Manual Processing Tools for Cable Ties


MK10-SB


MK20, MK21


MK3SP
see page 127.


MK7
see page 127.


MK7HT
see page 128.


MK6
see page 128.


MK9
see page 129.


MK9HT
see page 129.

Pneumatic Tensioning Tools for Cable Ties


MK3PNSP2
see page 130.


MK7P
see page 131.


MK9P
see page 132.

Processing Tools for Cable Ties KR-Series


KR6/8
see page 133.


KR8PNSE
see page 133.

Application Tool	Registration Numbers
MK3SP	1
MK3PNSP2, MK7P	2
MK7	3
MK7HT	4
MK20	5
MK6	6
MK9P	7
MK9	8
MK9HT	9
MK21	10

For detailed information on Application Tools please refer to page 127.

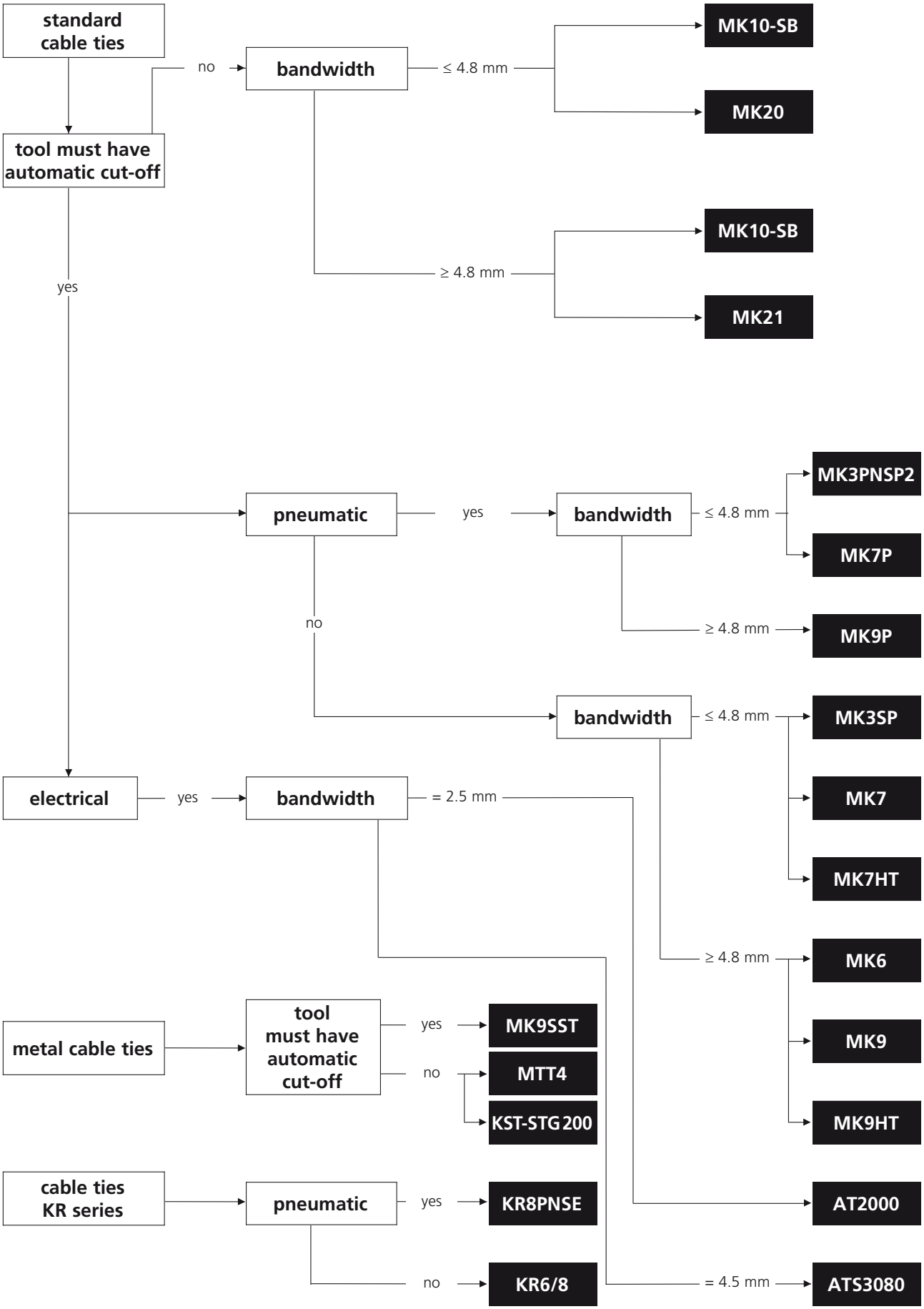
Processing Tools for Metal Ties


MK9SST
see page 134.


