

Operator's manual



TruTool TKF 700 (1A1)

english



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Warranty

Replacement parts list

Addresses

1. Safety

- USA/CAN** ➤ Read the Operator's Manual and the general safety rules (Material number 1239438, red document) in their entirety before starting up the machine. Follow precisely the directions contained therein.

- Rest of the world** ➤ Read the Operator's Manual and the safety instructions (Material number 125699, red document) in their entirety before starting up the machine. Follow precisely the directions contained therein.
- The safety regulations according to DIN VDE, CEE, AFNOR and other regulations which are valid in individual countries should be adhered to.



Lethal danger due to electric shock!

- Remove the plug from the plug socket before undertaking any maintenance work on the machine.
 - Check the plug, the cable and the machine for damage each time before the appliance is used.
 - Keep the machine dry and do not operate in damp rooms.
 - When using the electric tool outside, connect the fault current (FI) protective switch with a maximum breaking current of 30 mA.
-



Danger of injury possible due to improper handling!

- When working with the machine, wear safety glasses, hearing protection, protective gloves and work shoes.
 - Do not plug in the plug unless the machine has been switched off. Pull out the mains plug after use.
-



Risk of injury to the hands!

- Do not place your hand into the processing line.
 - Use both hands to hold the machine.
-

**Caution**

Damage to property possible due to improper handling!**The machine will be damaged or destroyed.**

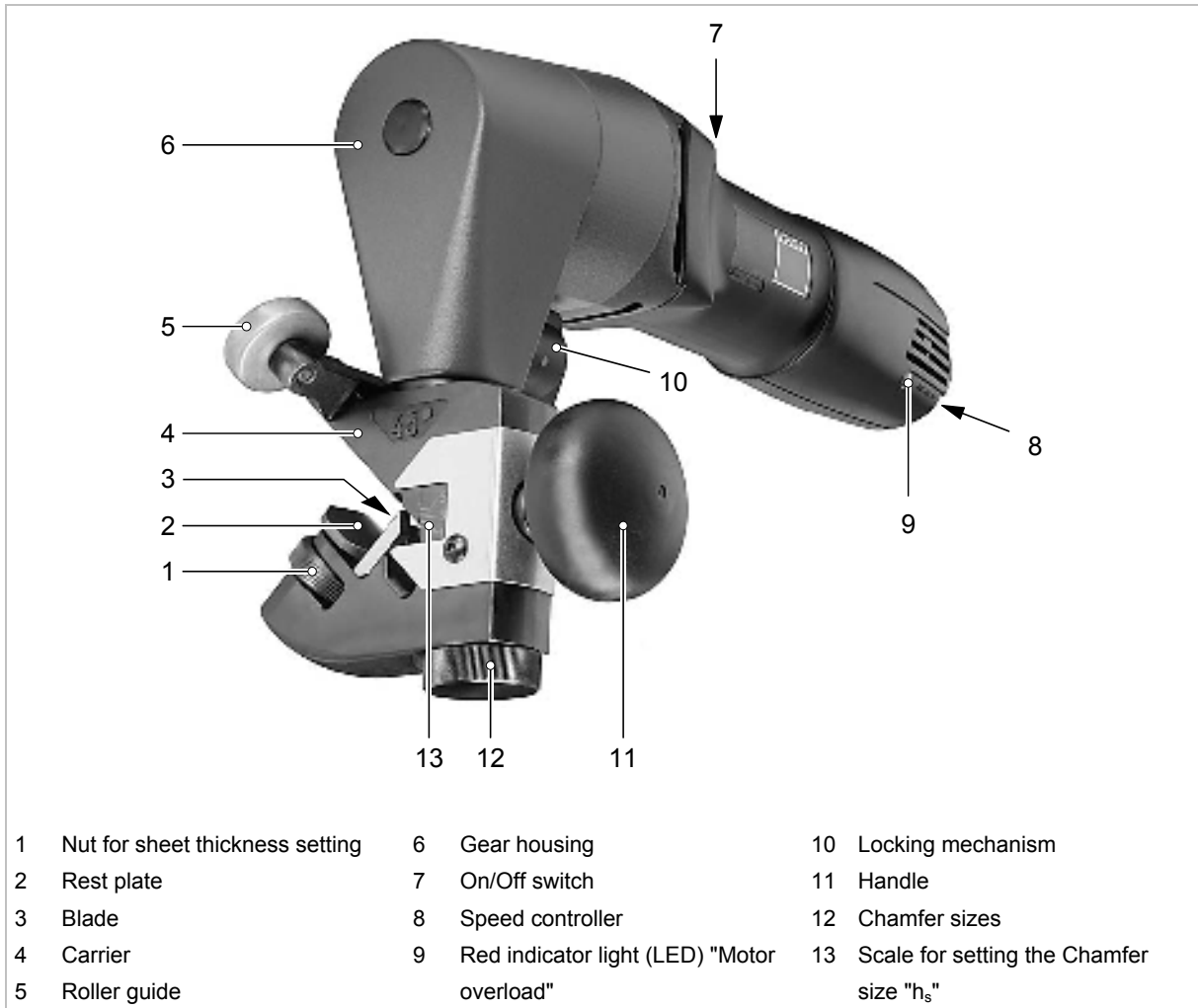
- Do not use the power cord to carry the machine.
 - Always guide the electric cord away from the back of the machine and do not pull it across sharp edges.
 - Arrange for start-ups and checks on manual electric tools to be carried out by a trained specialist. Only use the original accessories provided by TRUMPF.
-

