



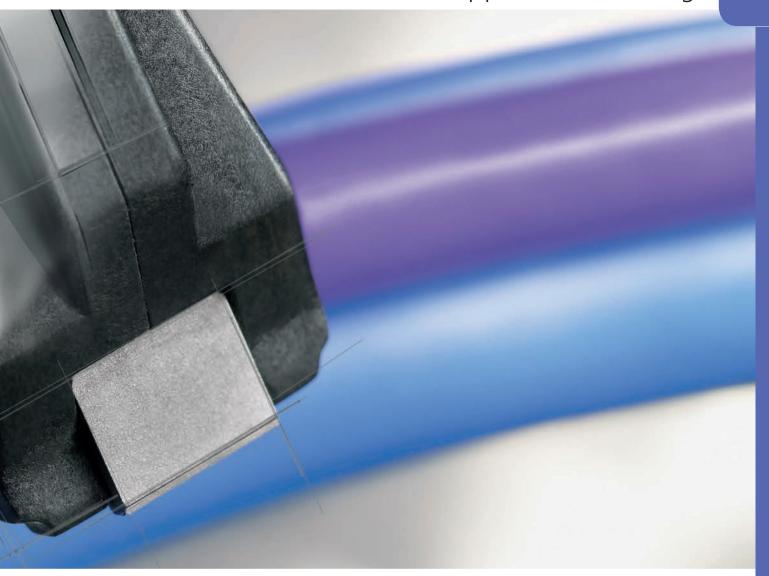


6.1 Automatic Cable Tying System

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6.2 Application Tooling for Cable Ties

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Pneumatic Tensioning Tool Plastic Housing

Manual Cutting Tool for Plastic Ties

CUTties

6.3 Application Tooling for Heat Shrinkable Tubing

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Autotool 2000

The reliability, ergonomics, simple handling and flexibility makes the HellermannTyton Autotool 2000 ideal for the diverse applications where high quantities are required, e.g. in cable assemblies for automotive, brown and white goods industry, electronics, TV and domestics appliances, packaging of bags and the bundling of parts together. The system suits both the high volume use of ties or where flexible production practices are necessary. Overall the Autotool 2000 gives full, flexible and cost effective utilization of labour and maximises efficiency.

With the bench mount kit or the overhead suspender the Autotool 2000 can be used stationary or mobile, depending on the customer's application.

Another opportunity is the integration of AT2000 into a fully automated production line. To do this you would need the control box, which is the interface between AT2000 and your production line.

Features and Benefits

- Electronically operated automatic cable tying system
- Speeds up binding process
- Consistent, high-quality bundling, threading and cutting
- Very easy to use
- Binding speed of 0.8 seconds per cycle
- Handles bandolier of 50 or reels of 3500 cable ties
- Automatic bundling up to 20mm diameter
- Flush cut off
- Adjustable binding force and electronic fault diagnosis

For your assembly line requirements we offer individual solutions.

ТҮРЕ	Article-No.
Autotool 2000	120-00000

Subject to technical changes.



Autotool 2000.

Power Supply	Electrical, with Switching Power Pack
Cycle Time	0.8 sec
Weight	1.2 kg
Tension Force	Continuously adjustable





• Accessories for Autotool 2000

Features and Benefits

- Stationary or mobile with bench mount kit or overhead suspender
- Integration into fully automated production line
- Switching Power Pack Input: 100-230 VAC, 50/60 Hz; Output: 24,5 VDC, max. 150 W
- Switching Power Pack with Control Box needed for fully automated applications
- Bench Mount Kit Tool and tie reel stand including foot pedal
- Overhead Suspender and tie reel stand including balancer
- Stand-off HH20 are used as spacer for an optimal bundling, bundle diameter max. 20 mm, bundle height 25-45 mm



Assembly equipment, band reel, Autotool 2000 in receptacle and switching power pack.

TYPE	Description	Article-No.
Bench Mount Kit	Bench Mount Kit	120-00040
Overhead Suspender	Overhead Suspender	120-00050
HH20	Stand Off HH20	120-00080
Switching Power-Pack	Switching Power Pack	120-00100
Switching Power-Pack with Controlbox	Switching Power Pack with Control Box	120-00110

Subject to technical changes.



Packaging application with the bench mount kit.

