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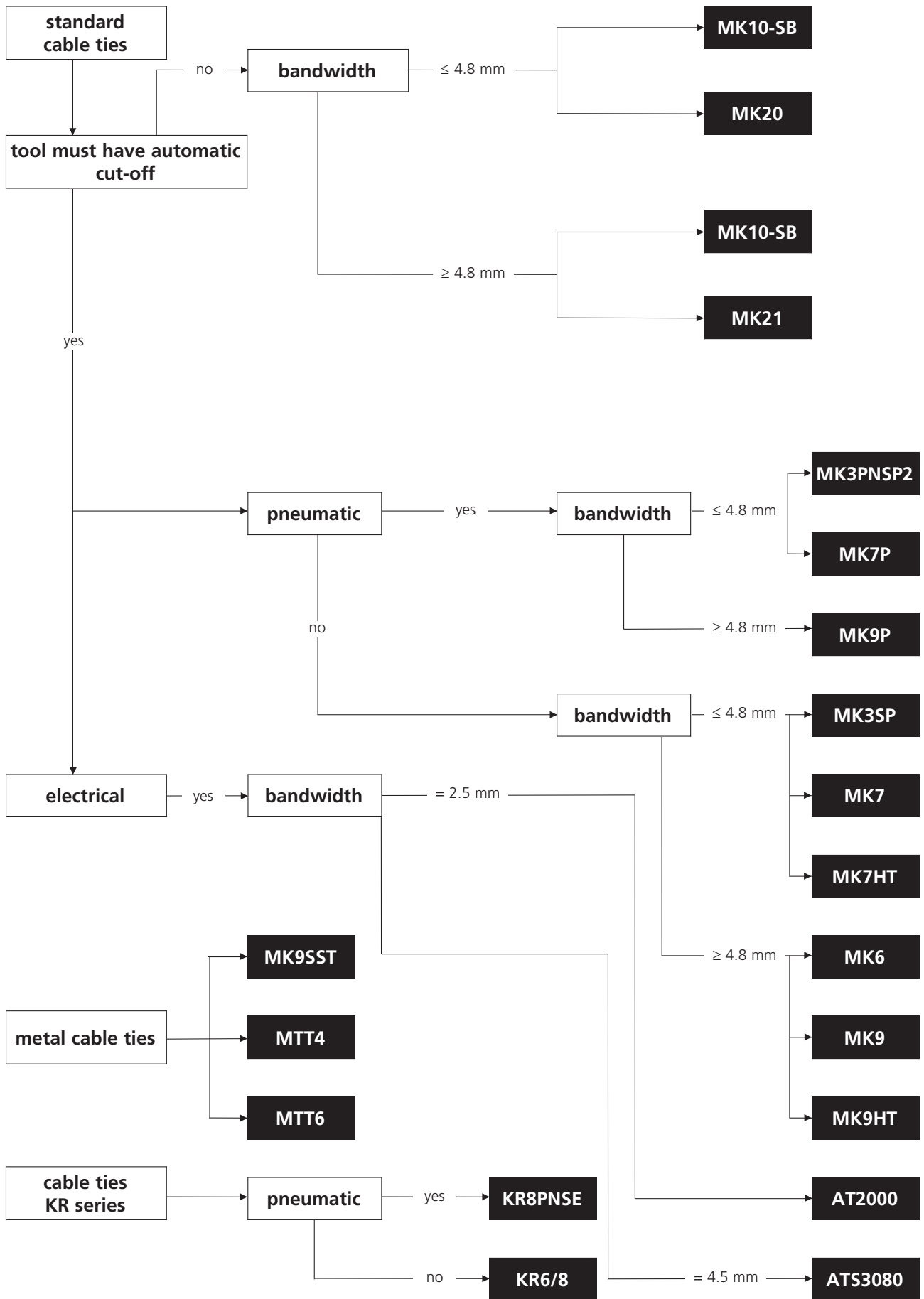
KR6/8
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For detailed information on application tooling please refer to chapter 6.2.

