
| T30L | 3.5 | 198.0 | 50.0 | 135 | PA66W | Black (BK) | 100 pcs. | 1-2;4-6;25 | 111-03460 |
| T30LL | 3.5 | 290.0 | 80.0 | 135 | PA66W | Black (BK) | 100 pcs. | 1-2;4-6;25 | 111-03570 |
| T80R | 4.7 | 205.0 | 55.0 | 355 | PA66W | Black (BK) | 100 pcs. | 1-2;4-7;25 | 111-05060 |
| T80I | 4.7 | 305.0 | 85.0 | 355 | PA66W | Black (BK) | 100 pcs. | 1-2;4-7;25 | 111-08290 |
| T80L | 4.7 | 390.0 | 110.0 | 355 | PA66W | Black (BK) | 100 pcs. | 1-2;4-7;25 | 111-05460 |
| T120I | 7.6 | 300.0 | 80.0 | 535 | PA66W | Black (BK) | 100 pcs. | 1;3;7;9-10;25 | 111-12230 |
| T150R(H) | 7.6 | 365.0 | 100.0 | 670 | PA66W | Black (BK) | 100 pcs. | 1;3;7;9-10;25 | 111-14860 |
| T120M | 7.6 | 460.0 | 125.0 | 535 | PA66W | Black (BK) | 100 pcs. | 1;3;7;9-10;25 | 111-12660 |
| T120L | 7.6 | 760.0 | 225.0 | 535 | PA66W | Black (BK) | 50 pcs. | 1;3;7;9-10;25 | 111-12430 |
| T150L | 8.9 | 820.0 | 245.0 | 780 | PA66UV | Black (BK) | 25 pcs. | 1;7;9-10 | 111-15460 |
| T250R | 12.4 | 515.0 | 125.0 | 1115 | PA66HIRHSUV | Black (BK) | 25 pcs. | 7;9-10 | 111-24805 |

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNP2, 5=EVO7i, 6=MK7P, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.



Cable ties made from sustainable bioplastic

T-Series in PA11 black

What makes this cable tie so different is the high-performance polymer we make it from. Derived from 100% castor oil sources, PA11 is characterised by its extreme resistance to chemicals like zinc chloride as well as UV radiation. It is a popular choice for bundling and fixing of solar cables on galvanised steel sub constructions in coastal areas where chemical corrosion and degradation of conventional polyamide 6.6 materials is rapid.

Due to its low water absorption rate, PA11 is also ideal for floating PV, agrivoltaic and extremely dry climate applications.

Features and benefits

- Made of Polyamide 11 – a sustainable bioplastic from castor oil 70% less CO2 footprint (cradle to gate) compared to fossil based polyamide material
- Very good UV resistance and durability in outdoor applications
- Stable technical performance even at very low temperatures
- High resistance to chemicals including chlorides
- Low water absorption rate offers consistent technical performance Plastic solution adding security for 1500V DC systems



A sustainable T-Series cable tie with high resistance to chemicals and UV light.



T-Series

| TYPE | Width (W) | Length (L) | Bundle Ø max. | | Material | Colour | Pack Cont. | Tools | Article-No. |
|--------|-----------|------------|---------------|-----|----------|------------|------------|---------------|-------------|
| T18R | 2.5 | 100.0 | 22.0 | 80 | PA11 | Black (BK) | 100 pcs. | 1-2;4-6;25 | 111-01718 |
| T30R | 3.5 | 150.0 | 35.0 | 130 | PA11 | Black (BK) | 100 pcs. | 1-2;4-6;25 | 111-01719 |
| T50S | 4.6 | 150.0 | 35.0 | 170 | PA11 | Black (BK) | 100 pcs. | 1-2;4-7;25 | 111-01720 |
| T50R | 4.6 | 200.0 | 50.0 | 170 | PA11 | Black (BK) | 100 pcs. | 1-2;4-7;25 | 111-01721 |
| T50M | 4.6 | 245.0 | 65.0 | 225 | PA11 | Black (BK) | 100 pcs. | 1-2;4-7;25 | 111-02218 |
| T50I | 4.6 | 300.0 | 85.0 | 225 | PA11 | Black (BK) | 100 pcs. | 1-2;4-7;25 | 111-02217 |
| T120XM | 7.6 | 600.0 | 175.0 | 535 | PA11 | Black (BK) | 50 pcs. | 1;3;7;9-10;25 | 111-12705 |
| T120L | 7.6 | 760.0 | 225.0 | 535 | PA11 | Black (BK) | 50 pcs. | 1;3;7;9-10;25 | 111-12470 |

Recommended Tools: 1=MK10-SB, 2=MK20, 3=MK21, 4=MK3PNSP2, 5=EVO7i, 6=MK7P, 7=EVO9i, 9=EVO9iHT, 10=MK9P, 25=EVOcut. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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Cable Ties and Fixings

Cable ties, inside serrated

Cable Ties inside serrated

T-50R in PVDF, grey

We manufacture this unique cable tie from high grade PVDF material, which has been used in the solar industry for top quality backsheet foils for many centuries. PVDF delivers the highest UV, chemical and thermal resistance of any plastic resin on the market. It performs reliably for 15 years and more and is recommended for use on fixed tilt and tracker installations, floating PV, agrivoltaic and bifacial setups in exposed, high-UV-rated locations in subtropical and tropical climate zones. Application on rounded edges is recommended.

Features and benefits

- Made from PVDF for high UV, chemical and thermal resistance
- Does not need carbon black for UV protection, coloured in grey
- No water absorption, suitable for dry and humid applications
- Plastic solution adding security for 1500V DC systems



The PVDF tie is coloured grey in order to visibly distinguish it easily from other materials.



T-Series

| TYPE | Width (W) | Length (L) | Bundle Ø max. | | Material | Colour | Pack Cont. | Tools | Article-No. |
|------|-----------|------------|---------------|-----|----------|-----------|------------|------------|-------------|
| T50R | 4.7 | 202.0 | 50.0 | 225 | PVDF | Grey (GY) | 100 pcs. | 1-2;4-7;25 | 111-02390 |
| | 4.7 | 202.0 | 50.0 | 225 | PVDF | Grey (GY) | 3000 pcs. | 1-2;4-7;25 | 111-02447 |

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=MK7P, 7=EVO9i, 25=EVOcut. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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Cable ties with low profile head

Robusto-Series

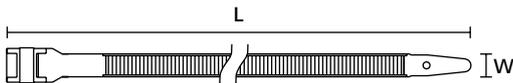
The flat head and wide strap design of the Robusto-Series differs from the classic cable tie design, making it the perfect choice for dynamic bundling applications such as trackers and floating PV installations. The PA11 material offers excellent resistance to UV radiation and chemicals in the most challenging environments.

Features and benefits

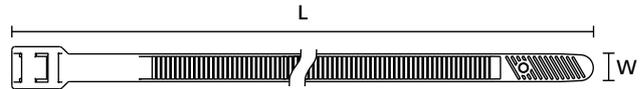
- Made of Polyamide 11, a sustainable bioplastic from castor oil 70% less CO2 footprint (cradle to gate) compared to fossil based polyamide material
- Outside-serrated strap and rounded head design protect bundle
- High tensile strength with a single- or a double-bridged head
- Soft material for easy handling without damaging the bundle
- Very good UV resistance and durability in outdoor applications
- Stable technical performance even at very low temperatures
- Low water absorption rate and high durability
- Pre-locking possible by pushing the strap through the eyelet
- Plastic solution adding security for 1500V DC systems



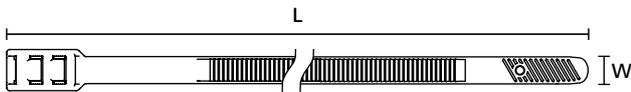
Rooftop cable management supported with Robusto-Series.



Robusto (LPH922)



Robusto (LPH942)



Robusto (LPH962, LPH992)

| TYPE | Width (W) | Length (L) | Bundle Ø max. | N | Material | Colour | Pack Cont. | Tools | Article-No. |
|-------------------------|-----------|------------|---------------|-----|----------|------------|------------|----------|-------------|
| Robusto (LPH922) | 9.0 | 123.0 | 22.0 | 310 | PA11 | Black (BK) | 100 pcs. | 1;7;9-10 | 112-00025 |
| Robusto (LPH942) | 9.0 | 180.0 | 42.0 | 360 | PA11 | Black (BK) | 100 pcs. | 1;7;9-10 | 112-00011 |
| Robusto (LPH962) | 9.0 | 260.0 | 62.0 | 530 | PA11 | Black (BK) | 100 pcs. | 1;7;9-10 | 112-00012 |
| Robusto (LPH992) | 9.0 | 355.0 | 92.0 | 530 | PA11 | Black (BK) | 100 pcs. | 1;7;9-10 | 112-00013 |

Recommended Tools: 1=MK10-5B, 7=EVO9i, 9=EVO9iHT, 10=MK9P. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

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Cable Ties and Fixings

Cable ties, stainless steel

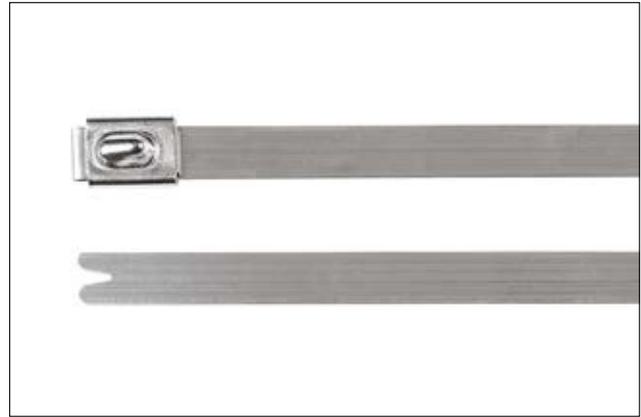
Cable ties with ball-lock

MBT-Series, stainless steel 304

Metal ties are ideal for all applications that require extra strength, long-term weathering reliability and fire resistance. Stainless steel MBT ties secure cables, poles and pipes in harsh environments and are appropriate for indoor, outdoor and underground uses. Application also to secure covers for rooftop cable trays.

Features and benefits

- Non-releasable locking feature
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- High temperature resistant
- Non-burning

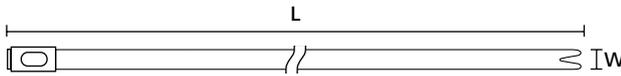


Stainless steel cable ties, uncoated, MBT_SS, MBT_HS.

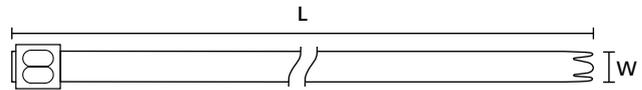


Stainless Steel Cable Ties, uncoated, MBT_XHS.

For hard, smooth surface applications, we recommend the use of our LFPC protective channels.