• Cable ties for Autotool 2000

The reliability, ergonomics, simple handling and flexibility makes the HellermannTyton Autotool 2000 ideal for diverse applications where high quantities are required, e.g. in cable assemblies for automotive, electronics, TV and domestic appliances, packaging of bags and the bundling of parts together. The system suits both the high volume use of ties or where flexible production practices are necessary. Overall the Autotool 2000 gives full, flexible and cost effective utilization of labour and maximises efficiency.

Features and Benefits

- Entirely plastic and easily recyclable
- Secure hold on bundles
- Bundles up to diameter of 20 mm
- Flush cut-off
- Available in natural and black
- Other colours available on request
- Handles bandoleer of 50 or reels of 3500 cable ties

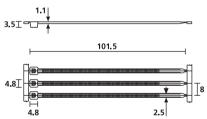


Cable ties for Autotool 2000.

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)	Polyamide 6.6, heat and UV-resistant (PA66HSW)	Polyamide 4.6 (PA46)
Operating Temperature	-40 °C to +105 °C, (+145 °C, 500 h)		-40 °C to +150 °C, (+195 °C, 500 h)
Flammability	UL94 V2		UL94 V2, Limited Fire Hazard, low generation of toxic gases and corrosive acid, low smoke generation



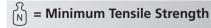




Bandoleer T18RA

TYPE	Bundle Ø max.	S N	Colour	Material	Pack Cont.	Article-No.
T18RA50	20.0	80	Black (BK)	PA66HSW	2000 pcs.	120-40020
T18RA3500	20.0	80	Black (BK)	PA66HSW	3500 pcs.	120-50010
1 18KA3300	20.0	80	Natural (NA)	PA46	3500 pcs.	120-46009
T18RA50	20.0	80	Natural (NA)	PA66HS	2000 pcs.	120-40019
T18RA3500 HS	20.0	80	Natural (NA)	PA66HS	3500 pcs.	120-50009

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





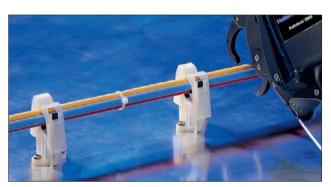
• Bundling Clips for Autotool 2000

Features and Benefits

- Fast solution for installing bundling clips
- Easy to fix with Autotool 2000



Bundling Clip ATS BC FT6LG.



Harness board accessory HH20.

ТҮРЕ	Drawing	Panel Thickness	Hole Ø (FH)	Colour	Material	Article-No.
ATSBCEC35		1.5 - 4.0	-	Black (BK)	PA66HIRHS	102-68355
ATSBCSFT6.5		2.3 - 3.3	6.3 - 6.7	Black (BK)	PA66HIRHS	102-69066
ATSBCSFT6.5-MD		2.0 - 3.0	6.3 - 6.7	Black (BK)	PA66HIRHS	102-69065
ATSBCEC36		1.5 - 4.0	-	Black (BK)	PA66HIRHS	102-68365
ATSBCEC37		1.5 - 4.0	-	Black (BK)	PA66HIRHS	102-68375
ATSBCFT6LG		0.6 - 5.1	6.3 - 7.0	Black (BK)	PA66HIRHS	102-67065

Waste-free bindings for diameters up to 80 mm

• Autotool System 3080

By assembling the ATS3080 into different devices the tool can be customised for various customer applications. For example, with the horizontal bench mount kit plastic bags can be closed in seconds. Also, because of the unique closing mechanism the plastic tie closing the bag can serve as a tamper evident seal and is compatible material for recycling.

For products with special requirements of cable tying e.g. a binding at an exact position, the HellermannTyton development department can design and supply special jigs for the ATS3080.

HellermannTyton developed an innovative solution for harnesses in the Automotive industry. With the ATS3080 it is now possible to fasten fixings, also known as foot parts, at the same time as the automatic binding. This simplifies the final assembly of harnesses, because the pre-assembled harness can be fixed directly to the metal edge or into a hole! This means that you can now produce a complex harness completely automatically.

