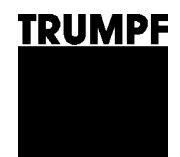


Operator's manual



TruTool TKA 300 (1A5) Recharger CLi

English



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Guarantee

Replacement parts list

Addresses

1. Safety

1.1 General safety information

- Read the operator's manual and the safety information (Order No. 125699) in their entirety before starting up the machine. Closely follow the instructions given.
- Adhere to the safety regulations in accordance with DIN VDE, CEE, AFNOR and to the specific regulations of the country of operation.



Danger

Risk of fatal injury from electric shock!

- Do not touch the electrical contacts on the recharger or on the rechargeable battery.
-



Warning

Risk of injury from the battery!

- Always remove the battery from the machine prior to maintenance work.
 - Check the machine the rechargeable battery for damage each time before use.
 - Keep the machine dry and do not operate it in damp rooms.
 - Charge the exchangeable battery of the Li-Ion Energy 28 V system only with the recharger of the Li-Ion Energy 28 V system.
 - Do not attempt to open the exchangeable batteries or the recharger.
 - Do not dispose of the exchangeable batteries in fires or household waste.
-



Warning

Risk of injury due to improper handling!

- Wear safety glasses, hearing protection, protective gloves and work shoes during work.
-



Caution

Damage to property due to improper handling!

Machine will be damaged or destroyed.

- Have servicing and inspections of hand-held electric tools and recharger carried out by a qualified specialist. Only use original accessories provided by TRUMPF.
-

1.2 Specific safety information



Warning

Risk of injury 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 move the machine during work away from your body.
 - Do not operate the machine above your head.
-



Warning

Risk of injury to hands!

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



Warning

Risk of injury from high-temperature chips!

High-temperature chips are produced at high speeds.

- Use chip box.
-



Warning

Risk of injury from multi-edge cutters being flung out of the system!

- Tighten fixing screws to the multi-edge cutter with a torque (5 Nm).
-

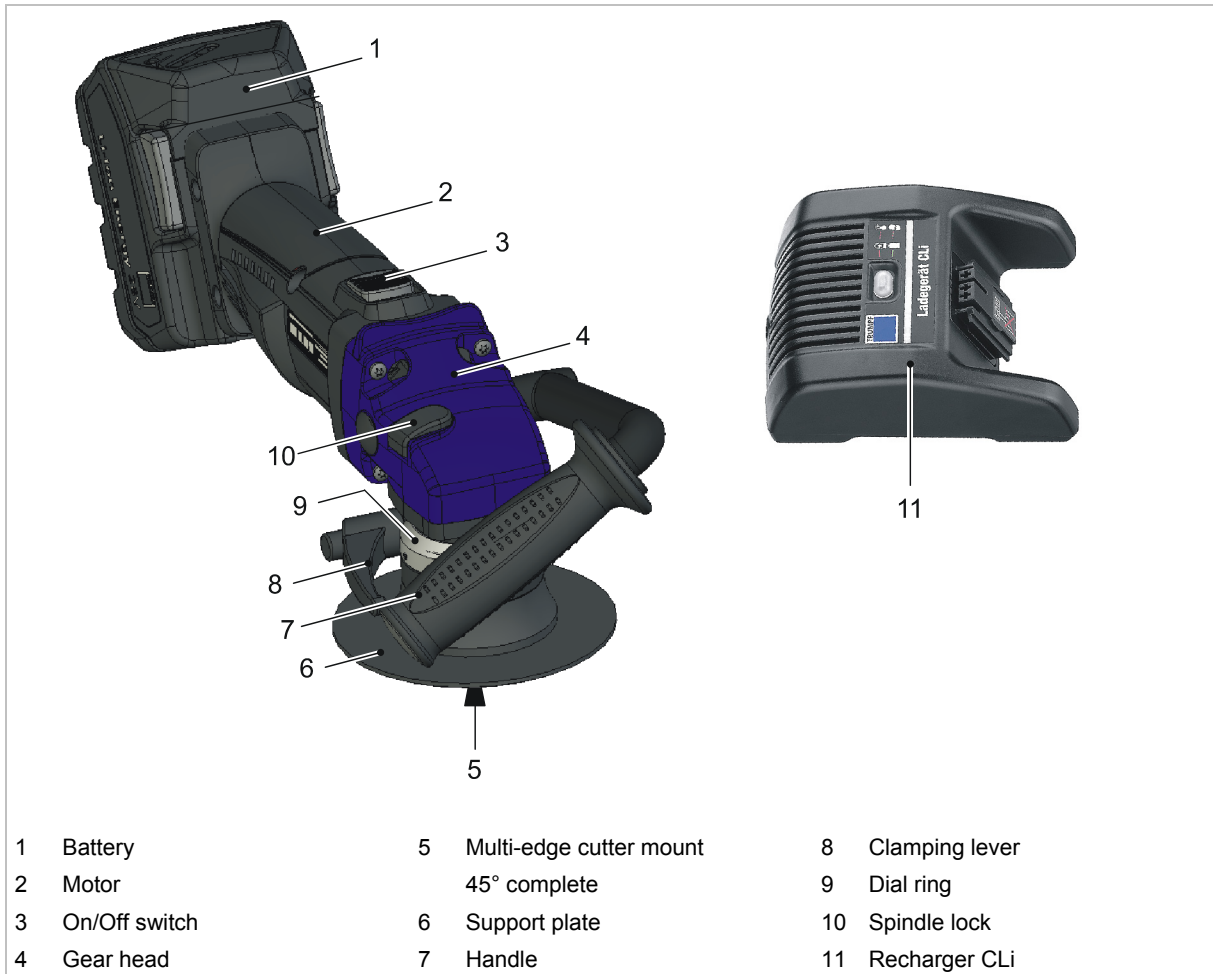


Warning

Health risk from breathing cutting oil!

