

Date of issue: January 2014



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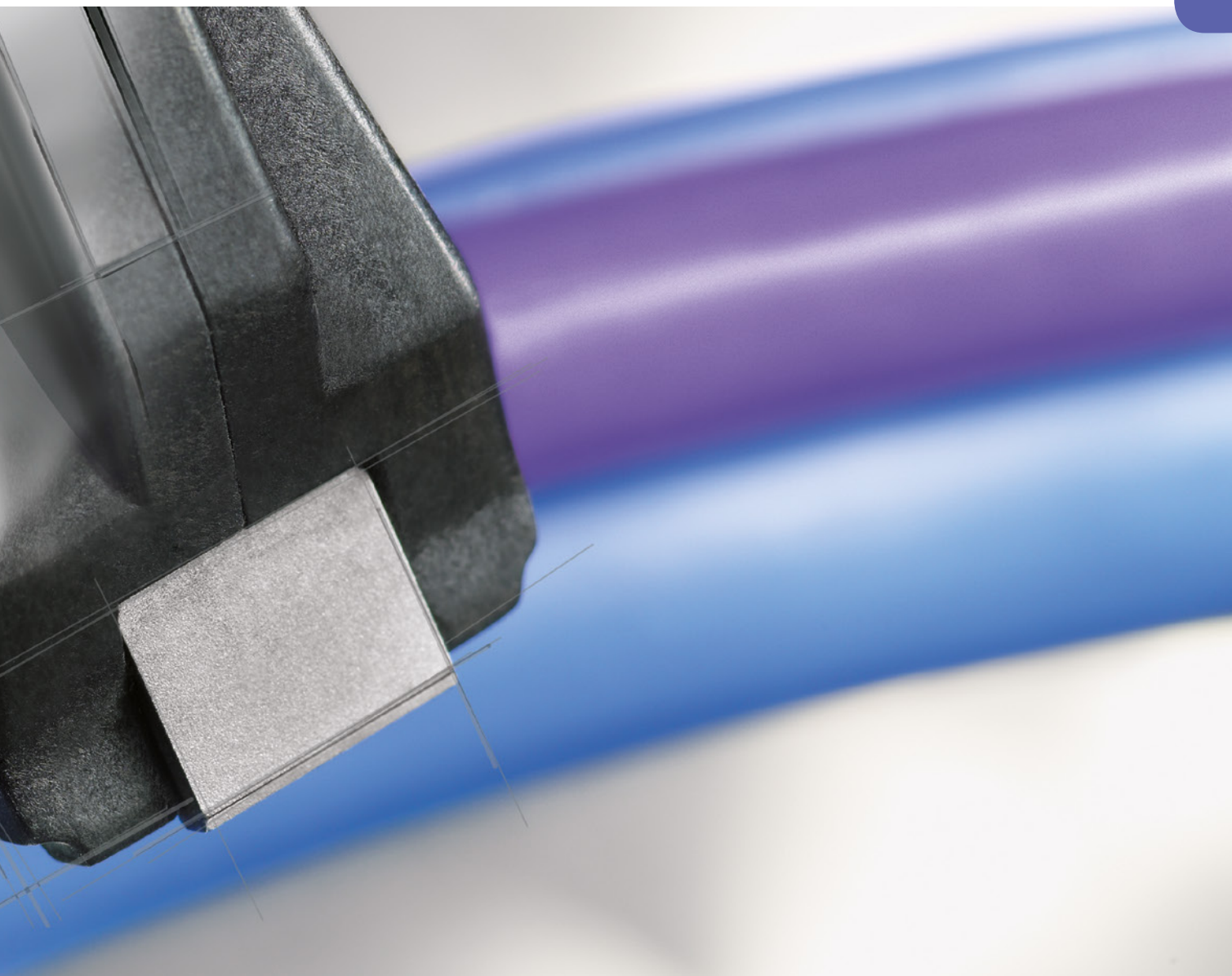
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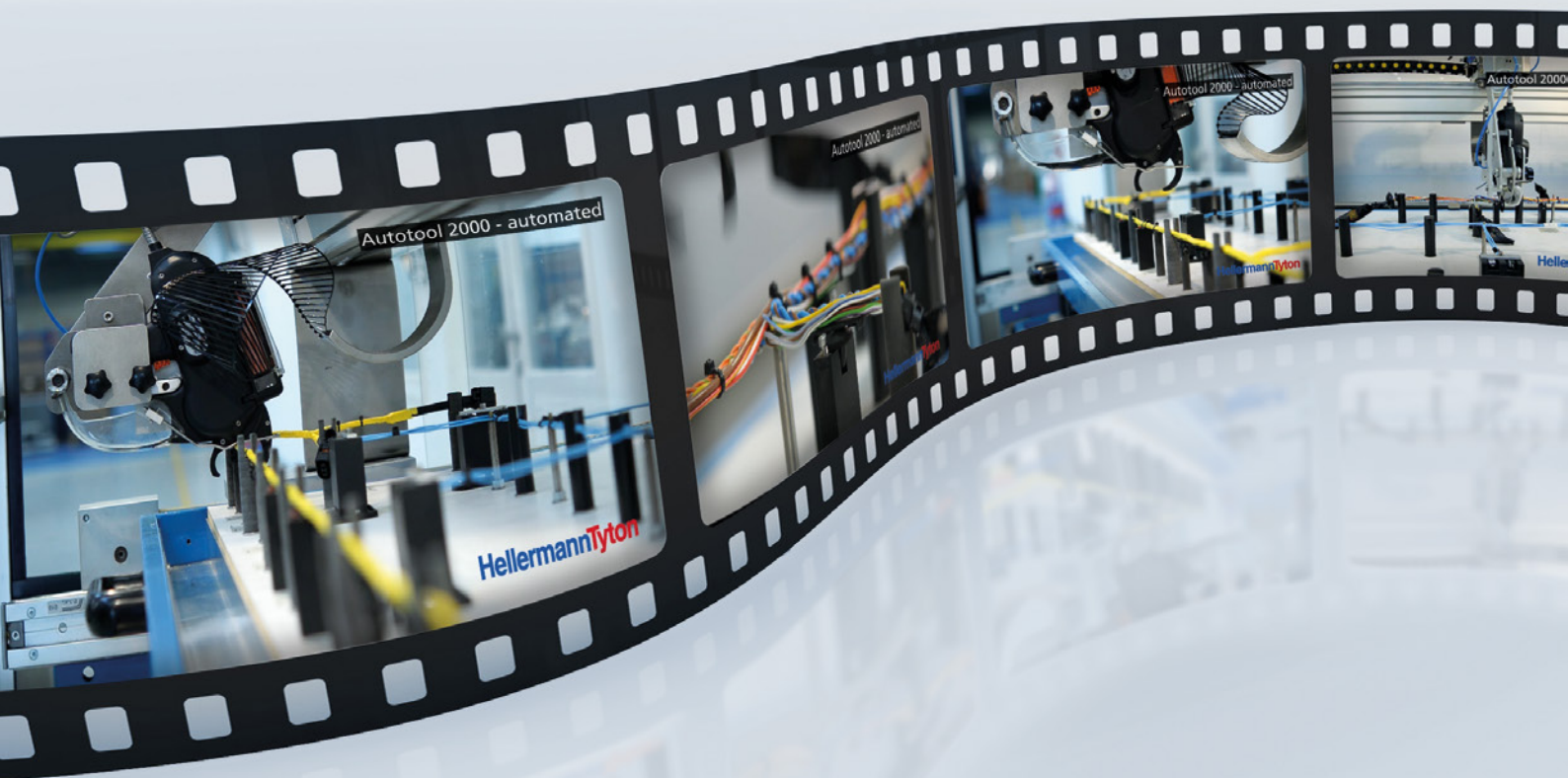
# Automatic Cable Tying Systems



