

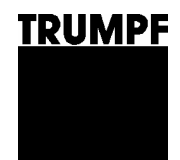
# Operator's manual



## TKA 300-0

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english





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**Guarantee**

**Replacement parts list**

**Addresses**

# 1. Safety

## 1.1 General safety rules

- 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.



**Danger**

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### Lethal danger due to electric shock!

- Before carrying out any maintenance work on the appliance, pull the plug out of the socket.
  - Before each time the appliance is used, check the plug, the cable and the appliance for damage.
  - Keep the appliance 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.
- 



**Caution**

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### Danger of injury due to incorrect handling!

- When working with the machine, wear safety glasses, hearing protection, protective gloves and work shoes.
  - Only insert the plug when the appliance is switched off. After use, pull out the mains plug.
- 



**Caution**

---

### Damage to property can result from incorrect handling.

#### The device may be damaged or destroyed.

- Do not carry the appliance by its cable.
  - Always guide the cable away from the back of the appliance and to not pull the cable over sharp edges.
  - Arrange for startups and checks on manual electric tools to be carried out by a trained engineer. Only used the original accessories provided by TRUMPF.
-

## 1.2 Specific safety rules



**Warning**

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### **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 can result from incorrect handling.**

#### **The device may be damaged or destroyed.**

- Do not carry the appliance by its cable.
  - Always guide the cable away from the back of the appliance and to not pull the cable over sharp edges.
  - Arrange for startups and checks on manual electric tools to be carried out by a trained engineer. Only used the original accessories provided by TRUMPF.
- 



**Warning**

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### **Risk of injury from high-temperature chips!**

#### **High-temperature chips are expelled from the chip ejector at high speed.**

- Use the swarf box.
- 



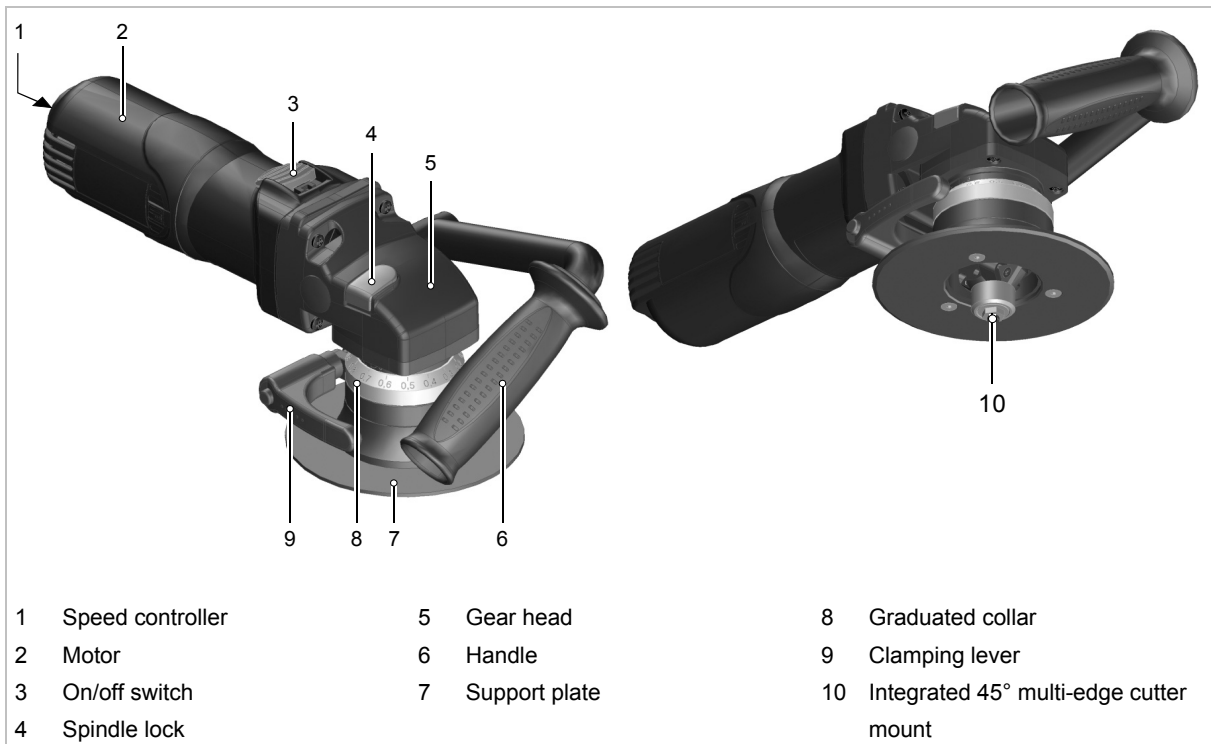
**Warning**

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### **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.
-

