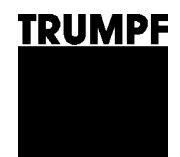


Operator's manual



TruTool N 200 (1A2)

English





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Guarantee

Spare parts list

Addresses

1. Safety

1.1 General safety information

- Before starting-up the machine, read the operator's manual and the safety information (order no. 0373678, red document) in its entirety and carefully follow the instructions given.
- Comply with the safety regulations in accordance with DIN VDE, CEE, AFNOR as well as any other regulations that apply in the individual countries.



Danger

Risk of fatal injury from electric shock!

- When working with the machine do not touch any electrical lines. The machine is not insulated.
-



Warning

Risk of injury due to improper handling!

- Always remove the compressed air hose from the machine prior to maintenance work.
 - Check the compressed air hose, connection coupling, and machine for damage each time before using the machine.
 - Wear safety glasses, hearing protection, protective gloves and work shoes when working at the machine.
 - Connect compressed air only when the machine is switched off.
 - Always lay the compressed air hose away from the back of the machine.
-

1.2 Specific safety information



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 hot and sharp chips!

Hot chips and sharp chips are emitted from the chip dumping at high speed.

- The use of a chip bag is recommended.
-

**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.
-

**Caution****Damage to property due to improper handling!****Machine will be damaged or destroyed.**

- Have servicing and inspections of hand-held compressed air tools carried out by a qualified technician. Only use original TRUMPF accessories.
-

2. Description



Nibbler TruTool N 200

Fig. 52526



2.1 Intended use



Warning

Risk of injury

- Only use the machine for the tasks and materials described in "Intended use".

The TRUMPF Nibbler TruTool N 200 is a hand tool powered by compressed air used for the following applications:

- Slitting plate-shaped workpieces made of a punchable material such as steel, aluminum, non-ferrous heavy metals, and plastic.
- Nibbling straight or curved exterior and interior cutouts.
- Slitting tubes as well as machining sectional sheets.
- Nibbling along scribed lines or templates.

Notes

- The nibbling process produces cutting edges free of deformations.
- Because of the hollow round punch, the nibbler can be rotated at any position such that processing can continue in any direction.

2.2 Technical data of the TruTool N 200

	Other countries	USA
	Value	Value
Max. material thickness:		
Steel 400 N/mm²	2.0 mm	0.079 in
Steel 600 N/mm²	1.5 mm	0.06 in
Steel 800 N/mm²	1.0 mm	0.039 in
Aluminum 250 N/mm²	2.5 mm	0.1 in
Working speed	1.3 m/min	4.2 ft/min
Nominal power consumption	600 W	600 W
Idle stroke rate	1600/min	1600/min
Stroke rate with nominal load	1300/min	1300/min
Weight	1.9 kg	4.2 lbs
Start hole diameter	16 mm	0.63 in
Smallest radius with curved cuts	4 mm	0.16 in
Max. operating pressure (flow pressure)	6.2 bar	90 psi
Air consumption at 6 bar	0.8 m ³ /min	28.3 cubic ft/min
Connecting thread	1/4"	1/4"
Inside diameter of the compressed air hose	10 mm	0.4 in (3/8")

Technical data

Table 1

Vibration	Specifications in accordance with EN 12096 Measured values in accordance with EN ISO 8662-10
Vibration value at the handle a	13.3 m/s ²
Uncertainty K	4.6 m/s ²

Table 2

Measured values were measured while cutting sheet steel 400 N/mm² with max. material thickness.



