

Operator's manual



TruTool TKF 700 (2A1)

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1. Safety

1.1 General safety information

 **WARNING**



- Read all the safety information and instructions including those in the brochure also supplied.
- Failure to comply with the safety information and instructions can cause electric shock, burns and/or serious injury.
- Retain all the safety information and instructions for future use.

 **DANGER**

Electrical voltage! Risk of fatal injury due to electric shock!

- Remove the plug from the plug socket before undertaking any maintenance work on the machine.
 - Check the plug, cable and machine for damage each time before using the machine.
 - Keep the machine dry and do not operate it in damp rooms.
 - Connect the fault current (FI) circuit breaker with a maximum breaking current of 30 mA when using the electric tool outside.
 - Only use original TRUMPF accessories.
-

 **WARNING**

Damage to the machine due to improper handling.

- Wear safety glasses, hearing protection, breathing protection, protective gloves and working shoes when working.
 - Connect the plug only when the machine is switched off. Pull the power plug after use.
 - Do not carry the machine by the cable.
 - Have maintenance carried out by specialists.
-

1.2 Specific safety information for beveler

 **WARNING**

Risk of injury to hands.

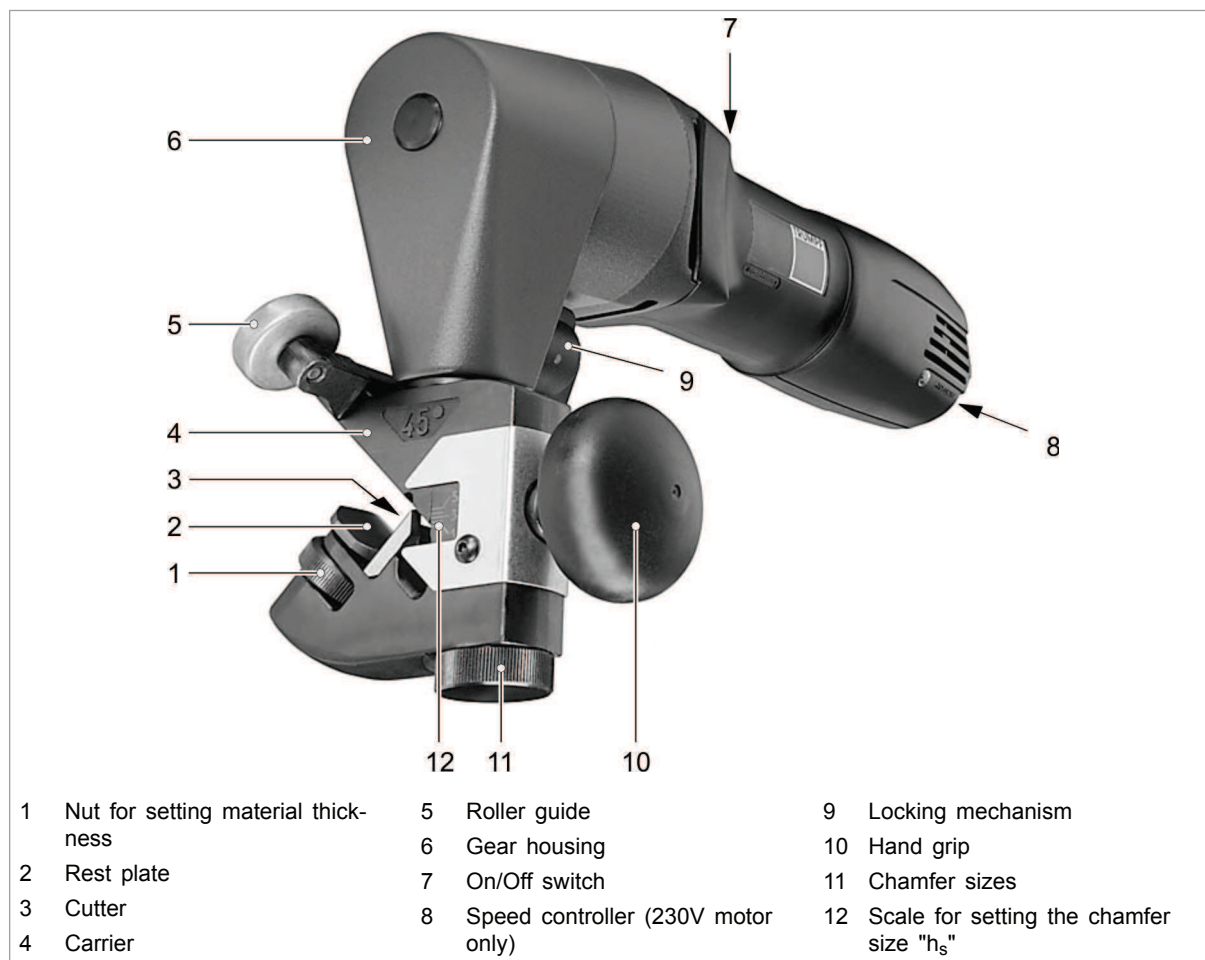
- Do not reach into the processing line with your hands.
 - Use both hands to hold the machine.
-

 **WARNING****Risk of injury from falling machinery**

The entire weight of the machine must be taken up after machining the workpiece.