MBT-Series 4.6 mm and 7.9 mm width



MBT-Series 12.3 mm width

| TYPE | Width (W) | Length (L) | Bundle Ø min. | Bundle Ø max. | N | Material | Pack Cont. | Tools | Article-No. |
|----------|-----------|------------|---------------|---------------|------|----------|------------|-------|-------------|
| MBT8SS | 4.6 | 201.0 | 17.0 | 50.0 | 900 | SS304 | 100 pcs. | 15-18 | 111-93088 |
| MBT14SS | 4.6 | 362.0 | 17.0 | 102.0 | 900 | SS304 | 100 pcs. | 15-18 | 111-93148 |
| MBT20SS | 4.6 | 521.0 | 17.0 | 152.0 | 900 | SS304 | 100 pcs. | 15-18 | 111-93208 |
| MBT27SS | 4.6 | 685.0 | 17.0 | 203.0 | 900 | SS304 | 100 pcs. | 15-18 | 111-93278 |
| MBT14HS | 7.9 | 362.0 | 17.0 | 102.0 | 2000 | SS304 | 50 pcs. | 15-18 | 111-94148 |
| MBT20HS | 7.9 | 521.0 | 17.0 | 152.0 | 2000 | SS304 | 50 pcs. | 15-18 | 111-94208 |
| MBT27HS | 7.9 | 685.0 | 17.0 | 203.0 | 2000 | SS304 | 50 pcs. | 15-18 | 111-94278 |
| MBT33HS | 7.9 | 838.0 | 17.0 | 254.0 | 2000 | SS304 | 50 pcs. | 15-18 | 111-94338 |
| MBT14XHS | 12.3 | 362.0 | 17.0 | 102.0 | 2700 | SS304 | 50 pcs. | 15-18 | 111-95148 |
| MBT20XHS | 12.3 | 521.0 | 17.0 | 152.0 | 2700 | SS304 | 50 pcs. | 15-18 | 111-95208 |
| MBT27XHS | 12.3 | 681.0 | 17.0 | 203.0 | 2700 | SS304 | 50 pcs. | 15-18 | 111-95278 |
| MBT33XHS | 12.3 | 838.0 | 17.0 | 254.0 | 2700 | SS304 | 50 pcs. | 15-18 | 111-95338 |

Recommended Tools: 15=MK9SST, 16=MK9PSST, 17=HDT16, 18=KST-STG200. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



2-piece fixing ties with button mount, for round holes

Button Head Cable Ties

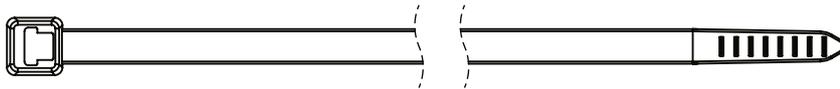
This button head mount includes a T50R tie in a kit to secure cables and wire bundles on solar modules and mounting structures. The mount conveniently fits existing oval (9x14mm) and round holes (9-12mm) with zero insertion force. Made from impact-modified, heat-resistant, UV-stabilised polyamide 6.6, which is specifically formulated for extreme environments. The mount is designed to withstand movement, particularly on single-axis tracker systems, for years of dependable performance.

Features and benefits

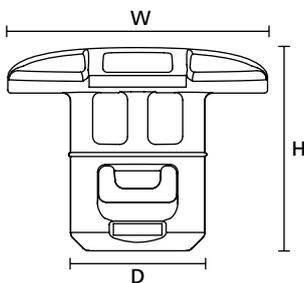
- High-impact-modified, heat-resistant, UV-stabilised material is ideal for long-term performance in extreme weather
- Capable of holding several cables, depending on cable tie size used, for ultimate flexibility
- Zero-insertion-force design requires no tools for quick and easy mounting to most solar modules
- Withstands tracker movement to prevent chafing of wires
- Plastic solution adding security for 1500V DC systems



Tracker movements are no longer an issue with the PBM9 kit.



Cable Tie T50RPMB9 (Set)



Button Mount T50RPM9 (Set)

| TYPE | Drawing | Hole Ø (FH) | Panel Thickness | Width (W) | Length (L) | Height (H) | Bundle Ø max. | N | Material | Colour | Pack Cont. | Article-No. |
|-------------|---------|---------------------------------|-----------------|-----------|------------|------------|---------------|-----|-------------|------------|------------|-------------|
| T50RPBM9SET | | 9.0 9.0 x 12.0 9.0 x 14.0 | 3.0 | 17.0 | 203.2 | 13.4 | 50.0 | 225 | PA66HIRHSUV | Black (BK) | 500 pcs. | 156-02512 |

All dimensions in mm. Subject to technical changes.



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Cable Ties and Fixings

Fixing products for holes

Fixing Elements for Tubes and Harnesses

With Fir Tree, Solar Cable (SC) Series

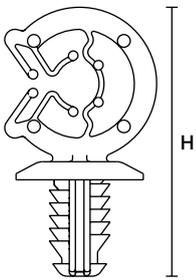
The SC6.6 Clip with fir tree mount is ideal for panels and substructures with pre-drilled holes. Easy installation by hand eliminates the need for any tools. Once installed, 4-6 mm² cables simply snap into the clip. The cable can be removed and reinstalled without removing the clip. Made from PA66HIRHSUV material, the SC6.6 provides increased flexibility along with heat resistance and UV stability.

Features and benefits

- Easy to install without the need for tools
- Suitable for post-installation of bundles
- Easy replacement of bundles in the event of maintenance
- Fir tree foot part can be used on a variety of panel thicknesses
- Plastic solution adding security for 1500V DC systems



The SC6.6 for solar cables is ideal for quick installation and easy maintenance.



Solar clip, SC-Series

| TYPE | Drawing | Height (H) | Disc Ø | Bundle Ø max. | Width (W) | Hole Ø (FH) | Panel Thickness | Panel Thickness | Material | Colour | Article-No. |
|-------|---|------------|--------|---------------|-----------|-------------|-----------------|-----------------|-------------|------------|-------------|
| SC6.6 |  | 33.4 | 18.55 | 7.6 | 18.3 | 6.6 | 0.7 - 6.35 | 0.7 - 6.35 | PA66HIRHSUV | Black (BK) | 151-00927 |

All dimensions in mm. Subject to technical changes.



Fixing Elements for Tubes and Pipes

LOC-Series

LOC is ideal for fastening wire and cable bundles to solar panels. The uniquely engineered fir tree holds tightly in most oval prestamped module holes. Depending on the version, the locking clamp mechanism dynamically fits up to four DC cables (4-6 mm²), while an optional cable saddle allows installers to add additional cable runs.

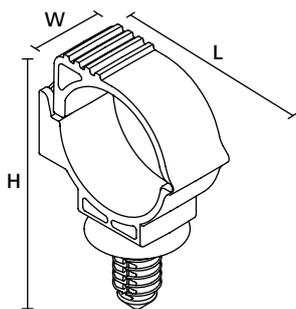
We manufacture the clamp from impact-modified Polyamide 6.6 for increased flexibility, heat resistance and UV stability. This material delivers years of dependable performance. LOC is easy to install with a single hand without the need for tools, saving time and labour costs.

Features and benefits

- Releasable clamp mechanism allows for easy, one-handed maintenance without having to remove the mount
- Low-insertion, high-extraction fir tree foot part compatible with a wide range of solar modules
- Impact-modified, heat-resistant, UV-stabilised material ideal for longterm performance in extreme weather, even on trackers
- Plastic solution adding security for 1500V DC systems



Time saving with LOC-Series cable management.



Reference drawing for dimensions only

| TYPE | Drawing | Hole Ø (FH) | Panel Thickness | Bundle Ø max. | Disc Ø | Width (W) | Length (L) | Height (H) | Material | Colour | Article-No. |
|---------------|---------|------------------------------------|-----------------|---------------|--------|-----------|------------|------------|-------------|------------|-------------|
| LOC1014FT9x12 | | 9.0 x 12.0 9.0 x 14.0 | 0.6 - 6.75 | 14.0 | 23.63 | 12.0 | 35.0 | 58.8 | PA66HIRHSUV | Black (BK) | 151-02218 |
| LOC5-9FT6LG | | 6.1 - 6.6 (hexagonal) 6.1 - 7.0 | 0.6 - 8.25 | 9.0 | - | 12.0 | 23.7 | 37.1 | PA66HIRHSUV | Black (BK) | 151-01017 |
| LOC10-14FT6LG | | 6.1 - 6.6 (hexagonal) 6.1 - 7.0 | 0.6 - 8.25 | 14.0 | - | 12.0 | 27.6 | 41.7 | PA66HIRHSUV | Black (BK) | 151-01166 |

All dimensions in mm. Subject to technical changes.



Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.



Cable Ties and Fixings

Fixing products for screws

Harness clip for heavy duty applications, for screws or threaded bolts

Standard torque mounts

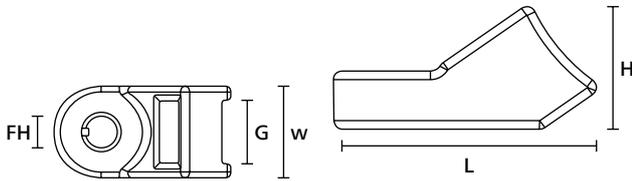
Solar substructures such as fixed tilt and trackers employ a wide range of bolts, which can also be used for cable management solutions. Utilise these existing bolts with our heavy duty torque mounts (HDM-Series).

Features and benefits

- Design offers secure alignment to the bundle
- Possible replacement of cushion clamps and/or metal clamps
- Eliminates the need for multiple sizes of fixed diameter clamps
- For cable ties up to 12.7 mm width
- Easy maintenance of bundle by simply changing the cable tie
- Plastic solution adding security for 1500V DC systems



Heavy Duty Mounts HDM-Series, patent number US5820083.

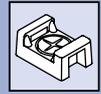


HDM19, 25, 312

HDM19, 25, 312

| TYPE | Drawing | Width (W) | Length (L) | Height (H) | Hole Ø (FH) | Strap Width max. (G) | Material | Colour | Pack Cont. | Article-No. |
|--------|---------|-----------|------------|------------|-------------|----------------------|-------------|------------|------------|-------------|
| HDM19 | | 19.3 | 36.3 | 16.7 | 4.7 | 12.7 | PA66HIRHSUV | Black (BK) | 100 pcs. | 151-00134 |
| HDM25 | | 19.3 | 36.3 | 16.7 | 6.2 | 12.7 | PA66HIRHSUV | Black (BK) | 100 pcs. | 151-00437 |
| HDM312 | | 19.3 | 36.3 | 16.7 | 7.8 | 12.7 | PA66HIRHSUV | Black (BK) | 100 pcs. | 151-00439 |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Ratcheting clamp, bolt fixing

Ratchet P-Clamp

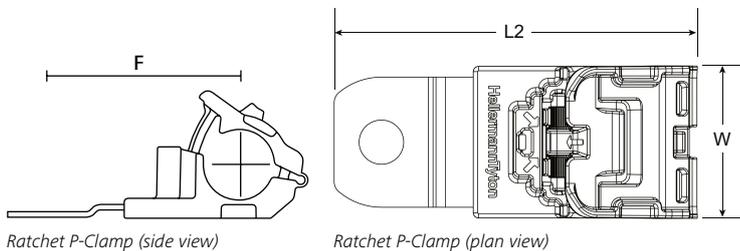
The Ratchet P-Clamp series is ideal for cable and hose management in solar installations. Proven applications include end-of-row arrests toward the fixed post and managing wire in transitions on tracker and fixed tilt installations. The unique single-piece adjustable clamp can be closed by hand to the required diameter. The release feature allows for easy and non-destructive removal of cables with the aid of a flat-head screwdriver. The Ratchet P-Clamp is available in multiple sizes and multiple mounting angles. Configurations include bolt fixing diameters from M6 to M12 and stainless steel metal plates.

Features and benefits

- Ratchet P-Clamp for bundle diameters ranging from 6.2 up to 51.0 mm (divided into 4 sizes)
- One-piece ratchet closure design allows for easy installation during pre- or final assembly
- Multiple configurations cover a wide range of diameters and application configurations, significantly reducing part inventory
- Clamp interior is designed to guide and centre bundle to reduce pinching
- Easy release feature allows for quick adjustment and maintenance
- Impact-modified, heat- and UV-stabilised PA66 provides long-term durability, in- and outdoors
- Steel mounting plate accommodates high torque and is treated to resist chemicals and salt spray. Available also in stainless steel grade
- Plastic solution adding security for 1500V DC systems



Managing wire in transition on a tracker installation.



| TYPE | Drawing | Hole Ø (FH) | Fixing Hole Centres (F) | Bundle Ø min. | Bundle Ø max. | Width (W) | Length (L2) | Variant | Material | Colour | Article-No. |
|------------|---------|-------------|-------------------------|---------------|---------------|-----------|-------------|---------|-------------------------|------------|-------------|
| RCB180SM10 | | 10.29 | 52.8 | 12.7 | 19.5 | 34.9 | 83.1 | Short | PA66HIRHSUV ST ZN | Black (BK) | 151-01390 |
| RCC180SM10 | | 10.29 | 62.3 | 19.4 | 36.0 | 34.9 | 103.0 | Short | PA66HIRHSUV ST ZN | Black (BK) | 151-01475 |
| RCD180SM10 | | 10.29 | 70.0 | 36.0 | 51.0 | 34.9 | 115.5 | Short | PA66HIRHSUV ST ZN | Black (BK) | 151-01501 |

All dimensions in mm. Subject to technical changes.