Noise emissions	Designations in accordance with EN ISO 4871 Measured values in accordance with EN ISO 15744
A-rated sound level L_{WA}	93 dB
A-rated acoustic power level at the work place L_{PA}	82 dB

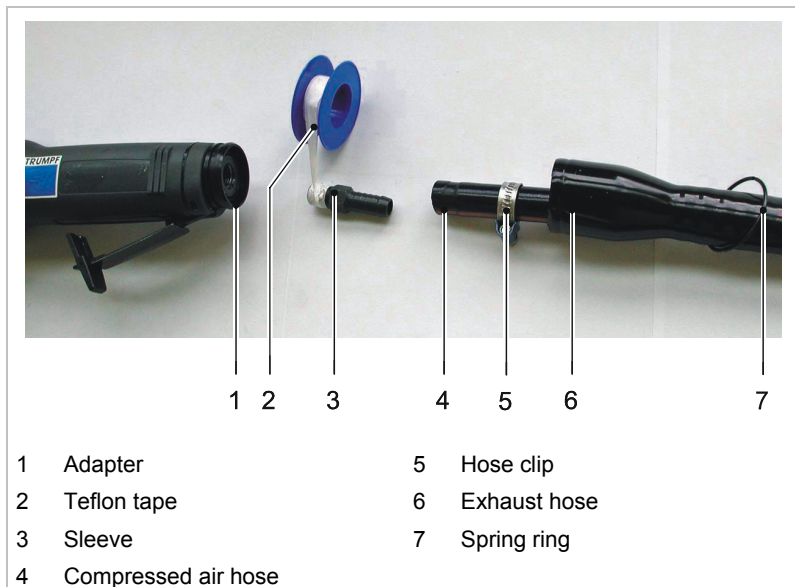
Table 3

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.

3. Setting work

3.1 Installing the exhaust hose

The exhaust hose reduces noise emissions and guides the exhaust air away from the operator.



Exhaust hose

Fig. 52422

- Put the exhaust hose (6) and the hose clip (5) over the compressed air hose (4).
- Undo the spring ring (7) and screw the adapter (1) onto the motor.
- Wind Teflon tape (2) around the sleeve (3).
- Firmly screw in the sleeve (3) in the motor.
- Push the compressed air hose (4) on to the sleeve (3).
- Position the hose clip (5) and tighten.
- Push the exhaust hose (6) on to the adapter (1).
- Secure the exhaust hose (6) using the spring ring (7).



4. Operation

4.1 Working with the TruTool N 200



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.

Switching on the TruTool N 200

1. Turn the safety lever (8).
2. Press the lever (9) against the motor housing.

Note

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

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

Table 4

Working with the TruTool N 200

1. Do not move the machine towards the workpiece until full speed has been reached.
2. Machine the material.
 - Machine the desired cutting line
3. In the event that the cutting track ends in the sheet, pull the still-running machine a few millimeters back towards where the cutting track has already been cut open.
4. Switch the machine off.

Switching off the TruTool N 200

- Release the lever.

The lever springs back to initial position, the compressed air is interrupted.

4.2 Changing the cutting direction

The direction of the cut can be rotated to the right or the left in 5° increments as needed.

- For right-handed/left-handed operation.
- Machining sectional sheets.