- Use suspension eyelet with balancer.

2. Description



TruTool TKF 700 (2A1)

Fig. 28207

2.1 Intended use

The TRUMPF TruTool TKF 700 beveler (2A1) is an electrically powered hand-held device designed for the following applications:

- Preparation of all 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 aluminum.
- Machining of chromium steel and similar high-tensile materials.
- Beveling of straight and curved edges, provided the minimum radius of the inner curve is 40 mm.

- Beveling of edges on level and crooked workpieces, and of tubes in particular, with an inside diameter of at least 80 mm (supporting roller, order no. 131559).
- Beveling of edges in both directions, with the beveling process being able to be started and finished at any point of the sheet edge.
- Beveling of edges in normal position (carrier below the machine) and in "upside-down position" (carrier above the machine), which is of advantage in particular when beveling X and K welding joints.
- Beveling of edges on large, bulky workpieces, for which the beveling machine is guided as a hand-held device.
- For processing small workpieces in which the beveler is used while stationary. A work station (order no. 977764) is available for this purpose.

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"

Tab. 1

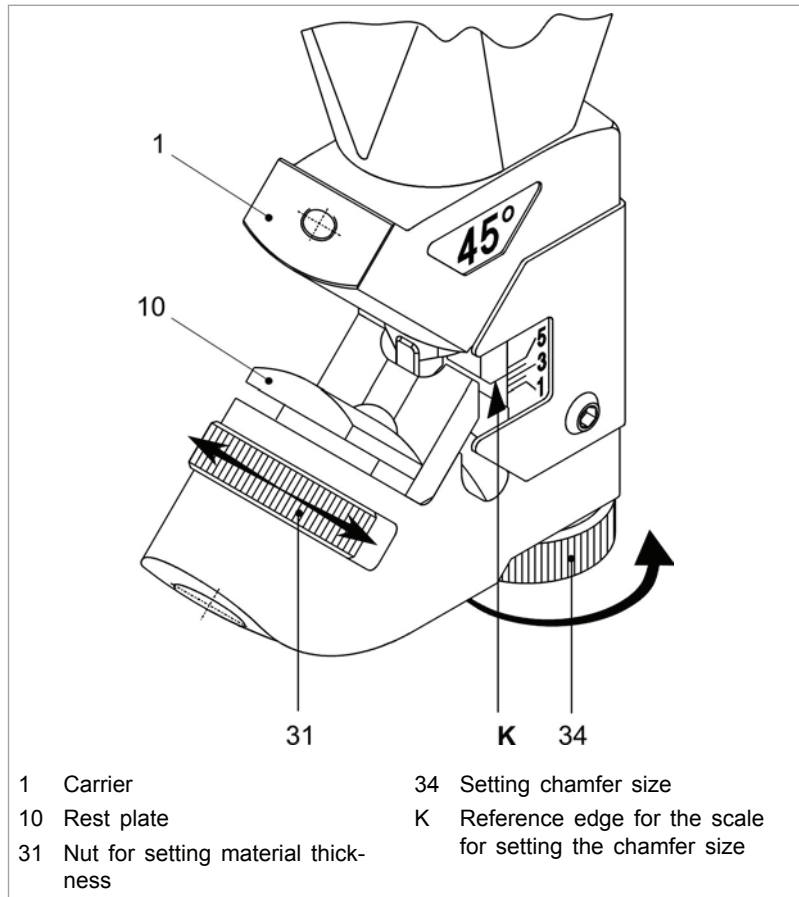


Fig. 12263

TruTool TKF 700 (2A1)




	Other countries			USA
	Values			
Voltage	230 V	120 V	110 V	120 V
Frequency	50/60 Hz			50/60 Hz
Working speed	1.5 m/min			5 ft/min
Nominal power consumption	1400 W	1200 W	1140 W	1200 W
Idle stroke rate	820/min	625/min	625/min	625/min
Weight with guide handle	5.3 kg			12.2 lbs
Max. material thickness	15 mm			0.59 in
Smallest radius with inner cutouts	40 mm			1.57 in
Smallest tube inside diameter	80 mm			3.14 in
Safety class	II /			II /

Tab. 2

2.3 Icons

Note

The following symbols are important for reading and understanding the operator's manual. The correct interpretation of the symbols will help you operate the machine better and safer.