Flowchart for Optimum Tool Selection





Manual Processing Tool for Cable Ties – MK10-SB

The metal MK10-SB tool is ideal for easy handling of the entire HellermannTyton RPE, PE series (Chapter 1.1.). Pre-looped cable ties can be tensioned and cut off flush at the head by pressing the cutting button.



MK10-SB.

Manual Tensioning Tools for Cable Ties – MK20/MK21

These lightweight, ergonomic tools are used for tensioning and cutting HellermannTyton standard cable ties that are between 4.8mm - 7.6mm wide.

With their user friendly design, the MK20 and MK21 are ideal for on-site assembly: Mount and pre-tension the ties by hand and then cut them off by twisting the tool. The cable tie is then cut off flush at the head.



MK20, MK21.



Apply.



Tension.



Twist to cut.

Technical Table

Article-No.	Type	Strap Width max. (G)	Strap Thickness max.	Weight (Kg)
110-10001	MK10-SB	9.5	2.5	0.80
110-20006	MK20	4.8	1.5	0.05
110-21016	MK21	7.6	2.5	0.05

All dimensions in mm. Subject to technical changes.



Manual Processing Tool for Cable Ties – MK3SP

The MK3SP with its ergonomic design can be used anywhere. A tough and extremely low maintenance metal tool with an adjustable preset tension device for tensioning and automatically cutting HellermannTyton cable ties up to a width of 4.8mm.



MK3SP.

Manual Processing Tool for Cable Ties – MK7

The MK7 with its ergonomic design can be used anywhere. The casing is made of glass fibre reinforced polyester making it extraordinarily light. The MK7 is a state of the art tool for applying HellermannTyton cable ties up to a width of 4.8mm.

The MK7 has a three level preset tension device for quick adjustment. Further adjustment is possible within each level. MIL approved.



MK7.



MK7HT

Manual Processing Tool for Cable Ties – MK7HT

The MK7HT is distinguished from the MK7 mainly by its increased tensioning force. It is particularly suitable for applications that require cable ties to be very tightly applied.

Technical Table

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	–	–	–
110-07500	MK7	4.8	1.5	0.29
110-07000	MK7HT	4.8	1.5	0.29
110-07511	Replacement Blade	–	–	–

All dimensions in mm. Subject to technical changes.



Please note! Not every product listed carries these approvals! For Product Specific Approvals please refer to the Appendix.



Manual Processing Tool for Cable Ties – MK9HT

The MK9HT offers high tensioning forces and an ergonomic design. It is suitable for tensioning and cutting HellermannTyton cable ties up to a width of 13.5mm and is the ideal tool for cable ties of the EL-TY series (Chapter 1.2). There are two preset tension levels. Fine adjustment is possible within each level.



MK9HT.

Manual Processing Tool for Cable Ties – MK9

The MK9 for applying HellermannTyton cable ties up to a width of 13.5mm is characterised by its very light weight and ergonomic design. Like the MK7, the housing is made of resilient and light weight glass fibre reinforced polyester.

The MK9 has two preset tension levels and a device for fine adjustment. MIL approved.



MK9.



MK6.

Manual Processing Tool for Cable Ties – MK6

An optimum solution for quickly applying HellermannTyton cable ties up to a width of 9.0mm. This durable metal tool offers simple handling, low maintenance and has a user friendly design. The tensioning force is freely adjustable.

Technical Table				
Article-No.	Type	Strap Width max. (G)	Strap Thickness max.	Weight (Kg)
110-06000	MK6	9.0	2.0	0.52
110-06126	GUNPART.9D	–	–	–
110-09500	MK9.9A	13.5	2.0	0.39
110-09000	MK9HT.9A	13.5	2.0	0.39
110-09511	GUNPART.9AA	–	–	–

All dimensions in mm. Subject to technical changes.