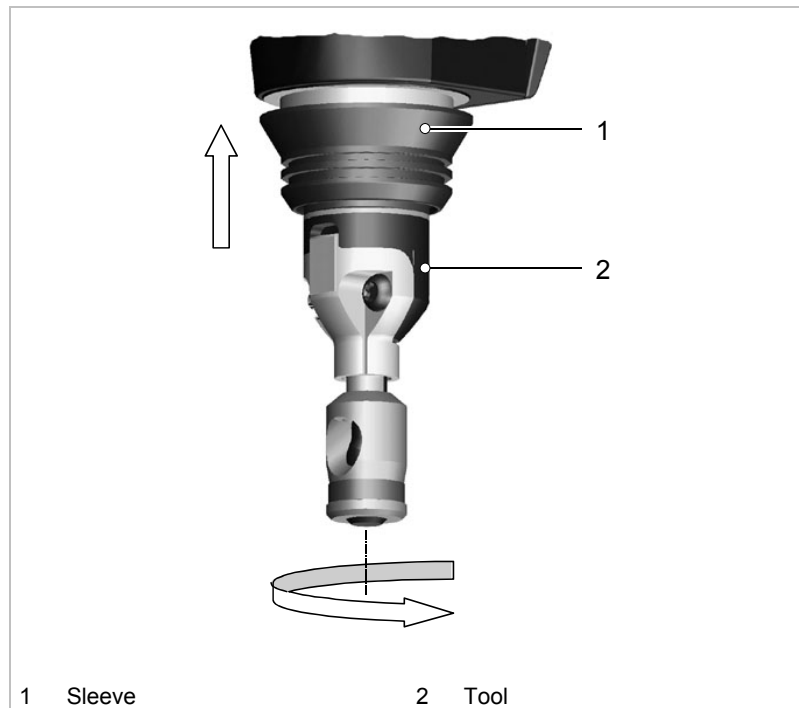


Fig. 25666

1. Push the sleeve (1) up until it stops.
2. Turn the tool (2) to the desired direction.
3. Release the sleeve (1) and turn the tool (2) slightly such that it locks into the next index position.

4.3 Making inner cutouts

- Make a start hole at least 16 mm in diameter.

4.4 Nibbling with templates

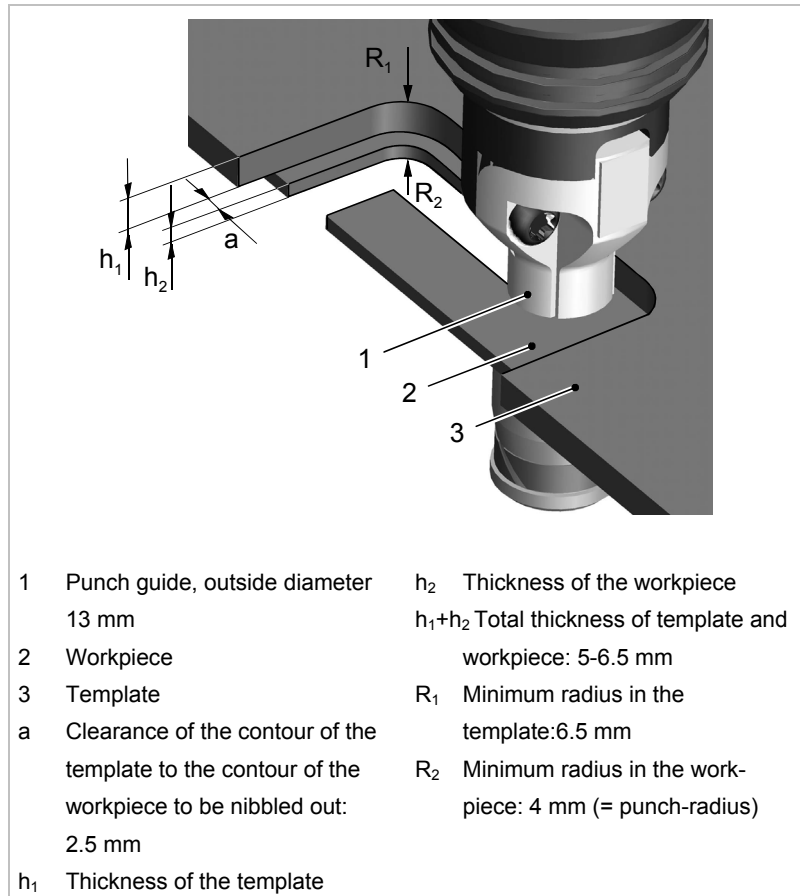


Fig. 25828

5. Maintenance



Warning

Risk of injury due to uncontrolled machine movements.

- Remove the compressed air hose when changing tools and before performing any maintenance work on the machine.



Caution

Damage to property caused by blunt tools!

Machine overload.

- Check the cutting edge of the cutting tool hourly for wear. A sharp punch provides good cutting performance and is easier on the machine. Replace punches promptly.



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.

