


Operator's manual



N 200 - 5

english

TRUMPF


GB

- 1 Cover ring
- 2 Die
- 3 Punch
- 4 Punch guide
- 5 Die carrier
- 6 Index sleeve
Direction of tool
- 7 Grip for tool clamp
- 8 On/off switch
- 9 Max. sheet thickness 1.5 mm
for stainless steel up to
600 N/mm²
- 10 Max. sheet thickness 2.0 mm
for steel up to 400 N/mm²



Nibbler N 200-5

Fig. 26419

N 200-5 technical data

Acceptable material thickness:

- | | |
|---|--------|
| • Steel up to 400 N/mm ² | 2.0 mm |
| • Stainless steel up to 600 N/mm ² | 1.5 mm |
| • Stainless steel up to 800 N/mm ² | 1.0 mm |
| • Aluminum 250 N/mm ² | 2.5 mm |

Smallest radius for
contoured cutouts 4 mm

Start hole \varnothing for die min. 16 mm

Cutting track width 8 mm

Working speed ca. 1.2 m/min

Nominal power consumption 520 W

Stroke rate at nominal load 1350/min

Weight 1.97 kg

Operating pressure (flow pressure) 6 bar

Air consumption at 6 bar 0.4 m³/min

Required inner \varnothing
of compressed air tube
(maximum output is not reached if \varnothing
is smaller) 9 mm

Noise / Vibration

Measured values determined in compliance with EN 50 144.

The A-weighted sound level of the device is generally 77 dB (A). The operating noise level can exceed 85 dB (A).

Wear ear protection!

The hand-arm vibration is typically lower than 2.5 m/s².

Designated use

The **TRUMPF Nibbler N 200-5** is a pneumatic hand tool used for:

- splitting plate-shaped workpieces made of a punchable material such as steel, aluminum, non-ferrous heavy metals, and plastic;
- splitting tubes as well as machining sectional sheets (damaged sheets);
- nibbling straight or curved exterior and interior cutouts;
- nibbling from scribed lines or templates.

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.

For your safety



Safe operation of the appliance is only possible when the operator's manual and the supplied safety information (red print, TRUMPF order no. 125699) have been completely read and the instructions contained within have been strictly adhered to.



Danger of injury

Check the unit, compressed-air tube and reception coupling before each use. Have all damaged parts repaired by an expert.



Danger of injury

Hot chips are ejected from the chip ejector at extremely high speeds. You should therefore use a swarf box to collect the ejected chips.



Always wear safety glasses, hearing protection, protective gloves, and hard shoes when operating.

- Do not connect the compressed air unless the machine is turned off.
- Always disconnect the compressed-air tube from the machine before beginning any work on the machine!
- Always guide the compressed-air tube back away from the unit.
- **Use only original TRUMPF accessories.**

Before putting the machine into service

1. Read the chapter on safety.



For your safety

2. Replace blunt tools.



Tool changes

3. The flow pressure of the compressed air must be 6 bar at the point of extraction.
4. Oil lubrication must take place for the compressed-air motor.



Maintenance

Operating instructions



Damage to the machine!

Check the tools for wear and the oil lubrication of the compressed-air motor every hour.

Never work with blunt tools!

(the compressed-air motor may stop).

Switching on and off



1 Lever

Fig. 26691

Turning on the unit:

- Press lever 1.

Turning off the unit:

- Release lever 1
(the lever springs back into initial position and the flow of compressed air is interrupted).



Damage to the machine!

Do not begin machining the workpiece until after the device has been switched on and has reached maximum speed!

For cutting tracks which end in the workpiece, the unit must never be turned off as long as the punch is in contact with the workpiece. In such cases, guide the device back along the freshly cut track a few millimeters before switching it off.

Cooling and lubrication

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.

Recommended for steel:
Punching and nibbling oil, order no. 103387

Recommended for aluminum:
Wisura oil, order no. 125874

Changing the cutting direction in 5° increments

For right/left-hand operation or if a sectional sheet is to be machined, the tool and cutting direction can be turned to the right or left.