Find more information in our  
Engineered Solutions Catalogue  
in chapter 6.1.

# Autotool 2000 – automated solutions

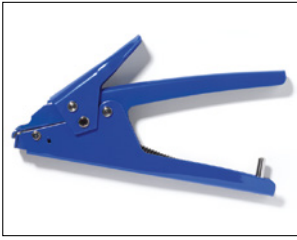
For more information  
please contact us!



[www.HellermannTyton.co.uk](http://www.HellermannTyton.co.uk)

**HellermannTyton**

## Application Tooling for Cable Ties



MK10-SB  
see page 306.



MK20, MK21  
see page 306.



MK3SP  
see page 307.



MK3PNSP2  
see page 307.



EVO7 / EVO7SP  
see page 308.



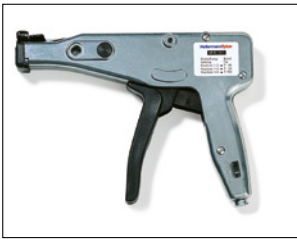
MK7  
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MK6  
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MK9P  
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## Processing Tools for Metal Ties



MK9SST  
see page 314.



MK9PSST  
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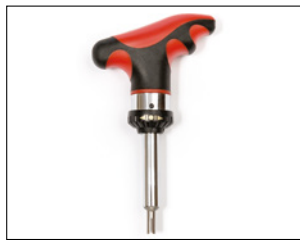
HDT16  
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KST-STG200.  
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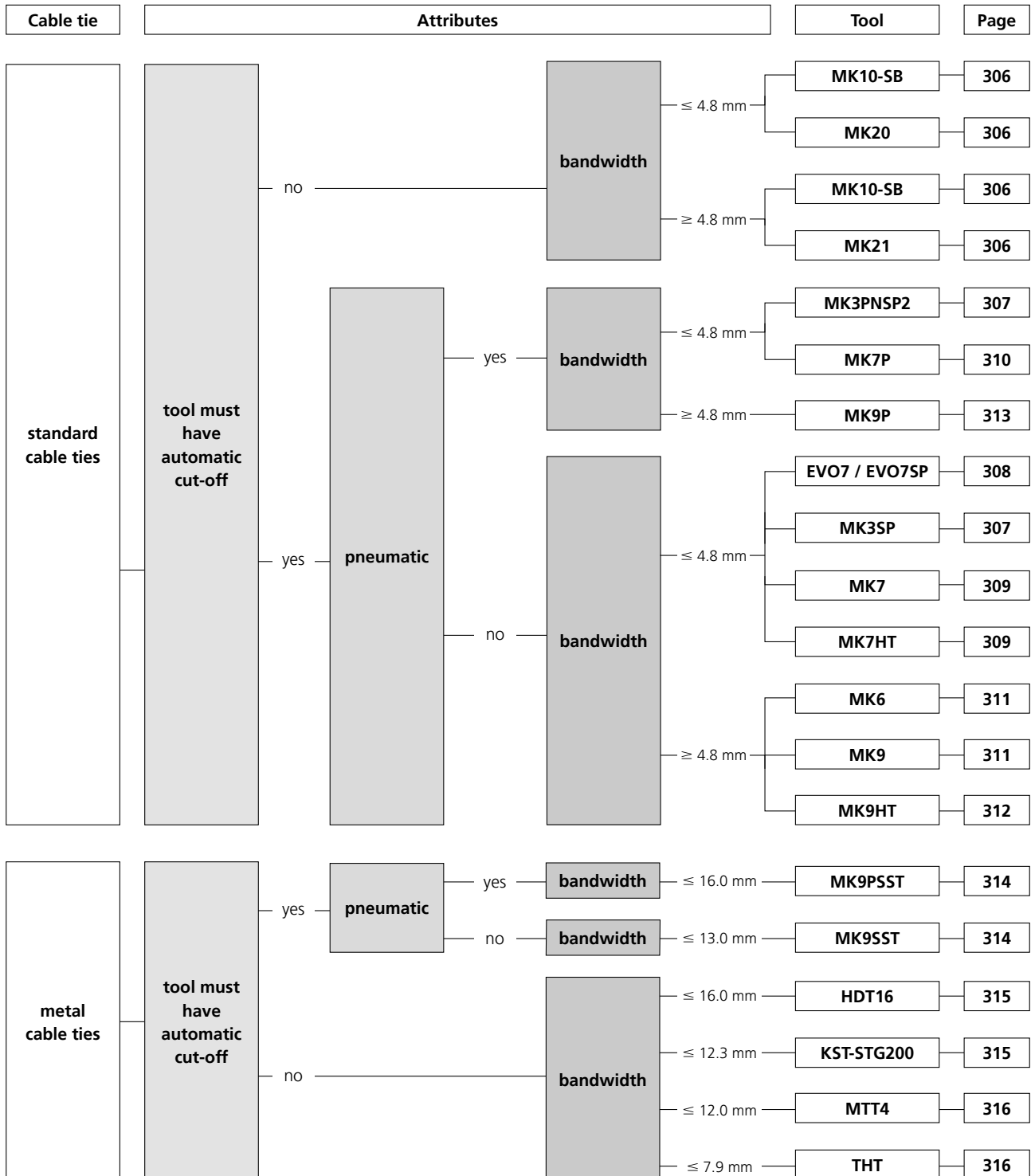