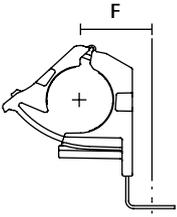
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Cable Ties and Fixings

Fixing products for screws

Ratchet P-Clamp



Ratchet P-Clamp (side view).

| TYPE | Drawing | Hole Ø (FH) | Fixing Hole Centres (F) | Bundle Ø min. | Bundle Ø max. | Width (W) | Length (L2) | Variant | Material | Colour | Article-No. |
|-----------|---------|-------------|-------------------------|---------------|---------------|-----------|-------------|---------|-------------------------|------------|-------------|
| RCB90SM10 | | 10.29 | 26.7 | 12.7 | 19.5 | 34.9 | 68.8 | Short | PA66HIRHSUV ST ZN | Black (BK) | 151-01458 |
| RCC90SM10 | | 10.29 | 39.9 | 19.4 | 36.0 | 34.9 | 101.2 | Short | PA66HIRHSUV ST ZN | Black (BK) | 151-01493 |
| RCD90SM10 | | 10.29 | 42.4 | 36.0 | 51.0 | 34.9 | 88.7 | Short | PA66HIRHSUV ST ZN | Black (BK) | 151-01519 |

All dimensions in mm. Subject to technical changes.



Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.



Heavy duty cable clamps

screwable, Inline Ratchet Clamps

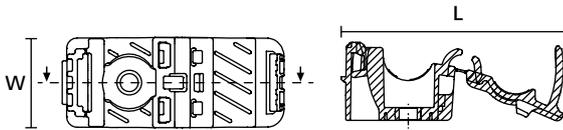
The Center Mount Ratchet Clamp family is a perfect fit when facing space constraints or where offset mounting options are not ideal. Easily mounts onto existing threaded rods, eliminating the need for additional hardware. The robust design and durable materials make it ideal for heavy duty applications, such as torque tube module interface brackets (MIB) on solar trackers. The one-piece adjustable clamp can be closed by hand to the desired diameter. The release feature provides easy and nondestructive removal of cables simply by using a flat-head screwdriver. This allows the clamp to be reused without removing or replacing any bolts or screws.



The Inline Ratchet Clamp family is a perfect fit when facing space constraints.

Features and benefits

- Building on the Ratchet P-Clamp family, the Center Mount Ratchet Clamp (CMRC) family offers fast and versatile installation of convoluted tubings and cables
- Designed for applications where space is limited or when a staggered mounting option is not ideal
- Depending on the variant, the CMRC can be screwed on with an M6/M8/M10 screw
- The variants for bolt attachment enable time-saving installation with a reliable hold



In-Line Ratchet Clamp.

| TYPE | Hole Ø (FH) | Width (W) | Length (L) | Height (H) | Bundle Ø min. | Bundle Ø max. | Material | Colour | Article-No. |
|----------|-------------|-----------|------------|------------|---------------|---------------|-------------|------------|-------------|
| CMRCBHM6 | 7.0 | 35.1 | 86.1 | 30.4 | 12.7 | 19.6 | PA66HIRHSUV | Black (BK) | 151-03538 |
| CMRCCHM6 | 7.0 | 35.1 | 125.3 | 30.4 | 19.3 | 36.1 | PA66HIRHSUV | Black (BK) | 151-03547 |
| CMRCDHM6 | 7.0 | 35.1 | 149.7 | 30.4 | 36.1 | 50.8 | PA66HIRHSUV | Black (BK) | 151-03558 |
| CMRCBHM8 | 9.0 | 35.1 | 86.1 | 30.4 | 12.7 | 19.6 | PA66HIRHSUV | Black (BK) | 151-03539 |
| CMRCCHM8 | 9.0 | 35.1 | 125.3 | 30.4 | 19.3 | 36.1 | PA66HIRHSUV | Black (BK) | 151-03548 |
| CMRCDHM8 | 9.0 | 35.1 | 149.7 | 30.4 | 36.1 | 50.8 | PA66HIRHSUV | Black (BK) | 151-03559 |

All dimensions in mm. Subject to technical changes.



Cable Ties and Fixings

Fixing products for screws

Heavy duty cable clamps

Ratchet Clamp solar hangers

The NexTracker and ATI (Array Technologies) Ratchet Clamp attaches to NexTracker or ATI torque tube Module Interface Brackets without any additional hardware. It offers one-handed, toolless simplicity and size versatility for managing wires and cables on solar modules. The robust design and solar-optimized materials make it ideal for heavy duty, outdoor applications. The one-piece adjustable clamp can be closed by hand to the desired diameter, replacing multiple sizes for single-diameter fasteners. The integrated release feature enables easy and nondestructive removal of cables by inserting a flat-head screwdriver. This allows the clamp to be reused without removing it.

Features and benefits

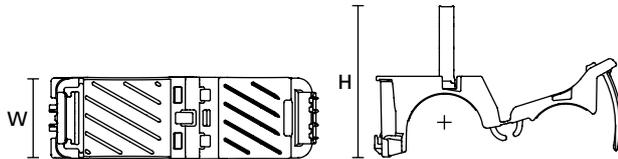
- One-piece ratchet clamp can be pre-installed on the torque tube MIBs, even prior to arrival of modules and wire harnesses onsite.
- Toolless, one-handed installation is easier and safer for installers.
- Releasable and re-closeable clamp allows for adjusting or adding wires.
- Plastic construction won't cut or chafe wires.
- Clamp saddle provides additional routing option using a cable tie, eliminating the need to drill or add complex routing parts.
- NexTracker and ATI-specific stainless steel mounting hanger versions designed for severe weather and single axis tracker movement.



Designed specially for NexTracker, stainless steel mounting hanger can tolerate high torque.



Ratchet Clamp ATI solar clip.



Ratchet Clamp designed for NexTracker.

| TYPE | Width (W) | Length (L) | Height (H) | Bundle Ø min. | Bundle Ø max. | Material | Colour | Article-No. |
|-----------|-----------|------------|------------|---------------|---------------|-------------------|------------|-------------|
| IRCBNEXTT | 34.8 | 79.9 | 55.5 | 12.7 | 19.6 | PA66HIRHSUV SS304 | Black (BK) | 156-04192 |
| IRCCNEXTT | 34.8 | 115.9 | 71.5 | 19.3 | 36.1 | PA66HIRHSUV SS304 | Black (BK) | 156-04193 |
| IRCDNEXTT | 34.8 | 140.9 | 72.2 | 36.1 | 50.8 | PA66HIRHSUV SS304 | Black (BK) | 156-04194 |

All dimensions in mm. Subject to technical changes.

Ratchet Clamp solar hangers



Ratchet Clamp ATI.

| TYPE | Width (W) | Length (L) | Bundle Ø min. | Bundle Ø max. | Material | Colour | Article-No. |
|---------|-----------|------------|---------------|---------------|-------------------|------------|-------------|
| IRCBATI | 34.8 | 79.9 | 12.7 | 19.6 | PA66HIRHSUV SS304 | Black (BK) | 156-04196 |
| IRCCATI | 34.8 | 115.9 | 19.3 | 36.1 | PA66HIRHSUV SS304 | Black (BK) | 156-04197 |
| IRCDATI | 34.8 | 140.9 | 36.1 | 50.8 | PA66HIRHSUV SS304 | Black (BK) | 156-04198 |

All dimensions in mm. Subject to technical changes.



2-piece fixing ties for edges

EdgeClip-Series, 1.0 - 3.0 mm, top fixing

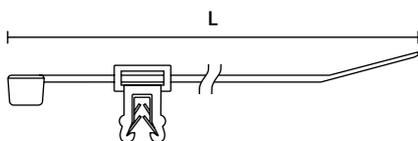
Cable ties with EdgeClips are ideal where holes are not acceptable and there is no other way to route cables along an edge. This is often the case when connected module leads are too short to be fixed to substructures. Another common scenario is keeping solar cables out of substructure metallic ducts or away from roof surfaces that can be flooded with water, causing inverter faults over time. The EdgeClip can be easily pushed onto the edge by hand without any tools. The integrated metal clamp delivers reliably high extraction force. EdgeClips are supplied with a pre-installed cable tie. Both cable tie and EdgeClip housing are manufactured of UV-stabilised PA6.6 specifically suitable for PV applications in temperate climate zones.



Easy module level cable management at the top of an edge.

Features and benefits

- Easy installation, just push on by hand
- For edge thickness of 1 - 3 mm
- Avoids long term issues with flooded cabling and connectors
- Plastic solution adding security for 1500V DC systems
- Pre-assembled fixing tie with EdgeClip
- Cable tie head can be moved after bundling

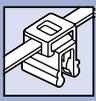


Fixing Tie with EC4

| TYPE | Drawing | Width (W) | Length (L) | Bundle Ø max. | N | Material | Colour | Pack Cont. | Tools | Article-No. |
|------------|---------|-----------|------------|---------------|-----|----------|--------|------------|------------|-------------|
| T50ROSEC4A | | 4.6 | 200.0 | 45.0 | 225 | PA66W | BK | 100 pcs. | 1-2;4-7;25 | 156-00948 |
| | | 4.6 | 200.0 | 45.0 | 225 | PA66W | BK | 500 pcs. | 1-2;4-7;25 | 156-00570 |
| T50ROSEC4B | | 4.6 | 200.0 | 45.0 | 225 | PA66W | BK | 100 pcs. | 1-2;4-7;25 | 156-01153 |
| | | 4.6 | 200.0 | 45.0 | 225 | PA66W | BK | 500 pcs. | 1-2;4-7;25 | 156-01154 |

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=MK7P, 7=EVO9i, 25=EVOcut. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

All dimensions in mm. Subject to technical changes.



Cable Ties and Fixings

Fixing products for edges

2-piece fixing ties for edges

EdgeClip-Series, 1.0 - 3.0 mm, side fixing

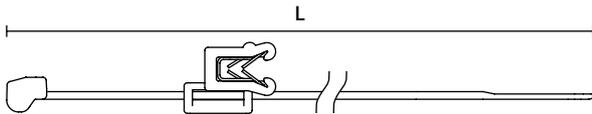
Cable ties with EdgeClips are ideal where holes are not acceptable and there is no other way to route cables along an edge. This is often the case when connected module leads are too short to be fixed to substructures. Another common scenario is keeping solar cables out of substructure metallic ducts or away from roof surfaces that can be flooded with water, causing inverter faults over time. The EdgeClip can be easily pushed onto the edge by hand without any tools. The integrated metal clamp delivers reliably high extraction force. EdgeClips are supplied with a pre-installed cable tie. Both cable tie and EdgeClip housing are manufactured of UV-stabilised PA6.6 specifically suitable for PV applications in temperate climate zones.



Easy module level cable management along an edge.

Features and benefits

- Easy installation, just push on by hand
- For edge thickness of 1 - 3 mm
- Avoids long term issues with flooded cabling and connectors
- Plastic solution adding security for 1500V DC systems
- Pre-assembled fixing tie with EdgeClip
- Cable tie head can be moved after bundling



Fixing Tie with EC5.

| TYPE | Drawing | Width (W) | Length (L) | Bundle Ø max. | N | Material | Colour | Pack Cont. | Tools | Article-No. |
|------------|---------|-----------|------------|---------------|-----|----------|--------|------------|------------|-------------|
| T50ROSEC5A | | 4.6 | 200.0 | 45.0 | 225 | PA66W | BK | 100 pcs. | 1-2;4-7;25 | 156-03219 |
| | | 4.6 | 200.0 | 45.0 | 225 | PA66W | BK | 500 pcs. | 1-2;4-7;25 | 156-00661 |
| T50ROSEC5B | | 4.6 | 200.0 | 45.0 | 225 | PA66W | BK | 100 pcs. | 1-2;4-7;25 | 156-03064 |
| | | 4.6 | 200.0 | 45.0 | 225 | PA66W | BK | 500 pcs. | 1-2;4-7;25 | 156-00698 |

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=MK7P, 7=EVO9i, 25=EVOcut. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

All dimensions in mm. Subject to technical changes.