- Ensure adequate ventilation when working with cutting oil.
 - Do not inhale vapors that occur.
-

2. Description



TruTool TKA 300 with recharger

Fig. 53295

2.1 Correct use



Warning

Can cause injury or damage to health!

- Only use the machine for work and materials described in "Intended use".
 - Do not process any materials containing asbestos.
-

The TRUMPF TruTool TKA 300 chamfering and deburring machine is an electrically operated hand-held device for the following applications:

- Processing of workpieces made of steel, chromium steel, aluminum, aluminum alloys, brass or plastic material (PA6).
- Utilization in industry and trade.
- Attachment of visible edges in plant and machine construction.
- Rounding off of e.g. T-beams construction and structural steel work.
- Removal of cutting burrs after splitting procedures (e.g. guillotine shearing).
- Application in shipbuilding, to remove sharp corners and edges, because of the danger of paint cracking off (anticorrosion protection).
- Machining of steel furniture.

The CLi recharger charges exchangeable batteries of the Li-Ion Energy 28 V system.

2.2 Technical data

	Other countries	USA
	Values	Values
Voltage	28 V	28 V
Working speed	3-5 m/min	10-17 ft/min
Idle speed	7300/min	7300/min
Weight with guide handle (with rechargeable battery)	4.3 kg	9.5 lbs
Weight with guide handle	3.3 kg	7.3 lbs
Min. material thickness	1.5 mm	0.06 in
Smallest radius with inner cutouts	12 mm	0.47 in
Edge radius	3 mm	0.12 in

Technical data TruTool TKA 300

Table 1

Voltage	28 V
Charging current for quick charging	3.5 A
Charging time	approximately 1 h
Weight without power cord	700 g

Technical data CLi recharger

Table 2

Vibration	Specifications in accordance with EN 12096 Measured values in accordance with EN ISO 8662-10
Vibration value at the handle a	6.2 m/s ²
Uncertainty K	1.5 m/s ²

Table 3

Measured values were measured while machining sheet steel 400 N/mm² with max. chamfer length.

Noise emissions	Designations in accordance with EN ISO 4871 Measured values in accordance with EN ISO 15744
A-rated sound level L _{WA}	106 dB
A-rated acoustic power level at the work place L _{PA}	92 dB

Table 4

The noise emission values given are the sum of the measured values and the corresponding uncertainties. They represent an upper value limit which can emerge during measurements.

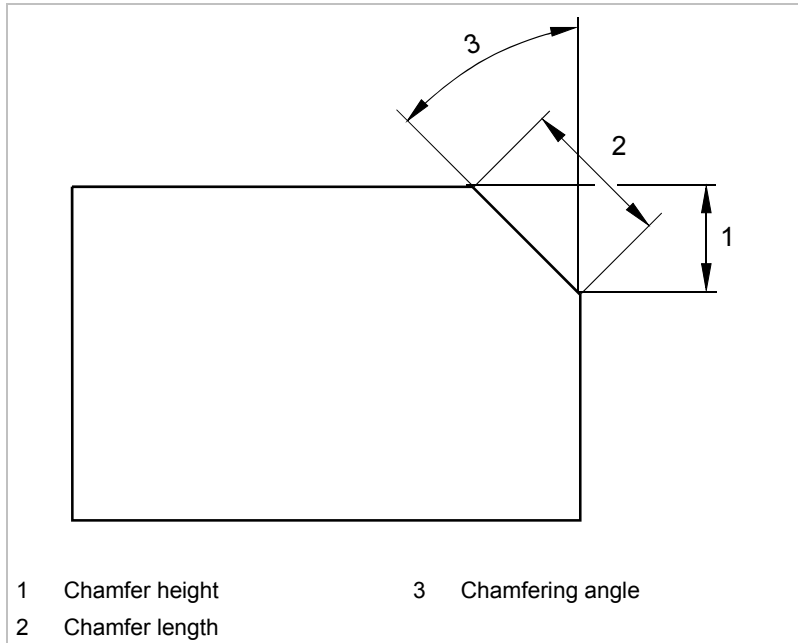
Chamfer height

Fig. 36835

Material and tensile strength	Chamfer height						Chamfer length	
	30°		45°		60°		[mm]	[inch]
	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]		
Steel 400 N/mm ²	2.6	0.102	2.1	0.083	1.5	0.059	3.0	0.118
Steel 600 N/mm ²	1.3	0.051	1.1	0.043	0.8	0.031	1.5	0.059
Steel 800 N/mm ²	0.9	0.035	0.7	0.028	0.5	0.019	1.0	0.039
Aluminum 250 N/mm ²	5.2	0.205	4.2	0.165	3.0	0.118	6.0	0.236