**Warning**

Risk of injury from falling machinery!**The entire weight of the machine must be taken up after processing of the work workpiece.**

- Use suspension eyelet with balancer.
-

2. Description



Bevelling machine TruTool TKF 700

Fig. 28207

2.1 Correct use



Warning

Risk of injury!

- For processing and materials, only use machines which are named in "Correct use".

The TRUMPF bevelling machine TruTool TKF 700 is an electric hand tool used for the following applications:

- Preparation of all of the K-, V-, X- and Y-shaped welding grooves usual for gas and electrical fusion welding with various continuously-adjustable angles of bevel and continuously-adjustable lengths of bevels.
- Forming of uniform, oxide-free, bright metallic welding bevel edges in steel and aluminium.
- Machining of chromium steel and similar high-tensile materials.
- Bevelling of straight and curved edges insofar as the minimum radius with inner curves is at least 40 mm.
- Bevelling of edges on flat and crooked workpieces, particularly in connection with tubes when the inside diameter is at least 80 mm in size. (supporting roller, Material No. 131559).
- Bevelling of edges in both directions, whereby the bevelling can begin and end at any give point on the sheet edge.
- Bevelling of edges on large, bulky workpieces, for which the bevelling machine is guided as a hand-held device.
- Machining of small workpieces, for which the bevelling machine is kept in a stationary position. A workstation is used for this purpose (Order No. 977764).
- Bevelling of edges in normal position (carrier underneath the machine) and in "upside-down position" (carrier above the machine), which is particularly advantageous with the bevelling of X- and K-welding grooves.

2.2 Technical data

Tensile strength	Angle of bevel		
	30°	37.5°	45°
400 N/mm ²	6 mm (0.236 in)	5.5 mm (0.216 in)	5 mm (0.196 in)
600 N/mm ²	5 mm (0.196 in)	4.5 mm (0.177 in)	4 mm (0.157 in)
800 N/mm ²	3.5 mm (0.138 in)	3 mm (0.118 in)	3 mm (0.118 in)

Max. chamfer size "h_s"