MTT4  
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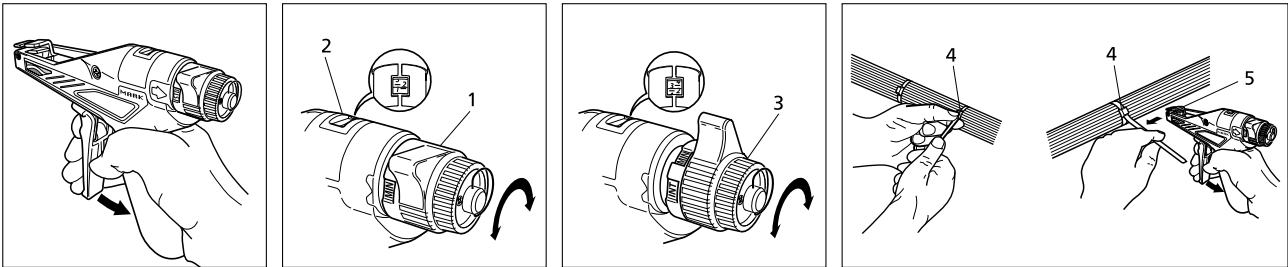
THT  
see page 316.

## Product Selection





### How to use a cable tie tool (using an MK7 as an example)



1. Rough adjustment (1) depending on cable tie, and set according to details in the user instructions. Value is displayed in the viewing window (2).
2. Use fine adjustment (3), if necessary, to set the desired value.
3. Lay cable tie around the bundle and guide strip end through the cable tie head (4). Tighten tie firmly enough that one stroke of the tool is enough to tension and cut off.
4. Push the tool with the open side of the tool head (5) over the free strip end and guide in the direction of the bundle until the tool head butts on the tie head (4).
5. Pull manual lever one or more times to the stop. Once the pre-selected tension is reached, the free tie end is automatically cut off flush with the tie head.

### Tool testing - Determination of tensions

To date, no generally applicable test method has been established on the market. The companies within the HellermannTyton group work with a usual force meter with minimum 10 kHz frequency of data sampling to determine the tensile forces of the tools and to guarantee the quality of the tools.

It is more difficult to test cable tie tools than would appear at first glance. It is of supreme importance to comply with a standardised test procedure and consistent test conditions. This means e.g. the size and thus the cross-section of the cable ties, but also the water content of the tie. A test using different ties and / or different conditioning can easily lead to different values.

In general, the speed of cut-off, the position of the tool with respect to the cable tie, the condition of the wearing parts in the tool and the state of the cable tie play a fundamental role in the determination of tensile forces.

Therefore we must point out that any values we provide must only ever be regarded as guide values for your information. The values cannot be transferred into practice 'one for one'.

In our user instructions, we specify an adjustment range for each type of cable tie. If tension values must be documented or comply with a specification, we recommend that you adjust them with the aid of the force meter. Also, as a guideline, half the minimum holding strength of the cable tie should be used as tensile force.

The minimum tensile strength (also referred to as minimum unlocking strength) is the least force which the cable tie can withstand before it tears or stretches. This strength is determined using a threaded tie, hence the following formula should be used for guidance as to the correct tensile force of the tool:

$$\frac{\text{Min. tensile strength}}{2} = \text{rec. tensile force}$$

**Example:**

$$T50R = \frac{225 \text{ N min. tensile strength}}{2}$$

$$\frac{225 \text{ N}}{2} = 112.5 \text{ N rec. tensile force according to formula}$$

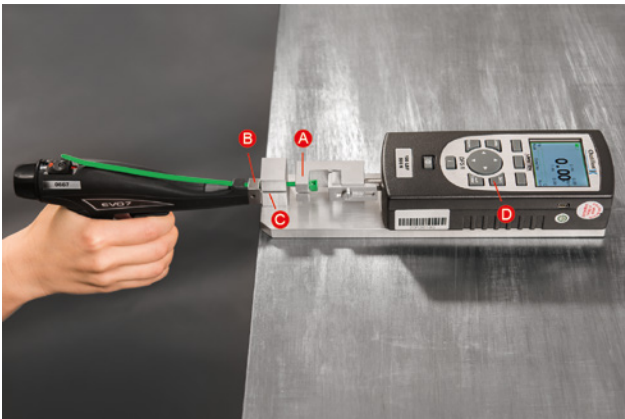
The tensile force can of course be adjusted up or down, in line with the corresponding applicatoin.