Table 5

3. Setting work

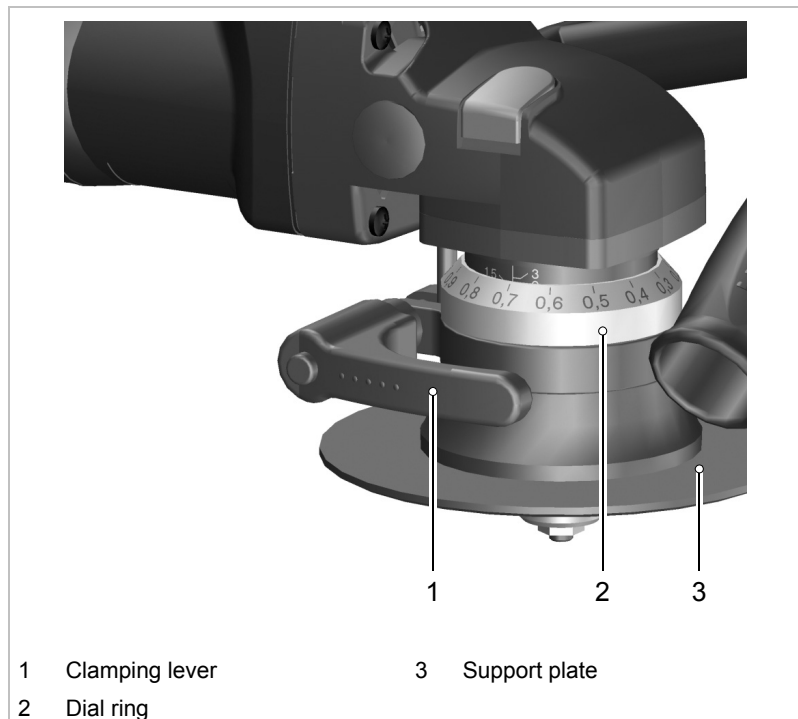


Caution

Risk of burns from hot support plates and dial ring!

- Wear protective gloves when setting the chamfer height.

3.1 Setting the chamfer height



Setting the chamfer height

Fig. 30592

The chamfer height is set with the aid of the support plate and read by means of the number scale on the dial ring.

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

The values on the dial ring indicate the chamfer height (1) in mm.

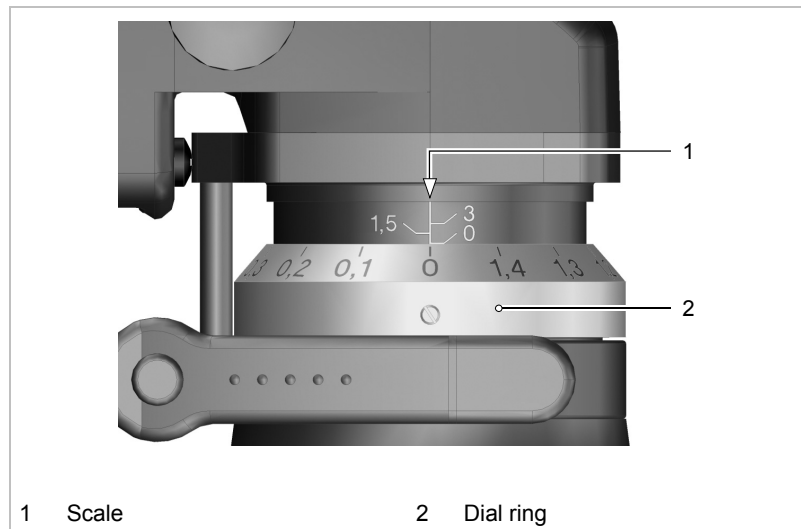
Each complete rotation (=360° rotation) corresponds to a chamfer height of 1.5 mm.

3. Fix the clamping lever (1) back into place.

Chamfer height is adjusted.



Dial ring The machine is adjusted in zero position during assembly. Zero position means chamfer height zero. The dial ring can be readjusted.



1 Scale

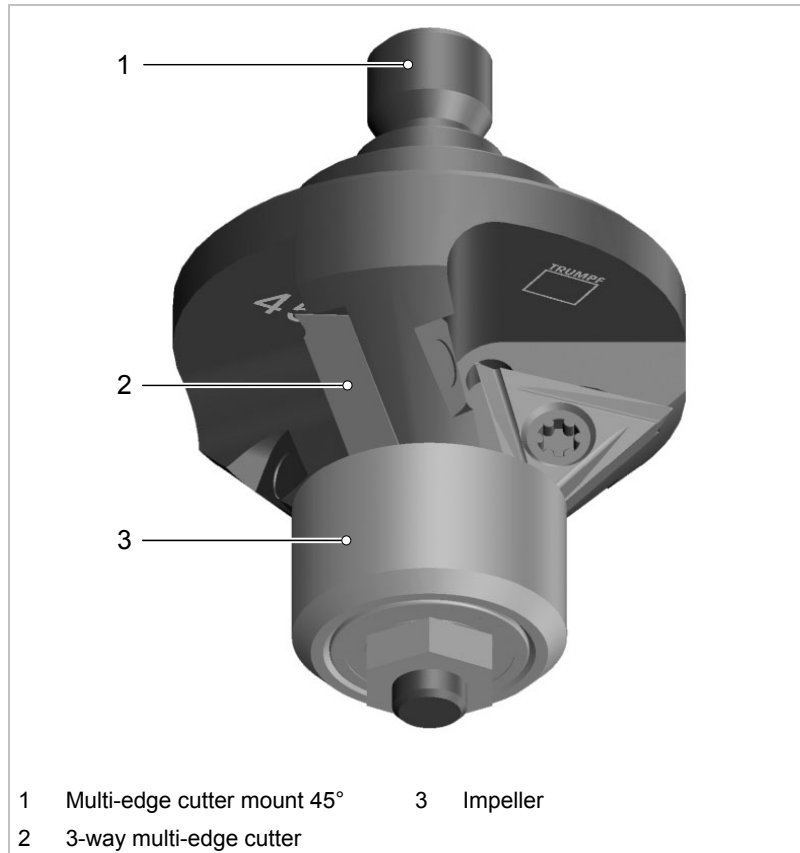
2 Dial ring

Zero position

Fig. 31290

3.2 Selecting 3-way multi-edge cutters as tool

Multi-edge cutter mount
45° complete



Multi-edge cutter mount 45° complete

Fig. 33407

The 3-way multi-edge cutters, the actual tools for chamfering and deburring, are:

- useable for processing steel, aluminum and aluminum alloys as well as plastic material.
- suitable for machining chamfers at 45°.