Table 1

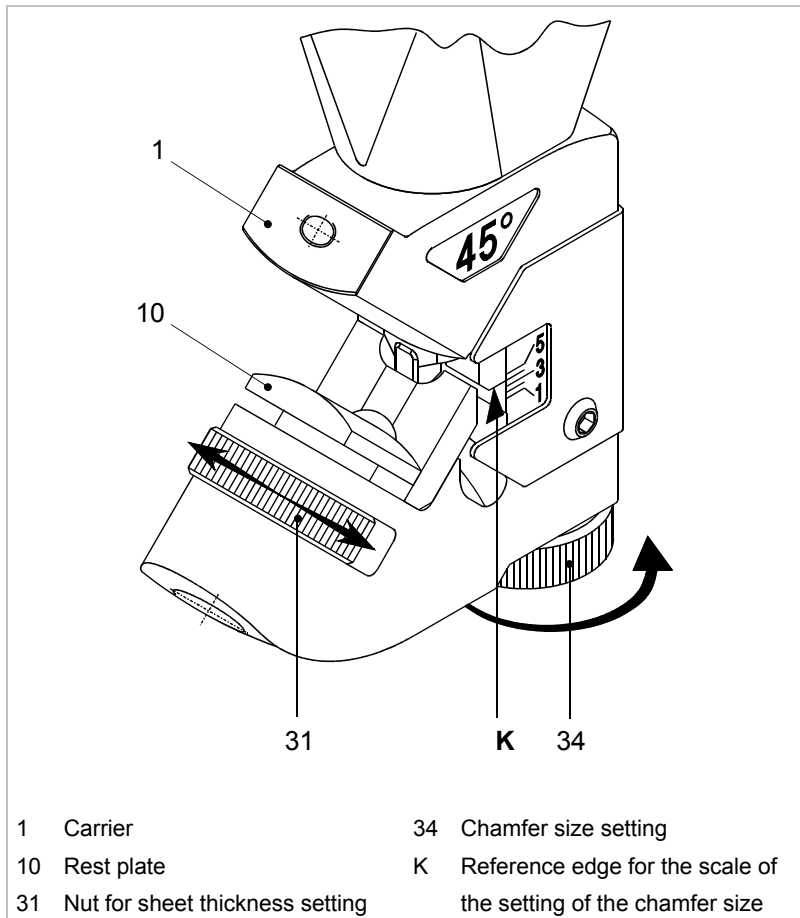


Fig. 12263

	Rest of the world			USA
	Values	Values	Values	Values
Voltage	230 V	120 V	110 V	120 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Working speed	1.5 m/min	1.5 m/min	1.5 m/min	5 ft/min
Nominal power consumption	1400 W	1200 W	1140 W	1200 W
Stroke rate with idle run	725/min	620/min	620/min	620/min
Weight with guide handle	5.4 kg	5.4 kg	5.4 kg	12 lbs
Max. sheet thickness	15 mm	15 mm	15 mm	0.59 in
Smallest radius with inner cutouts	40 mm	40 mm	40 mm	1.57 in
Smallest tube inside diameter	80 mm	80 mm	80 mm	3.14 in
Protective insulation	Class II	Class II	Class II	Class II

Technical Data

Table 2

Noise and vibration	Measurement values according to EN 50144
A-weighted sound level	Typically 84 dB (A)
A-weighted acoustic power level	Typically 85 dB (A)
Hand-arm vibration	Typically less than or equal to 2.5 m/s ²

Measured values for noise and vibration

Table 3

Note

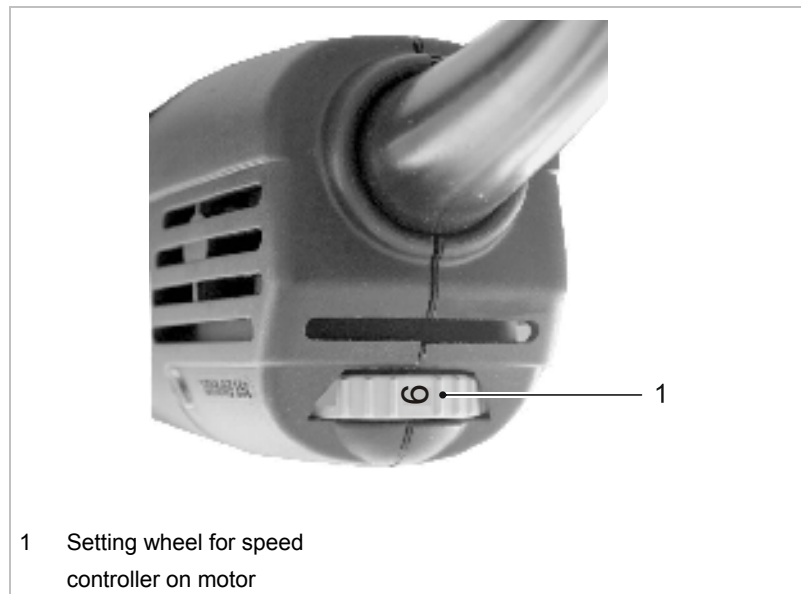
The measured values specified above may be exceeded while working.

3. Tool assembly

3.1 Setting the number of strokes

A reduced number of strokes improves the quality of the work

- For machining radiuses.
- For tube machining.
- For machining steel with a tensile strength $> 400 \text{ N/mm}^2$ (improved service life).



Speed controller

Fig. 27948

3.2 Selecting the blade

2 different blades are available for machining sheets of different tensile strengths:

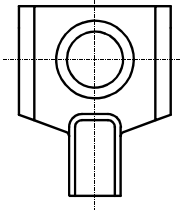
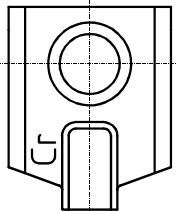
	Standard	High-tensile blade
Blade type		
Material No.	130879	130880
Tensile strength of the material to be machined	up to 400 N/mm ²	>400 N/mm ²
Example	Mild steel, aluminium	Chromium steel