Please bear in mind that this statement applies only to HellermannTyton products. Cable ties from other manufacturers may require a higher or lower force setting.

In order to secure the device after it has been adjusted using the force meter against manipulation or unintentional maladjustment, HellermannTyton offers an adjustment safety cap (Art. No.: 110-07200 for MK7, MK7HT, MK7P, MK9, MK9HT, MK9SST, MK9P) which you can push onto the device after removing the adjustment unit (loosening a screw is all it takes to remove).

After a period of time, to be defined, you test the device again and if necessary re-adjust it. The problem of determination of forces depends on the individual case and has no direct connection with the quality of our product. An exact value for each setting (e. g. in Newtons), without stating a tolerance, cannot be confirmed.

### Test set-up with a usual force meter (Chatillon DFS-II) and EVO7 cable tie tool.



The following describes how to check the tension force of a manual tensioning tool.

1. Lay the cable tie (green) into the fixture (A).
2. Bring the nose piece of the tensioning tool (B) flush to the test block (C).
3. Insert the strap of the cable tie into the tensioning tool and pull the strap flush against the fixture (A).
4. Re-set the force meter (D) to zero.
5. Pull the trigger of the tensioning tool continuously until the cable tie is cut.
6. The tension force achieved at the cut off point is determined.

Your contact and our partner for the testing of cable tie tools:

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 E-Mail: Sancar.Eser@ametek.de  
 Website: www.ametek.de



### Manual Tensioning Tool for Cable ties with low profile head

- MK10-SB up to 9.5 mm strap width

#### Features and Benefits

- Ideal for easy handling of entire HellermannTyton RPE and PE-Series
- Tensions and cuts off pre-looped cable ties flush at the head



MK10-SB.

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
MK10-SB	9.5	2.5	0.33 kg	110-10001

All dimensions in mm. Subject to technical changes.

### Manual Tensioning Tool for Cable Ties, simple version

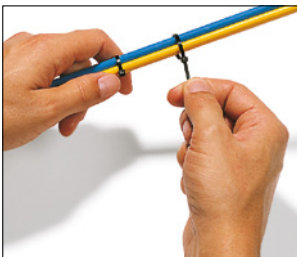
- MK20 up to 4.8 mm strap width
- MK21 up to 7.6 mm strap width

#### Features and Benefits

- Lightweight, ergonomic tools
- For tensioning and cutting HellermannTyton standard cable ties 4.8 - 7.6 mm wide
- MK20 and MK21 ideal for on-site assembly
- Mounted and pre-tensioned ties are cut off by twisting tool



MK20, MK21.



Apply.



Tension.



Twist to cut.

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
MK20	4.8	1.5	0.05 kg	110-20006
MK21	7.6	2.5	0.05 kg	110-21016

All dimensions in mm. Subject to technical changes.



### Manual Tensioning Tool with Metal Housing

- MK3SP up to 4.8 mm strap width

This tough metal tool MK3SP is used by harness makers for the automotive industry and white goods as well as in the aerospace, railway and medical industry.

#### Features and Benefits

- Tough metal tool for HellermannTyton plastic cable ties up to 4.8 mm width
- For consistent tensioning and automatically flush cutting
- Infinitely adjustable tensioning force
- Reliable and low maintenance



MK3SP.

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
MK3SP	4.8	1.5	0.33 kg	110-03500
Replacement Blade	-	-	0.01 kg	110-03524

All dimensions in mm. Subject to technical changes.

### Pneumatic Tensioning Tool with Metal Housing

- MK3PNSP2 up to 4.8 mm strap width

#### Features and Benefits

- Pneumatic tensioning tool
- Tough metal housing
- For cable ties up to 4.8 mm width
- For consistent tensioning and automatically flush cutting
- Infinitely adjustable tension force
- High application speed
- Reliable and low maintenance



MK3PNSP2.

<b>Air Supply</b>	Non oiled / oiled
<b>Air Pressure (min.)</b>	3 Bar
<b>Air Pressure (max.)</b>	6 Bar
<b>Hose Internal Diameter</b>	4.0 mm
<b>L x H x W</b>	approx. 225 x 140 x 40mm
<b>Specifications</b>	CE, GS

**RoHS** ✓

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
MK3PNSP2	4.8	1.5	0.56 kg	110-03400
Compressed-air hose	-	-	0.35 kg	110-30002
Replacement Blade	-	-	0.01 kg	110-30101

All dimensions in mm. Subject to technical changes.



Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.



### Manual Tensioning Tool with Plastic Housing

- EVO7 up to 4.8 mm strap width

#### Features and Benefits

- Ergonomic, slip-proof handle for a comfortable and secure grip
- Extremely low maintenance
- Fast and precise application with minimum effort (TLC mechanism)
- Convenient and simple tension adjustment
- Extended, slim nose for use in narrow spaces
- Housing made of resilient and lightweight glass fibre-reinforced polyester
- Standard grip span (90 mm) and short grip span (80 mm) available



EVO7.

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
EVO7	4.8	1.5	0.275 kg	110-70129
EVO7SP	4.8	1.5	0.275 kg	110-70130
BLADEKIT	-	-	-	110-70106

All dimensions in mm. Subject to technical changes.