2-Piece Fixing Ties for Edges, 3,0 - 6,0 mm

EdgeClip-Series, 3.0 - 6.0 mm, side fixing

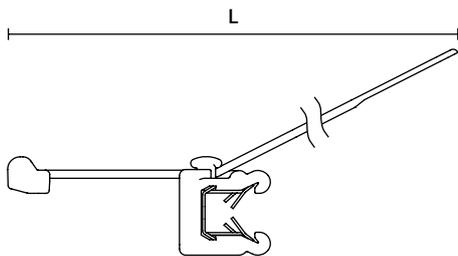
Cable ties with EdgeClips are ideal where holes are not acceptable and there is no other way to route cables along an edge. This is often the case when connected module leads are too short to be fixed to substructures. Another common scenario is keeping solar cables out of substructure metallic ducts or away from roof surfaces that can be flooded with water, causing inverter faults over time. The EdgeClip can be easily pushed onto the edge by hand without any tools. The integrated metal clamp delivers reliably high extraction force. EdgeClips are supplied with a pre-installed cable tie. Both cable tie and EdgeClip housing are manufactured of UV-stabilised PA6.6 specifically suitable for PV applications in temperate climate zones.



Easy module level cable management along a metal edge.

Features and benefits

- Easy installation, just push on by hand
- For edge thickness of 3 - 6 mm
- Avoids long term issues with flooded cabling and connectors
- Plastic solution adding security for 1500V DC systems
- Pre-assembled fixing tie with EdgeClip
- Cable tie head can be moved after bundling

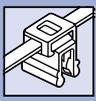


Fixing Tie with EdgeClip 3.0 - 6.0 mm.

| TYPE | Drawing | Width (W) | Length (L) | Bundle Ø max. |  | Material | Colour | Pack Cont. | Tools | Article-No. |
|-------------------|---|-----------|------------|---------------|---|----------|--------|------------|------------|-------------|
| T50ROSEC23 |  | 4.6 | 200.0 | 45.0 | 225 | PA66W | BK | 500 pcs. | 1-2;4-7;25 | 156-00843 |

Recommended Tools: 1=MK10-SB, 2=MK20, 4=MK3PNSP2, 5=EVO7i, 6=MK7P, 7=EVO9i, 25=EVOcut. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

All dimensions in mm. Subject to technical changes.



Cable Ties and Fixings

Fixing products for edges

Fixing elements for edges

For solar panels

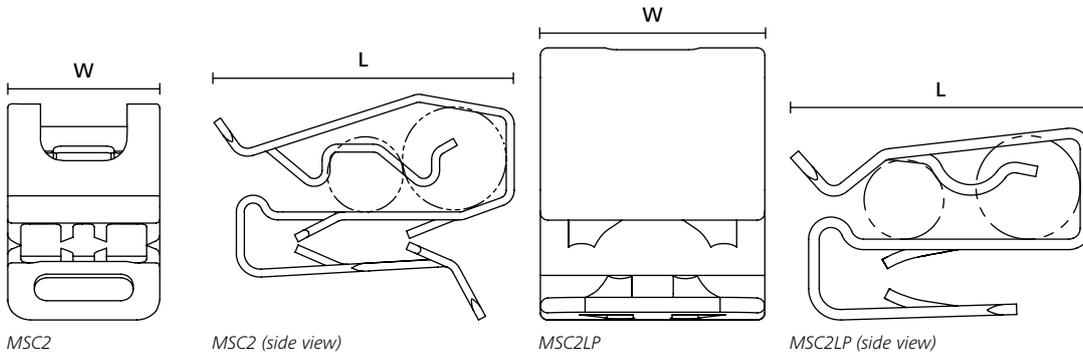
HellermannTyton's Heavy Duty Metal Edge Clip provides an excellent alternative to managing wire and PV cables where plastic fasteners are not the preferred method. Designed for effortless insertion, the Metal Edge Clip has a high extraction force that tolerates extreme environments and provides assurance that the cables are secure on a panel. The Metal Edge Clip is simple to install and can easily be removed with a flathead screwdriver.

Features and benefits

- Integrated design allows for easy insertion by hand
- The panel thickness range allows for multiple applications
- Double-compression design that accommodates various sizes of wire and cable
- Presents a high extraction force for withstanding extreme conditions
- Made from stainless steel



Double-compression design can accommodate up to 2 wires or cables of varying sizes.

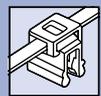


| TYPE | Panel Thickness | Cable Ø min | Cable Ø max | Width (W) | Length (L) | Bundle Ø max. | Material | Colour | Pack Cont. | Article-No. |
|---------|-----------------|-------------|-------------|-----------|------------|---------------|----------|------------|------------|-------------|
| MSC2LP1 | 0.75 - 1.25 | 4.1 | 7.0 | 10.3 | 18.1 | 7.0 | SS304 | Metal (ML) | 5000 pcs. | 151-03155 |
| MSC2 | 1.0 - 3.0 | 5.0 | 7.6 | 13.0 | 24.1 | 7.6 | SS304 | Metal (ML) | 100 pcs. | 151-00982 |
| | 1.0 - 3.0 | 5.0 | 7.6 | 13.0 | 24.1 | 7.6 | SS304 | Metal (ML) | 5000 pcs. | 151-02320 |
| MSC2LP | 1.5 - 2.0 | 4.1 | 7.0 | 9.5 | 17.0 | 7.0 | SS304 | Metal (ML) | 100 pcs. | 151-01699 |
| | 1.5 - 2.0 | 4.1 | 7.0 | 9.5 | 17.0 | 7.0 | SS304 | Metal (ML) | 5000 pcs. | 151-02436 |

All dimensions in mm. Subject to technical changes.



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Fixing elements for edges

For solar panels

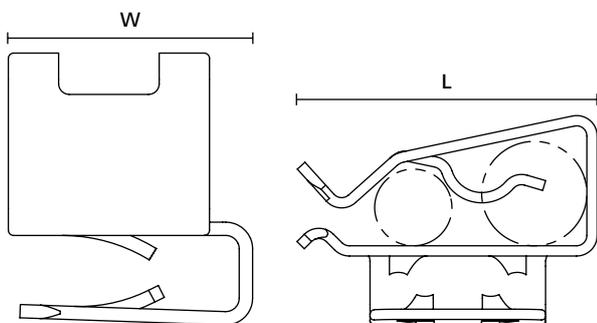
The MSC-Series provides an excellent alternative to managing wire and PV cables where plastic fasteners are not the preferred method, for example in subtropical and tropical climate zones and floating PV applications. Designed for effortless insertion, this stainless steel EdgeClip has a high extraction force that tolerates extreme environments and provides assurance that the cables are securely affixed to a panel or substructure.

Features and benefits

- Integrated design allows for easy insertion by hand
- Rounded edges protect the cable insulation from damage
- Double-compression design that accommodates up to two cables and various sizes (4-6 mm²)
- High extraction force for withstanding extreme conditions
- Made from SS304 stainless steel



90-degree metal edge clip



MSC90

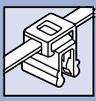
MSC90 (side view)

| TYPE | Panel Thickness | Cable Ø min | Cable Ø max | Width (W) | Length (L) | Bundle Ø max. | Material | Colour | Pack Cont. | Article-No. |
|--------|-----------------|-------------|-------------|-----------|------------|---------------|----------|------------|------------|-------------|
| MSC901 | 0.76 - 1.24 | 4.1 | 7.39 | 11.6 | 18.4 | 7.4 | SS304 | Metal (ML) | 100 pcs. | 151-02569 |
| | 0.76 - 1.24 | 4.1 | 7.39 | 11.6 | 18.4 | 7.4 | SS304 | Metal (ML) | 5000 pcs. | 151-02570 |
| MSC90 | 1.5 - 2.0 | 4.1 | 7.0 | 11.6 | 18.4 | 7.0 | SS304 | Metal (ML) | 100 pcs. | 151-02189 |
| | 1.5 - 2.0 | 4.1 | 7.0 | 11.6 | 18.4 | 7.0 | SS304 | Metal (ML) | 5000 pcs. | 151-02291 |

All dimensions in mm. Subject to technical changes.



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Cable Ties and Fixings

Fixing products for edges

Fixing tie for edges 3 heads, 1-3 mm

EdgeClip series, multiple routing, multi-ways

Cable ties with EdgeClips are ideal where holes are not acceptable and there is no other way to route cables along an edge. This is often the case when connected module leads are too short to be fixed to substructures. Another common scenario is keeping solar cables out of substructure metallic ducts or away from roof surfaces that can be flooded with water, causing inverter faults over time. The EdgeClip can be easily pushed onto the edge by hand without any tools. The integrated metal clamp delivers reliably high extraction force. This special 3 way EdgeClip version is made of black PA66 material and are supplied with UV stabilised PA6.6 cable ties in a kit. When a cable tie is inserted, it can also rotate 90 degrees.

Features and benefits

- Easy installation, just push on by hand
- For edge thickness of 1 - 3 mm
- Avoids long term issues with flooded cabling and connectors
- Plastic solution adding security for 1500V DC systems
- Cable ties are supplied non-pre assembled in a kit with EdgeClip
- Cable tie can be rotated 90 degrees in one of 3 fixing positions



T50REC1-3 EdgeClip for single, double or triple routing in parallel or perpendicular for cables.



3 way EdgeClip.

| TYPE | Width (W) | Length (L) |  | Material | Colour | Article-No. |
|------------------|-----------|------------|---|---------------|------------|-------------|
| T50REC1-3TRIOSET | 4.7 | 200.0 | 225 | PA66W PA66 | Black (BK) | 156-03135 |

All dimensions in mm. Subject to technical changes.



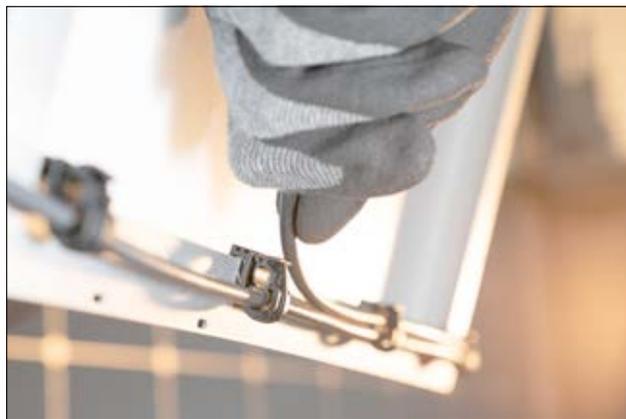
Fixing element for solar cables

EdgeClip series for solar panels

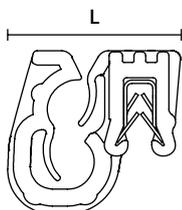
Our EC1-3SPDHC6-7 will help you to fix solar cables. You can easily attach this article to your solar modules in order to guide up to two 4-6mm² solar cables into the clip by simply pressing them in by hand. The heat stabilized and UV protected PA66HSUV material provides additional protection against UV radiation for long-term outdoor use in temperate climate zones.

Features and benefits

- For one or two solar cables
- Secure hold of the cables
- Easy blind installation on rooftops adding safety
- Simple change of cables in case of maintenance
- For edges 1.0 - 3.0 mm
- Plastic solution adding security for 1500V DC systems



EdgeClip for direct fixation up to two solar cables.