Features and Benefits

- Electrical bundling system from HellermannTyton
- Every shot absolutely waste free bindings with a flush cut
- No lost time for cleaning or opening waste boxes
- Bundling diameter up to 80mm
- Processes outside serrated Nylon 6.6 strap strap and closures on 'endless reels'
- Outstanding innovation: double play between tool and material
- Usable with overhead dispenser or bench mount system
- Can be integrated into fully automated production line
- Flexible tool especially for Automotive, packaging, white and brown goods industry
- · High-capacity tool
- Short cycle time (0.8 1.3 sec. depends on bundling diameter)
- Jaws available in 3 different diameters: 30, 50, 80mm
- Material available in reels of 500m straps and 5000 pcs closures



Autotool System 3080.

Power Supply	Electrical, with Switching Power Pack
Cycle Time	max. 1.3 sec.
Weight	1.9 kg
Tension Force	Continuously adjustable



For your assembly line requirements we offer individual solutions.

ТҮРЕ	Article-No.
Autotool System 3080	102-00000

Subject to technical changes.





Waste-free bindings for diameters up to 80 mm

• Accessories for Autotool System 3080

Features and Benefits

- For stationary or mobile use of the ATS3080 in bench mount kit or overhead dispenser
- Integrates ATS3080 into a fully automated production line
- Switching Power Pack Input: 230/150 VAC, 50/60 Hz; Output: 48 VDC, max. 50 W
- Bench Mount Kit Tool and tie reel stand including foot pedal
- Overhead dispenser and tie reel stand including balancer



For the stationary installation – the bench mount kit.



Three jaws optimise the cycle time for the different bundling diameters.



Close plastic bags.

ТҮРЕ	Description	Article-No.
Bench Mount Kit Fixed	Bench Mount Kit Fixed	102-00043
Bench Mount Kit movable	Bench Mount Kit Flexible	102-00040
Bench Mount Kit Automatic	Bench Mount Kit for Automation	102-00042
Bench Mount Kit Horizontal	Horizontal Bench Mount Kit	102-00041
Overhead Suspension	Overhead Dispenser	102-00050
Switching Power Pack	Switching Power Pack	102-00100

Subject to technical changes.

Waste-free bindings for diameters up to 80 mm

• Cable ties for Autotool System 3080

For bundling and securing of cables, hoses and pipes or closing of plastic bags. Especially in applications with a large volume, e.g. in cable assembly, automotive, industrial equipment and packaging sector.

Features and Benefits

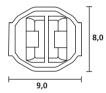
- Innovative strap and closures
- Two-piece consumable
- Waste-free and guaranteed optimised material utilisation
- No time lost for cleaning or opening waste boxes
- Mechanically detected bundle diameter
- Flush cut off of bindings
- Outside serrated strap prevents damage to wire insulation
- Available in reels of 500m strap and 5000 pcs closures



Closures and strap for ATS3080.

MATERIAL	Polyamide 6.6 high impact modified, heat and UV stabilised (PA66HIRHSUV)	Polyamide 6.6, heat and UV stabilised (PA66H-SUV)	
Operating Temperature	-40 °C to +95 °C, (+105 °C, 5000 h)	-40 °C to +105 °C, (+145 °C, 500 h)	
Flammability	UL94 HB	UL94 V2	









TVDE	Bundle Ø	N				
TYPE	max.		Colour	Material	Pack Cont.	Article-No.
Strap Black ATS3080	80.0	225	Black (BK)	PA66HIRHSUV	500 m	102-66110
Closures Black ATS3080	80.0	225	Black (BK)	PA66HSUV	5000 pcs.	102-66210
Strap natural ATS3080	80.0	225	Natural (NA)	PA66HIRHSUV	500 m	102-66109
Closures Natural ATS3080	80.0	225	Natural (NA)	PA66HSUV	5000 pcs.	102-66209

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



Autotool 2000 – automated solutions





Processing Tools for Cable Ties



MK10-SB see page 340.



MK20, MK21 see page 340.



MK3SP see page 341.



MK3PNSP2 see page 341



EVO7 / EVO7SP see page 342.



MK7 see page 343.



МК7НТ see page 343.



МК7Р see page 344.



MK6 see page 345.



MK9 see page 345.



МК9НТ see page 346.



МК9Р see page 347.

Processing Tools for Cable Ties KR-Series



KR6/8 see page 348.



KR8PNSE see page 348.

Processing Tools for Metal Ties



MK9SST see page 349.