Table 4

3.3 Adjusting the chamfer size

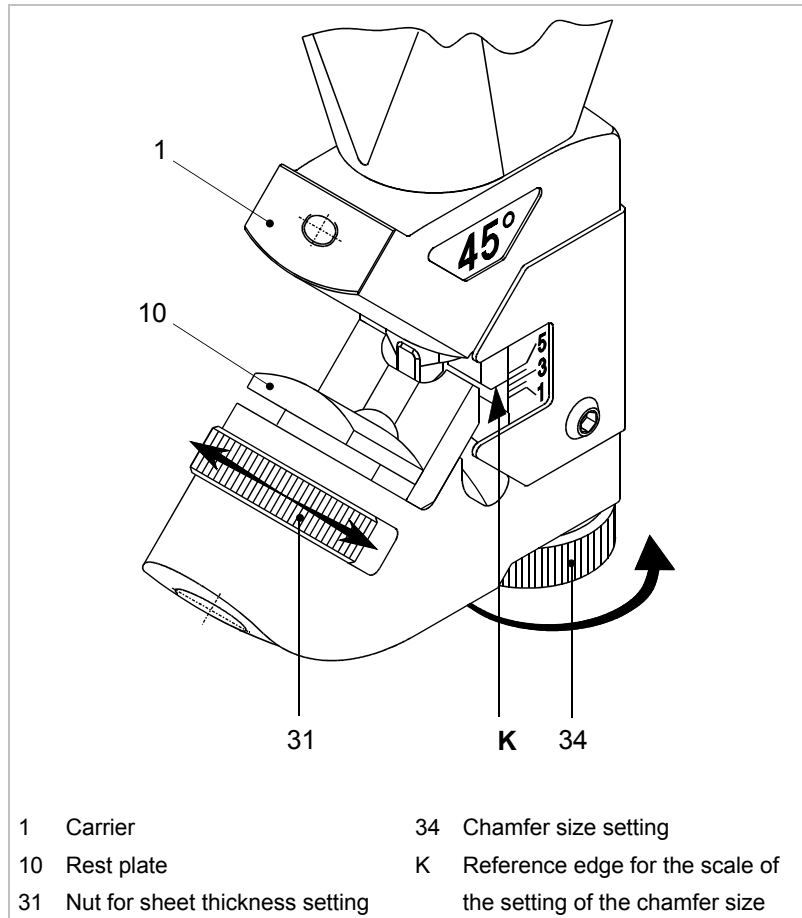


Fig. 12263

- Set the dimension h_s "Chamfer size" directly above the scale.

3.4 Setting the sheet thickness

1. Place machine on the sheet (work position).
2. Tighten the rest plate (10) to the sheet using the nut (31) and rotate back to the next engagement position (play circa 0.1-0.3 mm).

Sheet thickness "s" [mm]	Angle of bevel		
	30°	37.5°	45°
≤15	1-6 mm	1-5.5 mm	1-5 mm
16	2-6 mm	1.5-5.5 mm	1-5 mm
17	3-6 mm	2.5-5.5 mm	2-5 mm
18	4-6 mm	3.5-5.5 mm	3-5 mm
19	5-6 mm	4.5-5.5 mm	4-5 mm
20	6 mm	5.5 mm	5 mm

