

Order from Allstrap 866-779-2673

Instruction manual



PKE

228 000100

**Pneumatic strapping tool
for steel strap**

Important!

Do not dispose of this manual. It is the customer's responsibility to ensure that all operators and servicemen read and understand this manual.

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2. General

**Many thanks for your confidence in the technology of
TITAN Umreifungstechnik GmbH & Co. KG**

These operating instructions are meant to facilitate the familiarization with the unit **PKE** and the intended use. The operating instructions contain important instructions on how the unit can be operated safely, as intended and economically. Following the instructions helps avoid risks, reduce repair works and downtimes and increases the reliability and life of the unit.

These operating instructions must be available at the place where the unit is operated. They must be read and applied by all persons working with the unit. Such works especially include operation, troubleshooting and maintenance.

Apart from the operating instructions and the regulations for the prevention of accidents being applicable in the country where the unit is operated and on site the recognized technical rules for safety-related and competent works have to be observed.

Explanatory notes on the warning and instruction symbols:



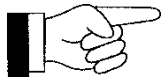
Caution!

Used to indicate danger to life and limb.



Attention!

Used to indicate danger that can result in material damage.



Notice!

Used to indicate general information and information which if ignored can cause disruptions in operation.

The manufacturer reserves the right to make changes to the scope of delivery at any time for the purpose of improving the product.

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1.1. Intended use

- ⊘ **Proper use of this pneumatic tool** includes bundling, collecting and securing by means of strapping using steel straps. Packed goods such as section steel, packages of stone, paper, timber, etc. are suitable application examples. The tool is designed and manufactured for safe handling during the strapping operation.

This tool is intended for strapping with steel strap material.

- ⊘ **Unintended use!**

Strapping material must not be used for the hoisting of loads, this strapping tool may only be used as intended and specified above.

The use of plastic straps is not allowed with this device.

- ⊘ The **PKE** combines modern No-Seal-Joint technology with the advantages power-saving pneumatics.
- ⊘ The **PKE** is based on the tried and tested **HKE** manual strapping tool with the specially patented locking mechanism developed by **TITAN**. It reduces the force required and compared to conventional tools, prolongs the service life of those parts which are subjected to mechanical stress.
- ⊘ It has a suspension facility that is capable of latching and which makes weightless strapping possible at three different levels.
- ⊘ The standard **TITAN** strapping tool is supplied with a notch for stopping the compressed air motor. For safety reasons the **PKE** is also available with a free-wheeling mechanism which maintains the strap tension instead of a notch.
- ⊘ The **TITAN PKE** strapping tool satisfies German and European safety requirements and complies with the provisions of the following EU Guidelines: see Declaration of conformity of the machinery.
- ⊘ **Standards applied and technical specifications:**
see Declaration of conformity of the machinery.








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1.2. Warranty & liability

TITAN Umreifungstechnik GmbH & Co. KG guarantees all strapping tools sold by the company for a period of 6 months. The warranty covers all defects that can be demonstrated to result from faulty craftsmanship or defective materials.

Wear parts are excluded from the warranty.

Warranty and liability claims shall be excluded if they are due to one or more of the following causes:

-  Misuse of the tool.
-  Incorrect assembly, commissioning, operation and maintenance of the tool.
-  Operation of the tool with improper safety and protective devices.
-  Failure to comply with the information in the operating manual.
-  Unauthorized structural modifications to the tool.
-  Insufficient monitoring of tool parts that are subject to wear.
-  Improper repairs.

2.3. Environmental protection notice



No hazardous physical or chemical substances are used in the manufacture of the devices. Comply with the applicable regulations for disposal.

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3. Safety regulations

Failure to comply with the following safety instructions, in addition to errors in handling the device, can result in serious injuries.



Be informed!

Read the operating manual carefully before using the device.



Caution: Danger of crushing!

Do not insert fingers into the pulley area.



Protect yourself!

Always wear eye, face and hand protection (cut-resistance gloves) when working.



Caution:

Strap only objects to be packed!

Make sure that no hands or other body parts are between the strap and the goods to be packaged.



Attention: Strap can break!

The strap can break during tightening! Do not stand in the path of the strap. Make sure that no one else is in the working area.



Attention: Strap flies outward!

When cutting the strap, hold the top part firmly and stand to the side.

Attention: The lower part of the strap will fly outward.



Use only lifting gear that complies with the safety regulations!



Use original connection

couplings! Use only connection couplings that comply with the safety regulations.



Use only original TITAN replacement parts!

The use of other than original TITAN replacement parts will void the warranty and all liability.



Do not exceed air pressure!