EdgeClip Solar.

| TYPE | Cable Ø min | Cable Ø max | Length (L) | Panel Thickness | Material | Colour | Pack Cont. | Article-No. |
|---------------|-------------|-------------|------------|-----------------|----------|------------|------------|-------------|
| EC1-3SPDHC6-7 | 5.8 | 6.8 | 21.9 | 1.0 - 3.0 | PA66HSUV | Black (BK) | 1000 pcs. | 151-03846 |
| | 5.8 | 6.8 | 21.9 | 1.0 - 3.0 | PA66HSUV | Black (BK) | 100 pcs. | 151-04010 |

All dimensions in mm. Subject to technical changes.



Fixing elements for multiple routing

with connecting element

The QwicGrip under the solar panel cable management solution provides quick and easy installation, offering secure cable organization and strain relief for various solar cable sizes and types from diameter 4mm² until 10mm². It minimizes cable damage and safety hazards, ensuring reliable and efficient solar installations. This adaptable solution also reduces installation time and labor costs, making it a cost-effective choice for your solar projects.

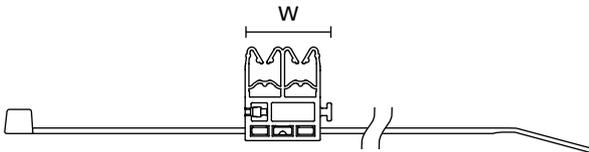
Features and benefits

- Quick and easy installation
- Secure cable management and strain relief
- Adaptable design for various cable sizes and types
- Minimize cable damage and safety hazards, ensuring reliable and long-lasting solar installations
- Affordable upfront costs and reduced maintenance expenses over the products lifecycle
- Reduce installation time, while optimizing project efficiency and labor costs
- Increases working safety on steep rooftop installations with pre-assembly on the ground and cable installation onsite with one hand operation



New innovative QwicGrip for fastening to e.g. solar rails with cable ties.

Supplied without cable ties. Cable ties with strap width of up to 8.8 mm are applicable.



This innovative new Qwicgrip can be easily combined with cable ties from our portfolio that are up to 8.8 mm wide.

| TYPE | Width (W) | Height (H) | Bundle Ø min. | Bundle Ø max. | Strap Width max. (G) | Material | Colour | Article-No. |
|---------------|-----------|------------|---------------|---------------|----------------------|----------|------------|-------------|
| QGDHC5.2-8.0M | 23.0 | 25.1 | 5.2 | 8.0 | 8.8 | PA66W | Black (BK) | 151-04088 |

All dimensions in mm. Subject to technical changes.



Fixing Elements for Tubes and Harnesses

Harness Clip with arrowhead

Offering a simple and secure method of attaching one or two 4-6mm² solar cables onto the top of an aluminium rail with a screw nut channel. The rotatable footpart for the channel allows two different channel mounting dimensions. The UV protected PA66W material provides additional protection against UV radiation for long-term outdoor use in temperate climate zones.

Features and benefits

- For channel width 13.0 - 15.0 mm
- Click wires into clip to be held securely in place
- 360° rotatable clip, this allows movement of wires if needed
- Just push the arrowhead into the channel for very quick and simple fixing



Deploying the mounting rail C-channel for fixing elements.

| TYPE | Drawing | Hole Ø (FH) | Panel Thickness | Width (W) | Length (L) | Material | Colour | Article-No. |
|----------------|---|-------------|-----------------|-----------|------------|----------|------------|-------------|
| HC2x7.3AH13-PV |  | 13.0 - 15.0 | 1.8 - 2.25 | 24.0 | 26.4 | PA66W | Black (BK) | 151-00899 |

All dimensions in mm. Subject to technical changes.



Heat shrinkable tubing up to 4:1 - 1 m lengths

MA47 - medium wall adhesive lined

MA47 is a medium wall heat shrink tubing with an adhesive lining for use in low voltage solar applications. The thermoplastic adhesive liner provides excellent moisture sealing and insulation protection of cable joints and DC/AC terminations in combiner boxes and inverter arrays. Made of a polyolefin outer material, this tubing has a 4:1 shrink ratio.

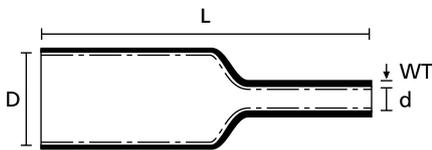
Features and benefits

- Medium wall tubing with robust insulation characteristics
- Shrink tubing for above and underground cable applications
- Protects cable joints and terminations in low voltage applications
- Internally coated with a thermoplastic adhesive
- Protects against humidity and other environmental impacts



MA47 for above and below ground.

| | |
|--|---------------------------------|
| MATERIAL | Polyolefin, cross-linked (PO-X) |
| Shrink Ratio | up to 4:1 |
| Operating Temperature | -55 °C to +110 °C |
| Min. Shrink Temperature | +120 °C |
| Softening Point Adhesive | +85 °C |
| Longitudinal Change After Shrinkage | -10% max. |
| Dielectric Strength | 15 kV/mm |
| Insulation Class | A (VDE 0530) |



Heat Shrink Tubing 4:1 with adhesive



| TYPE | Supplied Ø D min. | Recov. Ø d max. | Wall (WT) | Length (L) | Tools | Article-No. |
|------------|----------------------|--------------------|--------------|---------------|-------|-------------|
| MA47-19/6 | 22.0 | 6.0 | 2.40 | 1.0 m | 30;32 | 323-20190 |
| MA47-30/8 | 33.0 | 8.0 | 2.60 | 1.0 m | 30;32 | 323-20300 |
| MA47-40/12 | 40.0 | 12.0 | 2.60 | 1.0 m | 30;32 | 323-20400 |
| MA47-50/16 | 55.0 | 16.0 | 2.70 | 1.0 m | 30;32 | 323-20500 |

Recommended Tools: 30=H6100, 32=CHG900. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

Heat shrinkable tubing 3:1 on a reel

HIS-A - with adhesive liner

HIS-A is a thin walled heat shrink tubing that forms a seal against moisture and protects against corrosion and mechanical abrasion. Main application to repair DC cables and insulate DC joints with a dual heatshrink application.

Features and benefits

- Adhesive lined heat shrink tubing
- Inner wall melts when heated and is forced into gaps
- Adhesive forms seal against moisture as tubing cools
- Protects components



HIS-A Heat Shrink Tubing 3:1+Adhesive Dispenser Box. Perfect sealing.

| | |
|--|---------------------------------|
| MATERIAL | Polyolefin, cross-linked (PO-X) |
| Shrink Ratio | 3:1 |
| Operating Temperature | -55 °C to +125 °C |
| Min. Shrink Temperature | +100 °C |
| Longitudinal Change After Shrinkage | -10% max. |
| Softening Point Adhesive | +85 °C |
| Dielectric Strength | 24 kV/mm |
| Flammability | UL 224 VW-1 |
| Insulation Class | A (VDE 0530) |

RoHS 



Heat Shrink Tubing 3:1 with adhesive

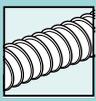


| TYPE | Supplied Ø D min. | Recov. Ø d max. | Wall (WT) | Self extinguishing | Tools | Article-No. |
|------------|----------------------|--------------------|--------------|-----------------------|-------|-------------|
| HIS-A-9/3 | 9.0 | 3.0 | 1.00 | Yes | 30 | 308-10900 |
| HIS-A-12/4 | 12.0 | 4.0 | 1.65 | Yes | 30 | 308-11200 |
| HIS-A-18/6 | 19.0 | 6.0 | 2.10 | Yes | 30 | 308-11800 |
| HIS-A-24/8 | 24.0 | 8.0 | 2.35 | Yes | 30 | 308-12400 |

Recommended Tools: 30=H6100. For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.



Cable Protection Systems

Corrugated Tubing

FCT UV Stabilized Convoluted Tubing

UV stabilized corrugated tubing

Lightweight and flexible with added UV protection. Provides an efficient method of routing and protecting solar wires, while reducing the chance of installation damage. With an optional split down the side where you can insert your wire harness, you can easily install the convoluted tubing without removal of the entire assembly. Offers excellent protection against vibration wear, sharp edges, water, snow, ice and the effects of heat, cold and sunlight on cables and wires. Ideal for exposed transition points between module rows and roof cable access areas.

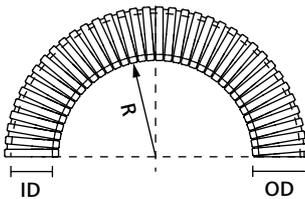
Features and benefits

- Will remain structurally sound in applications with high levels of UV exposure
- Not-slit or single slit version for easier post-installation
- Ranging in size from 12.1mm to 26mm inside diameter
- Halogen Free
- Highly Flexible



Ideal for solar applications: UV-resistant corrugated tubing.

| | |
|------------------------------|------------------------------------|
| MATERIAL | Polyamide 6, UV-stabilised (PA6UV) |
| Operating Temperature | -40 °C to +125 °C |
| Flammability | UL 94 HB |



FCT-UV non-metallic conduit with UV stabilizer

| TYPE | Outside Ø (OD) | Inside Ø (ID) | Wall (WT) | Reel Length | Colour | Article-No. |
|----------|----------------|---------------|-----------|-------------|------------|-------------|
| FCTUV13 | 17.3 | 12.1 | 0.45 | 50 m | Black (BK) | 169-00165 |
| FCTUV13S | 17.3 | 12.1 | 0.45 | 50 m | Black (BK) | 169-00166 |
| FCTUV16 | 20.7 | 16.5 | 0.45 | 50 m | Black (BK) | 169-00167 |
| FCTUV16S | 20.7 | 16.5 | 0.45 | 50 m | Black (BK) | 169-00168 |
| FCTUV19 | 23.5 | 19.5 | 0.45 | 50 m | Black (BK) | 169-00169 |
| FCTUV19S | 23.5 | 19.5 | 0.45 | 50 m | Black (BK) | 169-00170 |
| FCTUV23 | 27.7 | 23.5 | 0.55 | 25 m | Black (BK) | 169-00171 |
| FCTUV23S | 27.7 | 23.5 | 0.55 | 25 m | Black (BK) | 169-00172 |
| FCTUV26 | 32 | 26 | 0.55 | 25 m | Black (BK) | 169-00173 |
| FCTUV26S | 32 | 26 | 0.55 | 25 m | Black (BK) | 169-00174 |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Identification tags for cable bundles, thermal transfer, ladder style

TAGPU – UV-stabilised Tiptags

TAGPU is a specially designed cable marker for identifying cables, where a permanently legible and UV resistant marking is required. The cable markers consist of a robust and flexible polyurethane material and are especially suited for harsh environments. The material and print has been tested for a minimum of 10 year's exposure in temperate climate zones. They are supplied pre-cut and have been formatted into a convenient „ladder“ system. The markers are applied to cable and harness assemblies with cable ties, and are also suitable for retrofitting. Print with HellermannTyton's TagPrint Pro software, premium range of thermal printers and suitable ribbons.

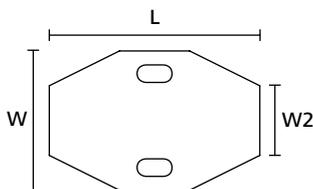
Features and benefits

- UV-stabilised
- For larger cables and wires, both DC and AC side
- Robust and flexible material
- Thermal transfer printable
- Available in various colours
- Halogen Free
- Good mechanical strength and highly flexible
- Delivery in convenient storage boxes

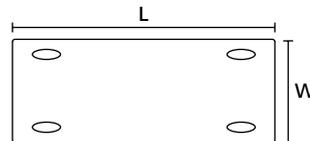


TAGPU for clear identification of multiple strings.

| | |
|---------------------------------|--------------------|
| MATERIAL | Polyurethane (PUR) |
| Operating Temperature | -25 °C to +105 °C |
| Flammability | UL 94 V0 (3 mm) |
| Recommended Ribbon Type | TTRC+, TT287 |
| Thermal Transfer Printer | TT431, TT4030 |



Identification tag with diamond shape.