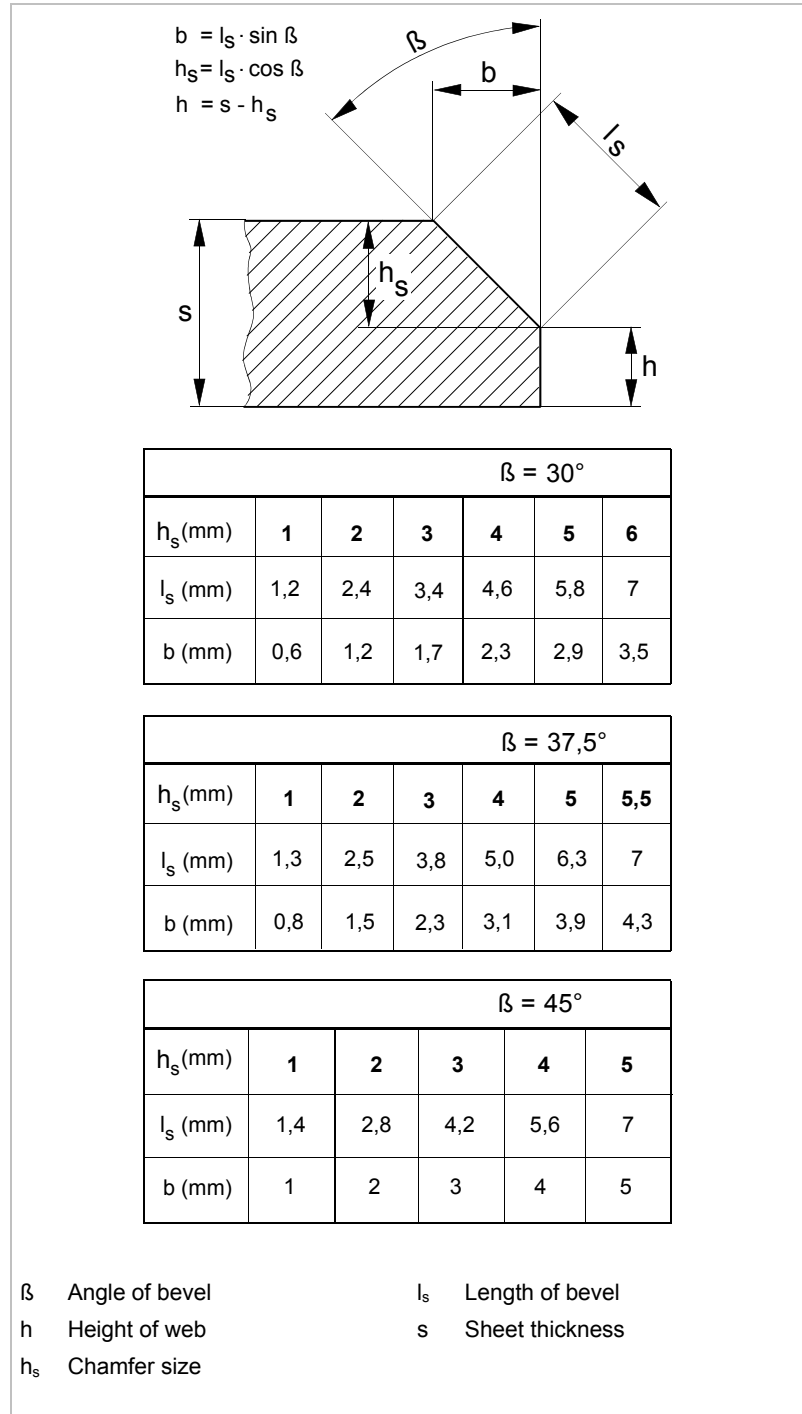
Chamfer size with given sheet thickness

Table 5

3.5 Selecting the angle of bevel

3 carriers are available with the angles 30° / 37.5° / 45° for the bevelling machine.

The selection of the angle is determined by replacing the entire carrier:



Angle of bevel

Fig. 13472

3.6 Configuring workstation (optional)



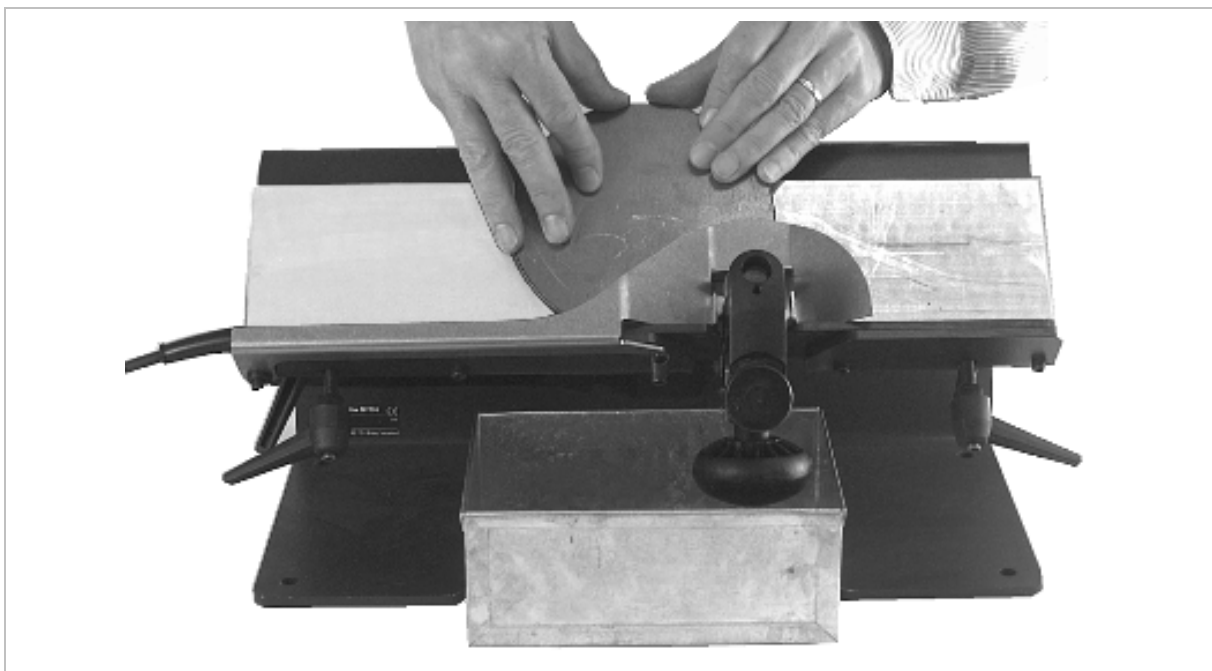
Warning

Risk of possible injury from sharp blades!

- Do not reach into the area which is covered over by the hand protection device.

The workstation in which the TruTool TKF 700 bevelling machine can be fastened is used for machining small workpieces.

This workstation, which stands on a non-skid support, must be screwed down tightly to a table through mounting holes. Support area: 220x450 mm, height approximately 220 mm.