MK9PSST see page 349.

Processing Tools for Metal Ties



HDT16 see page 350.



KST-STG200. see page 350.



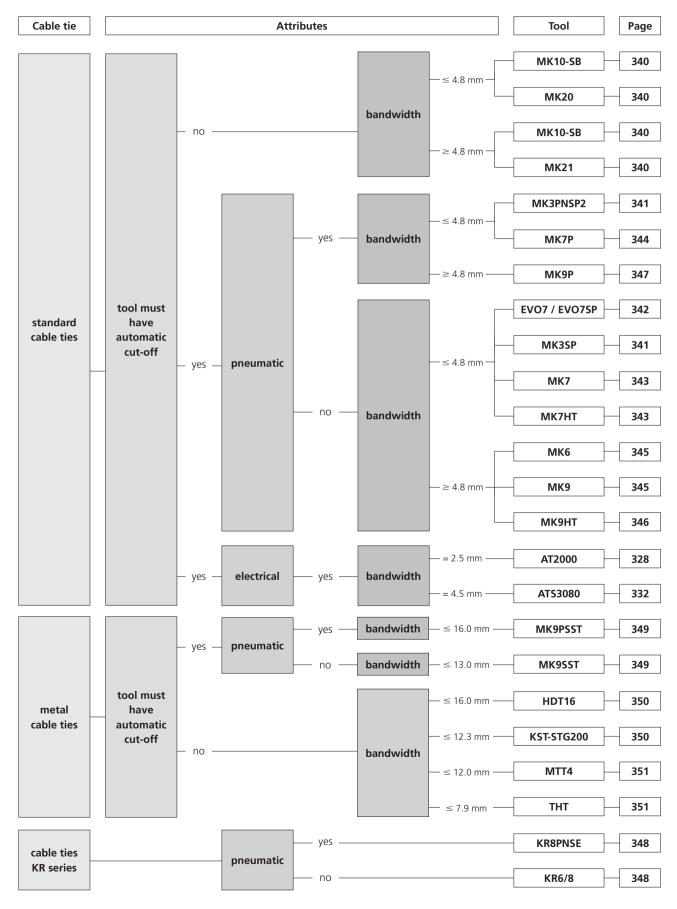
MTT4 see page 351.



THT see page 351.

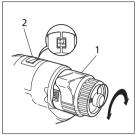


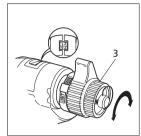
Product Selection

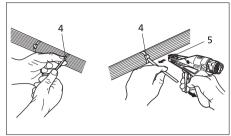


How to use a cable tie tool (using an MK7 as an example)









- 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 buts on the tie head (4).
- 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 quarantee 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:

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

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

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

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

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
- 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
- 6. The tension force achieved at the cut off point is determined.

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

AMETEK GmbH Mr. Sancar Eser Rudolf-Diesel-Straße 16 40670 Meerbusch Germany

Telephone: +49 2159 913684 Fax: +49 2159 9136684

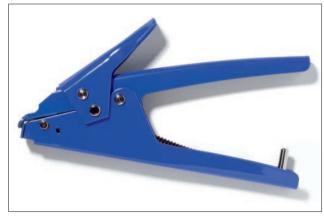
E-Mail: Sancar.Eser@ametek.de Website: www.ametek.de

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.



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



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
- For consistent tensioning and automatically flush cutting
- Infinitely adjustable tensioning force
- Reliable and low maintenance



MK3SP.

ТҮРЕ	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.

Air Supply	non oiled / oiled
Air Pressure (min.)	3 Bar
Air Pressure (max.)	6 Bar
Hose Internal Diameter	4.0 mm
LxHxW	approx. 225 x 140 x 40 mm
Specifications	CE, GS



ТҮРЕ	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.



For product specific approvals and specifications 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	277 g	110-70129
EVO7SP	4.8	-	278 g	110-70130
BLADEKT	-	-	-	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



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.

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

All dimensions in mm. Subject to technical changes.





For product specific approvals and specifications 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



МК7НТ.

	Strap Width	Strap Thickness		
TYPE	max. (G)	max.	Weight	Article-No.
МК7НТ	4.8	1.5	0.29 kg	110-07000
Replacement Blade	-	-	0.01 kg	110-07511
Lock cap tensioning knob	-	-	0.011 kg	110-07200



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



МК7Р.