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

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

Table 6

3.3 Utilizing radius tool and multi-edge cutters as tools

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.

Multi-edge cutters and setting value

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

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

Multi-edge cutters and setting value

Tab. 7

Note

- The values of the chamfer height are recommended values which could differ from the specified values in individual cases.

3.4 Loading the rechargeable battery



Danger

Risk of fatal injury from electric shock!

Line voltage is present at the battery terminals.

- Do not touch the electrical contacts (battery terminals) on the recharger or on the rechargeable battery.

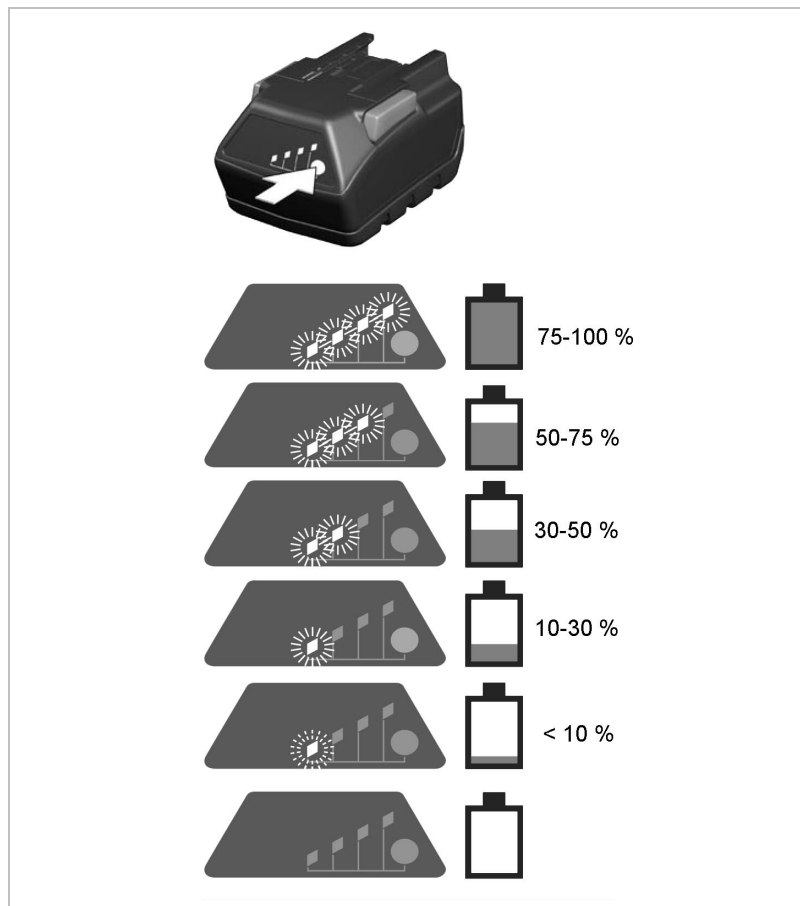
The rechargeable battery is partially charged (50%) at the time the rechargeable battery electric tool is delivered.

Checking loading status

Condition

- The electric tool has been switched off for at least 1 minute.
- Press the key on the rechargeable battery.

The LED on the rechargeable battery shows the charging status.



Check charging status on the rechargeable battery

Fig. 53299



Loading the rechargeable battery

Before using the cordless electric tool, a new exchangeable battery or one that has not been used for a long time needs to be charged.

Note

The full capacity is reached after 2-10 charging cycles.



Fig. 53300

- Insert the exchangeable battery into the insertion well on the recharger.

The loading time is between 1 min and 60 min, depending on how far the rechargeable battery had been discharged beforehand. The rechargeable battery is completely charged after 60 min.

The maximum charging current flows when the temperature of the rechargeable battery is between 0° and 66°C. If a rechargeable battery is inserted into the recharger that is too cold or too warm (red LED flashes), then the charging process will begin automatically as soon as the rechargeable battery has reached the correct charging temperature (-10°C to +66°C).



Status display on the recharger



1 Status display

Recharger CLi

Fig. 53306

Display	Function
red continuous	Loading
green continuous	Rechargeable battery is full
red, blinking	Rechargeable battery too warm/cold
flashing red and green	Error in the rechargeable battery

Table 8

3.5 Changing the battery

Remove the exchangeable battery

- Press the locking mechanism (1) together and pull out the exchangeable battery upwards.

Inserting the exchangeable battery

- Slide the exchangeable battery into the machine holder from above until the battery locks into place.