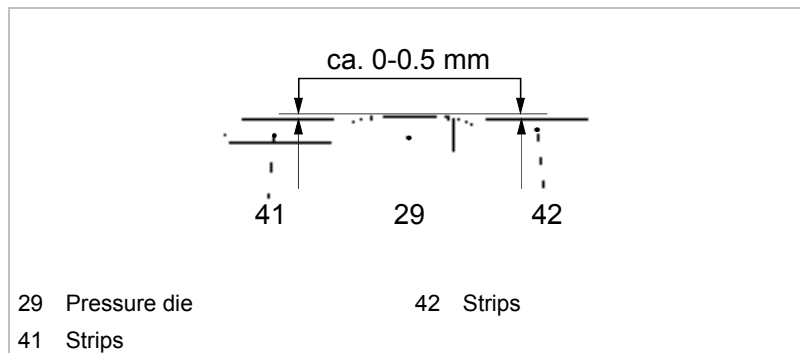


The machining of small workpieces in the workstation

Fig. 15496

Mounting and aligning the machine in the workstation

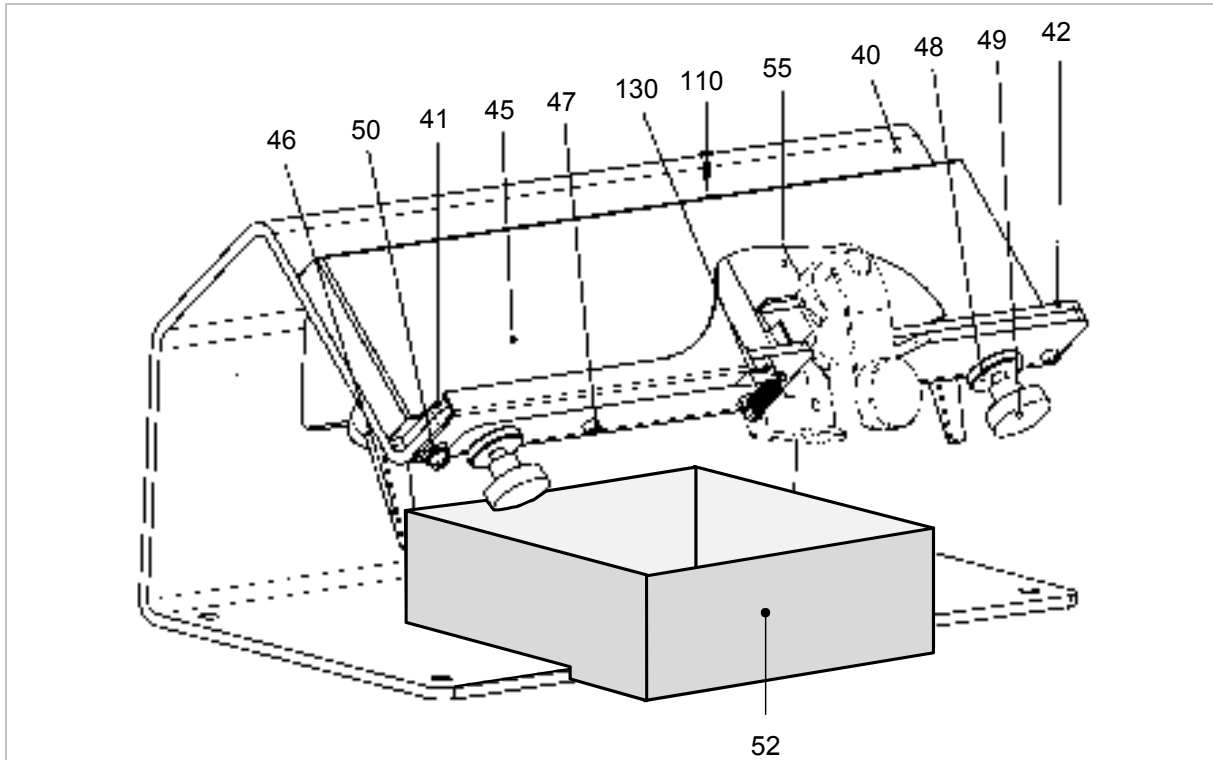
1. Rotate the machine carrier into the correct position.
2. Fasten the machine in the workstation with the help of the screw (110) (wrench can be found among the accessories).
3. Loosen the two clamping levers (46).
4. The plate (45) in which the machine is held can be adjusted only by turning the star grips (49).
5. This will cause the pressure die to be repositioned in relation to the strips (41) and (42). (Pressure die = hardened support piece on which the sheet edge to be machined is slid along during the work process).
6. Set chamfer size and sheet thickness at the two knurled nuts (31) and (34) on the machine.



Setting value of the machine pressure die in relation to the strips at the workstation

Fig. 13403

7. Pressure die min. 0, max. 0.5 mm above the support area of the strips (41) (42).



Position	Designation	Material identification number
40	Trestle	133885
41	Strip, right	133883
42	Strip, left	133884
45	Plate	133886
46	Clamping levers (2x)	105652
47	Cap screw M 5x10-12 DIN 912	014524
48	Lock nut (knurled nut) (2x)	133947
49	Star grip	133948
50	Disc 8.4-ST DIN 125	023671
	Cap screw M 5x16-12 DIN 912	014540
52	Swarf box	138911
55	Hand protection	134674
110	Cap screw M 8x60-12 DIN 912	015059
130	Tension spring	135309

Workstation (optional, Order No. 977764)

Fig. 15497

8. It should be noted that the plate (45) is repositioned parallel to the strips (41) (42).
9. Lay flat part of sheet with straight edge on the strips (41) (42).
10. Turn star grip (49) until the pressure die is up against the sheet edge.
11. Turn both star grips (49) by approximately 1/4 of a revolution further to the right, respectively, and lock with the knurled counter nut (48).

-
12. Clamp the plate (45) tightly with the two clamping levers (46).
 13. The workpiece will lie on the plate (45).