Maintenance point	Procedure and interval	Recommended lubricant	Lubricant order no.
Punch guide	With each tool change	Lubricating grease "G1"	344969
Gearbox and gear head	After 300 operating hours, arrange for a qualified technician to relubricate or to replace the lubricating grease	Lubricating grease "G1"	139440
Punch	Replace as necessary	-	-
Die	Replace as necessary	-	-
Filter, oil mist lubrication device	Maintain daily in accordance with the manufacturer's specifications (see "Supplying with power and guaranteeing lubrication", p. 16)	-	-
Strainer	Clean every 10 operating hours and when there has been a decline in performance (see "Cleaning the strainer", p. 18).	-	-

Maintenance points and maintenance intervals

Table 5

5.1 Replacing the tool

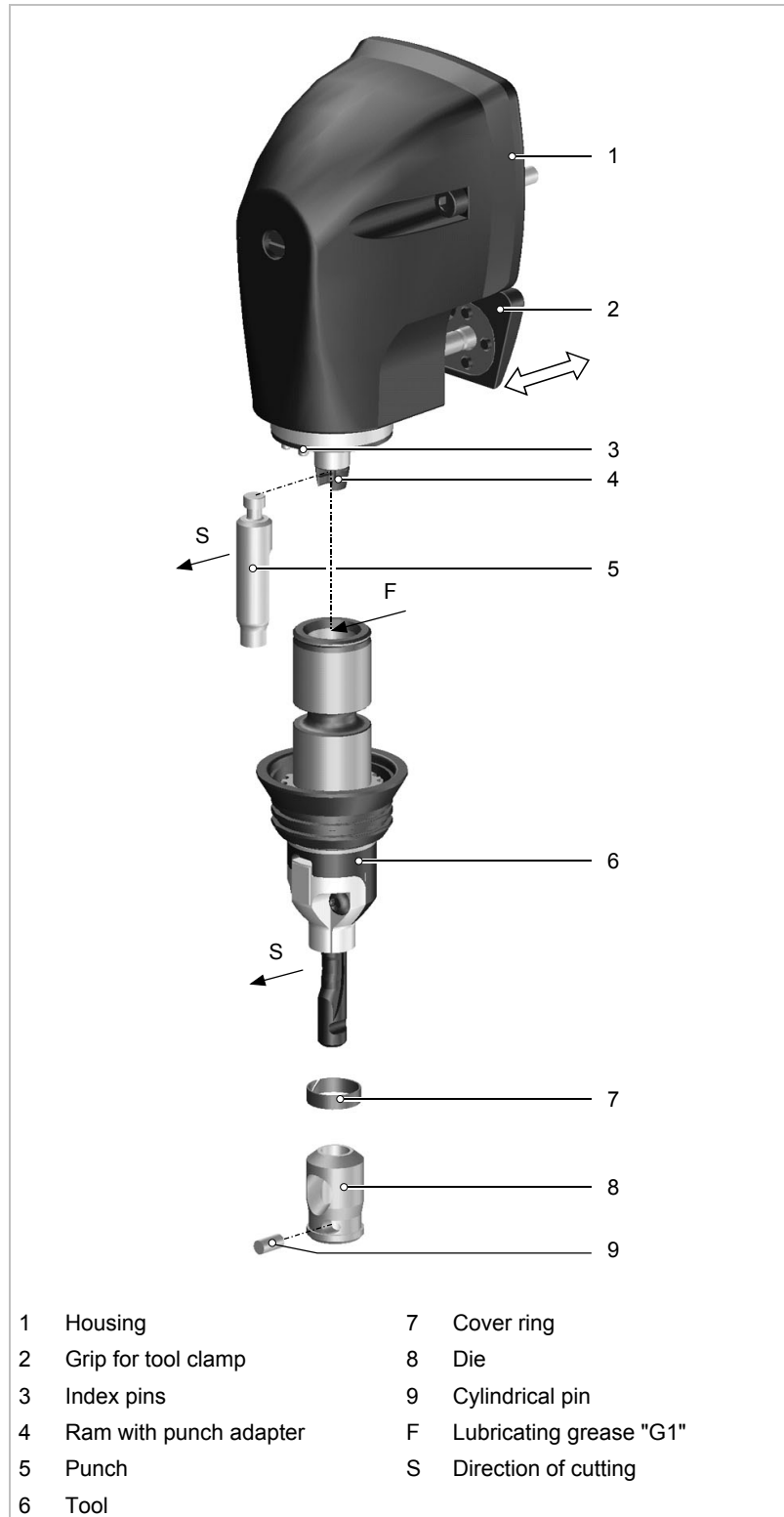


Fig. 25655

- If the punch or die becomes blunt, change the tool.