## 2. Description



Chamfering and deburring tool in overview

Fig. 30590, 30822

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## 2.1 Correct use



**Caution**

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### **Can cause injury or damage to health!**

- For processing and materials, only use machines which are named in "Correct use".
  - Do not machine materials which contain asbestos.
- 

The TRUMPF TKA 300-0 chamfering and deburring tool is an electrically driven portable machine:

- For machining workpieces in steel, chrome steel, aluminum, aluminum alloys, brass and plastic (PA6).
- For commercial use in industry and trade.
- When adding visible edges in plant, tool and machine construction.
- For rounding off e.g. T-beams in construction and structural steel engineering.
- For removing burrs following cutting processes (e.g. guillotine shearing).
- For use in shipbuilding, to remove sharp corners and edges, owing to the risk of flaking of paint (corrosion protection).
- When machining steel furniture.

## 2.2 Technical data

	Other countries			USA
	Values	Values	Values	Values
<b>Voltage</b>	<b>230 V</b>	<b>120 V</b>	110 V	120 V
<b>Frequency</b>	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
<b>Working speed</b>	4-6 m/min	4-6 m/min	4-6 m/min	13-20 ft/min
<b>Nominal power consumption</b>	850 W	670 W	670 W	670 W
<b>Stroke rate with idle run</b>	8600/min	8700/min	8000/min	8700/min
<b>Weight with lead handle with cable</b>	2.9 kg	2.9 kg	2.9 kg	6.4 lbs
<b>Min. sheet thickness</b>	1.5 mm	1.5 mm	1.5 mm	0.06 in
<b>Smallest radius with inner cutouts</b>	11 mm	11 mm	11 mm	0.44 in
<b>Edge radius</b>	3 mm	3 mm	3 mm	0.12 in
<b>Protective insulation</b>	Class II	Class II	Class II	Class II

Technical data

Tab. 1

Noise and vibration	Measured values as stated in EN 50 144	
	While idling	When working
<b>A-weighted sound level</b>	typically 83 dB (A)	typically 92 dB (A)
<b>A-weighted sound level</b>	typically 97 dB (A)	typically 106 dB (A)
<b>Hand-arm vibration</b>	typically less than or equal to 1.8 m/s <sup>2</sup>	typically less than or equal to 11.5 m/s <sup>2</sup>

Measured values for noise and vibration

Tab. 2

### Note

The measured values specified above may be exceeded while working.