Identification tag with four fixing holes.

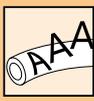


| TYPE | Drawing | Length (L) | Width (W) | Width (W2) | Colour | Article-No. |
|--------------|---------|------------|-----------|------------|-------------|-------------|
| TAGPU20X30-2 | | 30.0 | 20.0 | 11.0 | Blue (BU) | 556-80556 |
| | | 30.0 | 20.0 | 11.0 | Red (RD) | 556-80557 |
| | | 30.0 | 20.0 | 11.0 | White (WH) | 556-80527 |
| | | 30.0 | 20.0 | 11.0 | Yellow (YE) | 556-80528 |
| TAGPU12X60-4 | | 60.0 | 11.6 | - | Blue (BU) | 556-80513 |
| | | 60.0 | 11.6 | - | Red (RD) | 556-80512 |
| | | 60.0 | 11.6 | - | White (WH) | 556-80515 |
| | | 60.0 | 11.6 | - | Yellow (YE) | 556-80514 |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



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Identification tags for cable bundles, thermal transfer, ladder style

TAGPU – UV-stabilised Tiptags

TAGPU is a specially designed cable marker for identifying cables, where a permanently legible and UV resistant marking is required. The cable markers consist of a robust and flexible polyurethane material and are especially suited for harsh environments. The material and print has been tested for a minimum of 10 year's exposure in temperate climate zones. They are supplied pre-cut and have been formatted into a convenient „ladder“ system. The markers are looped on cables and wires without using a cable tie. Print with HellermannTyton's TagPrint Pro software, premium range of thermal printers and suitable ribbons.

Features and benefits

- Using without cable ties - Cost and time savings
- UV-stabilised
- Robust and flexible material
- Thermal transfer printable
- Available in various colours
- Halogen Free
- Good mechanical strength and highly flexible
- Delivery in convenient storage boxes



TAGPU LOOP - Cable marking solutions for labelling on the inverter.

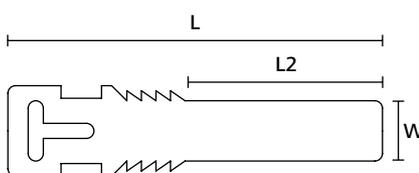


TAGPU LOOP - labelling solution without using cable ties.

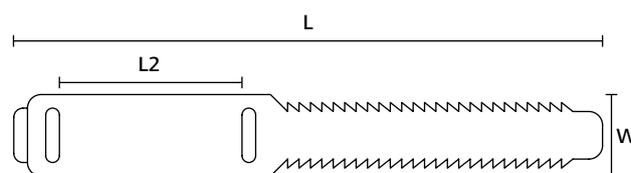


TAGPU LOOP - for marking and fixing cables and wires up to 35mm.

| | |
|---------------------------------|--------------------|
| MATERIAL | Polyurethane (PUR) |
| Operating Temperature | -25 °C to +105 °C |
| Flammability | UL 94 V0 (3 mm) |
| Recommended Ribbon Type | TTRC+, TT287 |
| Thermal Transfer Printer | TT431, TT4030 |



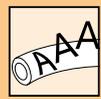
TAGPU12X74



TAGPU18X124

| TYPE | Drawing | Length (L) | Length (L2) | Width (W) | Bundle Ø min. | Bundle Ø max. | Colour | Article-No. |
|------------------|---------|------------|-------------|-----------|---------------|---------------|-------------|-------------|
| TAGPU12X74-LOOP | | 74.0 | 40.0 | 74.0 | 2.8 | 8.0 | Blue (BU) | 556-80586 |
| | | 74.0 | 40.0 | 74.0 | 2.8 | 8.0 | Red (RD) | 556-80587 |
| | | 74.0 | 40.0 | 74.0 | 2.8 | 8.0 | White (WH) | 556-80584 |
| | | 74.0 | 40.0 | 74.0 | 2.8 | 8.0 | Yellow (YE) | 556-80585 |
| TAGPU18X124-LOOP | | 124.0 | 40.0 | 18.0 | 4.0 | 35.0 | Blue (BU) | 556-80590 |
| | | 124.0 | 40.0 | 18.0 | 4.0 | 35.0 | Red (RD) | 556-80591 |
| | | 124.0 | 40.0 | 18.0 | 4.0 | 35.0 | White (WH) | 556-80588 |
| | | 124.0 | 40.0 | 18.0 | 4.0 | 35.0 | Yellow (YE) | 556-80589 |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



Identification tags for cable bundle, thermal transfer

TIPTAG PU – UV-stabilised Tiptags, Polyurethane

The Tiptag PU cable markers consist of a robust and flexible polyurethane material. It is especially suited for harsh environments where the material is exposed to chemical, fluids or abrasion. Tiptag PU's are presented in a special continuous perforated format which include fastening slots for easy fitting with cable ties. They are also suitable for retrofit purposes.

Print from the reel with HellermannTyton's premium range of thermal transfer printers.

A special ribbon has been developed for Tiptag PU to create a "tattoo" effect so that the marking cannot be rubbed off and is particularly durable and resistant to harsh abrasion.

Features and benefits

- Durable and robust polyurethane material
- For large cable bundles and wires
- Flame retardant
- Weather resistant
- Abrasion resistant
- Good resistance to chemicals
- Available in white and yellow as standard
- Perforated format with fastening slots for cable ties



TIPTAG PU – printed mark has a tattoo-like permanency.



TIPTAG PU - Identification markers suitable for harsh environments.



Yellow Tiptag PU supplied in a convenient reel format.

| | |
|---------------------------------|---|
| MATERIAL | Polyurethane (PUR) |
| Operating Temperature | -65 °C to +120 °C, intermittent +150 °C |
| Flammability | UL 94 V0 (3 mm) |
| Recommended Ribbon Type | TTRC+ |
| Thermal Transfer Printer | TT431, TT4030 |



| TYPE | Length (L) | Width (W) | Pack Cont. | Colour | Article-No. |
|----------------|------------|-----------|------------|-------------|-------------|
| TTAGPU11X65WH | 65.0 | 11.0 | 190 pcs. | White (WH) | 556-25012 |
| TTAGPU11X65YE | 65.0 | 11.0 | 190 pcs. | Yellow (YE) | 556-25019 |
| TTAGPU15X65WH | 65.0 | 15.0 | 190 pcs. | White (WH) | 556-25007 |
| TTAGPU15X65YE | 65.0 | 15.0 | 190 pcs. | Yellow (YE) | 556-25011 |
| TTAGPU11X100WH | 100.0 | 11.0 | 125 pcs. | White (WH) | 556-25021 |
| TTAGPU11X100YE | 100.0 | 11.0 | 125 pcs. | Yellow (YE) | 556-25020 |
| TTAGPU15X100WH | 100.0 | 15.0 | 125 pcs. | White (WH) | 556-25006 |
| TTAGPU15X100YE | 100.0 | 15.0 | 125 pcs. | Yellow (YE) | 556-25010 |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



Panel plate labels, thermal transfer

Helatag 1220

Panel labels are durable adhesive labels especially made from a thick material that is designed to replace traditional engraved plastic plates. Ideal for panel row marking and string inverter rack identification. Create crisp and clear professional-looking labels by printing with HellermannTyton thermal transfer printers and ribbons. Simple label design creation is easily achieved using separately available TagPrint Pro software.

Features and benefits

- Cost-effective replacement for engraved plastic plates
- No need for additional label holder
- High-performance adhesive and compressible foam backing
- Optimal adhesion ensured on uneven surfaces, such as powder coated inverters and rammed piles
- Rounded corners ensure better long term durability of adhesion
- High contrast text and barcodes
- Tested for a minimum of 10 year's UV performance
- Print on site instead of order off site
- Outstanding chemical resistance with TT122OUT ribbon



Panel labels Helatag 1220 – high performance adhesive ensures optimal adhesion to uneven surfaces.

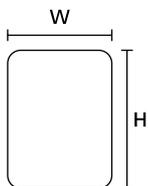


Perfect way to replace engraved labels: on-site outdoor durable printed labels.



Helatag 1220 Series, white panel plate labels.

| | |
|----------------------------------|---|
| MATERIAL | Type 1220, Polyester, white (1220) |
| Operating Temperature | -40 °C to +90 °C |
| Curing Temperature | from +10 °C |
| Adhesive | Acrylic |
| Thickness of Foil | 50 µm |
| Chem. Material Properties | Excellent resistance to ageing, weathering and UV-radiation. Extensive resistance to the influence of chemicals and solvents. |
| Recommended Ribbon Type | TT122OUT, TT822OUT |
| Thermal Transfer Printer | TT431, TT4030 |



| TYPE | Width (W) | Height (H) | Width of Liner (WL) | Labels per Row | Pack Cont. | Colour | Article-No. |
|----------------------|-----------|------------|---------------------|----------------|------------|------------|-------------|
| TAG60-30TDK1 | 60.0 | 30.0 | 66.0 | 1 pc. | 500 pcs. | White (WH) | 596-00569 |
| TAG90-45TDK1 | 90.0 | 45.0 | 96.0 | 1 pc. | 500 pcs. | White (WH) | 596-00570 |
| TAG100-30TDK1 | 100.0 | 30.0 | 106.0 | 1 pc. | 250 pcs. | White (WH) | 596-00571 |
| TAG100-70TDK1 | 100.0 | 70.0 | 106.0 | 1 pc. | 250 pcs. | White (WH) | 596-00572 |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Labelling software

TagPrint Pro 4.0

TagPrint Pro 4.0 is the easy-to-use label/marker design and printing software in the HellermannTyton printing world. Compatible with Windows®, TagPrint Pro 4.0 delivers an individualised, task-based experience that enables a user to easily develop print templates including bar codes, text and graphics to meet numerous applications. TagPrint Pro 4.0 streamlines labeling production by offering a user full control over the importing or entering of data, advanced security features, the option to group label designs under a single file name or job number, and the ability to batch print to either one or more printers at the same time.

Features and benefits

- TagPrint Pro 4.0 runs on Windows 7, 8.1 and 10, allowing full compatibility and error-free operation with the most widely used systems
- Print automation allows one-step printing of label jobs – even multi-label groups – to one or more printers simultaneously
- Visual preview allows users to see label designs before opening them
- Single-user and network-user versions accommodate the needs of any size operation
- Select saved labels visually or by part number
- Convert existing XMT files to the TagPrint data table



The easy to use software speeds up production of markers, labels and identification tags.



One-step printing of label jobs to one or more printers simultaneously.

| | |
|----------------------------|---|
| System Requirements | Operating system: Microsoft Windows 7,8.1 and 10 (32/64 bit) Random Access Memory: 1.0 GB RAM Hard disk space: 500 MB Microsoft .NET Framework 4 or higher |
|----------------------------|---|



| TYPE | Article-No. |
|---------------------|-------------|
| TagPrintPro4.0-EMEA | 556-00059 |

Subject to technical changes.



Thermal transfer printer

TT431, Small to medium volume printing

The TT431 thermal transfer printer is perfect for printing on HellermannTyton materials such as self-adhesive labels, shrinkable tubing and identification tags. Thanks to its low weight and compact construction, the TT431 integrates seamlessly into any workstation. It is easy to use due to its intuitive colour LCD touch display and clear status messages which can be shown in multiple languages. The optional cutter and perforator make this printer ideal for a wide range of applications. 300 dpi resolution ensures that barcodes, warning symbols, logos and text are as sharp as they can be.