Icon	Name	Meaning
	Read operator's manual	Read the operator's manual and safety information in their entirety before starting up the machine. Closely follow the instructions given.
	Safety class II	Indicates a doubly insulated tool.
	Alternating current	Type or property of current
V	Volt	Voltage
A	Ampere	Current, current input
Hz	Hertz	Frequency (oscillations per second)
W	Watt	Power, power input
mm	Millimeters	Dimensions e.g.: material thickness, chamfer length
in	Inch	Dimensions e.g.: material thickness, chamfer length
n_0	Idle speed	Revolution speed without load
.../min	Revolutions/strokes per minute	Revolution speed, stroke rate per minute

Tab. 3

2.4 Noise and vibration information



Noise emission value may be exceeded.

- Wear hearing protection.



The vibration emission value can be exceeded!

- Select the right tools and exchange them in time in the event of wear.
- Have maintenance carried out by trained specialized technicians.
- Define additional safety measures for protecting the operator from the effect of vibrations (e. g. keep hands warm, organization of working procedures, machining at normal feed force).
- Depending on the operating conditions and state of the electric tool, the actual load might be higher or lower than the specified measured value.

Notes

- The specified vibration emission value was measured in accordance with a standardized testing procedure and can be used to compare one electric tool with another.
- The specified vibration emission value can also be applied for a provisional estimate of the vibration load.
- Times during which either the machine is switched off or running but not actually in use can considerably reduce the vibration load during the entire working period.
- Times during which the machine works independently and self-propelled do not have to be calculated.

Designation of measured value	Unit	Value according to EN 60745
Vibration emission value a_h (vector sum of three directions)	m/s ²	≥2.5
A-class acoustic pressure level L_{PA} typically	dB (A)	84
A-class acoustic power level L_{WA} typically	dB (A)	85
Uncertainty K for noise emission value	dB	1.5

Tab. 4

3. Setting work

3.1 Setting the number of strokes (230V motor only)

Reduced stroke rates improve the working results:

- When processing radii.
- With tube processing.
- When processing steel with a strength $>400 \text{ N/mm}^2$ (better service life).



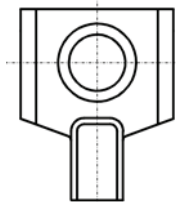
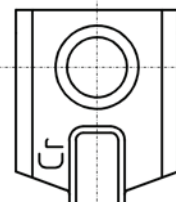
1 Setting wheel for speed controller on 230V motor

Fig. 71200

- Turn the wheel to adjust the speed.

3.2 Selecting cutter

There are two different blades available for machining sheets of various tensile strength:

	Standard	High-tensile blades
Cutter type		
Order No.	130879	130880

	Standard	High-tensile blades
Tensile strength of the raw material to be processed	up to 400 N/mm ²	≥400 N/mm ²
Example	Mild steel, aluminum	Chromium steel