Please note! Not every product listed carries these approvals! For Product Specific Approvals please refer to the Appendix.



Pneumatic Tensioning Tool for Cable Ties – MK3PNSP2

The MK3PNSP2 tensioning tool achieves unique levels of repeatability and accuracy while maintaining a high application speed. One further advantage is its low maintenance handling. Cable ties are cut off flush at the head, thus avoiding any excess tail and ensuring safety in the workplace. The MK3PNSP2 is suitable for applying cable ties with a strap width of up to 4.8mm and strap thickness of 1.5mm (all cable ties in the T18 to T50 series).

It saves application time and is particularly suitable for use in sensitive applications, or in repetitive work such as cable harnessing.

Ergonomically designed, the cutting process is pneumatically activated which helps to prevent repetitive strain injury.

The tensioning force has 125 adjustable settings from 45 to 210N.

Due to its high precision, the MK3PNSP2 is suited for use in applications where quality is critical.

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.



MK3PNSP2.

Material Data	
Air Supply	Non oiled / oiled
Air Pressure (min.)	3 bar
Air Pressure (max.)	6 bar
Hose Internal Diameter	4.0 mm
L x H x W	approx. 225 x 140 x 40mm

Technical Table				
Article-No.	Type	Strap Width max. (G)	Strap Thickness max.	Weight (Kg)
110-03400	MK3SPM.9A	4.8	1.5	0.56
110-30002	Air hose, complete	–	–	–
110-30101	GUNPART.9DC	–	–	–

All dimensions in mm. Subject to technical changes.

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Additional information will be available on request.





Pneumatic Tensioning Tool for Cable Ties – MK7P

The MK7P pneumatic bundling tool sets a new benchmark for the rational application of ties in the industrial production process. Enhanced technology significantly improves the application of cable ties.

Improved compressed air supply moves the tensioning piston faster than in comparable tools. Processing time is shortened and the volume of connecting ties applied is increased. At a time when cost implications are crucial this tool offers genuine potential for rationalisation.

Great attention was paid to ergonomic design in the development of this tool. The moulded handle prevents any slippage and eliminates operator fatigue. The housing is made of glass fibre reinforced plastic, which is a lightweight but very tough material that fully meets the high requirements found in industry today.

Applying the cable ties is remarkably easy: press the button and the cable tie is tensioned and then automatically cut off flush with the head. The smooth edge of the cut prevents injuries.

The cut off end of the tie is ejected automatically. Production breaks normally required to the cut off ties are thus eliminated.

The three level preset control is used to set the tool tension. Fine adjustment is then made with the wheel below the tension control. An optionally available safety cap prevents the tension setting being changed by accident. This is particularly important when bundling sensitive materials and represents an important aspect in maintaining process reliability.

This tool features a non slip, comfortable grip, soft touch trigger, and a one touch tensioning/cut off capability. The MK7P is very lightweight making it very easy for the operator to use on all cable ties from 2.5mm to 4.8mm wide.



MK7P



The easy to use quick-set-knob.

Material Data

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

Technical Table

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	–	–	–
110-07111	Replacement Blade	–	–	–
110-07200	Lock cap tensioning knob	–	–	–

All dimensions in mm. Subject to technical changes.





Pneumatic Tensioning Tool for Cable Ties – MK9P

The MK9 Pneumatic (MK9P) is constructed with heavy duty parts to ensure optimum performance in demanding environments. It is ideally designed to apply heavy-duty ties (T50-T250), clamp and button head ties. Like the MK7P, HellermannTyton's MK9P incorporates the next level of ergonomic improvement with its low weight, comfortable grip and easy trigger depression. Very durable, the pneumatic MK9P features adjustable, easy to read tension settings. Lock-out features are available. The MK9P is available with lower air attachment (standard) or can be ordered with an upper air attachment.