## Chamfer height

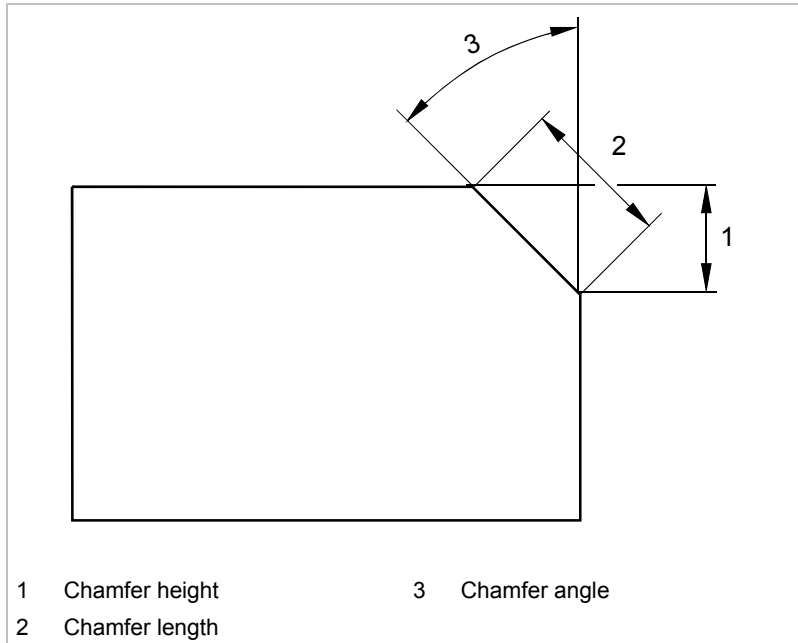


Fig. 36835

Material and tensile strength	Chamfer height [mm]						Chamfer length [mm]	
	30°		45°		60°		230 V	110/ 120 V
	230 V	110/ 120 V	230 V	110/ 120 V	230 V	110/ 120 V		
• Steel 400 N/mm <sup>2</sup>	2.6	2.1/ 0.082	2.1	1.7/ 0.66	1.5	1.2/ 0.047	3	2.4/ 0.094
• Steel 600 N/mm <sup>2</sup>	1.3	1/ 0.039	1.1	0.7/ 0.027	0.8	0.6/ 0.023	1.5	1.1/ 0.047
• Steel 800 N/mm <sup>2</sup>	0.9	0.6/ 0.023	0.7	0.5/ 0.019	0.5	0.4/ 0.015	1	0.7/ 0.027
• Aluminium 250 N/mm <sup>2</sup>	5.2	4.3/ 0.169	4.2	3.4/ 0.133	3	2.5/ 0.098	6	5.0/ 0.196

Tab. 3



### 3. Tool assembly



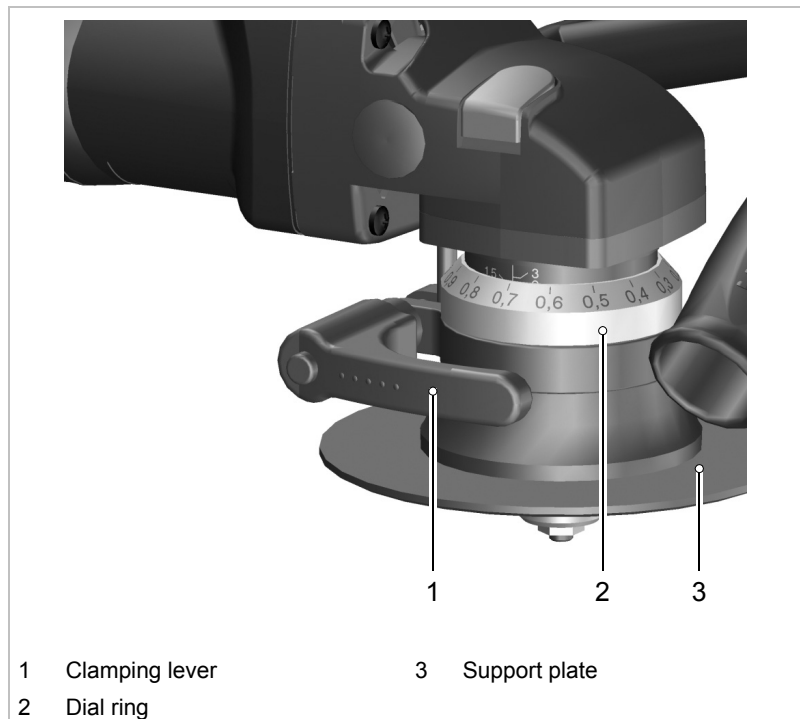
Caution

**Support plate and dial ring become hot!**

**Danger of burns**

- When configuring the chamfer height wear protective gloves.

#### 3.1 Setting chamfer height



Setting chamfer height

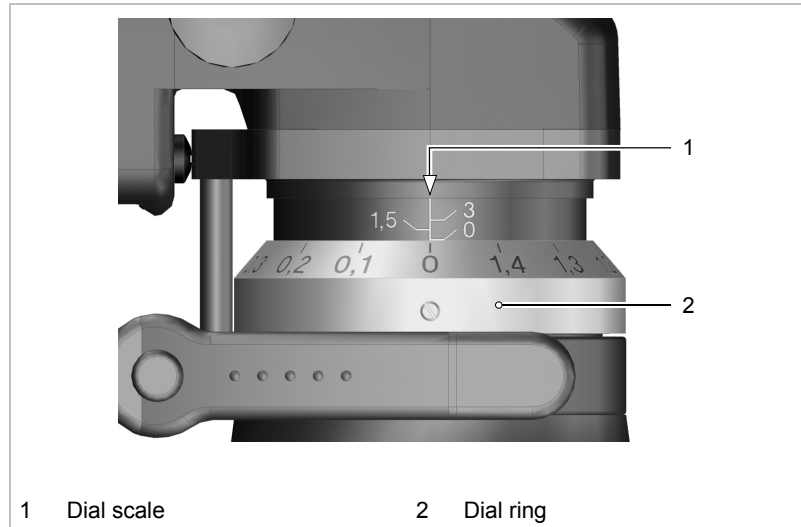
Fig. 30592

The chamfer height is set with the aid of the support plate and can be read off the numeric scale on the dial ring.