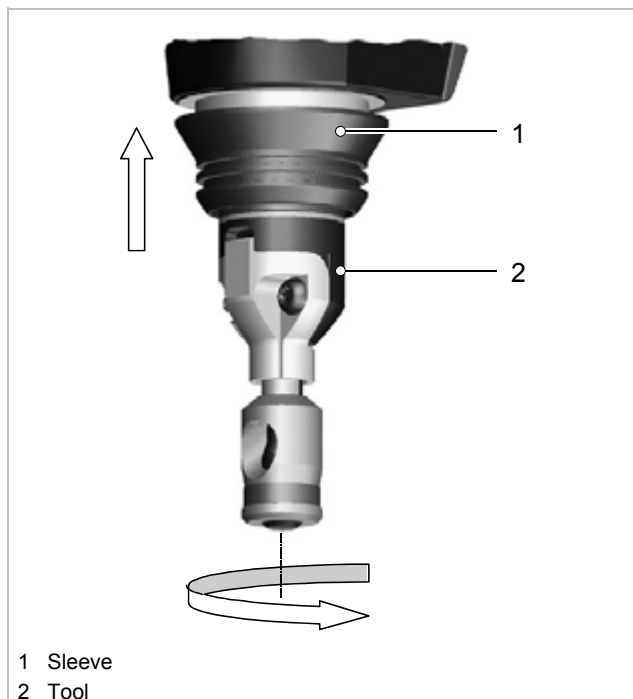


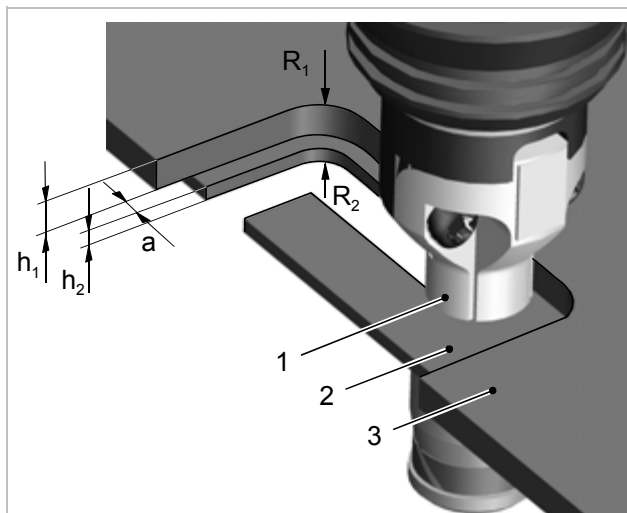
Fig. 25666

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

Interior cutouts

Interior cutouts require a start hole of at least 16 mm Ø.

Nibbling with templates



- 1 Punch guide, exterior diameter: 13 mm
- 2 Workpiece
- 3 Template
- a Distance between the template contour and the contour of the workpiece: 2.5 mm
- h_1 Template thickness
- h_2 Workpiece thickness
- h_1+h_2 Total thickness of template + workpiece: 5 to 6.5 mm, whereby the template can be 2 mm thick, for example, and the remaining distance can be bridged with an intermediate layer (e.g. a rubber element).
- R_1 Min. template radius: 6.5 mm
- R_2 Min. radius in the workpiece: 4 mm (= punch radius)

Template

Fig. 25828

Tool changes



Risk of injury!

Always disconnect the compressed-air tube from the machine before beginning any work on the machine!

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

Removing the punch

Fig. 25655

- a) Pull grip (2) back.
- b) Pull out tool (6) from housing (1).
- c) Remove punch (5).

Mounting the punch

Fig. 25655

Lightly lubricate punch (5) and boring in tool (6) with lubricating grease "G1".