MTT4
see page 134.


KST-STG200.
see page 134.

Flowchart for optimum tool selection



Date of issue: Juni 2012

Manual Processing Tool Metal Housing

• MK3SP up to 4.8 mm strap width

This tough metal tool MK3SP for plastic cable ties is used by harness makers for automotive industry and white goods as well as in the aerospace, railway and medical industry. An other range of application is the entire electrical installation i.eg. in buildings or production plants.

Features and Benefits

- Tough metal tool for HellermannTyton plastic cable ties up to 4,8 mm width
- For consistent tensioning and automatically plane cutting of cable ties
- Infinitely adjustable tension force
- Reliable and low maintenance

MK3SP.

Manual Processing Tool Plastic Housing

• MK7 up to 4.8 mm strap width

The MK7 tension tool is used by harness makers. Based on the US Military Specification (MIL) and the German Military Specification (VG) MK7 is also used to apply cable ties in all military vehicles and aircrafts. An other range of application is the entire electrical installation i.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 plane cut of
- Infinitely adjustable tension force combined with three-step quick adjustment
- MIL and VG approved

MK7.

Article-No.	Type	Strap Width max. (G)	Strap Thickness max.	Weight (kg)
110-03500	**MK3SP**	4.8	1.5	0.33
110-03524	**Replacement Blade**	–	–	0.01
110-07500	**MK7**	4.8	1.5	0.29
110-07511	**Replacement Blade**	–	–	0.01

All dimensions in mm. Subject to technical changes.

MIL VG 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 Plastic Housing

• MK7HT up to 4.8 mm strap width

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

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.

Manual Processing Tool Metal Housing

• MK6 up to 9 mm strap width

This tough metal tool MK3SP for plastic cable ties is used by harness makers for automotive industry and white goods as well as in the aerospace, railway and medical industry. An other range of application is the entire electrical installation i.eg. in buildings or production plants.

Features and Benefits

- Tough metal tool
- For cable ties up to 9 mm width
- For consistent tensioning and automatically flush cutting
- Infinitely adjustable tension force
- Reliable and low maintenance

MK6.

Article-No.	Type	Strap Width max. (G)	Strap Thickness max.	Weight (kg)
110-07000	**MK7HT**	4.8	1.5	0.29
110-07511	**Replacement Blade**	–	–	0.01
110-06000	**MK6**	9.0	2.0	0.52
110-06026	**Replacement Blade**	–	–	0.01

All dimensions in mm. Subject to technical changes.

Manual Processing Tool 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 cutting of cable ties
- Infinitely adjustable tension force combined with three-step quick adjustment
- Plane cut of the strap at cable tie head
- MIL and VG approved

MK9.

Manual Processing Tool Plastic Housing

• MK9HT up to 13.5 mm strap width

The MK9HT boasts especially high tensioning forces. Idealy when a very firm sit of bigger cable ties are required like 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.

Article-No.	Type	Strap Width max. (G)	Strap Thickness max.	Weight (kg)
110-09500	**MK9**	13.5	2.0	0.385
110-09000	**MK9HT**	13.5	2.0	0.385
110-09511	**Replacement Blade**	–	–	0.01

All dimensions in mm. Subject to technical changes.

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

Pneumatic Tensioning Tool Metal Housing

• MK3PNSP2 up to 4.8 mm strap width

Powered by compressed air at a pressure of up to 6 bars, the MK3PNSP2 is most beneficial in mass production environments, whether on the assembly line or in cable fabrication.

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**
Air Pressure (max.)	**6**
Hose Internal Diameter	**4.0 mm**
L x H x W	**approx. 225 x 140 x 40 mm**

Article-No.	Type	Strap Width max. (G)	Strap Thickness max.	Weight (kg)
110-03400	**MK3PNSP2**	4.8	1.5	0.56
110-30002	**Air hose, complete**	–	–	0.35
110-30101	**Replacement Blade**	–	–	0.01

All dimensions in mm. Subject to technical changes.

Pneumatic Tensioning Tool 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.

Air Supply	**non oiled / oiled**
Air Pressure (min.)	**3**
Air Pressure (max.)	**6**
Hose Internal Diameter	**4.0 mm**
L x H x W	**220 x 170 x 40 mm**

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

All dimensions in mm. Subject to technical changes.

Pneumatic Tensioning Tool Plastic Housing

• MK9P up to 13.5 mm strap width

The MK9 P is constructed with heavy duty parts to ensure optimum performance. It is ideally designed to apply heavy-duty ties like they 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
- Optional with lower or upper air attachment

MK9P.