1. Loosen clamping lever (1).
2. Rotate support plate (3) until desired chamfer height can be read at the dial ring (2). Chamfer height is calculated as follows:  
 $(\text{Value on dial scale}) + (\text{value on dial ring}) = \text{chamfer height.}$   
 Example:  $1.5 + 0.7 = 2.2$
3. Retighten the clamping lever (1).

Chamfer height is set.

**Dial ring** The unit is adjusted in zero position on assembly. Zero position means chamfer height zero. The dial ring can be readjusted.



1 Dial scale

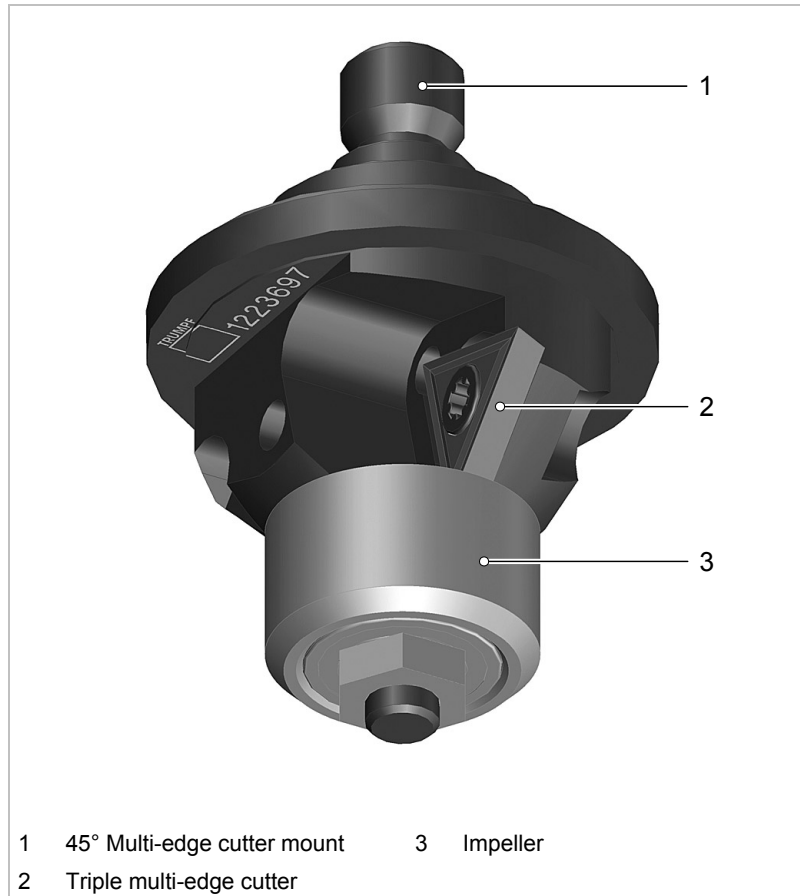
2 Dial ring

Zero position

Fig. 31290

### 3.2 Select triple multi-edge cutter as tool

Integrated 45° multi-edge  
cutter mount



Integrated 45° multi-edge cutter mount

Fig. 32902

The triple multi-edge cutters, which are actually tools for chamfering and deburring:

- For machining steel, aluminum and aluminum alloys as well as plastic material.
- Suitable for processing bevels with 45°.

For each material there are the appropriate multi-edge cutters:

Tensile strength of workpiece	Multi-edge cutter
Steel up to 400 N/mm <sup>2</sup>	St
Steel up to 600 N/mm <sup>2</sup>	Cr
Steel up to 800 N/mm <sup>2</sup>	Cr
Aluminum/aluminum alloy up to 250 N/mm <sup>2</sup>	Alu
Plastic material (PA6)	Alu

Tab. 4

### 3.3 Use radius tool and multi-edge cutters as a tool

When deburring or chamfering with radius the multi-edge cutter mount R is inserted completely. The integrated multi-edge cutter mount consists of the multi-edge cutter mount R, the multi-edge cutters and the impeller R.

The multi-edge cutters, the actual tools as radius tools, are:

- useable for processing steel, aluminum and aluminum alloys as well as plastic material.
- suitable for processing bevels with radius R2 or R3.