Tab. 5

3.3 Setting chamfer size

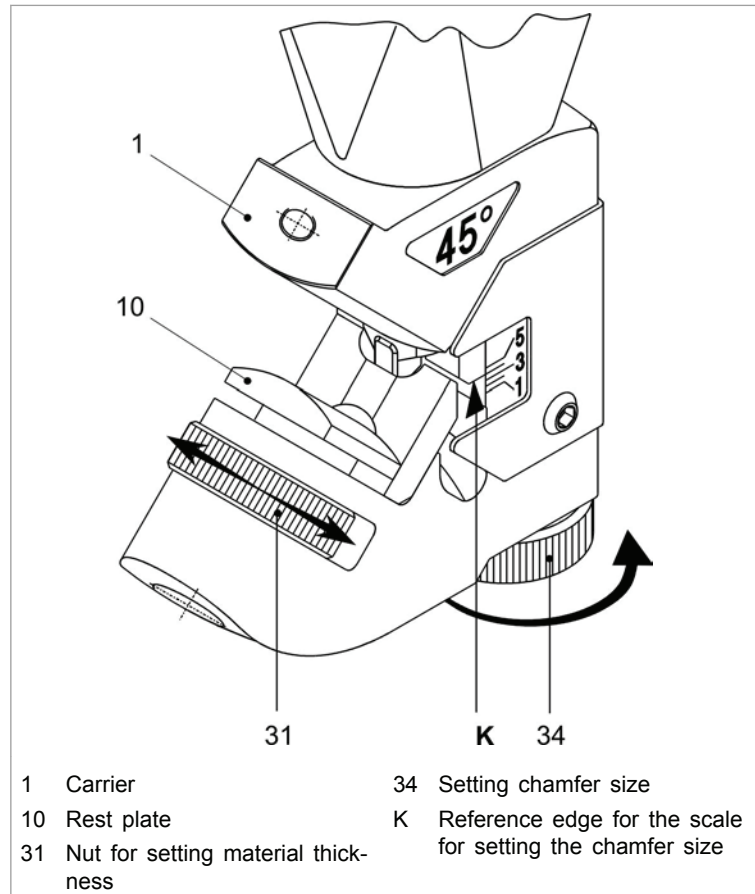


Fig. 12263

- Set chamfer size "h_s" measurement using the scale.

3.4 Setting material thickness

Material 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 the given material thickness

Tab. 6

1. Position the machine on the sheet (working position).
2. Use nut (31) to mount the support plate (10) onto the sheet and rotate back to the next snap point (play: approx. 0.1 - 0.3 mm),(see "Fig. 12263", pg. 7).

3.5 Angle of bevel

Three carriers with angles of 30° / 37.5° / 45° are available for the beveler.

The angle is selected by replacing the entire carrier:

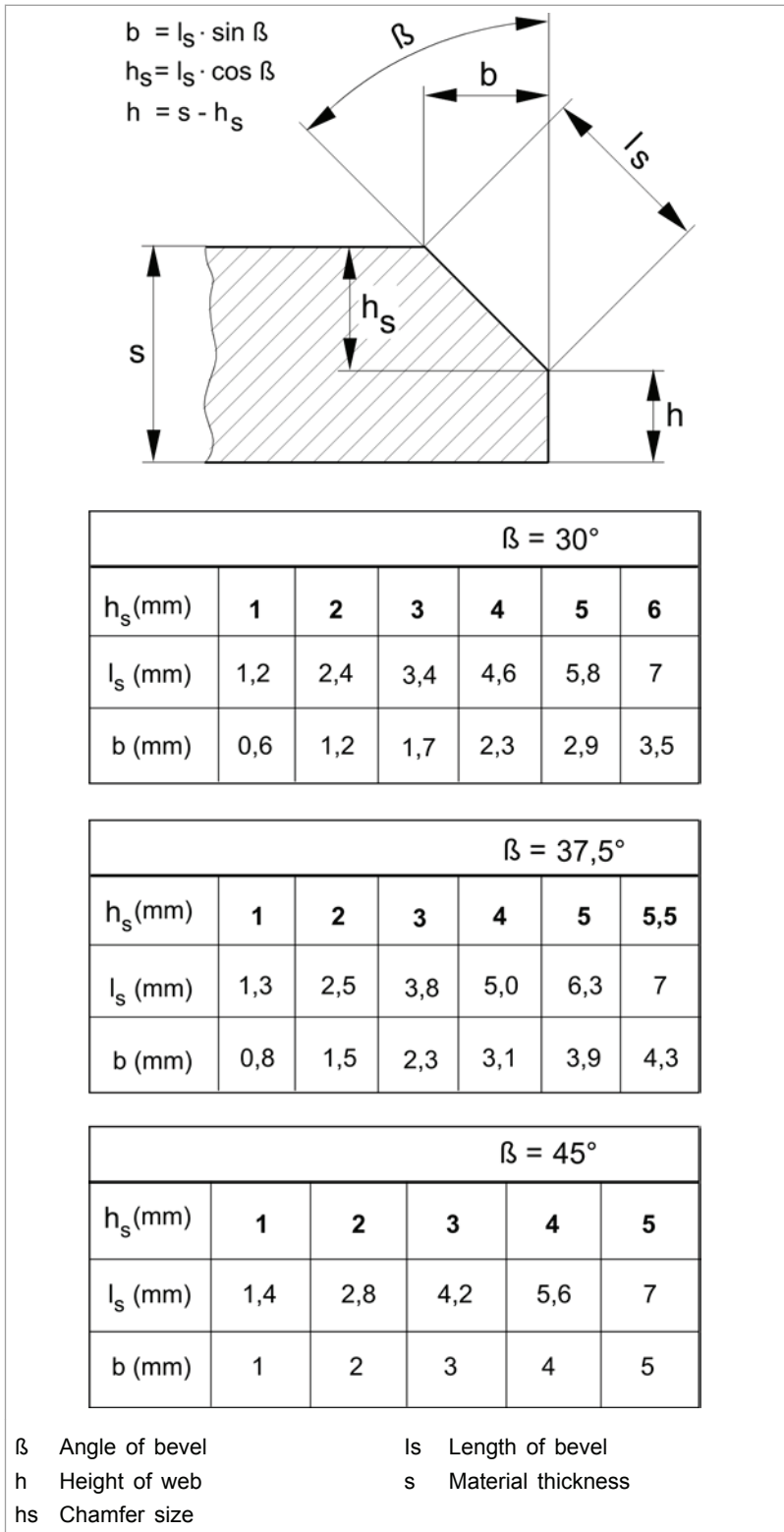


Fig. 13472

3.6 Work station (optional)

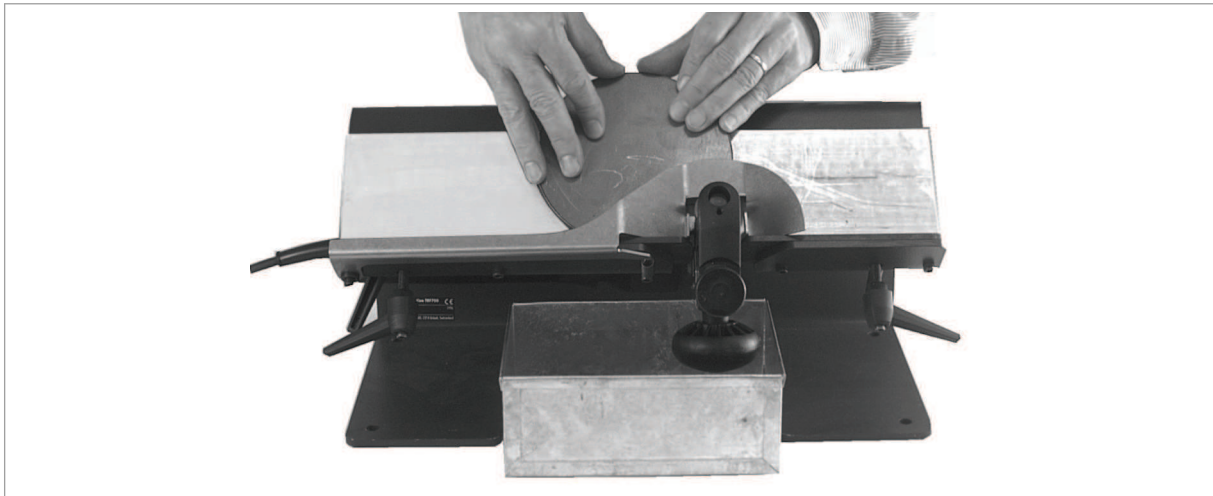
⚠ WARNING**Risk of injury from sharp blades!**

- Do not reach into the area which the hand protection covers.

The work station in which the TruTool TKF 700 beveler can be fastened is used for machining small workpieces.

The work station, which stands on a non-slip surface, must be fastened to a table using mounting holes.

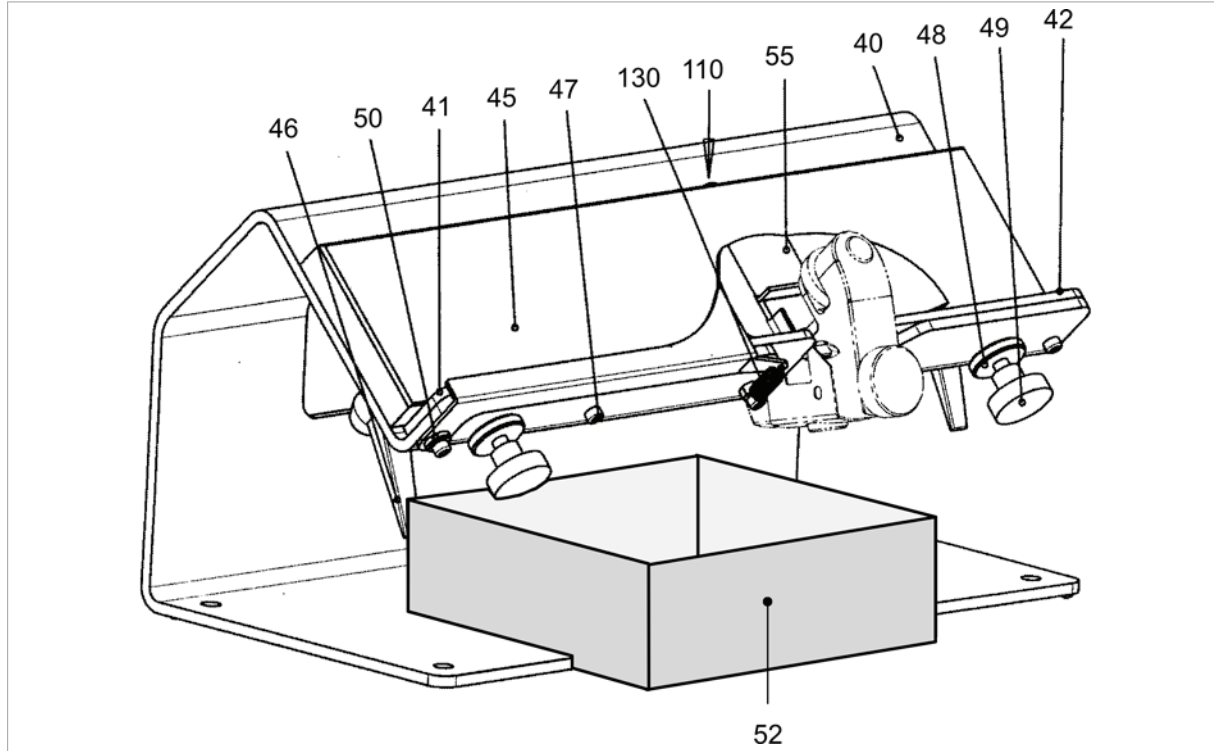
Contact surface: 220x450 mm, height approx. 220 mm.