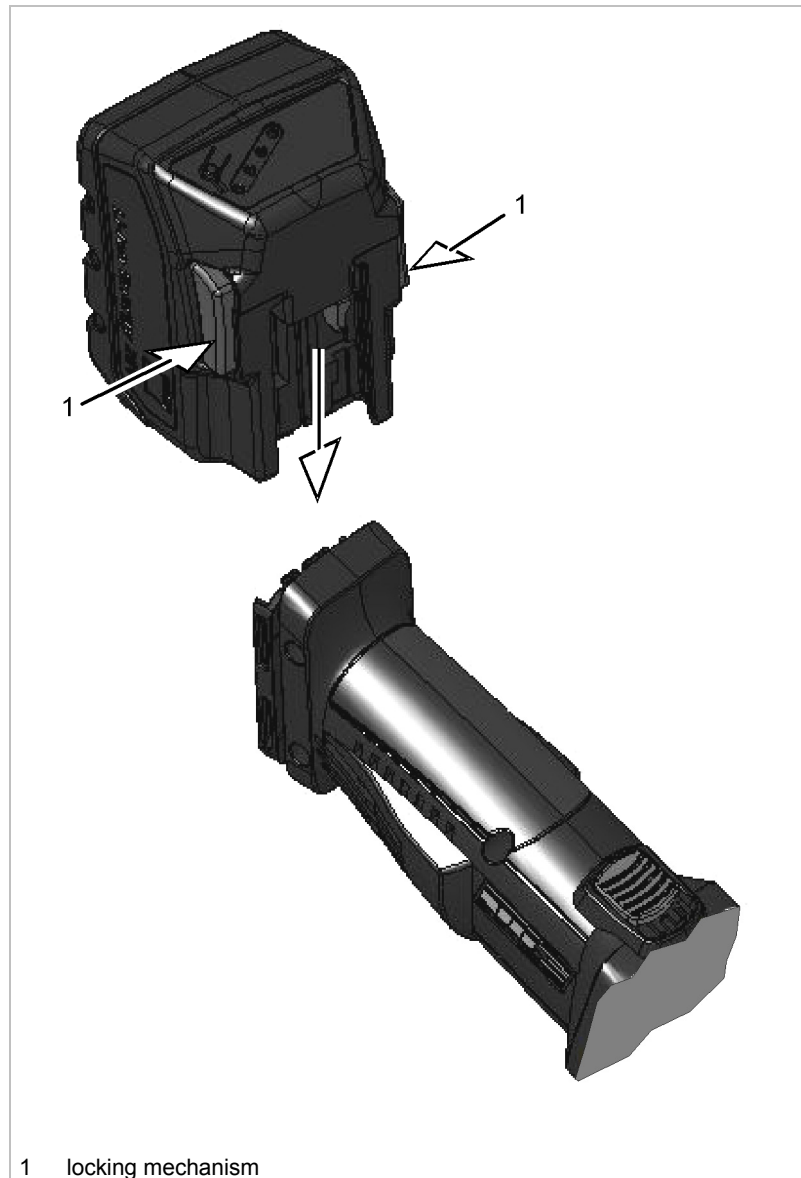


Fig. 53321

4. Operation



Warning

Risk of injury due to improper handling!

- Make sure the machine is always in a stable position when operating it.
- Wear safety glasses, hearing protection, protective gloves and work shoes during work.
- Never touch the tool while the machine is running.
- Always move the machine during work away from your body.
- Do not operate the machine above your head.



Warning

Health risk from breathing cutting oil!

- Ensure adequate ventilation when working with cutting oil.
- Do not inhale vapors that occur.



Caution

Damage to property caused by blunt tools!

Machine overload.

- Check tools regularly for wear: sharp multi-edge cutters provide good cutting performance and protect the machine.
- Rotate or replace multi-edge cutter.

Motor overload protection

The motor shuts off with excess load.

- 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

Coat the cutting edges with oil before machining steel and aluminum or aluminum alloys. In this way:

- The cutting result is improved.
- The service life of the tools is increased.

Material	Oil
Steel	Punching and nibbling oil (0.5 l, order no. 103387)
Aluminum	Akamin oil (1 l, order no. 125874)

Table 9

4.1 Working with the TruTool TKA 300

Before using the cordless electric tool, a new exchangeable battery or one that has not been used for a long time needs to be activated.

Activating rechargeable battery

- Place rechargeable battery briefly on the recharger or charge it completely.

The LED on the rechargeable battery shows the charging status.

Note

The performance capacity of the rechargeable battery is available to only a limited extent at temperatures below -10°C .

Discharging the rechargeable battery

The rechargeable battery shuts off automatically when it is completely discharged. The rechargeable battery emits brief electricity pulses when the electrical tool is switched on.