There is an appropriate multi-edge cutter for each material:

#### Multi-edge cutter and Einstellmaß

Tensile strength of the workpiece	Radius	Multi-edge cutter	Chamfer height [mm]
Steel up to 400 N/mm <sup>2</sup>	R2	St R2	1.1
Steel up to 400 N/mm <sup>2</sup>	R3	St R3	1.7
Steel up to 600 N/mm <sup>2</sup>	R2	Cr R2	1.1
Steel up to 800 N/mm <sup>2</sup>	R2	Cr R2	1.1
Aluminum/aluminum alloy <sup>2</sup>	R2	Cr R2	1.1
Steel up to 600 N/mm <sup>2</sup>	R2	Cr R2	1.1
Plastic material (PA6)	R2	Cr R2	1.1

Multi-edge cutter and setting dim.

Tab. 5

#### Note

The values for chamfer height are guidance values which may differ from the stated values.

#### Note

Before processing steel and aluminum or aluminum alloys it is recommended to oil the cutting edges with cutting oil to achieve edges that can be better processed and a higher tool service life.



## 4. Operating instructions



**Caution**

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### **Damage to property due to an oversupply of power!**

#### **Damage to the motor**

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



**Caution**

---

### **Damage to property due to blunt tools!**

#### **Overloading of the appliance.**

- Check tools regularly for wear. Sharp multi-edge cutters ensure high quality cutting and protect the device. Rotate or replace multi-edge cutters in good time.
- 



**Caution**

---

### **Danger of injury due to incorrect 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 when operating.
  - Do not work above your head with the appliance.
- 

#### **Electromagnetic faults**

The appliance may switch off prematurely when affected by electromagnetic faults. The appliance will continue to operate when the faults have been cleared.

#### **Overload protection motor**

When the motor temperature is too high the motor switches off.

- Let the unit run idle until it has cooled down.

After cooling the unit can be operated again as normal.

## 4.1 Working with chamfering and deburring tool

Switch on chamfering and deburring tool

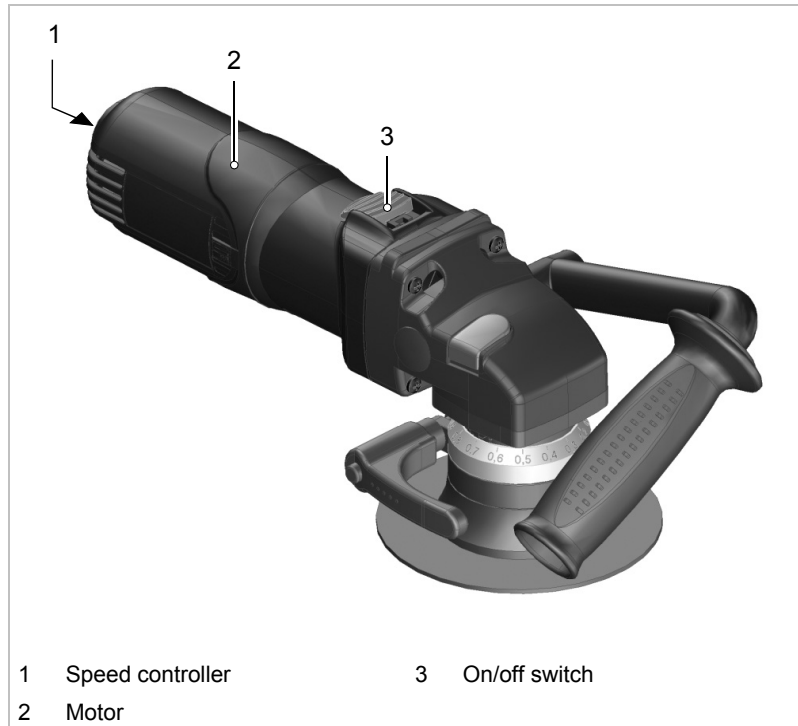


Fig. 30594

1. Set the speed controller (1) (230 V) to the highest level (= level G).
2. Push the On/off switch (3) on the motor (2) and press the switch down till it catches.  
Motor runs.
2. Set the speed controller (1) (230 V) to the highest level (= level G).

Working with chamfering and deburring tool

1. Only move the machine towards the workpiece when full speed has been reached.
2. Processing material.  
When deburring or chamfering the device must always be moved **from left to right** (up-milling).