Machining small workpieces in the work station

Fig. 15496

Installing and aligning machine in the work station



Position	Name	Order No.
40	Support	133885
41	Right bar	133883
42	Left bar	133884
45	Plate	133886
46	Clamping lever (2x)	105652
47	Cap screw M5x10-12 DIN 912	014524
48	Lock nut (knurled nut) (2x)	133947
49	Star grip	133948
50	Washer 8.4-ST DIN 125	023671
	Cap screw M5x16-12 DIN 912	014540
52	Chip box	138911
55	Hand protection	134674
110	Cap screw M8x60-12 DIN 912	015059
130	Tension spring	135309

Work station (optional, order no. 977764)

Tab. 7

1. Turn carrier of the machine in the right position
2. Fasten machine into the work station with help of the screw (110) (key can be found in the accessories),(see "Fig. 15497", pg. 15).

3. Undo the two clamping levers (46).

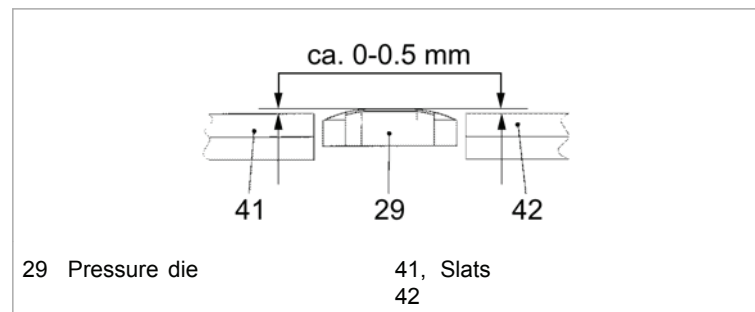
The plate (45) in which the machine is held, can be adjusted by rotating the start grips (49).

This adjusts the pressure die in relation to the slats (41) and (42). (Pressure die = Hardened surface unit on which the sheet edge to be processed is moved along during the work process).

Note

Pressure die setting value: 0 - 0.5 mm above the support areas of the slats (41, 42).

Make sure that the plate (45) is adjusted parallel to the slats (41, 42).



Processing small workpieces in the work station Fig. 13403

4. Set chamfer size and material thickness at both knurled nuts (31) and (34) at the machine.
5. Place flat sheet metal part with straight line edge on the slats (41, 42).
6. Rotate start grips (49) until the pressure die is at the sheet edge.
7. Rotate each of the two star grips (49) by a further approx. 1/4 turn to the right and counter with the knurled lock nuts (48).
8. Fasten the plate (45) tight with the two clamping levers (46).

Note

During processing, hold the workpiece in such a way that the surface is lying flat on the plate (45) and the sheet edge on the slats (41, 42).

9. Place workpiece on the plate (45).

4. Operation

⚠ WARNING

Damage to the machine due to improper handling.

- Make sure the machine is always in a stable position when operating it.
- Never touch the tool while the machine is running.
- Always operate the machine away from your body.
- Do not operate the machine above your head.

⚠ CAUTION

Damage to property due to excessively high line voltage

Motor damage

- Check the line voltage. The power supply voltage must correspond to the information on the nameplate of the machine.
- When using an extension cord that is longer than 5 m, the cord must have a line diameter of at least 2.5 mm².

Lubricating oil

In order to improve the cutting result and increase the service life of the cutting tool, coat the cutting track with oil before machining the workpiece.