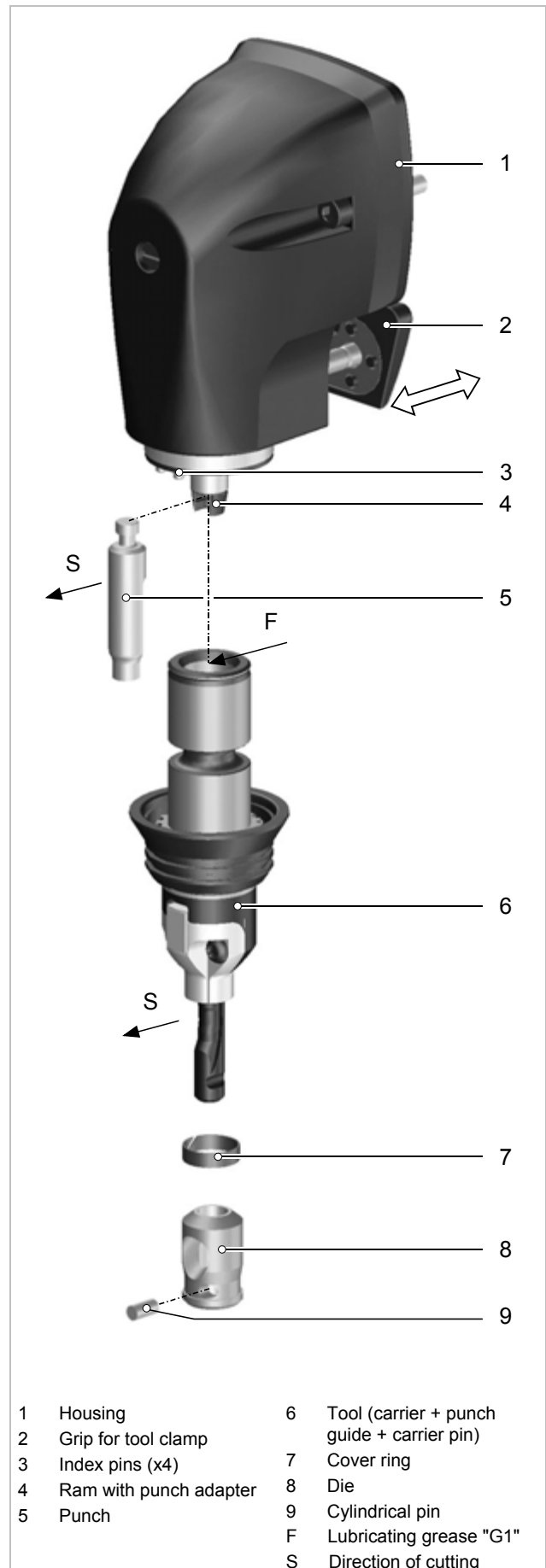
See "F" in Fig. 25655

- Insert punch (5) into slot on punch adapter (4) and align cutting direction forward.
- Align cutting direction of tool (6) forward and insert it into housing (1).
- Pushing back the grip (2) secures the tool in the housing (6).

Changing the die

Fig. 25655

- Push cover ring (7) upward out of slot.
- Push out cylindrical pin (9) using a drift punch.
- Pull off die (8) from the carrier pin and replace it with a new die.



1	Housing	6	Tool (carrier + punch guide + carrier pin)
2	Grip for tool clamp	7	Cover ring
3	Index pins (x4)	8	Die
4	Ram with punch adapter	9	Cylindrical pin
5	Punch	F	Lubricating grease "G1"
		S	Direction of cutting

Tool change

Fig. 25655

Maintenance



Risk of injury!

Always disconnect the compressed-air tube from the machine before beginning any work on the machine!

Punch guide lubrication

The boring into which the punch is inserted must be lubricated after each tool change.

Original grease: Lubricating grease "G1", tube TRUMPF order no. 344969

Gear / gear head lubrication

The gear grease must be topped up or changed after any repairs or at least after every 300 hours of operation.

Original grease: Lubricating grease "G1", can TRUMPF order no. 139440

Compressed-air motor lubrication



Lubrication of the compressed-air motor is very important. The motor will fail if it is operated without lubrication even for a short time.

Install oil lubricating device in the compressed-air line (e.g. Atlas Copco DIM 25).

Checking the oil supply of the motor

Hold a piece of paper in front of the exhaust opening in the motor housing while the machine is running. The oil supply is sufficient if oil stains form.

Recommended oils (compressed-air motor lubrication):

- BP Energol RD 80 (-15 to +10 °C),
- BP Energol RD-E80 (+10 to 30 °C),
- Shell Tellus Oil 15 (-15 to +10 °C),
- Torculla 33 (+10 to +30 °C).

Cleaning

Clean the filter 327 every 10 operating hours in order to prevent throttling or power loss.



See the spare parts list for a diagram of filter 327.

Changing vanes

The performance of the machine decreases if the vanes are excessively worn.

Vane replacement and all other repair work is to be carried out by an expert!



Vane set (4) on the rotor of the compressed-air motor. See Item 315 in the spare parts list for corresponding diagram.

Repairs



Risk of injury

Pneumatic tools must comply with the relevant safety regulations. Repairs must only be carried out by a qualified professional; otherwise operational accidents may occur.

TRUMPF

Only use original spare parts.

Please note the specifications on the rating plate.



You will find a list of TRUMPF representatives at the back of this operator's manual.

Wearing parts

N 200-5	Order no.
Punch	944506
Die	980335

Original accessories

Accessories supplied with the machine

Description	Order no.
Tool set (punch and die, installed)	
Sleeve (item 331 in the spare parts list)	058378
Lubricating grease "G1" (tube)	344969
Case	345243
Operator's manual	957262
Safety instructions (red print)	125699

Optional

Tool PN 200-2	961964
Tool PN 161-2	961964
Torx Spanner Tx20	144680
Chip bag	088622
Replacement part set (2 punches, 1 die, 1 cylindrical pin, 1 cover ring)	961961
Punching and nibbling oil for steel (0.5 liter)	103387
Punching and nibbling oil for aluminum (1 liter)	125874

Ordering replacement parts

To avoid delays and incorrect deliveries, please order spare parts as follows:

- When ordering replacement parts, please use the TRUMPF order number for the corresponding part.
- More about ordering:
For electrical parts: Voltage data
Number required
Machine type
- Information required for shipping:
Your exact address
Desired mode of shipment (e.g. air mail, express mail, ordinary freight, parcel post, etc.)
- Send your order to your TRUMPF representative.



TRUMPF service addresses and fax numbers can be found at the end of these instructions.

Additional notes on this document

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