Features and benefits

- Small to medium volume single sided printing
- Print on HellermannTyton cable markers and labels
- Uses standard ribbons
- Barcodes: standard and 2D
- Print speed up to 150 mm/s
- Adjustable label sensor
- Multiple language selection
- Windows drivers: 32/64 Bit Windows Vista, 7, 8, 10, Windows Server 2008, 2008 R2, 2012, 2012 R2, 2016, 2019



TT431 thermal transfer printer designed for ease of operation.

| | |
|---|--|
| Print Method | thermal transfer print |
| Print Head Type | 300 dpi, flat type |
| Print Speed | up to 150 mm/s |
| Max. Print Width | 105.70 mm |
| Print Material Height Max (metric) | 4000 mm |
| Interfaces | USB 2.0, Ethernet 10/100 Base T, RS232 |
| Supported Barcodes | Standard and 2D |
| Printer Memory | 256 MB RAM |
| Dimensions W x H x D | 253 mm x 189 mm x 322 mm |
| Weight | 4.55 kg |



| TYPE | Article-No. |
|-------|-------------|
| TT431 | 556-00400 |

All dimensions in mm. Subject to technical changes.



Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

TT431 accessories and spare parts

| TYPE | Description | Article-No. |
|------------------------------|---------------------------------|-------------|
| TT Printer Adapter | Printer Adapter for TT Printers | 556-00012 |
| TT430/TT431 300dpi Printhead | Printhead for TT431 | 556-00453 |
| TT430/TT431 Print Roller | Print Roller for TT431 | 556-00454 |
| S430 Cutter | Cutter for TT431 | 556-00452 |
| P430 Perforator | Perforator for TT431 | 556-00456 |
| TT External Reel Holder | External Reel Holder | 556-00451 |
| TTER120 | External label rewinder | 556-00013 |

Subject to technical changes.



Thermal transfer printer

TT4030, High volume printing

HellermannTyton's premium printer TT4030 is specifically designed for medium and heavy duty industrial applications. The 300 dpi print head fulfils all standard requirements for printing bar codes, warning signs, logos and written information. Optional premium quality accessories such as a perforator and cutter are designed to work seamlessly with the printer and will suit the most demanding needs.

Printing high definition graphics such as 2d barcodes, standard bar codes, numbers and text on adhesive labels, thermo plastics such as heat shrink and cable markers (Tiptags) is easily done.

A colour LCD Touchscreen with modern user interface helps intuitive operation.

Creation of professional looking industrial identification is simplified by the use of HellermannTyton's label creation software TagPrint Pro.

Whether in stand-alone mode, as a PC application or in a network - the robust TT4030 printers can meet every requirement.

Features and benefits

- High volume single sided printing
- Print on HellermannTyton heatshrink tubing, cable markers and labels
- Uses standard 300 m ribbons
- Barcodes: standard and 2D
- Print speed up to 300 mm/s (30 mm/s recommended for ladder style products and tubing)
- Multiple language selection
- Windows drivers: 32 / 64 bit for Windows XP, Windows Vista, Windows 7, 8, 10



TT4030 thermal transfer printer for high volumes.

| | |
|---|--|
| Print Method | thermal transfer print |
| Print Head Type | 300 dpi, flat type |
| Print Speed | up to 300mm/s |
| Max. Print Width | 105.70 mm |
| Print Material Height Max (metric) | 2000 mm |
| Interfaces | RS232 C, USB 2.0, Ethernet 10/100 Base T |
| Supported Barcodes | Standard, 2D |
| Printer Memory | 256 MB RAM |
| Dimensions W x H x D | 252 mm x 288 mm x 460 mm |
| Weight | 9.98 kg |



| TYPE | Article-No. |
|--------|-------------|
| TT4030 | 556-04037 |

Subject to technical changes.

TT4030 accessories and spare parts

| TYPE | Description | Article-No. |
|-------------------------------|-----------------------------------|-------------|
| TT Printer Adapter | Printer Adapter for TT Printers | 556-00012 |
| TT4030 Printhead | Printhead for TT4030 | 556-04041 |
| Printer Roller TT4030/TT4000+ | Printer Roller for TT4030/TT4000+ | 556-04005 |
| S4030 Cutter | S4030 Cutter for TT4030 | 556-04050 |
| P4030 Perforator | Perforator for TT4030 | 556-04051 |
| TT External Reel Holder | External Reel Holder | 556-00451 |
| TTTER120 | External label rewinder | 556-00013 |

Subject to technical changes.



Thermal transfer ribbons for

Adhesive Labels

The thermal transfer print technology is based on heating up certain dots in the print head. This transfers the ink very precisely from the ribbon onto the surface of the printed material. All HellermannTyton ribbons consist of a special resin composition to maximise print performance. In combination with HellermannTyton printers the ribbons ensure the highest of print quality on all HellermannTyton thermal printable identification materials.

Features and benefits

- Thermal transfer ribbons for highest quality and performance of printed labels
- Ribbons are specifically designed to maximise print performance for the recommended material

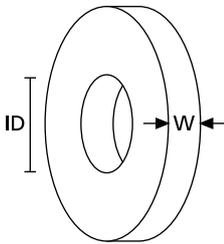


Ribbons for printing on adhesive labels.



Easy application of ribbons on HellermannTyton thermal transfer printers.

ID: The standard inside core diameter for all the ribbons is 25.4 mm.



| TYPE | Recommended Material | Colour | Width (W) | Reel Length | Article-No. |
|----------------|----------------------|------------|-----------|-------------|-------------|
| TT122OUT 60MM | 1220, 1221 | Black (BK) | 60.0 | 300 m | 556-00060 |
| TT122OUT 110MM | 1220, 1221 | Black (BK) | 110.0 | 300 m | 556-00061 |

All dimensions in mm. Subject to technical changes.

Thermal Transfer Ribbons for

Heatshrink and TIPTAGs

The thermal transfer print technology is based on heating up certain dots in the print head. This transfers the ink very precisely from the ribbon onto the surface of the printed material.

Features and benefits

- Thermal transfer ribbons for highest quality and performance of printed markers
- Ribbons are specifically designed to maximise print performance for the recommended material

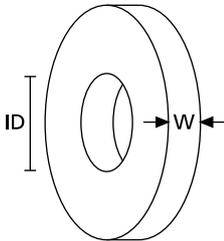


Ribbons for printing on tubes and Tiptags.



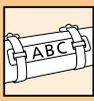
Thermal transfer ribbon also available in white colour.

ID: The standard inside core diameter for all the ribbons is 25.4 mm.



| TYPE | Recommended Material | Colour | Width (W) | Reel Length | Article-No. |
|-------------|----------------------|------------|-----------|-------------|-------------|
| TT287-100MM | TAGPU | Black (BK) | 100.0 | 300 m | 556-00245 |
| TT287-110MM | TAGPU | White (WH) | 110.0 | 300 m | 556-00246 |
| TTRC+ 30MM | TIPTAG PU, TAGPU | Black (BK) | 30.0 | 300 m | 556-00114 |
| TTRC+ 60MM | TIPTAG PU, TAGPU | Black (BK) | 60.0 | 300 m | 556-00115 |
| TTRC+ 100MM | TIPTAG PU, TAGPU | Black (BK) | 100.0 | 300 m | 556-00103 |

All dimensions in mm. Subject to technical changes.



Stainless steel embossing system

M-BOSS Compact

M-BOSS Compact is a quiet easy-to-use metal plate embossing printer with a small production footprint. It is simple to install and operate and only needs a standard electrical supply and a PC or Laptop. Texts are created with TagPrint Pro 4.0. Simply open the easy to use program to create print lists.

Improved cooling system now ensures a continuous operation between 8-10 hours.

Marker plates are attached to cables and pipes using 4.6 mm width MBT cable ties and a MK9SST hand tensioning and cutting tool.

Features and benefits

- Small and easy to use metal plate embosser
- Quiet embossing mechanism suited to production and office environments
- Embossed characters have been tested to withstand 1.5 million strikes each
- Improved cooling systems allows 8-10 hours continuous printing
- Use Tagprint Pro labelling software with pre-loaded templates to simplify print jobs
- 42 piece character set as standard - can be upgraded to 60 characters
- Letters: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
- Numbers: 0 1 2 3 4 5 6 7 8 9
- Symbols: & - / . , ' ,
- Other symbols available on request

1.5 million strikes per character without maintenance

For problem-free printing we recommend TagPrint Pro, page 37.



A quiet, durable, and easy to use metal plate embossing printer.



M-BOSS Compact embossing process.

| | |
|-----------------------------|---------------------------------|
| Print Method | embossing |
| Power Supply | AC 110V-240V, 45/65 Hz, 1.5A-3A |
| Cycle Time | < 1 second per character |
| Interfaces | USB 2.0 |
| System Requirements | Win 7, 8, 10 |
| Dimensions W x H x D | 480 mm x 355 mm x 570 mm |
| Weight | 41.0 kg |



| | |
|-----------------------|--------------------|
| TYPE | Article-No. |
| M-BOSS Compact | 544-20000 |

Subject to technical changes.



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Stainless steel printing system

M-BOSS Compact Markers

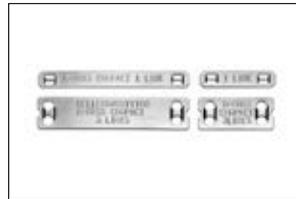
M-BOSS Compact Markers are used in all areas where severe mechanical or chemical conditions occur e.g. floating solar plants, concentrated solar power, DC and AC cable markers where mark permanence is critical. For application in the most extreme UV exposed areas, such as deserts, high mountains and offshore. The raised surface of the embossed print ensures that the text remains visible even with dirt, grease, and paint cover the marker.

Features and benefits

- Raised marking ensure text visibility even when covered in dust, debris, grease and oil
- Stainless steel grade SS316 is suited for use in harsh environments
- Marker plates are designed for use with stainless steel cable ties with a 4.6 mm strap width
- Apply ties with a MK9SST tensioning and cutting tool



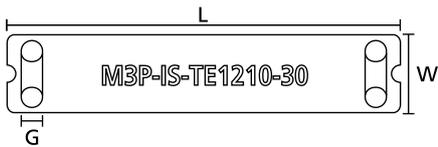
Marker plates designed to survive the harshest environments.



A range of metal plate sizes to suit your needs.

| | |
|------------------------------|-------------------------|
| MATERIAL | Stainless Steel (SS316) |
| Operating Temperature | -80 °C to +538 °C |

HF ✓ LFH ✓
RoHS ✓



MBML

| TYPE | Strap Width max. (G) | Number of lines | Characters per line | Number of characters | Width (W) | Length (L) | Pack Cont. | Article-No. |
|-----------|----------------------|-----------------|---------------------|----------------------|-----------|------------|------------|-------------|
| MBML10X45 | 4.6 | 1 | 8 | 8 | 10.0 | 44.5 | 1000 pcs. | 544-80101 |
| MBML10X90 | 4.6 | 1 | 23 | 23 | 10.0 | 89.5 | 500 pcs. | 544-80102 |
| MBML20X45 | 4.6 | 3 | 8 | 24 | 20.0 | 44.5 | 1000 pcs. | 544-80201 |
| MBML20X90 | 4.6 | 3 | 23 | 69 | 20.0 | 89.5 | 500 pcs. | 544-80202 |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Automatic bundling up to Ø 20 mm

Autotool CPK hybrid

The Autotool CPK hybrid offers full flexibility for maximum speed of automated cable tying. Choose your option: Cordless operation with rechargeable batteries, corded with main power via power pack or a mixture of both.

When working on several projects, at different locations or in tight spaces without power supply, the new CPK hybrid with battery option allows you to move about freely.

The CPK hybrid has been developed to: Speed up bundling processes, make the production more consistent and efficient and simplify the operation and user-friendly ergonomics.

It offers a display for the settings, presets and user information.

The CPK hybrid is ideally suited for handling high volume applications in wire harness facilities and in the solar industry. Cable tie cut-offs are collected in a container to prevent any parts falling down onto the ground and creating issues with grazing animals in solar parks.

With either the optional Bench mount kit CPK or the Overhead suspension CPK, the CPK hybrid is suitable for both stationary and flexible applications.