**Two-hand operation** Work is performed with two-hand operation for all machine positions.



Two-hand operation

Fig. 31628

When operating the machine ensure that the machine is held with both hands in such a way that both hands are kept away from the processing point.

**Switch off chamfering and deburring tool**

1. Remove machine from material.
2. On/off switch (see Fig. 30594, p. 14, 3) first press down on motor then push switch back.

The motor is stopped.

## 5. Maintenance



**Danger**

---

### Lethal danger due to electric shock!

- When carrying out a tool change, and above all, when carrying out maintenance work on the appliance, pull the plug out of the socket.
- 



**Caution**

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### Tool and multi-edge cutter mount become hot!

#### Danger of burns

- For tool change wear protective gloves.
- 



**Caution**

---

### Damage to property due to blunt tools!

#### Overloading of the appliance.

- Check tools regularly for wear. Sharp multi-edge cutters ensure high quality cutting and protect the device. Rotate or replace multi-edge cutters in good time.
- 



**Warning**

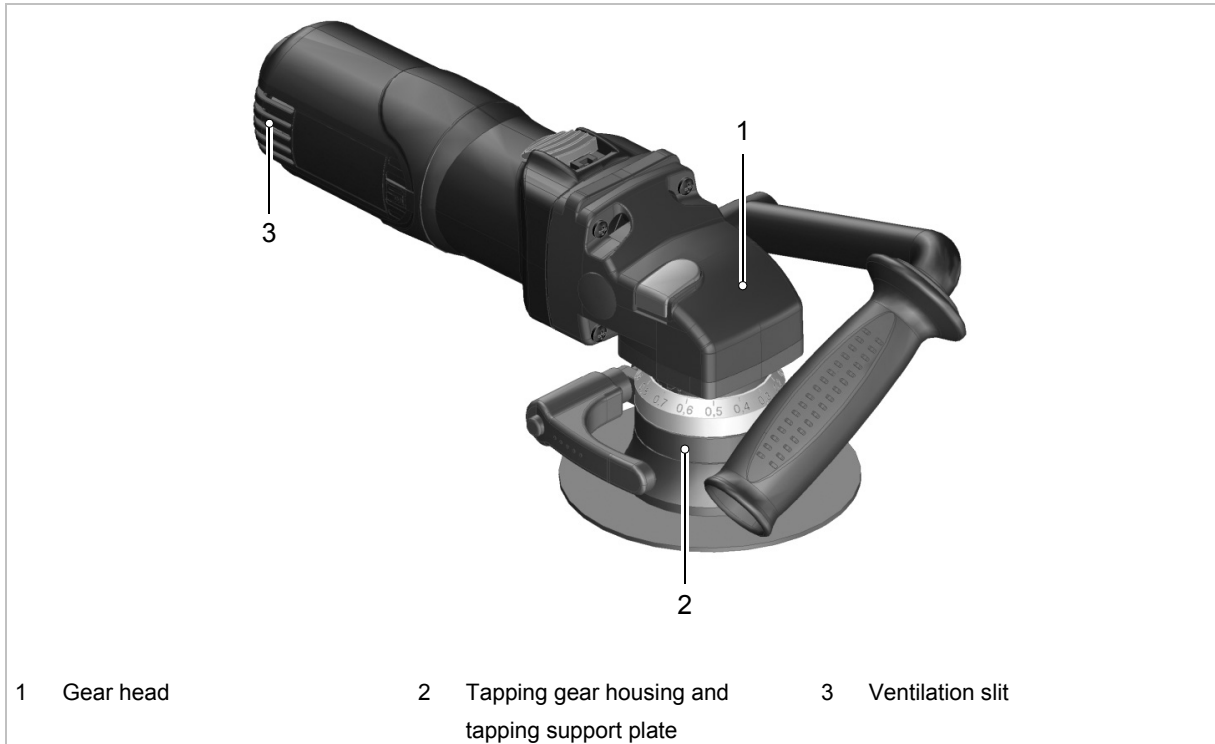
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### Risk of injury due to incorrect repairs!