The easy to use quick-set-knob.

Air Supply	non oiled / oiled	
Air Pressure (min.)	3 Bar	
Air Pressure (max.)	6 Bar	
Hose Internal Diameter	4.0 mm	
LxHxW	approx. 220 x 170 x 40 mm	
Specifications	CE, GS	



	Strap Width	Strap Thickness		
TYPE	max. (G)	max.	Weight	Article-No.
МК7Р	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.



For product specific approvals and specifications 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.

ТҮРЕ	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

MK9 tool is used to apply bigger cable ties as they are used in trucks and busses. MIL and VG certification allows the use of MK9 for military vehicle and aviation construction.

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.

	Strap Width	Strap Thickness		
TYPE	max. (G)	max.	Weight	Article-No.
мк9	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.





For product specific approvals and specifications 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



МК9НТ

ТҮРЕ	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
мк9нт	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

Application Tooling



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



МК9Р.



MK9P is also available with upper air attachment.

Air Supply	non oiled / oiled		
Air Pressure (min.)	3 Bar		
Air Pressure (max.)	6 Bar		
Hose Internal Diameter	4.0 mm		
LxHxW	approx. 280 x 200 x 55 mm		
Specifications	CE, GS		



ТҮРЕ	Strap Width max. (G)	Strap Thickness max.	Weight	Air att. Position	Article-No.
MVOD	13.5	2.5	0.91 kg	lower air connection	110-09100
MK9P	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





Manual Tensioning Tool for KR-Series

• KR6/8

Application tool KR6/8 crimps the glass-fibre-reinforced locking pin of the KR seal and leads to plastic deformation of the tie ends. This produces a very permanent connection.

Features and Benefits

- Tough metal tool
- For applying KR-cable ties only
- For tensioning, fixing and cutting KR-cable ties
- Simply change the front plate to apply two different strap widths: 6 mm and 8mm



KR6/8.

ТҮРЕ	For Ties	Strap Width max. (G)	Weight	Article-No.
KR6/8	KR6, KR8	8.0	0.52 kg	121-00680
Replacement Blade KR6/8	KR6, KR8	-	0.01 kg	122-68019

All dimensions in mm. Subject to technical changes.

Pneumatic Tensioning Tool for KR-Series

KR8PNSE

Application tool KR8PNSE crimps the glass-fibre-reinforced locking pin of the KR seal and leads to plastic deformation of the tie ends. This produces a very permanent connection.

Features and Benefits

- Tough metal tool
- Pneumatic
- For applying KR-cable ties only
- For tensioning, fixing and automatically cutting KR-cable ties
- Tensioning force can be adapted with the air pressure
- Holding ring for a balancer



KR8PNSE.

Air Supply	non oiled / oiled	
Air Pressure (min.)	3 Bar	
Air Pressure (max.)	4 Bar	
Hose Internal Diameter	6.0 mm	
LxHxW	approx. 320 x 210 x 50mm	
Specifications	CE, GS	

RoHS

ТҮРЕ	For Ties	Strap Width max. (G)	Weight	Article-No.
KR8PNSE	KR8	8.0	1.56 kg	121-00889
Replacement Blade	-	-	0.01 kg	122-80032

All dimensions in mm. Subject to technical changes.



For product specific approvals and specifications 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.

ТҮРЕ	Strap Width max. (G)	Strap Thickness max.	Weight	Article-No.
MK9SST	16.0	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.

Air Supply	non oiled / oiled
Air Pressure (min.)	3 Bar
Air Pressure (max.)	6 Bar
Hose Internal Diameter	4.0 mm
LxWxH	280 mm x 55 mm x 200 mm
Dimensions W x H x D 55 mm x 200 mm x	
LxHxW	approx. 280 x 200 x 55 mm



T)/DF	Strap Width	Strap Thickness		
TYPE	max. (G)	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



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)	Strap Thickness max.	Weight	Article-No.
HDT16	16.0	0.4	1 kg	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

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

Manual Cutting tool for plastic ties

CUTties

The CUTties 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. Its use is recommended in many applications for which wires and harnesses have a high added value, in particular for railway and aviation industries.