Never exceed the max. permissible air pressure of 6 bar.



Do not use gas or compressed air cylinders!

Do not connect the tool to a gas or compressed air cylinder.

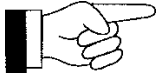


The use of straps other than recommended can result in broken straps during the tightening process and insufficient strapping. **Use only corresponding quality products from TITAN!**



This tool may be operated only by personnel who have been trained accordingly. Please consult your **TITAN packaging consultant** if you have any questions about this.

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Workplace!

Always maintain an orderly workplace. A disorderly workplace can cause accidents. When operating the crimper, make sure that you're in a well-braced position in order to maintain optimum balance and prevent the risk of falling. Never operate the tool in an awkward working position!



Maintenance!

In order to operate safely, the tool must be properly maintained. Check the condition of your tool regularly for defects or worn parts. Never use a tool that has defects or worn parts. Modifications to the tool are strictly prohibited. Failure to comply with this regulation can result in serious injury.

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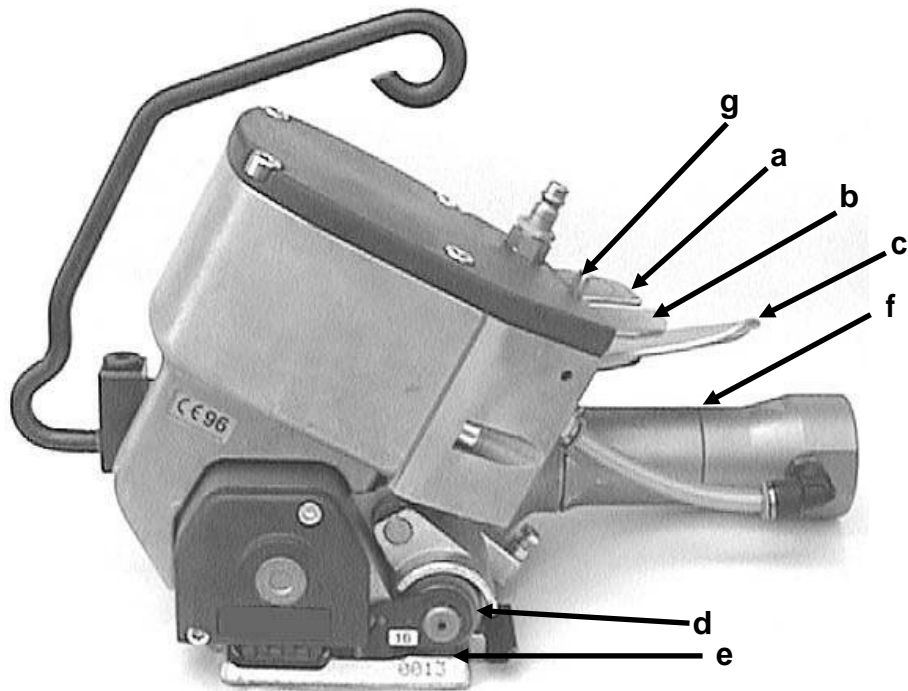
4. Technical data

- ⓘ **Joint:** No-seal-joint
- ⓘ **Tensioning strength:** max. 7,000 N
- ⓘ **Feed speed:** 150 mm/s
- ⓘ **Weight:** 11.5 kg
- ⓘ **Dimension:** L = 390 mm
W = 150 mm
H = 230 mm
H = 270 mm (with suspension bracket)
- ⓘ **Operating pressure:** max. 6 bar flow pressure
min. 5 bar flow pressure for 19 x 0.63 mm
Megaband
- ⓘ **Air consumption:** 0,6 m³/min

| Steel strap for strap width 13, 16, 19 mm | Standard quality (Automaten- and Megaflex Band) | High quality (Megaband®) |
|--|---|-----------------------------|
| Strap thickness | 0.5 – 0.8 mm | 0.5 – 0.63 mm |
| Surfaces | Blue, lacquered, zinc-dust coated | |

- ⓘ **Noise level:** 78 dB(A)
- ⓘ **Vibration:** < 2,5 m/s²
- ⓘ **Suspension bracket:** capable of being latched in 3 positions

5. Configuration



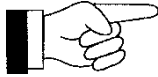
- a** = Push-button "Tension strap"
- b** = Push-button "Joint"
- c** = Lifting lever
- d** = Feed wheel

- e** = Gripper plate
- f** = Compressed air motor
- g** = Notch

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6. Commissioning

Connect the **PKE** manual tool to the compressed air supply by means of the quick-action coupling mechanism which is supplied. Maximum air pressure (see technical data).