#### The appliance will not function properly.

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





Maintenance positions on the TKA 300-0

Fig. 30823

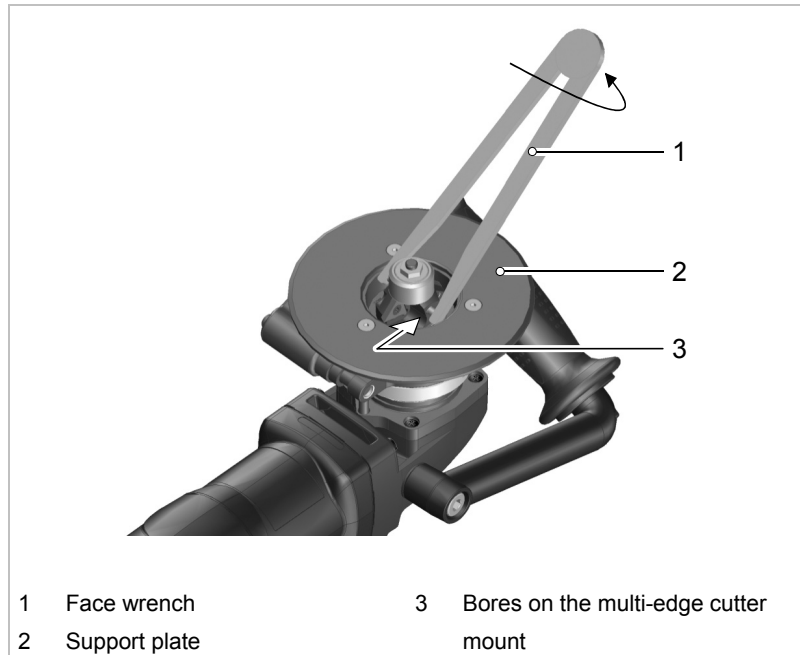
Maintenance point	Procedure and interval	Empfohlene Schmiermittel	Recommended lubricants
Gearbox and gear head (1)	After 100 operating hours, arrange for a trained engineer to relubricate or to replace the lubricating grease.	"G1" lubricating grease	0139440
Integral tapping gear housing and integral tapping support plate (2)	Clean and grease if necessary	"G3" lubricating grease	0353969
Ventilation slit (3)	Clean as required.	-	-
Multi-edge cutter	Turn or insert a new one if necessary.	-	-
Impeller	Change if necessary.	-	-

Maintenance positions and maintenance intervals

Tab. 6

## 5.1 Change tool

### Dismantle multi-edge cutter mount



Tool changes

Fig. 30596

1. Insert face wrench in the corresponding bores (3) on the multi-edge cutter mount.
2. Press spindle lock and at the same time turn the face wrench (1) counter-clockwise.
3. Take out the integrated multi-edge cutter mount.

## 5.2 Change multi-edge cutter

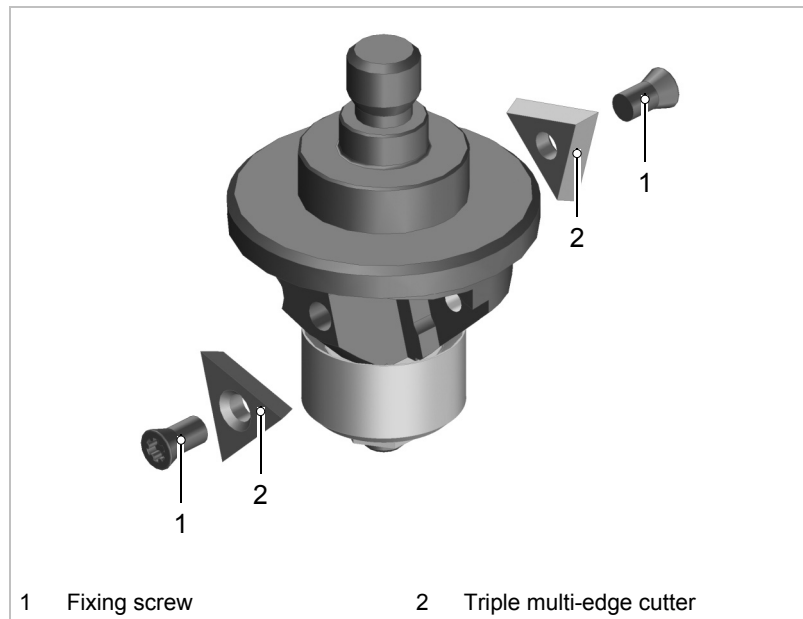


Fig. 30598

1. Loosen fixing screw (1) and take out multi-edge cutter (2).
2. Turn multi-edge cutter or insert a new one.
3. Refasten multi-edge cutter with fixing screws.



### 5.3 Change impeller

The impeller must be changed if worn, or else the chamfer surfaces will be unevenly machined.