Note

Hold the work piece during machining in such a way that the surface lies on the plate (45) and the sheet edge lies on the strips (41) (42).

4. Operation



Caution

Damage to property possible due to too-high network voltage!

Damage to the motor.

- Check the power supply. The power supply must correspond to the information on the machine type plate.
-



Warning

Danger of injury possible due to improper handling!

- When working with the machine, always ensure that it has a secure base.
 - Never touch the tool while the machine is running.
 - Always guide the machine away from the body while working.
 - Do not work holding the machine above your head.
-

Electromagnetic faults

The appliance may switch off prematurely when affected by electromagnetic disruptions. The appliance will resume operation when the faults have been cleared.

Motor overload protection

If the motor temperature is too high, the motor will switch off. The red indicator light (LED) with the motor lights up.

- Allow the machine to run in idle until it has cooled down.

The machine can be operated again normally after it has cooled down.

Note

Check the cutting edge of the blade hourly.

4.1 Working with the TruTool TKF 700

Switching on and off

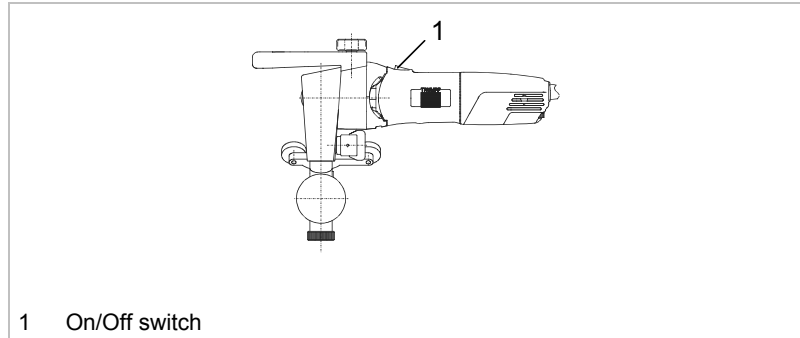


Fig. 28208

Switching on the TruTool TKF 700

Move the On/Off switch to the front.

Note

The cutting result is improved and the service life of the cutting tool increased if the cutting track is coated with oil before machining the workpiece.

Material	Oil
Steel	Punching and nibbling oil, Order No. 103387
Aluminium	Wisura oil, Order No. 125874

Recommendation for oil

Table 6

Working with the TruTool TKF 700

1. Do not move the machine towards the workpiece until full speed has been reached.
2. Machine/process the material.
 - Place machine on the sheet and at first maintain a few centimetres clearance between the blade and the sheet edge.
 - Carefully slide the machine as far as possible against the sheet edge "piercing".
 - Slide the machine along the sheet in such a way that the machine axis is roughly parallel to the sheet edge.
 - Press the machine against the sheet edge while doing so.

Switching off the TruTool TKF 700

- Move the On/Off switch to the rear.

4.2 Changing the cutting direction

In situations where space is limited, the tool and/or the cutting direction can be turned by 90° to the right or to the left. (see Fig. 13470, Pg. 22)

1. Open locking mechanism (15).
2. Rotate die carrier (1) by 90° in the desired direction.
3. Close locking mechanism (15).

5. Maintenance



Caution

Damage to property possible due to blunt tools!

Overloading of the machine.

- Check the cutting edge of the cutting tool hourly for wear. Sharp blades provide good cutting performance and are easier on the machine. Replace blades promptly.



Warning

Risk of possible injury due to improper repairs!

The machine does not function properly.

- Repairs should be carried out only by a trained specialist.

Maintenance point	Procedure and time interval	Recommended lubricants	Order No. Lubrication agents
Ram/carrier	With each tool change	Lubricating grease "G1" I	344969
Gearbox and gear head (2)	After 300 operating hours, arrange for a trained specialist to relubricate or to replace the lubricating grease	Lubricating grease "G1" I	0139440
Pressure die	Clean as needed	-	-
Ventilation slots	Clean as needed	-	-
Diameter	Replace as needed	-	-
Ram	Clean as needed		