Material	Oil
Steel	Punching and nibbling oil (0.5 l, order no. 0103387)
Aluminum	Akamin (1 l, order no. 0125874)

Tab. 8

4.1 Switching machine on/off

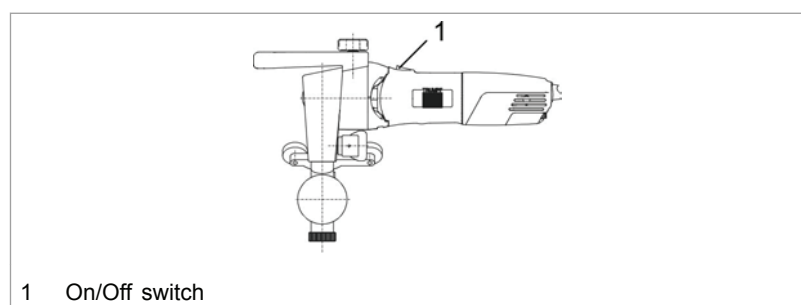


Fig. 28208

Switching on the machine Switching off the machine

1. Slide the On/Off switch forwards.
2. Slide the On/Off switch to the rear.

4.2 Working with TruTool TKF 700 (2A1)

1. Do not move the machine towards the workpiece until full speed has been reached.
2. Place machine on the sheet and maintain a few centimeters clearance between the cutter and the sheet edge.
3. Push the machine carefully as far as possible against the sheet edge - "piercing".
4. Slide the machine along the sheet in such away that the machine axis is roughly parallel to the sheet edge.
5. Press the machine against the sheet edge while doing so.

4.3 Changing the cutting direction

The tool or cutting direction can be turned 90° clockwise or counter-clockwise in the event of confined space conditions.

1. Open locking mechanism (15)(see "Fig. 13470", pg. 20).
2. Turn the carrier (1) 90° in the desired direction.
3. Close the locking mechanism again (15).

4.4 Overload protective device on the motor

Notes

- The appliance may switch off prematurely when affected by electromagnetic interference. The appliance will resume operation when the faults have been cleared.
- If the motor temperature is too high, the motor will switch off.

1. Allow the machine to run in idle until it has cooled down.
2. Operate the machine normally after it has cooled down.

5. Maintenance



Electrical voltage! Risk of fatal injury due to electric shock.

- Remove the plug from the plug socket before undertaking any maintenance work on the machine.



Risk of injury due to incorrect repair work

Machine does not work properly.

- Maintenance may be carried out by trained specialist technicians only.



Damage to property caused by blunt tools!

Machine overload.

- Check the cutting edge of the cutting tool every hour for wear or in the event of poor cutting behavior or poor work result. Sharp cutting tool produces good cutting performance and protects the machine.
- Change the cutting tool in a timely manner.

Maintenance point	Procedure and interval	Recommended lubricants
Ram/Carrier	Lubricate upon tool change.	Lubricating grease "G1" (order no. 344969)
Ram	Clean as needed.	-
Cutter	Change as needed.	-
Pressure die	Clean as needed.	-
Ventilation slots	Clean as needed.	-
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" (order no. 344969)

Maintenance positions and intervals

Tab. 9

5.1 Replacing the tool

If the blade is blunt, it needs to be changed.