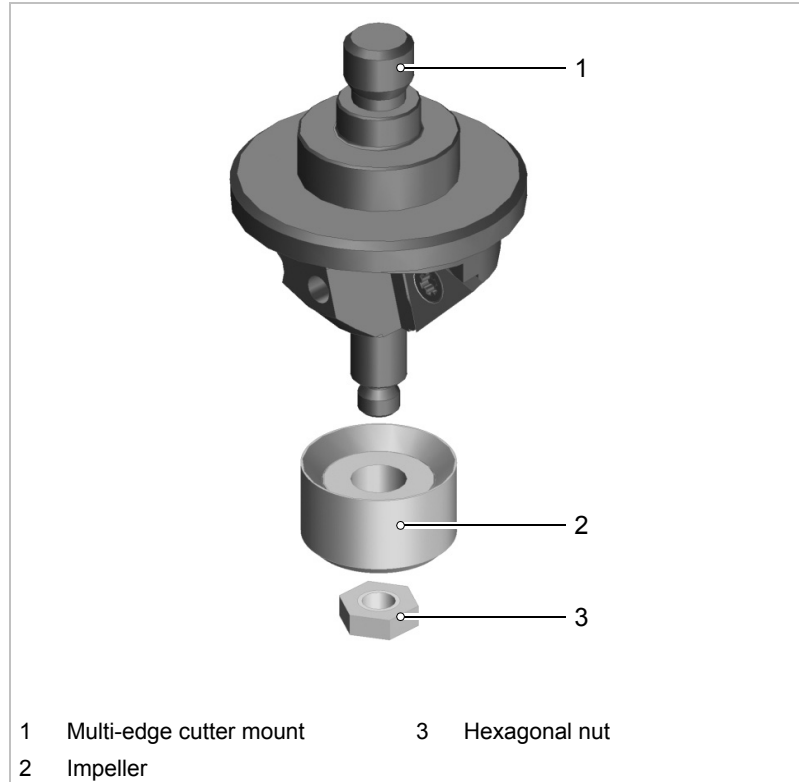


Fig. 31289

1. Loosen hexagonal nut (3) with single end spanner.
2. Pull impeller (2) away and exchange it.
3. Refasten the new impeller with hexagonal nut.

### 5.4 Replace carbon brushes

The motor remains at a standstill when the carbon brush is worn out.

- Have carbon brushes checked and replaced by an expert when required.

#### Note

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

## 6. Original accessories and expendable parts

TKA 300-0	Original accessories delivered	Expendable parts	Options	Order number
Face wrench	+			0353531
Torx screwdriver TX15x60	+			0353793
Single end spanner	+			0068012
Safety glasses	+			0944950
Multi-edge cutter mount 45° with impeller	+			1223697
Multi-edge cutter mount R with impeller			+	1227952
Case	+			1209342
Operator's manual	+			1207702
Safety instructions (red document), other countries	+			0125699
General safety rules (red document), USA	+			1239438
Cutting oil for steel (0.5 l)			+	0103387
Cutting oil for aluminum (1 l)			+	0125874
Multi-edge cutter mount 45° with impeller			+	1227952
Multi-edge cutter mount 45° triple with impeller			+	1227954
Multi-edge cutter mount 30° with impeller			+	1237000
Multi-edge cutter mount 30° triple with impeller			+	1237683
Spacer plate			+	1236998
Protective foil (5 pieces)			+	1234851
Waste metal box			+	1236997
Impeller for thin sheet metal			+	1237451
Support plate (small)			+	1315258



TKA 300-0	Original accessories delivered	Expendable parts	Options	Order number
Lubricating grease "G1"			+	0139110
Lubricating grease "G3"			+	0353969
Multi-edge cutter mount 60°			+	1257861
2 multi-edge cutters ST (replacement parts)	+	+		1209676
2 multi-edge cutters CR (replacement parts)		+	+	1214188
2 multi-edge cutters ALU (replacement parts)		+	+	1214189
2 multi-edge cutters ST R3 (replacement parts)		+	+	1232630
2 multi-edge cutters ST R2 (replacement parts)		+	+	1232672
2 multi-edge cutters CR R2 (replacement parts)		+	+	1232680
10 multi-edge cutters CR R2 (replacement parts)		+	+	1232691

Original accessories, expendable parts and options

Tab. 7

### Ordering expendable parts

To ensure fast delivery of the correct original and expendable 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.