### TLC-Technology: Tension - Lock - Cut

The new EVO7 protects muscles and joints and increases effectiveness

- Less recoil shock reduces impact to the operator's hand
- Application of force is significantly reduced



One Step to the Web!

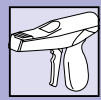


1: Tension: Tie is tensioned as usual.

2: Lock: When the desired tension is met the locking mechanism locks the tie in place.



3: Cut: Innovative, effortless and less recoil shock cut-off function.



### Manual Tensioning Tool with Plastic Housing

- **MK7 up to 4.8 mm strap width**

The MK7 tensioning tool is used by harness makers. Based on the US Military Specification (MIL) and the German Military Specification (VG), the MK7 is also used to apply cable ties in all military vehicles and aircrafts. Other applications can be seen within electrical installation eg. in buildings or production plants.

#### Features and Benefits

- Light glass-fibre-reinforced housing
- Ergonomic design
- For ties up to 4.8 mm width
- Consistent tensioning and automatically flush cutting
- Infinitely adjustable tension force combined with three-step quick adjustment
- MIL and VG approved



MK7.

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
<b>MK7</b>	4.8	1.5	0.29 kg	110-07500
<b>Replacement Blade</b>	-	-	0.01 kg	110-07511
<b>Lock cap tensioning knob</b>	-	-	0.011 kg	110-07200

All dimensions in mm. Subject to technical changes.



Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

### Manual Processing Tool with Plastic Housing

- **MK7HT up to 4.8 mm strap width**

MK7HT application tool is mainly used to apply cable ties in harness making industries.

#### Features and Benefits

- Light glass-fibre-reinforced housing
- Ergonomic design
- For cable ties up to 4.8 mm width
- MK7 HighTension version with higher tension force than MK7
- Consistent tensioning and automatically flush cutting
- Infinitely adjustable tension force combined with three-step quick adjustment



MK7HT.

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
<b>MK7HT</b>	4.8	1.5	0.29 kg	110-07000
<b>Replacement Blade</b>	-	-	0.01 kg	110-07511
<b>Lock cap tensioning knob</b>	-	-	0.011 kg	110-07200

All dimensions in mm. Subject to technical changes.



### Pneumatic Tensioning Tool with Plastic Housing

- MK7P up to 4.8 mm strap width

The MK7P pneumatic bundling tool sets a new benchmark for the rational application of ties in the industrial production process. Improved compressed air supply moves the tensioning piston faster than in comparable tools.

#### Features and Benefits

- Pneumatic tensioning tool
- Light glass-fibre-reinforced housing
- For cable ties up to 4.8 mm width
- For consistent tensioning and automatically flush cutting
- Infinitely adjustable tension force
- High application speed



MK7P.



The easy to use quick-set-knob.

<b>Air Supply</b>	Non oiled / oiled
<b>Air Pressure (min.)</b>	3 Bar
<b>Air Pressure (max.)</b>	6 Bar
<b>Hose Internal Diameter</b>	4.0 mm
<b>L x H x W</b>	approx. 220 x 170 x 40 mm
<b>Specifications</b>	CE, GS

**RoHS** ✓

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
MK7P	4.8	1.5	0.43 kg	110-07100
Compressed-air hose	-	-	0.35 kg	110-30002
Replacement Blade	-	-	0.01 kg	110-07111
Lock cap tensioning knob	-	-	0.011 kg	110-07200

All dimensions in mm. Subject to technical changes.



Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

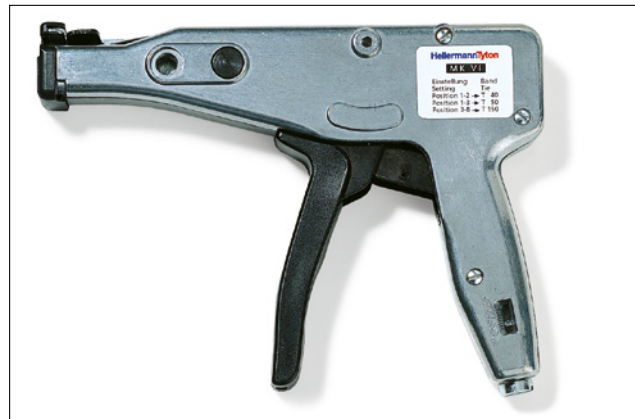


### Manual Tensioning Tool with Metal Housing

- MK6 up to 9.0 mm strap width

#### Features and Benefits

- Tough metal tool
- For cable ties up to 9.0 mm width
- For consistent tensioning and automatically flush cutting
- Infinitely adjustable tension force
- Reliable and low maintenance



MK6.

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
MK6	9.0	2.0	0.52 kg	110-06000
Replacement Blade	-	-	0.01 kg	110-06026

All dimensions in mm. Subject to technical changes.

### Manual Tensioning Tool with Plastic Housing

- MK9 up to 13.5 mm strap width

#### Features and Benefits

- Glass-fibre-reinforced housing
- Ergonomic design
- For HellermannTyton plastic cable ties up to 13.5 mm width
- Consistent tensioning and automatically flush cutting
- Infinitely adjustable tension force combined with two-step quick adjustment
- MIL and VG approved



MK9.

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
MK9	13.5	2.0	0.385 kg	110-09500
Replacement Blade	-	-	0.01 kg	110-09511
Lock cap tensioning knob	-	-	0.011 kg	110-07200

All dimensions in mm. Subject to technical changes.



Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.





### Manual Tensioning Tool with Plastic Housing

- MK9HT up to 13.5 mm strap width

The MK9HT boasts especially high tensioning forces. Ideal for applications where larger cable ties need to be securely fastened, such as in truck and bus construction.