Disassembling the punch

1. Pull handle (2) back.
2. Pull tool (6) out of the housing (1).
3. Remove punch (5).

Installing the punch

1. Lightly lubricate the punch (5) and the boring in the tool (6) with lubricating grease "G1".
2. Hang the punch in the groove of the punch adapter.
3. Align the cutting direction towards the front.
4. Insert tool (6) into the housing (1) with cutting direction facing towards the front.
5. Slide handle (2) back; the tool (6) is kept in the housing.

Replacing the die

1. Push cover ring (7) upward out of slot.
2. Push out cylindrical pin (9) using a drift punch.
3. Pull off die (8) from the carrier pin and replace it with a new die.
4. Set die on the carrier pin.
5. Mount cylindrical pin.
6. Slide the cover ring in the nut downwards.

5.2 Supplying with power and guaranteeing lubrication



Caution

Damage to property due to improper handling!

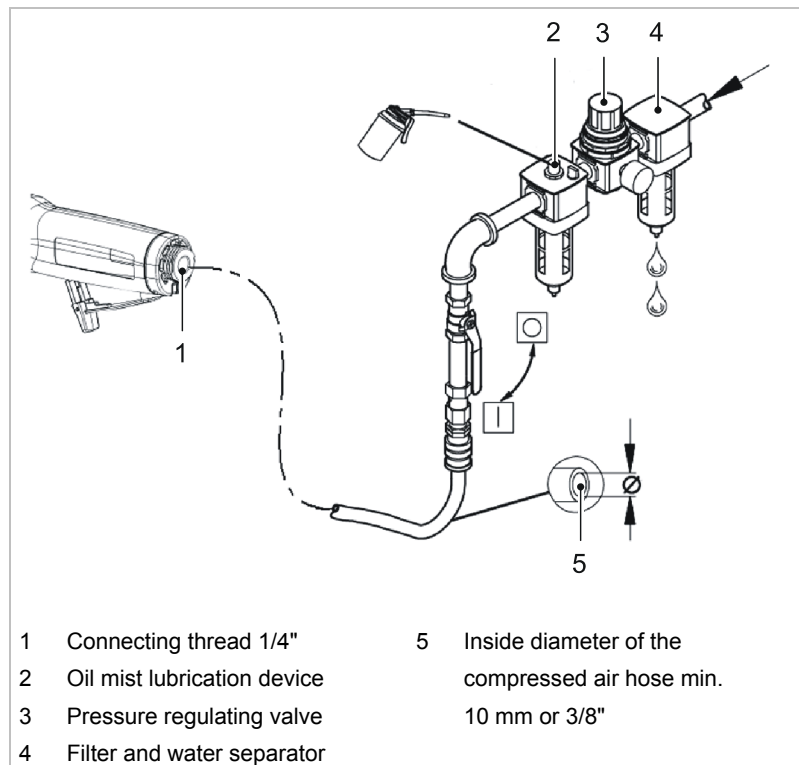
Failure of the compressed air motor.

- Do not exceed the maximum operating pressure.
- Regularly lubricate the compressed air motor. Install an oil mist lubrication device into the compressed air line.

Supplying compressed air

Condition

- The pressure regulating valve and the connecting threads are laid out correctly (see "Technical data", section 2.2, p. 8).



Compressed air supply.

Fig. 52385

1. Install the filter and water separator (4).
2. Drain/check the water separator daily.

Note

To ensure a supply of compressed air the tube cross-sections in the entire line system must be twice to three times the size of the inside diameter of the compressed air hose.



Checking the oil supply

- Hold a piece of paper in front of the exhaust air vent in the motor housing when the machine is running.