Maintenance positions and maintenance intervals

Table 7

5.1 Changing the tool

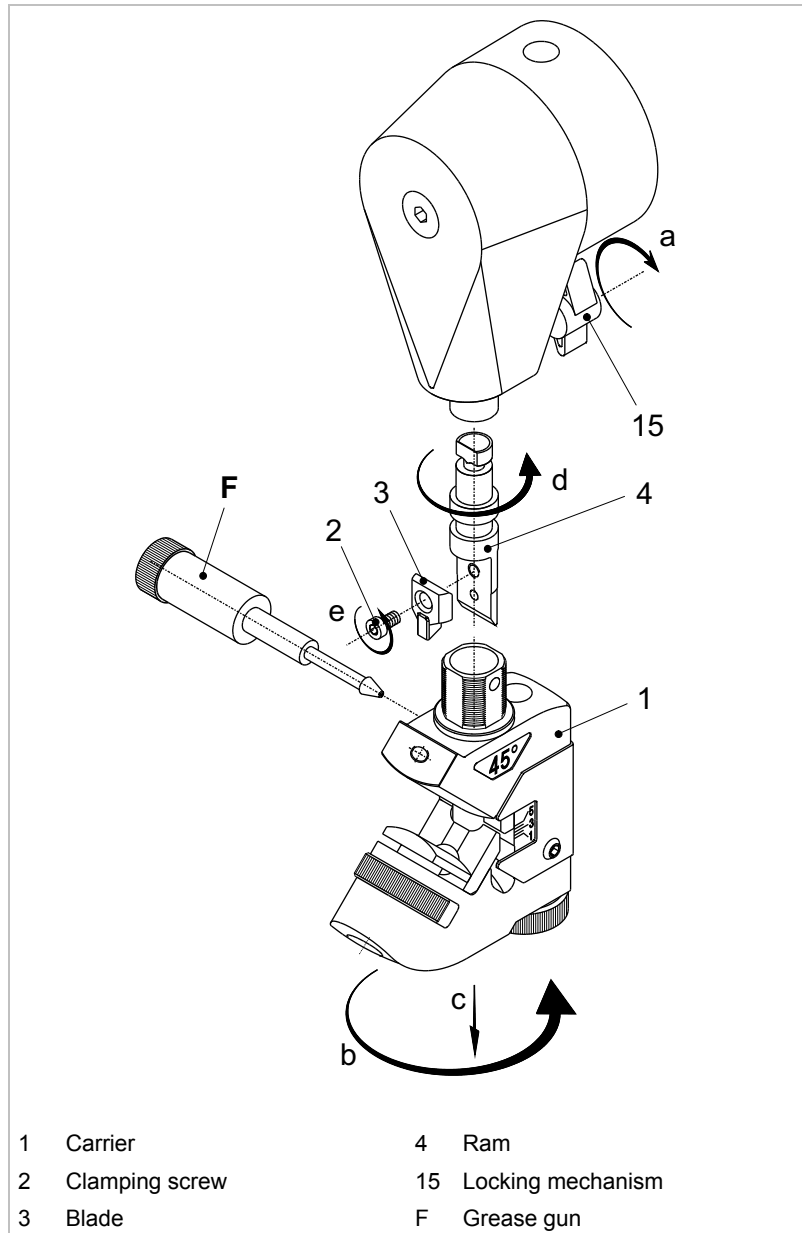


Fig. 13470

- The blade must be replaced if it has become blunt.

Disassembling the blade

1. Open locking mechanism (15).
2. Rotate supporting body (1) by 45°.
3. Pull supporting body (1) out towards the bottom.
4. Rotate ram (4) by 180° and pull it out towards the bottom.

Cleaning the tool

- Loosen the clamping screw (2) and remove the blade (3). Clean the ram (4).

Mounting the blade

1. Screw new blade (3) tightly to the ram (4) with the small screw (2) (tightening torque 9 Nm).
2. Insert cleaned ram (4) into the ram receptacle and lock with a 180° turn.
3. Mount the carrier (1).
4. Close locking mechanism (15).
5. Place grease nipple laterally on the carrier using a grease gun "F" with lubricating grease "G1" TRUMPF Order No. 139440.

Note

Use only original TRUMPF replacement parts.

5.2 Replacing carbon brushes

The motor comes to a standstill when the carbon brushes are worn out.

- Have the carbon brushes checked and replaced as needed by a trained technician.

Note

Only use original replacement parts and take note of the information on the rating plate.

6. Wearing parts

Designation	Material No.
Blade standard for the machining of materials with a tensile strength of up to 400 N/mm ² Select the drawing file using the file selection masks. (e.g. mild steel, aluminium)	130879
Blade high-tensile for the machining of materials with a tensile strength greater than 400 N/mm ² is (e.g. chromium steel)	130880

Table 8

Ordering wearing parts To ensure fast delivery of the correct original and wearing parts:

1. Give the order number.
2. Enter further order data:
 - Tension data
 - Number of pieces
 - Machine type
3. Give complete dispatch data:
 - Correct address.
 - Required delivery type (e.g. air mail, courier, express mail, ordinary freight, parcel post).
4. Send the order to the TRUMPF representative office. For TRUMPF service addresses, see the address list at the end of the document.

7. Original accessories

Designation	Material No.
Blade mounted (for the machining of mild steel)	130879
Handle	131063
Spanner TORX T25	131549
Grease gun	068624
Lubricating grease "G1"	344969
Case	982540
Roller holder	130868
Operator's manual	976203
Safety information (red document), other countries	125699
Safety information (red document), USA	1239438
Allen key 4 m DIN 911	067849
Allen key 5 mm DIN 911	067857

8. Options

Designation	Material No.
Work station	977764
Adapter	1551819
Carrier complete 30°	977770
Carrier complete 37.5°	977769
Carrier complete 45°	977767
Supporting roller complete	131559
Punching and nibbling oil for aluminium (1 litre)	125874
Punching and nibbling oil for steel (0.5 litre)	103387