Features and benefits

- Cable tying system operated electrically via Power pack or with a battery
- Power supply through Power pack CPK - Input: 100-240 V a.c., 50/60 Hz; Output: 25.2 V d.c., max. 150 W
- Or use with 18V 2,0 Ah rechargeable Li-Ion Battery
- Integration into fully automated production lines (Power pack CPK with control box necessary)
- Cycle time 0.65 - 1.0 sec. depending on quality and force
- Stationary and flexible use with devices possible or independently with battery
- HT Data Management CPK software (included) - for extensive data evaluation and monitoring of the tensioning process
- User-friendly menu in various languages included
- Process-reliable, constant and reproducible bundling and cutting up to Ø 20 mm
- Removable handle for space-saving integration into automated production lines

Weight with battery: 2.21 kg.
Weight without battery: 1.81 kg.



Automated cable tie gun CPK hybrid - can be operated with Power Pack or battery.



Autotool CPK hybrid with Power Pack and Overhead Suspension.



Fast and flexible cable bundling tool CPK hybrid for portable use on solar plants anywhere.



Convenient tool box for automated cable tie gun CPK hybrid.



CPK hybrid set including two batteries and charger.

| | |
|------------------------|--|
| Power Supply | Electronically operated or battery operated |
| Cycle Time | 0.65-1.0 sec. depending on quality and force |
| Tension Setting | Adjustable |



| TYPE | Description | Weight | Article-No. |
|---------------------------------|---------------------------|----------|-------------|
| Autotool_CPK_hybrid | Autotool CPK hybrid T18RA | 1.813 kg | 106-60000 |
| Autotool_CPK_hybrid_Battery_Set | CPK hybrid Battery Set | 3.184 kg | 106-66000 |

Subject to technical changes.



Automatic bundling up to Ø 20 mm

Cable ties for Autotool CPK hybrid

The inside-serrated cable ties are designed for use specifically in the automatic cable tying systems. The Autotool CPK hybrid is ideally suited for handling high volumes applications in wire harness facilities and in solar parks.

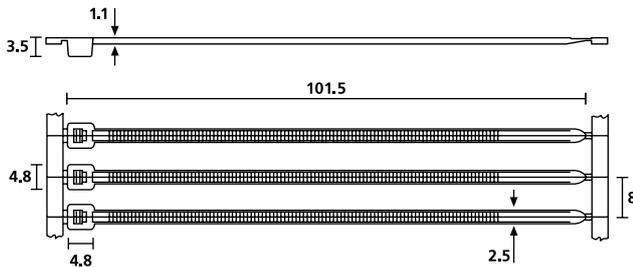
Features and benefits

- Heat und UV stabilised cable ties (PA66HSW) in for temperatures up to +105 °C
- Available in bandoleers of 50 cable ties (recommended for the battery application) or reels of 3,500 cable ties (recommended for stationary application)
- Repetitive tension on the bundles
- Easily recyclable



Cable ties for Autotool CPK hybrid.

| | |
|------------------------------|--|
| MATERIAL | Polyamide 6.6, heat and UV-resistant (PA66HSW) |
| Operating Temperature | -40 °C to +105 °C, (+145 °C, 500 h) |
| Flammability | UL 94 V2 |



Bandolier T18RA

= Minimum Loop Tensile Strength for Cable Ties (newton)

| TYPE | Bundle Ø max. | | Colour | Material | Pack Cont. | Article-No. |
|---------|---------------|----|------------|----------|------------|-------------|
| T18RA50 | 20.0 | 80 | Black (BK) | PA66HSW | 2000 pcs. | 120-40020 |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. More colours on request. Please contact us.

Halogen-free according to the interdictions of the GADSL list and compulsory registration of the SVHC list.



Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.



Automatic bundling up to Ø 20 mm

Accessories for Autotool CPK hybrid

CAS Battery charger in UK or European plug version to charge the CAS batteries. This charger is included in the Autotool CPK battery set.

Features and benefits

- CAS battery charger for Autotool CPK hybrid
- For 18V 2.0 Ah Li-Ion rechargeable battery
- CE compliant



CAS charger for CAS battery 18 V used for automated cable tie gun CPK hybrid.

| TYPE | Description | Article-No. |
|---------------------------|---------------------|-------------|
| SP_CAS_Battery_Charger_UK | - | 106-06022 |
| SP_CAS_Battery_Charger | CAS Battery Charger | 106-06021 |

Subject to technical changes.

Automatic bundling up to Ø 20 mm

Accessories for Autotool CPK hybrid

CAS Battery 18V 2Ah for the use with the Autotool CPK hybrid. This battery is included in the Autotool CPK hybrid battery set.

Features and benefits

- CAS battery pack for Autotool CPK hybrid
- 18V 2.0 Ah Li-Ion rechargeable battery
- Well established cooperation with Metabo for battery and charger
- CE compliant



CAS battery 18 V for automated cable tie gun CPK hybrid.

| TYPE | Description | Article-No. |
|------------------------|---------------------|-------------|
| SP_CAS_Battery_18V_2Ah | CAS Battery 18V 2Ah | 106-06020 |

Subject to technical changes.



Manual tensioning tool plastic housing

EVO7i up to 4.8 mm strap width

HellermannTyton's EVOi mechanical hand tools are created for maximum safety and efficiency. The ergonomic design drastically reduces the risk of repetitive stress injuries while increasing productivity. Tensioning strength can be preset for every taskline. This ensures reliable grip and prevents the cables from being damaged by accidental overtightening, which is important to bundles used in the solar industry. The tool can be set to between 18 N and 165 N with a maximum strap width of 4.8 mm.

Features and benefits

- Ergonomic tool for use anywhere
- Extremely low maintenance
- Adjustable preset tension device
- Tensions and automatically cuts HellermannTyton cable ties up to 4.8mm wide
- Housing made of resilient and lightweight glass fibre-reinforced polyester



Manual tensioning tool EVO 7i.

| TYPE | Description | Strap Width max. | Strap Thickness max. | Weight | Article-No. |
|-------|-------------|------------------|----------------------|----------|-------------|
| EVO7i | EVO7i | 4.8 | 1.5 | 0.281 kg | 110-77001 |

All dimensions in mm. Subject to technical changes.

Manual tensioning tool plastic housing

EVO9i up to 13.5 mm strap width

HellermannTyton's EVOi mechanical hand tools are created for maximum safety and efficiency. The ergonomic design drastically reduces the risk of repetitive stress injuries while increasing productivity. Tensioning strength can be preset for every taskline. This ensures reliable grip and prevents the cables from being damaged by accidental overtightening, which is important to bundles used in the solar industry. The tool can be set to between 53 N and 307 N with a maximum strap width of 13.5 mm.

Features and benefits

- Ergonomic tool for use anywhere
- Extremely low maintenance
- Adjustable preset tension device
- Tensions and automatically cuts HellermannTyton cable ties up to 13.5 mm wide
- Housing made of resilient and lightweight glass fibre-reinforced polyester



Manual tensioning tool EVO9i.

| TYPE | Description | Strap Width max. | Strap Thickness max. | Weight | Article-No. |
|-------|-------------|------------------|----------------------|----------|-------------|
| EVO9i | EVO9i | 13.5 | 2.0 | 0.369 kg | 110-88001 |

All dimensions in mm. Subject to technical changes.



Manual tensioning tool for metal ties MBT-Series

KST-STG200 up to 12.3 mm strap width

The KST-STG200 application tool is designed for installing heavy duty stainless steel cable ties. The tensioning strength can be adjusted while pulling the trigger. The tool is easy to handle and far more reliable than trying to tighten the ties by hand.

Features and benefits

- Tough metal tool
- Operator controlled tensioning
- Cut off by pulling the hand lever



KST-STG200.

| TYPE | Strap Width max. | Strap Thickness max. | Weight | Article-No. |
|------------|------------------|----------------------|----------|-------------|
| KST-STG200 | 12.3 | 0.4 | 0.562 kg | 110-09950 |

All dimensions in mm. Subject to technical changes.

Manual tensioning tool for metal ties MBT-Series

MK9SST up to 16.0 mm strap width

The MK9SST is constructed with heavy duty parts to ensure optimum performance. It is designed to apply our MBT cable ties with a strap width of up to 16 mm.

Features and benefits

- Glass-fibre-reinforced housing
- Ergonomic design
- Consistent tensioning and automatically cutting of metal ties MBT-series
- Infinitely adjustable tension force combined with two-step quick adjustment



MK9SST.

| TYPE | Description | Strap Width max. | Strap Thickness max. | Weight | Article-No. |
|--------|-------------|------------------|----------------------|----------|-------------|
| MK9SST | MK9SST | 16.0 | 0.5 | 0.514 kg | 110-95000 |

All dimensions in mm. Subject to technical changes.



Manual cutting tool for plastic ties

EVO cut

The EVO cut is a cutting tool for plastic ties, which ensures the cut of the strap while preserving wires and harnesses from being damaged in the process. The EVO cut works for both flexible and rigid bundles. Its use is recommended in applications in which the safety and integrity of the wires is important, such as opening of pre-bundled DC lead cords on solar modules and maintenance jobs in the solar park.

The cutting tool is made of a lightweight plastic housing and an ergonomic, non-slip handle for a comfortable and secure grip. The tool includes three different nosepieces, which are easy to change depending on cable tie width and thickness.



EVO cut: Cutting tool for plastic cable ties.

Features and benefits

- Cutting tool for plastic cable ties and fixing ties
- Ensures the cable isolation from being damaged
- Light-weighting plastic housing, ergonomic design
- Single-handed operation
- Tie can be cut off at any part of the strap
- Including three different nosepieces for respective cable tie width and thickness

| TYPE | Description | Strap Width max. | Strap Thickness max. | Weight | Article-No. |
|--------|-------------|------------------|----------------------|---------|-------------|
| EVOcut | EVO cut | 7.8 | 1.8 | 0.14 kg | 110-05005 |

All dimensions in mm. Subject to technical changes.



Cordless Heat Gun - Gas powered

CHG900

The HellermannTyton CHG900 Cordless Heat Gun is powered by P445 gas cartridges, providing autonomous working of 60 minutes in one go. The tool is designed to produce flameless heat which makes it the ideal hot-air gun to apply a huge variety of heat shrink tubing and heat shrink wire markers as well as end caps and cable repair sleeves especially in harsh outdoor conditions covering freezing temperatures as low as -8 °C.

Features and benefits

- Cordless heat gun powered by P445 gas cartridges
- Flameless heat - no direct flame outlet
- Provides 60 minutes of autonomous operation
- Qualified for harsh outdoor conditions (-8 °C)
- Lightweight 440 g tool (555 g incl. cartridge)
- Hands-free operation due to integrated standing pod
- Quick start piezo ignition
- Instant turnaround due to antifiare feature
- Precise gas flow adjustment
- Ergonomic and robust design
- Quick gas cartridge exchange



HellermannTyton Cordless Heat Gun Kit - CHG900.



Gas Nozzle for CHG900 Heat Gun.



Piezo Ignition Trigger for CHG900 Heat Gun.

| TYPE | Description | Article-No. |
|---------------------|--|-------------|
| CHG900 | Cordless Heat Gun - CHG900 Set incl. P445 Gas Cartridge and 2 nozzles. | 391-90010 |
| Piezo CHG900 | CHG900 Spare Part - Piezo Ignition Trigger. | 391-90011 |
| Gas Nozzle | CHG900 Spare Part - Gas Nozzle. | 391-90012 |
| P445 | P445 Gas Cartridge (Butane, Propane, Propene). | 391-90101 |

Subject to technical changes.

As long as the sun rises each morning, our solar energy cable management expertise will shine on your PV installations

HellermannTyton quality cable management parts are designed to ensure unmatched safety, reliability and longevity in your solar plants. Our product specialists have first-hand expertise meeting solar energy challenges in specific environments. They are ready to join you on site and advise you which cable management parts will give you the best return on investment over the lifetime of your solar installation.

We're at home in 39 countries and speak your language.



Contact your local representative now to try out HellermannTyton parts on your golden row

If you have any questions on specific solutions or would just like to receive more information, we are happy to help – with all our experience and with technical know-how.

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