Switching on TruTool TKA 300

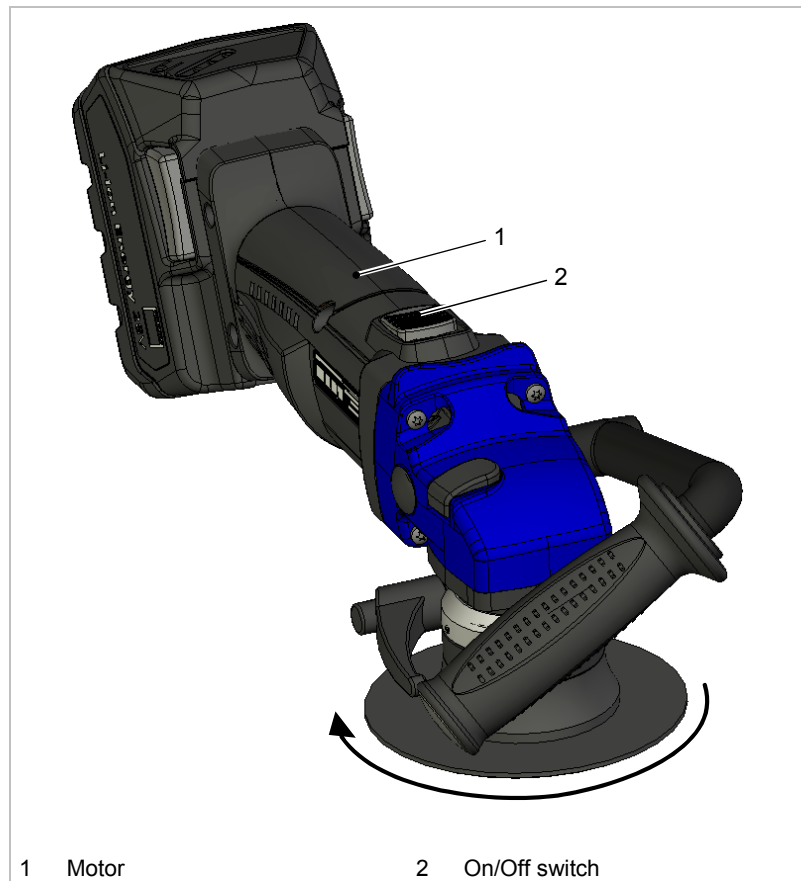


Fig. 53293

- Move the On/Off switch (2) on the motor to the front.

**Note**

If the electric tool does not work after being switched on, stick the rechargeable battery on the recharger and check the charging status.



1 Charging status

Rechargeable battery Li-Ion Energy 28 V

Fig. 53294

Working with the TruTool TKA 300

1. Do not move the machine towards the workpiece until full speed has been reached.
2. Machine the material.
When deburring or chamfering, the machine must always be guided from left to right (conventional milling) (see Fig. 53301, Fig. 53302, p. 22)

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



Two-hand operation

Fig. 53157

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.

When deburring or chamfering the multi-edge cutter mount 45° is inserted completely.

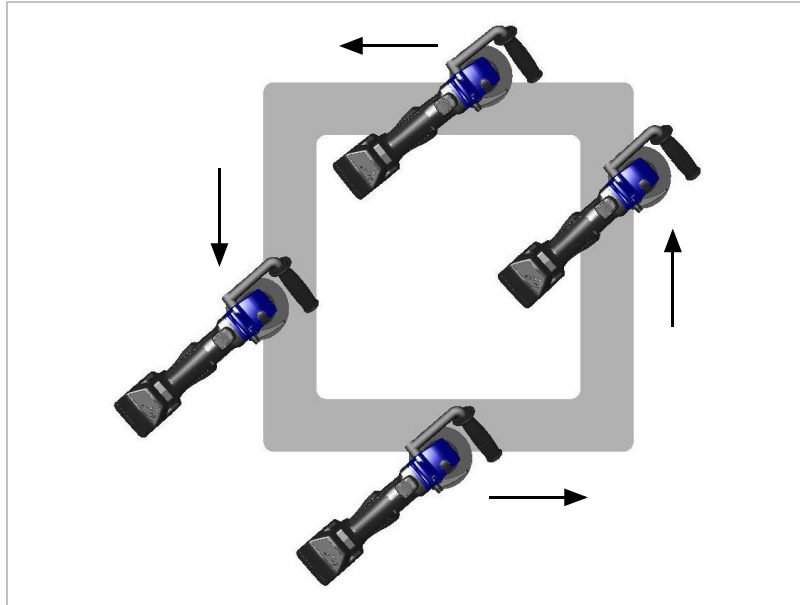
Switching off the TruTool TKA 300

1. Remove the machine from the material.
2. Slide the On-Off switch (see Fig. 53293, p. 19, 2) on the motor to the rear.

The motor is stopped.

Machining outer contours

The following working direction must be maintained when machining outer contours. The position of the machine makes no difference while doing so.

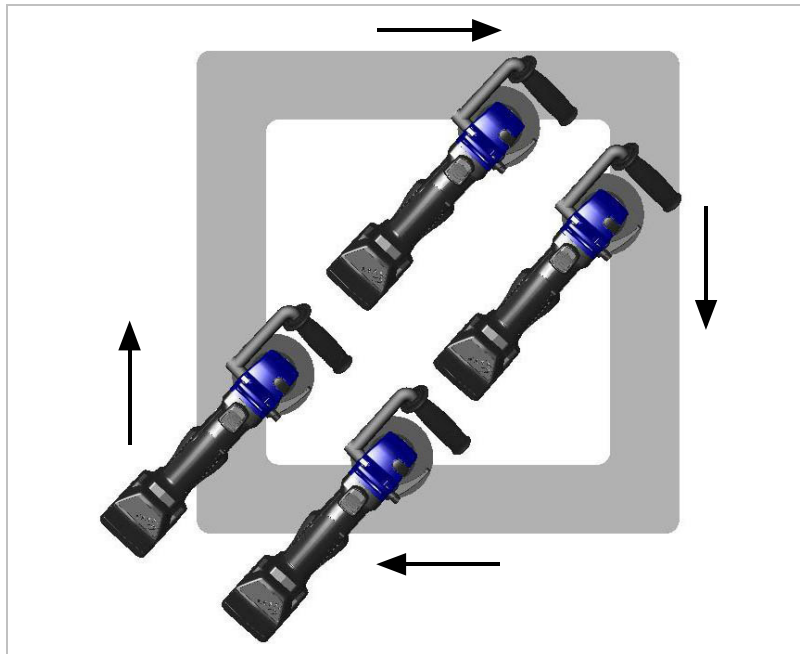


Working direction while machining the outer contour

Fig. 53302

Machining inner contours

The following working direction must be maintained when machining inner contours. The position of the machine makes no difference while doing so.



Working direction while machining the inner contour

Fig. 53301

5. Maintenance



Warning

Risk of injury from the battery!

- Remove the battery when changing tools and before performing any maintenance work on the machine.