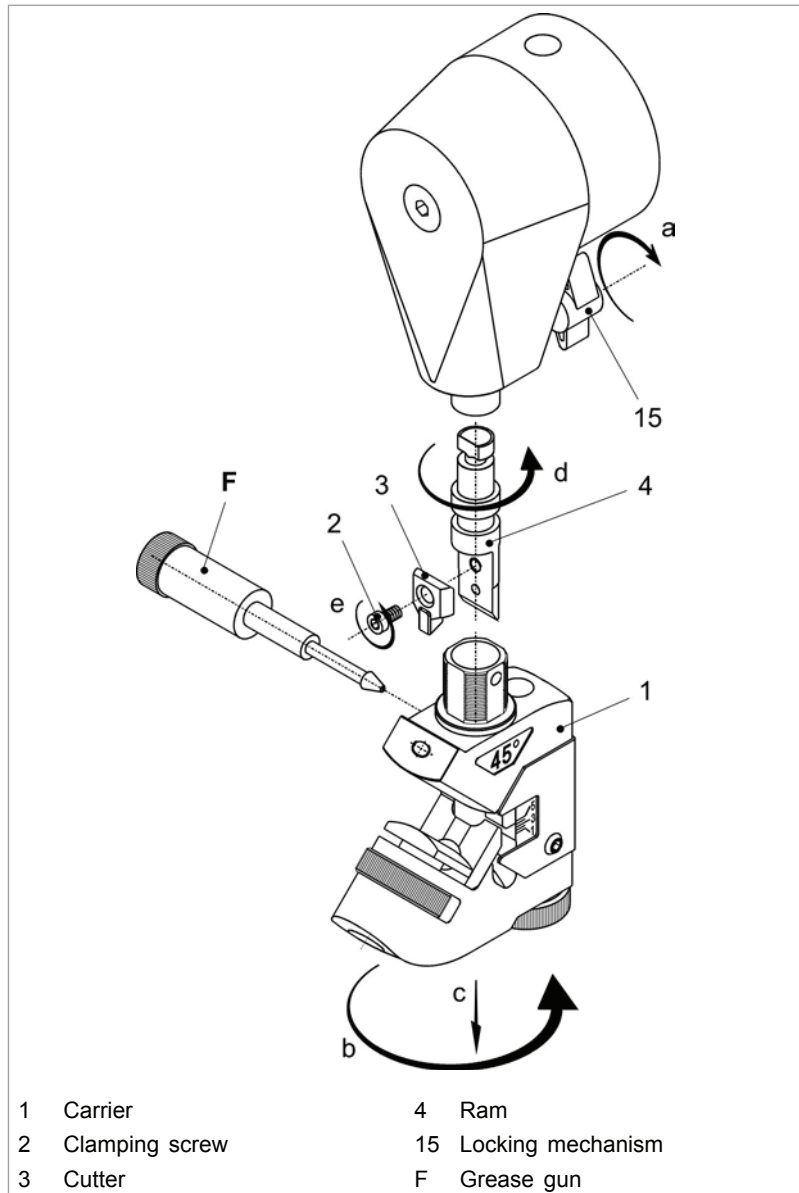


Fig. 13470

Dismantling cutter

1. Open locking mechanism (15). (a)
2. Rotate carrier (1) by 45°. (b)
3. Pull carrier (1) out towards the bottom. (c)
4. Rotate ram (4) 180° and pull it out towards the bottom. (d)

Cleaning tool

- Undo clamping screw (2) and remove cutter (3). Clean ram (4). (e)

Installing cutter

1. Fasten new blade (3) tight with clamping screw (2) on the ram (4) (torque: 9 Nm).
2. Insert cleaned ram (4) into the ram slot and lock by turning 180°.
3. Mount carrier (1).
4. Close the locking mechanism (15).
5. Use the grease gun (F) to apply lubricating grease "G1" to the grease nipple at the side of the carrier.

5.2 Changing the power cable

If the power cable is to be replaced, it should be procured from the manufacturer or an authorized dealer to avoid safety hazards.

Note

For TRUMPF service addresses, see www.trumpf-power-tools.com.

5.3 Replacing carbon brushes

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

Note

For TRUMPF service addresses, see www.trumpf-power-tools.com.

- Change the carbon brushes.

6. Accessories and consumables

Name	Scope of delivery	Consumables	Accessories	Order number
Cutter installed (for processing mild steel)	X	-	-	130879
Handle	X	-	-	131063
TORX T25 hexagonal bar wrench	X	-	-	131549
Allen key 4 mm DIN 911	X	-	-	067849
Allen key 5 mm DIN 911	X	-	-	067857
Lubricating grease "G1" (40 g)	X	-	-	344969
Grease gun	X	-	-	068624
Case	X	-	-	0982540
Roller holder	X	-	-	130868
Standard cutters for processing raw materials with a strength of up to 400 N/mm ² (e. g. aluminum, mild steel)	-	X	-	130879
High-tensile cutters for processing raw materials with a strength greater than 400 N/mm ² (e.g. chrome steel)	-	X	-	130880
Workstation	-	-	X	977764
Adapter	-	-	X	1551819
Carrier cpl. 30°	-	-	X	977770
Carrier cpl. 37.5°	-	-	X	977769
Carrier cpl. 45°	-	-	X	977767
Complete supporting roller	-	-	X	131559
Operator's manual	X	-	-	1893446
Safety information, other countries	X	-	-	125699
Safety information (red document), USA	X	-	-	1239438

Tab. 10

6.1 Ordering consumables

Note

The following data must be specified in order to ensure that parts are delivered correctly and without delay.

1. Specify the order number.
2. Enter further order data:
 - Voltage data
 - Quantity
 - Machine type
3. Specify the complete shipping information:



-
- Correct address.
 - Desired delivery type (e.g. air mail, courier, express mail, ordinary freight, parcel post).

Note

For TRUMPF service addresses, see
www.trumpf-powertools.com.

4. Send the order to the TRUMPF representative office.

**7. Appendix: Declaration of conformity,
guarantee, replacement parts lists**