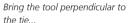
Features and Benefits

- Cutting tool for plastic ties
- Tie can be cut off at any part of the strap
- Ensures the cable isolation from being damaged
- Light-weight aluminium housing, ergonomically designed
- Single-handed operation
- Three tools for cable tie width from 2.3 to 4.8 mm
- Coloured push rods allows their identification



The CUTties is a precise cutting tool for plastic ties.







... apply light pressure...



... press on the button whilst maintaining ... release the button and remove the pressure on the tool... tool, the tie is cut.

TYPE	For Cable Tie Width	Colour	Article-No.
CUTties-1	2.3 - 2.8	Blue (BU), Yellow (YE)	110-05000
CUTties-3	3.3 - 3.8	Blue (BU), Green (GN)	110-05001
CUTtion F	40.49	Plus (PLI) Pod (PD)	110 05002

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 I/min	Operating Temperature	Standby Temp. °C	Wattage	Operational Voltage	Weight	Article-No.
H5002	300 - 500 l/min	+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
- Equiped with LED temperature indication enabeling precise temperature adjustment



H5004 - for professional use.



Accessories suitable for both H5002 and H5004.

TYPE	Air Flow I/min	Operating Temperature	Standby Temp. °C	Wattage	Operational Voltage	Weight	Article-No.
H5004	150 - 500 l/min	+50 °C to +650 °C	50 °C	2300 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.



Processing tool for heat shrinkable products

• ShrinkPad 110

The ShrinkPad110 provides a fast and reliable process for the recovery of thinwalled heat shrinkable products with or without an adhesive liner. The heat process takes place through a direct contact method. The key components are the two specially heated elastic pads, which encapsulate the shrinkable product whilst transferring heat effectively with minimal heat loss. The electrically heated and pneumatically controlled pads can process material to a maximum diameter of 15mm and a maximum length of 110mm.

Features and Benefits

- Processing by direct-contact method with specially heated, elastic pads
- Minimal lost of heat due to direct contact with the shrinking object
- Reduces the shrinking time
- Increased process security in the shrinking process due to a temperature-controlled heat source
- Good integration into automated workflows possible
- · Very high level of job security
- Long life span of the pads



Heat shrink processing tool ShrinkPad 110 - control unit, shrink press unit, power cable and foot switch.





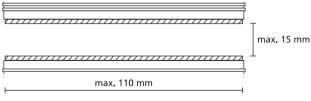
ShrinkPad 110 - for fast and reliable heat shrink processing.

Shrink pad set.



One Step to the Web!

Power Supply	230V AC / 50 Hz
Air Supply	non oiled / oiled
Air Pressure (max.)	6 Bar
Hose Internal Diameter	6.0 mm
Weight	12.5 kg
Operating Temperature	+100 °C to +300 °C
Cycle Time	0.5 to 10 sec.
Operation Type	foot switch
LxHxW	Control unit approx. 205 x 210 x 160 mm, Shrink press unit approx. 140 x 130 x 220 mm, Pad approx. 110 x 7 x 20 mm
Specifications	CE



Shrink pads: Max. processing dimensions



TYPE Description		Carton Quantity	Article-No.	
ShrinkPad 110	Processing tool ShrinkPad 110	1 pcs.	391-30000	
Pad for ShrinkPad 110	Pad for ShrinkPad (Spare part)	2 pcs.	391-30001	

Subject to technical changes.





Snapper Tools

- ASNP2-22 for Snapper Size 2 to 22
- ASNP24-70 for Snapper Size 24 to 70
- MSNP1-70 for Snapper Size 1 to 70

Features and Benefits

- For efficient fixing of the snapper hose clips
- MSNP tool: handy for installation on site
- ASNP tool: suitable for series production. The retaining screw limits the draw-in area and prevents overstretching of the snapper



Snapper Application Tools MSNP1-70 and ASNP24-70.

Pneumatic Tools for snapper hose clips are available on request. Contact us!



Snapper Application Tool ASNP2-22.

TYPE	Weight	Material	Colour	Article-No.
MSNP1-70	0.18 kg	Metal, Plastic	Yellow (YE)	191-01700
ASNP2-22	0.20 kg	Metal, Plastic	Blue (BU)	191-02220
ASNP24-70	0.25 kg	Metal, Plastic	Red (RD)	191-24700