Warning

Risk of injury due to repair work not being carried out properly!

Machine does not work properly.

- Repair work may only be carried out by a qualified technician.



Caution

Damage to property caused by blunt tools!

Machine overload.

- Check tools regularly for wear. Sharp multi-edge cutters ensure good cutting quality and protect the machine. Rotate or replace multi-edge cutters in a timely fashion.

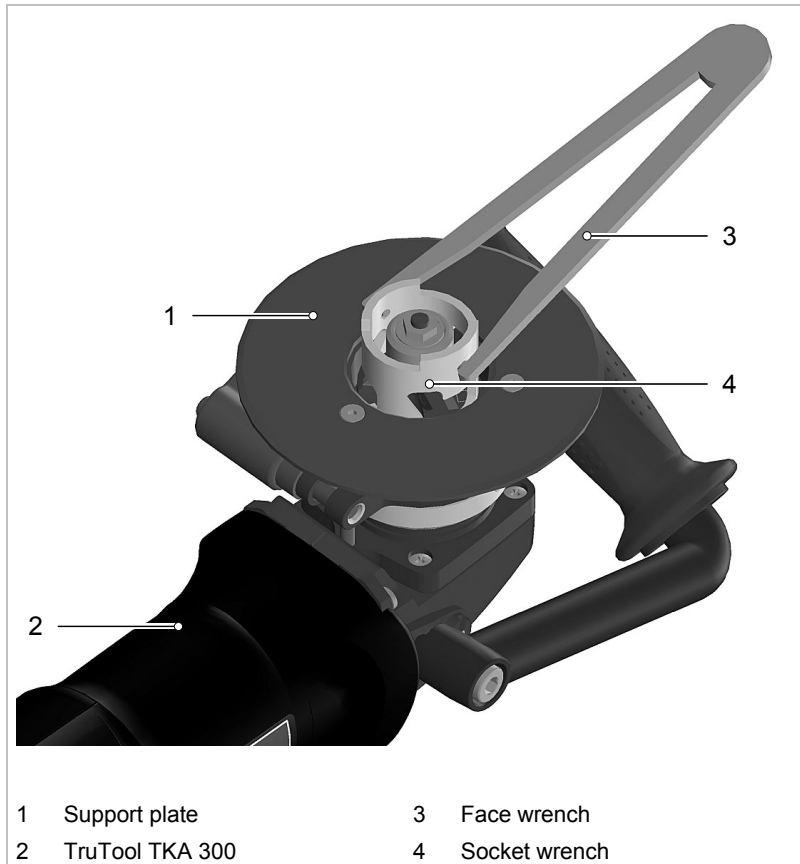
Maintenance point	Procedure and interval	Recommended lubricant	Lubricant order no.
Gearbox and gear head	After 100 operating hours, arrange for a trained specialist to relubricate or to replace the lubricating grease.	Lubricating grease "G1"	0139440
Thread gear housing complete and thread support plate complete	Clean and lubricate as needed.	Lubricating grease "G3"	0353969
Multi-edge cutters	Rotate or replace as needed.	-	-
Impeller	Replace if required.	-	-
Rechargeable battery	Replace as necessary.	-	-

Maintenance points and maintenance intervals

Table 10

5.1 Replacing the tool

Removing the multi-edge cutter mount



Replacing the tool

Fig. 30596

1. Set the socket wrench (4) to milling cutter.
2. Plug the face wrench (3) into the corresponding bore hole on the socket wrench.
3. Press the spindle lock while simultaneously rotating the face wrench (3) counter-clockwise.
4. Remove the integrated multi-edge cutter mount completely.

5.2 Replacing multi-edge cutters



Warning

Risk of injury from multi-edge cutters being flung out of the system!

- Tighten fixing screws to the multi-edge cutter with a tightening torque (5 Nm).

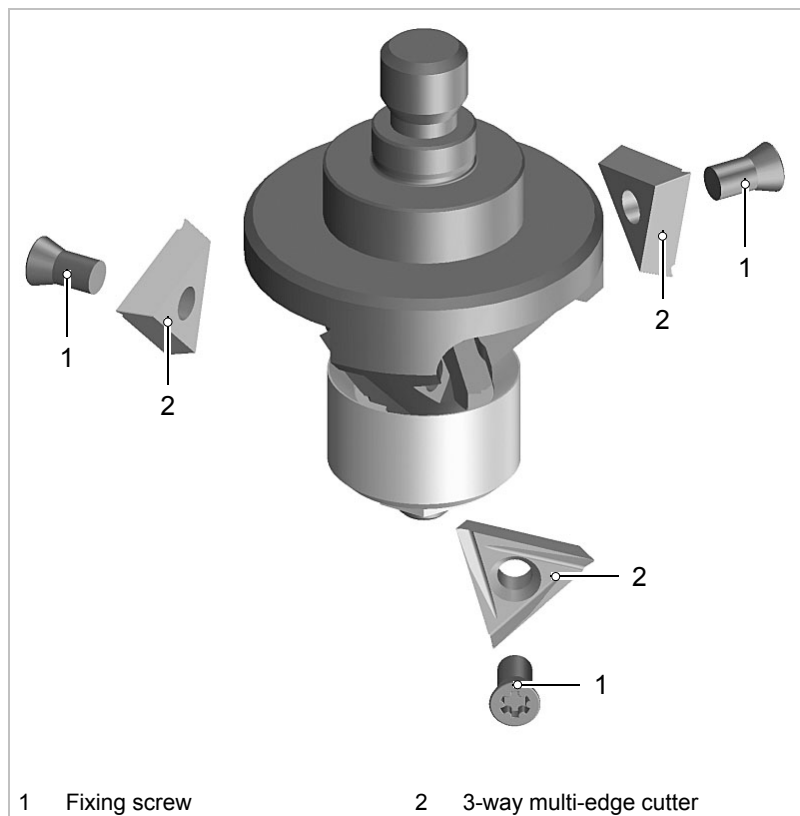


Fig. 33406

1. Loosen the fixing screws (1) and remove the multi-edge cutters (2).
2. Rotate multi-edge cutters or insert new multi-edge cutters.
3. Fasten the multi-edge cutters once again with fixing screws (starting torque 5 Nm).