MK9P is also available with upper air attachment.

Air Supply	**non oiled / oiled**
Air Pressure (min.)	**3**
Air Pressure (max.)	**6**
Hose Internal Diameter	**4.0 mm**
L x H x W	**approx. 280 x 200 x 55 mm**

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

All dimensions in mm. Subject to technical changes.

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 proof 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.

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

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 proof permanent connection.

Features and Benefits

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

KR8PNSE.

Air Supply	**non oiled / oiled**
Air Pressure (min.)	**3**
Air Pressure (max.)	**4**
Hose Internal Diameter	**6.0 mm**
L x H x W	**approx. 320 x 210 x 50mm**

Article-No.	Type	For Ties	Strap Width max. (G)	Weight (kg)
121-00889	**KR8PNSE**	KR8	8.0	1.56
122-80032	**Replacement Blade**	–	–	0.3

All dimensions in mm. Subject to technical changes.

Manual Processing Tool for Metal Ties MBT- and MAT-Series

• MK9SST up to 13 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.

• 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.

Manual Processing Tool for Metal Ties MLT-Series

• MTT4 up to 12 mm strap width

Features and Benefits

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

MTT4.

Article-No.	Type	Strap Width max. (G)	Strap Thickness max.	Weight (kg)
110-95000	**MK9SST**	13.0	0.25	0.6
110-95011	**Replacement Blade**	–	–	0.01
110-09950	**KST-STG200**	12.3	0.3	0.561
110-04000	**MTT4**	12.0	0.7	0.78

All dimensions in mm. Subject to technical changes.

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 value added, in particular for railway and aviation industries.

Features and Benefits

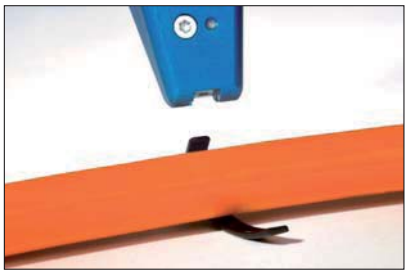
- Cutting tool for plastic ties
- Tie can be cut off at any part of the strap
- Ensures the cable isolation from being damaged
- Light-weighting aluminium housing, ergonomic designed
- Single-handed operation
- Three tools for cable tie width from 2.3 to 4.8 mm
- Coloured push rods allows their identification

The CUTties is a precise cutting tool for plastic ties.

Bring the tool perpendiculary on the tie...

... apply a light pressure...

... press on the push rod by maintaining the pressure on the tool...



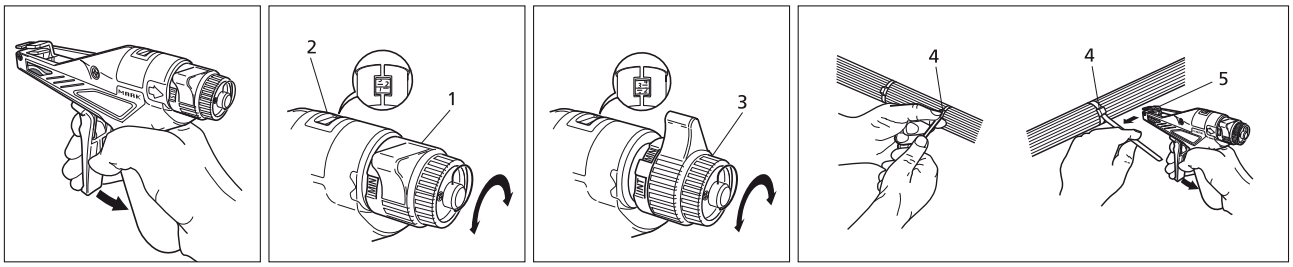
... release the push rod and remove the tool, the tie is cut.

Article-No.	Type	For Cable Tie Width	Colour
110-05000	**CUTties-1**	2.3 - 2.8	Blue (BU), Yellow (YE)
110-05001	**CUTties-3**	3.3 - 3.8	Blue (BU), Green (GN)
110-05002	**CUTties-5**	4.0 - 4.8	Blue (BU), Red (RD)

All dimensions in mm. Subject to technical changes.

How to use a cable tie tool (Example MK7)

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 strap 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).
5. Pull manual lever through 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 the HT50 test device from MAV Prüftechnik (Berlin) 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 MAV device. 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 (see also determination of minimum tensile strength on page 18).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:

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

$$\frac{225\,\text{N}}{2} = 112{,}5\ \text{N}\ \text{ rec. tensile force according to formula}$$