MK9P



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You are missing a common pressured air supply throughout? This tool will work with our newly developed "free2move" system. No pipes or tubes are necessary to run the "free2move" system with this gun, your work is more easy and you are entirely independent to go where you need to be to finish the job. Additional information will be available on request.



MK9P is also available with upper air attachment.

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

Technical Table						
Article-No.	Type	Type	Strap Width max. (G)	Strap Thickness max.	Weight (Kg)	Air att. Position
110-09100	MK9P	MK9PEU.9A	12.7	2.5	0.91	Lower air connection
110-09110	MK9P	MK9PUAEU.9A	12.7	2.5	0.91	Top air connection
110-30002	Compressed-air hose	Air hose, complete	-	-	-	-
110-09111	Replacement Blade	GUNPART.9WX	-	-	-	-
110-07200	Lock cap tensioning knob	-	-	-	-	-

All dimensions in mm. Subject to technical changes.





Manual Processing Tool for Cable Ties – KR6/8

The KR 6/8 tool has been specially developed for reliably applying HellermannTyton cable ties of the KR series (Chapter 1.2). In separate operations the cable tie is tensioned, fixed and then cut off directly at the head. The tool can be quickly adapted to deal with different tie widths (6mm and 8mm) simply by exchanging the front plate.

The glass-fibre-reinforced locking pin of the KR seal is mechanically crimped and leads to plastic deformation of the tie ends. This produces a vibration-proof permanent connection.



KR6/8.

Technical Table

Article-No.	Type	For Ties	Strap Width max. (G)	Weight (Kg)
121-00680	KR6PNA.9A	KR6, KR8	6.0/8.0	0.52
122-68019	GUNPART.9GY	KR6, KR8	–	–

All dimensions in mm. Subject to technical changes.

Pneumatic Tensioning Tool for Cable Ties – KR8PNSE

Specially developed for the processing of HellermannTyton KR series cable ties (Chapter 1.2) with a width of 8.0 mm. The KR8PNSE offers a simple and easy to use tool which is ideal for applications where the volumes are too great for manual tooling.

The KR8PNSE pulls the strap tight, closes the head and cuts off the excess tail – all with a single push of the button.



KR8PNSE.

Material Data

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

Technical Table

Article-No.	Type	For Ties	Strap Width max. (G)	Weight (Kg)
121-00889	KR8PNA.9C	KR8	8.0	1.56
122-80032	GUNPART.9QR	–	–	–

All dimensions in mm. Subject to technical changes.





Manual Processing Tool for Cable Ties – MK9SST

With its lightweight, ergonomic design, the MK9SST is an ideal tool for applying the MBT series stainless steel cable ties (Chapter 1.2). Although it is used for applying stainless steel cable ties, the MK9SST enables work to be carried out without operator fatigue.

For easier handling the tensioning is fully adjustable by means of a quick two level control with an additional fine setting. This feature means that damage to the bundled materials is easily avoided. The cable ties are automatically cut off flush with the head when the preset tensioning level has been reached.



MK9SST.

Manual Processing Tool for Cable Ties – MTT4

- Designed for use with all sizes of MLT stainless steel ties
- Simple ratchet operation
- Operator controlled tensioning and cutting facility
- Lightweight and easy to use



MTT4.

Manual Processing Tool for Cable Ties – MTT6

- Designed for use with all sizes of MAT stainless steel ties
- Operator controlled cutting facility
- Excess tail removed with suitable cutters
- Lightweight and easy to use



MTT6.

Technical Table

Article-No.	Type	Strap Width max. (G)	Strap Thickness max.	Weight (Kg)
110-95000	MK9SST.9A	13.0	0.25	0.48
110-95011	GUNPART.9CU	–	–	–
110-04000	MTT4	12.0	0.7	0.78
110-60000	MTT6	12.0	0.7	0.45

All dimensions in mm. Subject to technical changes.