5.3 Changing the impeller

The impeller must be replaced when there is wear, because otherwise the chamfer surfaces will not receive even machining.

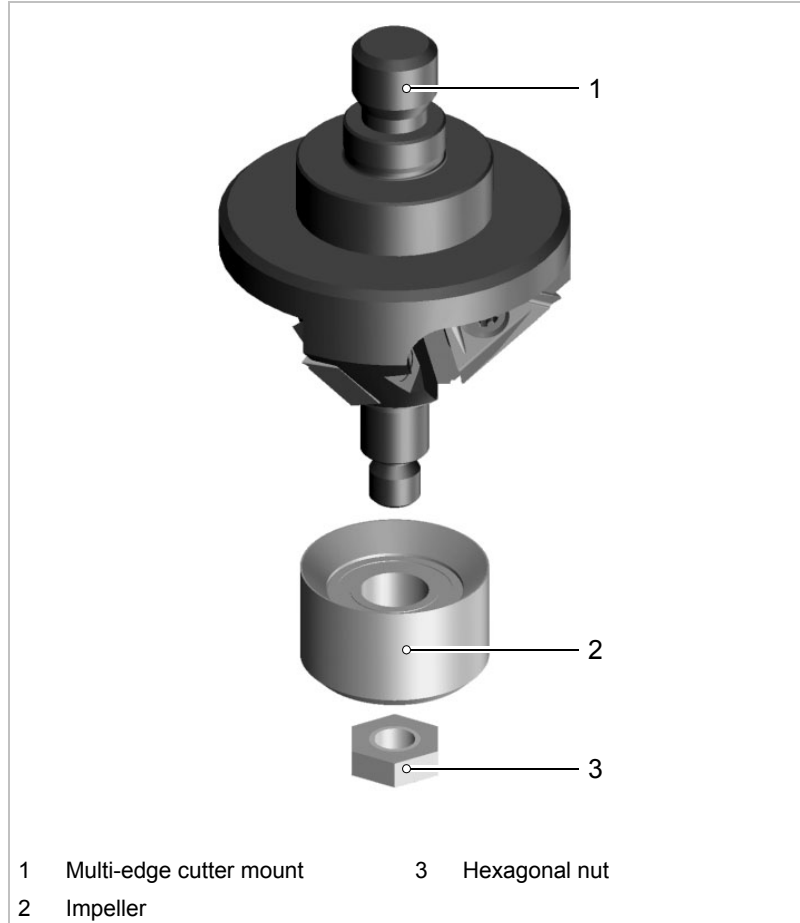


Fig. 33410

1. Undo hexagonal nut (3) with single-head wrench (see Table 11, p. 27).
2. Pull away impeller (2) and replace it.
3. Fasten new impeller back on with hexagonal nut.

6. Original accessories and wearing parts

TruTool TKA 300	Supplied original accessories	Wearing parts	Options	Order number
Pin-type face spanner	+			0353531
Socket wrench	+			1241272
Torx screwdriver TX15x60	+			0353793
Single-head wrench	+			0068012
Safety glasses	+			0944950
Multi-edge cutter mount 45° triple with impeller	+			1227954
Case	+			1470139
Operator's manual	+			1467650
Safety information (red document)	+			0125699
Cutting oil for steel (0.5 l)			+	0103387
Cutting oil for aluminum (1 l)			+	0125874
Multi-edge cutter mount 30° triple with impeller			+	1237683
Multi-edge cutter mount 60° triple with impeller			+	1257861
Multi-edge cutter mount R 2-way with impeller			+	1227952
Spacer plate			+	1236998
Protective foil (5 pieces)		+	+	1234851
Chip box			+	1236997
Impeller for thin sheet metal			+	1237451
Support plate (small)			+	1315258
Lubricating grease "G1"			+	0139440
Lubricating grease " G3"			+	0353969
10 Multi-edge cutters ST (replacement part set)		+	+	1232627
10 Multi-edge cutters CR (replacement part set)		+	+	1232628
10 Multi-edge cutters ALU (replacement part set)		+	+	1232629
2 Multi-edge cutters ST R3 (replacement part set)		+	+	1232630
2 Multi-edge cutters ST R2 (replacement part set)		+	+	1232672
2 Multi-edge cutters CR R2 (replacement part set)		+	+	1232680
10 Multi-edge cutters ST R3 (replacement part set)		+	+	1232671
10 Multi-edge cutters ST R2 (replacement part set)		+	+	1232676
10 Multi-edge cutters CR R2 (replacement part set)		+	+	1232691
Rechargeable battery 28 V	+			1464697
Recharger CLi 220-240 V	+			1464702
Recharger CLi 120 V	+			1464703

Table 11



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

1. Specify the order number.
2. Enter further order information:
 - Voltage data.
 - Quantity.
 - Machine type.
3. Provide complete shipping information:
 - Correct address.
 - Desired 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 www.trumpf-powertools.com.