#### Features and Benefits

- Glass-fibre-reinforced housing
- Ergonomic design
- For cable ties up to 13.5 mm width
- MK9 HighTension version with higher tension force than MK9
- Consistent tensioning and automatically flush cutting
- Infinitely adjustable tension force combined with two-step quick adjustment



MK9HT.

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
MK9HT	13.5	2.0	0.385 kg	110-09000
Replacement Blade	-	-	0.01 kg	110-09511
Lock cap tensioning knob	-	-	0.011 kg	110-07200

All dimensions in mm. Subject to technical changes.



### Pneumatic Tensioning Tool with Plastic Housing

- **MK9P up to 13.5 mm strap width**

The MK9P is constructed with heavy duty parts to ensure optimum performance. It is ideally designed to apply heavy-duty ties that are used in vehicle construction like trucks, busses and railways.

#### Features and Benefits

- Pneumatic tensioning tool
- Glass-fibre-reinforced housing
- For cable ties up to 13.5 mm width
- For consistent tensioning and automatically flush cutting
- Infinitely adjustable tension force
- High application speed
- Holding ring for a balancer
- Option of lower or upper air attachment



MK9P



MK9P is also available with upper air attachment.

<b>Air Supply</b>	Non oiled / oiled
<b>Air Pressure (min.)</b>	3 Bar
<b>Air Pressure (max.)</b>	6 Bar
<b>Hose Internal Diameter</b>	4.0 mm
<b>L x H x W</b>	approx. 280 x 200 x 55mm
<b>Specifications</b>	CE, GS



TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Air att. Position	Article-No.
MK9P	13.5	2.5	0.91 kg	Lower air connection	110-09100
	13.5	2.5	0.91 kg	Top air connection	110-09110
Compressed-air hose	-	-	0.35 kg	-	110-30002
Lock cap tensioning knob	-	-	0.011 kg	-	110-07200
Replacement Blade	-	-	0.01 kg	-	110-09111

All dimensions in mm. Subject to technical changes.



Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.



### Manual Tensioning Tool for Metal Ties MBT- and MAT-Series

- MK9SST up to 13.0 mm strap width

#### Features and Benefits

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



MK9SST.

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
MK9SST	13.0	0.3	0.6 kg	110-95000
Replacement Blade	-	-	0.01 kg	110-95011

All dimensions in mm. Subject to technical changes.

### Pneumatic Tensioning Tool with Plastic Housing

- MK9PSST up to 16.0 mm strap width

#### Features and Benefits

- Unique levels of repeatability and accuracy
- High application speed and low maintenance
- Improved compressed air supply for faster tensioning piston movement
- Shorter processing time and greater volume of connecting tie application
- Ergonomic design
- Automatic ejection of cut-off cable tie end
- Ideally designed to apply stainless steel MBT-Series up to 16.0 mm width
- Air pressure between 3 and 6 bar



MK9PSST.

<b>Air Supply</b>	Non oiled / oiled
<b>Air Pressure (min.)</b>	3 Bar
<b>Air Pressure (max.)</b>	6 Bar
<b>Hose Internal Diameter</b>	4.0 mm
<b>L x H x W</b>	approx. 280 x 200 x 55 mm



TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
MK9PSST	16.0	0.7	0.91 kg	110-95350
Replacement Blade	-	-	-	110-95307
Lock cap tensioning knob	-	-	0.011 kg	110-07200

All dimensions in mm. Subject to technical changes.



### Manual Tensioning Tool for Metal Ties MBT- and AMT-Series

- HDT16 up to 16.0 mm strap width

#### Features and Benefits

- Two way nose piece for use with both MBT-Series and AMT-Series stainless steel cable ties
- Easy adjustment of the handles to ensure the most ergonomic position for the operator
- Integrated cutting mechanism delivering a flush cut and professional finish every time
- The ideal tool for achieving a perfect installation of MBT and AMT cable ties



HDT16.

TYPE	Strap Width max. (G)	Article-No.
HDT16	16.0	110-40000

All dimensions in mm. Subject to technical changes.

### Manual Tensioning Tool for Metal Ties MBT- and MAT-Series

- KST-STG200 up to 12.3 mm strap width

#### Features and Benefits

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



KST-STG200.

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
KST-STG200	12.3	0.3	0.561 kg	110-09950

All dimensions in mm. Subject to technical changes.



### Manual Tensioning Tool for Metal Ties MLT-Series

- MTT4 up to 12.0 mm strap width

#### Features and Benefits

- Tough metal tool
- Simple ratchet operation, easy to use
- Operator controlled tensioning and cutting facility



MTT4.

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
MTT4	12.0	0.7	0.78 kg	110-04000

All dimensions in mm. Subject to technical changes.

### Manual Tensioning Tool for Metal Ties

- THT up to 7.9 mm strap width

#### Features and Benefits

- Ergonomic T-Handle design with rubber grip
- Suitable for MBT cable ties (4.6 mm and 7.9 mm)
- Simple tensioning mechanism coils the strap tail quickly without cut off



T-Handle Tensioning tool.

TYPE	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
THT Tool	7.9	1.0	0.145 kg	110-09970

All dimensions in mm. Subject to technical changes.



### Electrical Hot Air Tool

- **H5002 - handy tool**

For applying heat shrinkable products like thin walled shrink tubing and Moulded Shapes.

#### Features and Benefits

- Lightweight and compact hot air tool
- Enables comfortable, fatigue-free work
- Temperature electronically controlled from 100- 600 °C, cold air step of 50 °C
- Air-flow regulation adjusted in two stages (300 l/min and 500 l/min)



H5002 - The light, convenient hot-air tool.