The oil supply is sufficient when oil spots appear.

When there is no oil mist lubrication device available:

- Fill the air inlet bore hole with 0.5-1 ccm of oil every two hours.

Recommended lubricant:

- BP Energol RD 80 (-15° to +10 °C/+5° to +50 °F).
- BP Energol RD-E80 (+10° to +30 °C/+50° to +86 °F).
- Shell Tellus Oil 15 (-15° to +10 °C/+5° to +50 °F).
- Torculla 33 (+10° to +30 °C/+50° to +86 °F).

Note

Secure the compressed air hose against undesired movements using a compressed air safety device.

5.3 Replacing fins

Worn fins decrease machine performance.

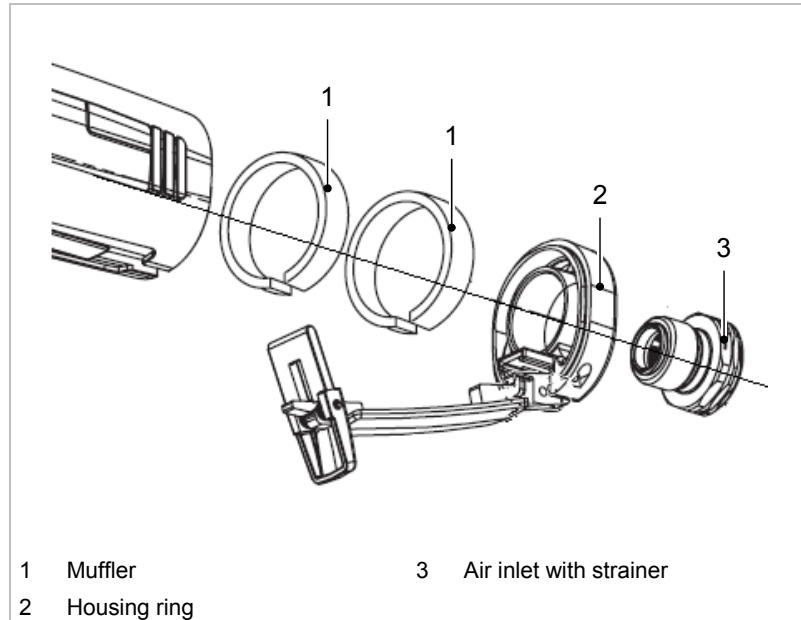
- Have the fin set checked and replaced as needed by a qualified technician.

Note

Only use original replacement parts and observe the information on the rating plate.

5.4 Cleaning the strainer

Dirty strainers decrease machine performance.



Air inlet

Fig. 52402

1. Remove the air inlet with strainer.
2. Clean the strainer or replace the complete air inlet.
3. Reinstall the air inlet.

5.5 Changing mufflers

Change the mufflers as needed (see Fig. 52402, p. 18).

1. Remove the air inlet (3).
2. Pull off the housing ring (2).
3. Replace the mufflers (1).
4. Reinstall the housing ring and the air inlet.

6. Original accessories and wearing parts

Designation	Supplied original accessories	Wearing parts	Options	Order no.
Punch	+	+		944506
Die	+	+		980335
Lubricating grease "G1" (25 g/0.055 lbs)	+			344969
Case	+			1445078
Sleeve	+			0376078
Fin set (4 pieces)		+		1440002
Operator's manual	+			1440930
Safety information (red document)	+			0373678
Tool TruTool PN 200 (1A2)			+	1418628
Torx Spanner Tx20			+	0359907
Chip bag			+	088622
Replacement part set (2 punches, 1 die, 1 pin, 1 cover)			+	961961
Punching and nibbling oil for steel (0.5 l)			+	103387
Punching and nibbling oil for aluminum (1 l)			+	125874

Table 6

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 your TRUMPF representative. Refer to the address list at the end of the document for TRUMPF service addresses.



7. Disposal

To dispose of the machine, completely disassemble it, degrease it and send it, according to the different types of material, for recycling.