Important: This tool may only be operated together with compressed air maintenance unit consisting of a pressure reducer, water separator and lubricator. It cleans the compressed air, removes condensation and constantly supplies the motor with the required quantity of oil.

The lubricator is adjusted at the top by means of a screwdriver in such a way that a drop of oil falls into the sight glass for each strapping. Rotation in a clockwise direction should result in less oil and in the opposite direction more.

Maximum hose length between the maintenance unit and the strapping tool: **5m**.



In no case it is allowed to run the tool without oil being in the lubricator of the maintenance unit, as this would immediately destroy the compressed air motor!

No warranty in that case!

The compressed air motor may be driven during the entire operation with filtered and lubricated compressed air. In terms of quantity approximately 3-5 drops are required per 1m³ air; this corresponds to 0.12-0.2 g/m³.

Unalloyed mineral oil should be primarily used as lubricating oil. It should have a low viscosity and be free of resin and acids. A viscosity of 2-4° E at 50° (12-30cSt) has been proven to be suitable. Permissible motor temperatures are from +5°C to +35°C.

However, for ambient temperatures around +5°C there is a risk of icing.

In this case it is recommended that dry air or corresponding lubricants which are resistant to icing be used (e.g. "Killfrost Anti-Eis").

Caution! Wear respiratory equipment when antifreeze agents are used.

The following oils may use:

| | | | | | |
|-------------|-----------|-----------------|--------------|------------|-----------------|
| ESSO | D 32 | -10° up to +30° | MOBIL | Almo 525 | -20° up to +20° |
| | D 100 | +25° up to +55° | | Almo 527 | 0° up to +30° |
| | CL 320 | +45° up to +75° | | Almo 528 | above +15° |
| DEA | Aries 32 | -25° up to +20° | SHELL | Tonna R32 | -10° up to +30° |
| | Aries 100 | 0° up to +50° | | Tonna R100 | +25° up to +55° |

The tool may be put into operation after connection to the compressed air supply and the maintenance unit is adjusted.

7. Operating

1. Place **TITAN** steel strap around the packing unit from above.



2. Pull strap end through until it is located in the middle of the packing unit below the upper strap and projects a hand span.



3. Hold both of the precisely overlapping straps firmly using your left hand. Using your right hand take hold of the lifting lever **(c)** and compressed air motor **(f)** and press together. Push both straps laterally along the housing wall into the tool as far as possible. A bit of the lower strap has to project out of the front of the tool. Release the lever **(c)** and motor **(f)**.



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4. Use your right thumb to press the „tension strap“key button **(a)** until it engages the notch **(g)** (the compressed air motor Stops if the notch released) For **PKE** tools having built-in-free-wheeling mechanisms the “tension strap” key button **(a)** should be pressed until the desired strap tension has been achieved.



5. If the strap tension required has been achieved then the, joint “key button **(b)** is pressed until the lock has been formed and the strap is audibly cut off behind the joint.



6. Take hold of strap end that is cut off with your left hand, press the air lever **(c)** and the compressed air motor **(f)** together using your right hand und swing the tool to the right out of the strapping.