TYPE	Air Flow l/min	Operating Temperature	Standby Temp. °C	Wattage	Operational Voltage	Weight	Article-No.
H5002	300 - 500	+100 °C to +600 °C	50 °C	2,000 W	230 V AC ~ / 230-240 V	0.9 kg	391-50200
Z3 Reflector	-	-	-	-	-	50 g	391-50500
Z4 Wide Slot Nozzle	-	-	-	-	-	50 g	391-50600

Subject to technical changes.

### Electrical Hot Air Tool

- **H5004 - for professional use**

H5004 electrical Hot Air Tool is designed for shrinking down many heat shrinkable products like thin wall tubing, with and without adhesive, End Caps, and Moulded Shapes.

#### Features and Benefits

- Professional hot air gun
- Temperature electronically controlled
- Air flow regulation
- Equipped with LED temperature indication enabling precise temperature adjustment



H5004 - for professional use.



Accessories suitable for both H5002 and H5004.

TYPE	Air Flow l/min	Operating Temperature	Standby Temp. °C	Wattage	Operational Voltage	Weight	Article-No.
H5004	150 - 500	+50 °C to +650 °C	50 °C	2,300 W	230-240V, 50Hz	1.13 kg	391-50400
Z3 Reflector	-	-	-	-	-	50 g	391-50500
Z4 Wide Slot Nozzle	-	-	-	-	-	50 g	391-50600

Subject to technical changes.



### Gas powered Hot Air Tool

- E4500

The E4500 hot-air gun Starter Kit is ideal for working in cramped spaces or where there is no power supply. The Kit includes a E4500 Hot Air Tool with protective spring, gas cartridge P445, Reflector Nozzle Z2 and Flat Nozzle Z3. The Hot Air Tool is suitable for shrinking all types of heat shrink products including tubing, shapes and cable repair sleeves. It can also be used for the bending and shaping of PVC pipes, soft soldering of copper pipes, drying, defrosting (of locks) , heating and paint stripping.

#### Features and Benefits

- Cordless hot air gun works with special gas cartridge
- Does not need any power supply
- Suitable for outdoor use
- Designed for heat shrink tubing, end caps and moulded shapes
- Supplied with protective spring, two nozzles and a gas cartridge
- Allows precise working in any position even in restricted spaces
- Can be operated on its stand for hands free use
- Light weight tool
- Operating time of cartridge: approx. 1.5 hours
- With easy Piezo ignition



One Step to the Web!



E4500-H with heat protecting spring.



Practical hot air gun kit E4500 with accessories.



Gas cartridge P445.

TYPE	Description		Article-No.
E4500	GAS-HEATGUN4500	Hot air gun with protective spring incl. gas cartridge, reflector nozzle Z2 and flat nozzle Z3	391-90002
P445	P445	P445 Refill Gas Cartridge (Methyl Acetylene Propadiene, Butane, Propane)	391-90101
Z2 Deflector Nozzle	Z2	Deflector Nozzle	391-90300
Z3 Reduction Nozzle	Z3	Reduction Nozzle	391-90001

Subject to technical changes.



### Three-Pronged Pliers for Sleeves and Grommets

- NA

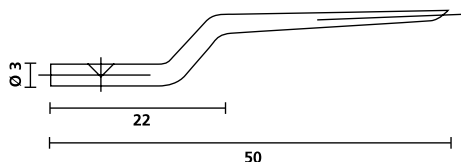
Three-pronged expansion tools are used to ensure speedy and precise application of expandable markers and sleeves.

#### Features and Benefits

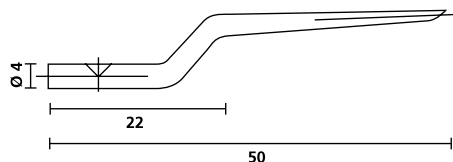
- To easily affix expandable sleeves of every type onto cables/connectors
- Sleeve simply slide onto the prongs
- Push pliers and pull over cable
- Close pliers, sleeve is placed easily
- Hellerine lubricant recommended for easy operation



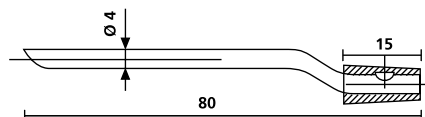
Fast, secure application with the NA three-pronged pliers.



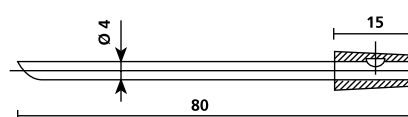
Replacement prong NA0/1



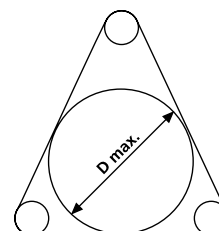
Replacement prong NA1K/3



Replacement prong NA4/5



Replacement prong NA8/10



Three-prong pliers max. application diameter

TYPE	Bundle Ø min.	Bundle Ø max.	Ø D max.	Max. length of marker	Article-No.
NA/01	1.3	1.8	10.5	28	621-10001
NA1K/3	2.5	5.0	11.0	28	621-10103
NA4/5	7.5	10.0	15.5	50	621-10405
NA8/10	12.0	17.0	25.5	60	621-10810
NA/01 PRONG	1.3	1.8	-	28	621-60001
NA1K/3 PRONG	2.5	5.0	-	28	621-60103
NA4/5 PRONG	7.5	10.0	-	50	621-60405
NA8/10 PRONG	12.0	17.0	-	60	621-60810

All dimensions in mm. Subject to technical changes.