AMTS
Automated Metal Tying System

Features and Benefits

The Automated Metal Tying System is a quick and simple way to apply strong, high performance metal banding. The System comprises a purpose designed applicator tool together with an electric torque driver and AMTS ties. The ties are in pre-cut lengths with a safe, shaped end at the tip of the tie tail which means no sharp edges. The fastening buckle is already securely fitted and so the band is ready to fit from the pack with no assembly required. Optional protective channel is available for additional protection of cables or pipes where necessary.

Application

The applicator tool used in conjunction with the strap is ideal where "saving time" is a key factor. The high load this tie can withstand, makes it suitable for any heavy-duty job in the Rail, Ministry of Defence, Ship and Offshore industries.

Made from Stainless Steel, the cable tie will cope with fire and arduous conditions.



Easy to use the AMTS noticeably speeds up bundling processes of heavy metal ties.



Shipyard.



The AMTS-Kit consists of the application tool and the driver.

Material Data

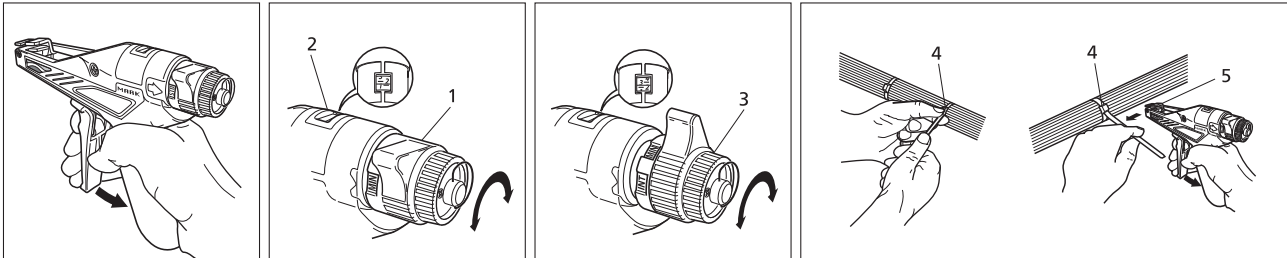
Power Supply	Electric Driver
Cycle Time	30 sec.
Weight (Kg)	1.4
Application	Mobile

Technical Table

Article-No.	Type
104-00044	<p>AMTS2005 Kit consists of:</p> <ul style="list-style-type: none"> • Application Tool • Battery powered driver • Two batteries • Battery charger • Application CD <p>Optional: A holster complete with belt to allow for hands free when initially applying the Application Tool</p>

All dimensions in mm. Subject to technical changes.

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



1. Rough adjustment (1) depending on the type of cable tie, and set according to the 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 so 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 strap end and guide in the direction of the bundle until the tool head butts 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 for this market. The companies within the **HellermannTyton** group work to the HT50 test criteria 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 for example the size and not only 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 result in two 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 can only ever be regarded as guide values for your information. The values cannot be transferred into practice like for like.

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

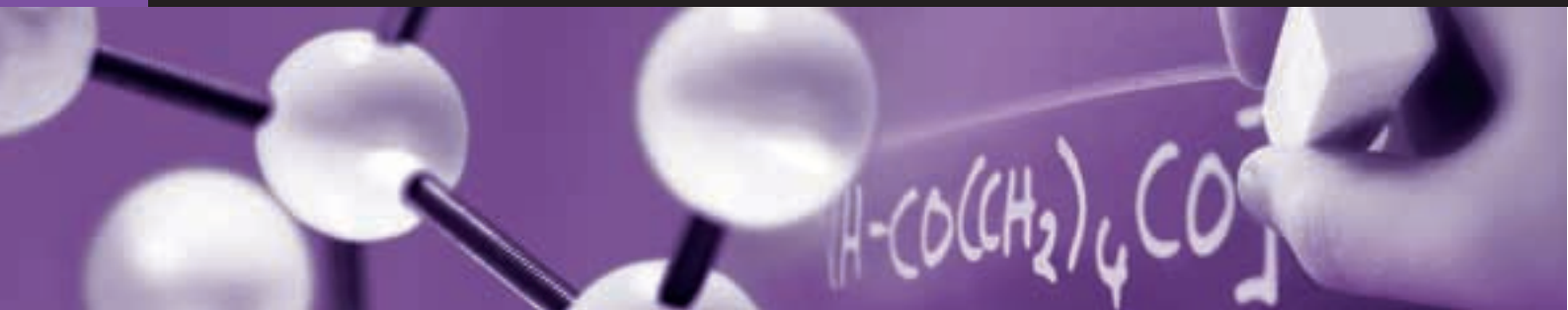
least force which the cable tie can withstand before it tears or stretches (see also determination of minimum tensile strength on page 29). This strength is determined using a threaded tie, hence the following formula should be used for guidance as to the correct tensile force of the tool:

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

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 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 MAV device against manipulation or unintentional maladjustment, **HellermannTyton** offers an adjustment safety cap (Art. No.: 110-07200 for MK7, MK7HT, MK7P, MK9, MK9HT, MK9P) which you can push onto the device after removing the adjustment unit (loosening a screw is all it takes to remove).

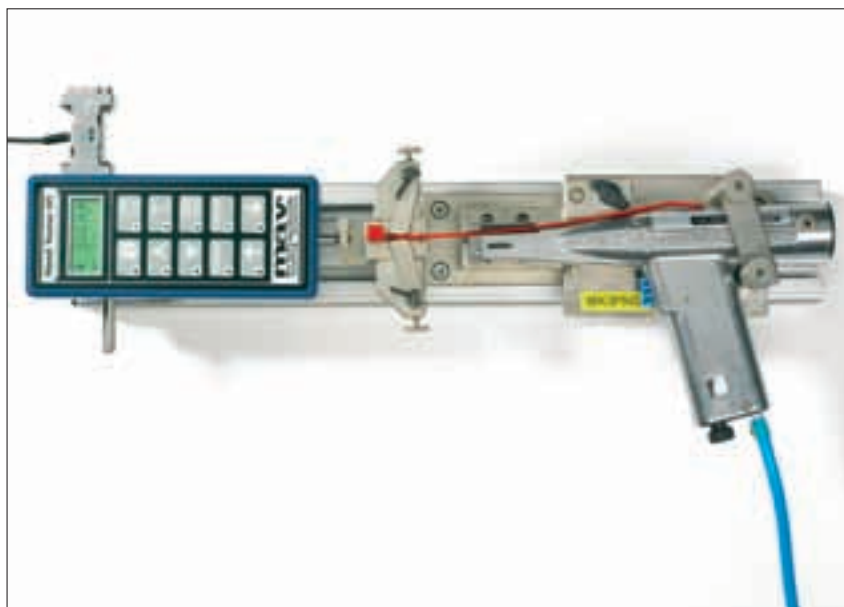
After a period of time, to be defined, you test the device again and if necessary re-adjust it. The problem of determination of forces depends on the individual case and has no direct connection with the quality of our product. An exact value for each setting (e.g. in Newtons), without stating a tolerance,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

Test set-up with MAV HT50 device and cable tie tool MK3PNSP2

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

MAV Prüftechnik GmbH
Dr. Turowsky
Sanderstraße 28
12047 Berlin
Germany

Telephone: +49 30/6 93 10 53
Fax: +49 30/6 93 10 69
E-mail: MAV.GmbH@t-online.de
Website: www.MAV-Germany.de



The MK3PNSP2 is fixed onto the rail using an adapter. The cable tie (red) is clamped into the jaw. The tool tightens the cable tie. The tension achieved at cut off is determined. The tool could only be adjusted with the aid of several tests such that a specified value is attained. This could for example be the value calculated previously using the guidance formula.