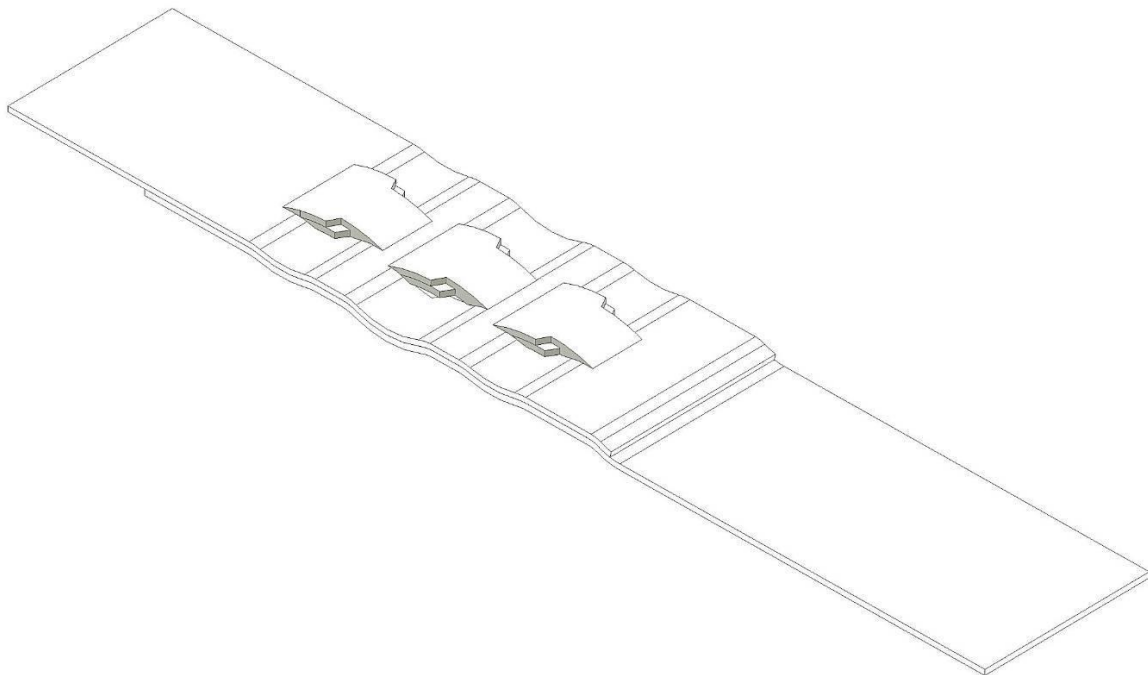


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The following picture shows a correctly carved seal.

Check the seals regular:

- ⊘ for even carved cuttings,
- ⊘ for neat cutting edges,
- ⊘ for that the lower run of strap is soaked in the cuttings,
- ⊘ for correct adjustment of the cutter,
- ⊘ for a sufficient overlap of the lower run of strap and
- ⊘ for that the seal is placed in the centre of the strap.



8. Adjustments

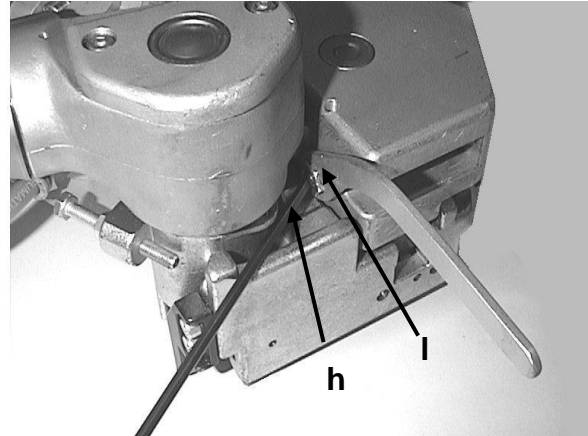
8.1. Cutter adjustment

The cutter has to be adjusted for the respective thickness in the case of varying strap thickness.

Unscrew the lock nut **(l)** at the back of the tool, turn stop screw **(h)** with an Allen key,

clockwise = less cutting depth

counter clockwise = greater cutting depth



Fasten lock nut **(l)** using spanner after adjustment has been completed.

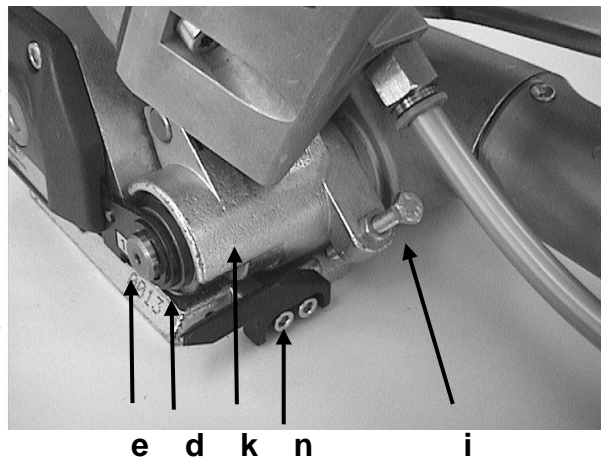


Note! After adjusting there should not be any, or very few, signs of cutting on the lower strap.

8.2. Distance between the feed wheel and the gripper plate

The distance between the feed wheel **(d)** and the gripper plate **(c)** is adjusted to **0.2 mm**. The adjusting screw **(i)** is located on the lock nut of the transport rocker **(k)**. Unscrew the lock nut using the 10 mm open-jawed spanner and adjust a **(i)** 0.2 mm gap at the adjusting screw.

Fasten lock nut after adjustment has been completed.



Note! The feed wheel and the gripper plate may not come into contact with each other, otherwise both parts will be subject to premature wear.

8.3. Adjusting strap width

The strap guide (**m**) located next to the feed wheel is replaced when the strap width is modified. In order to do so the safety ring has to be removed by means of a screwdriver and the air lever (**c**) and the compressed air motor (**f**) pressed together. The strap guide may now be pulled off toward the front and be replaced with the strap guide for other strap widths. Replace safety ring afterwards.