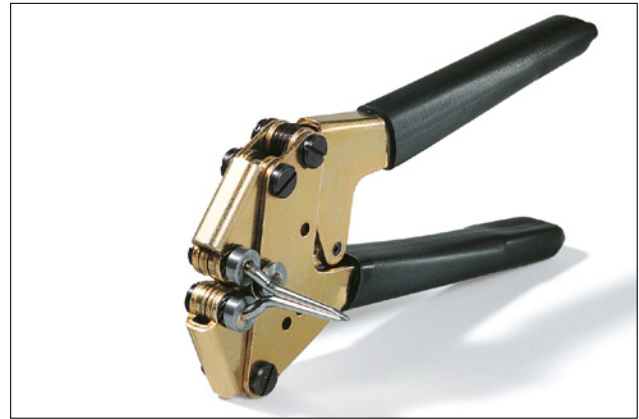
### Three-Pronged for sleeves and Grommets

- VA2,5/5 - Reinforced

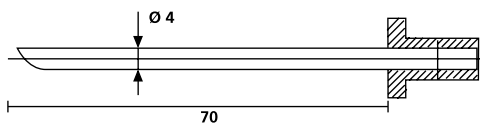
Expansion tools are used to ensure speedy and precise application of expandable markers and sleeves

#### Features and Benefits

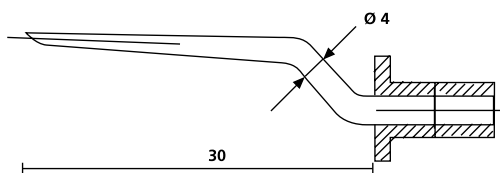
- Suitable for expanding tubing cut lengths and rubber parts
- Withstands high loading
- Set of 3 2.5/5 pins
- Replacement pins available in sizes 8 and 18



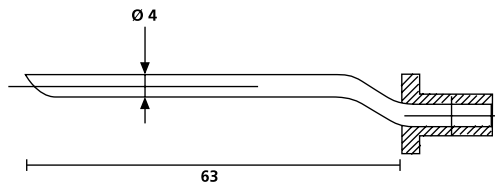
VA2.5/5.



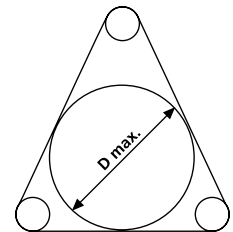
Replacement prong size 18



Replacement prong size 2.5/5



Replacement prong size 8



Three-prong pliers max. application diameter

TYPE	Bundle Ø min.	Bundle Ø max.	Ø D max.	Article-No.
VA2.5/5	2.5	5.0	26.0	621-00200
VA-2.5/5 PRONG	2.5	5.0	26.0	621-01200
VA2.5/5 PRONG 8	8.0	10.0	28.0	621-02200
VA2.5/5 PRONG 18	18.0	20.0	30.0	621-03200

All dimensions in mm. Subject to technical changes.



### Three-Pronged for sleeves and Grommets

- K, S, SS

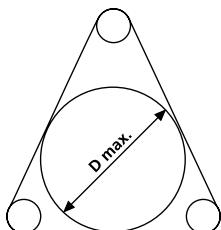
Three-pronged expansion tools are used to ensure speedy and precise application of expandable markers and sleeves.

#### Features and Benefits

- For speedy application of markers and sleeves
- Hellerine lubricant recommended for easy operation
- Handy D kit contains a tool body, a range of prongs and small bottle of Hellerine lubricant.



Fast, secure application with the three-pronged expansion tools.



Three-prong pliers max. application diameter

TYPE	Bundle Ø min.	Bundle Ø max.	Ø D max.	Max. length of marker	Article-No.
D KIT	1.2	11.5	17.0	32	621-80005
K TOOL	5.0	10.0	17.0	32	621-80007
SS TOOL	1.2	2.0	15.0	20	621-80008
S TOOL	2.5	4.0	15.0	20	621-80009

All dimensions in mm. Subject to technical changes.



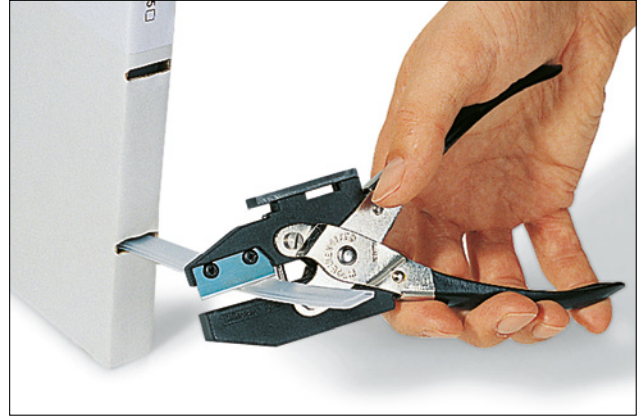
### Helafix Tool

- HCT1 for carrier size HCR09
- HCT2 for carrier size HCR12

HCT1 and HCT2 tools are ideal for cleanly cutting the carrier strip as well as punching out the securing holes. For HCR7, HCR19 and HCR25, the front part of the pliers can be used. To fix the character holders HC and HCR simply use the T18 range of cable ties, fixings or rivets.

#### Features and Benefits

- Cleanly cut Helafix HCR carrier tubing
- Punch securing holes on edges of HCR09 (HCT1) and HCR12 (HCT2)
- Apply punched HCR09 and HCR12 with T18 range of cable ties
- Suitable for punching rivet holes in HCR06, HCR18 and HCR24 tubing
- Punch hole diameter 2.5mm
- Fix with T18 range of cable ties, or suitable rivets



*Any length can be used...*



*...just cut to suit.*

TYPE	For Carrier Width	For Size	Ø D	Article-No.
HCT1	10.0	HCR09	2.5	525-00010
HCT2	13.0	HCR12	2.5	525-00013

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

Manual and pneumatic processing tools.  
The professional way to fasten metal cable ties!