Strap width 13 mm order no. 2280001-500

Strap width 16 mm order no. 2280001-501

Strap width 19 mm order no. 2280001-502

Since the strap is guided at three points in the tool the back-strap guide (**n**) and the adjusting screw (**o**) also have to be set in such a way that the punching is placed at the center of the strapping strap.

In order to do this, loosen the two fastening screws from the rear strap guide (**n**) (see also figure 8.2) and adjust the desired strap width.

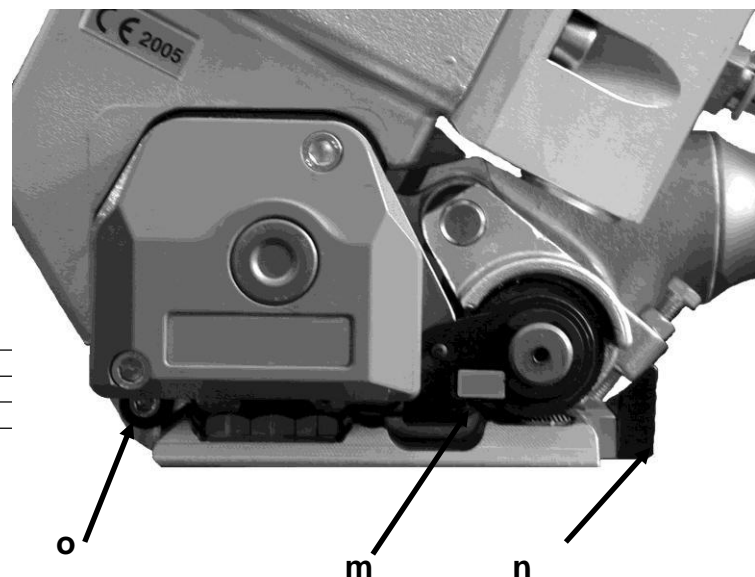
(Left → 13mm; Middle → 16mm; Right → 19mm).

Tighten lock nut and fasten screws after adjustment has been completed. Then loosen the cheese-head-screw at the front strap guide (**o**) and place the right number of disks (Pos. 78) DIN 125 – 6.4 under the strap guide.

(2 Discs → 13mm; 1 Disc → 16mm; without disc → 19mm).





Tighten cheese-head-screw after finishing.

| Strap width | Discs (Pos.78) |
|-------------|----------------|
| 13 mm | 2 Stück |
| 16 mm | 1 Stück |
| 19 mm | 0 Stück |



9. Maintenance & cleaning

Soil and debris hamper the proper functioning of the tool. For this reason, the following areas should be cleaned once a week (blow off using compressed air if possible):

-  Insertion slot
-  Cavities between the upper and lower knives
-  Tensioning wheel
-  Gripper plate

Lubricate with fine conventional spray oil afterwards.



For health reasons please do not use any cleaning agents, which contain solvents!

Tool inspection!

Perform a **daily** visual inspection of the outside of the unit. The early detection of damaged parts extends the life of the unit. Replace all damaged parts **immediately** with Original TITAN spare parts.

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10. Declaration of conformity of the machinery

EC declaration of conformity of the machinery

in terms of the directive 2006/42/EC on machinery, Annex II A

The manufacturer

TITAN Umreifungstechnik GmbH & Co.KG
Berliner Straße 51-55
58332 Schwelm

herewith declares that the pneumatic strapping tool for steel strap described below

Type designation: PKE
Serial number: 228 000100

corresponds to the provisions of the following EC directive:

Machine directions 2006/42/EG

Used harmonised standards, published in the official journal of the EU:

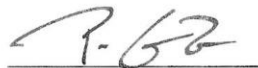
- EN ISO 12100-1: 2004*, Safety of machinery – Basic concepts, general principles for design - Part 1: Basic terminology, methodology
- EN ISO 12100-2: 2004*, Safety of machinery – Basic concepts, general principles for design - Part 2: Technical principles and specifications
- EN 1010-1:2005* Safety of machinery – Safety requirements for the design and construction of printing and paper processing machines - Part 1: General requirements (Final concept 02/2003)
- EN 1010-3: 2002*, Safety of machinery - Safety requirements for the design and construction of printing and paper processing machines - Part 3: Cutting machines

A non-approved modification of the machinery implicates the loss of validity of this declaration.

Authorized representative for the compilation of the technical documentation:

TITAN Umreifungstechnik GmbH & Co. KG
Berliner Strasse 51-55
58332 Schwelm

Schwelm, the 26.01.2010



Peter Wilhelm Lenzen jr.
President

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