Operating manual

TruTool PN 161 (1A1)
TruTool PN 200 (1A1)

---

english

TRUMPF

Table of Contents

1. Safety

USA/CAN

- Read the operating manual and the safety information (order no. 1239438, red document) in their entirety before starting up the machine. Closely follow the instructions given.

Other countries

- Read the operating manual and the safety information (order no. 125699, red document) in their entirety before starting up the machine. Closely 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!

- 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 earth leakage (EL) circuit breaker with a maximum release current of 30 mA when using the electric tool outside.

Warning

Risk of injury due to improper handling!

- Wear safety glasses, hearing protection, protective gloves and work shoes when working at the machine.

Warning

Risk of injury to hands

- Do not reach into the processing line with your hand.

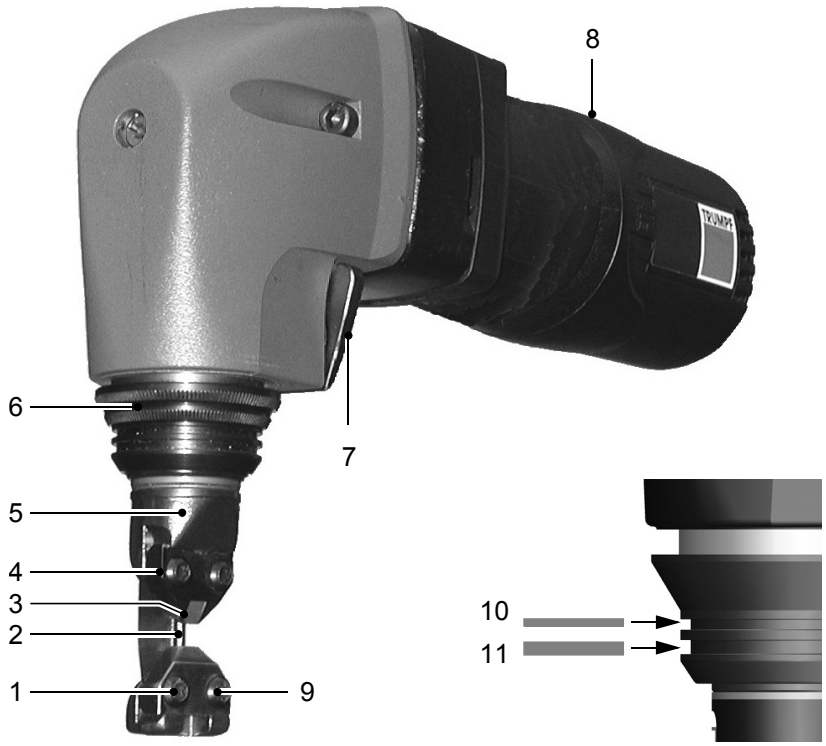
Caution

Damage to property due to improper handling!

Machine will be damaged or destroyed.

- Do not use the power cable to carry the machine.
- Always lay the electrical cable away from the back of the machine and do not pull it over sharp edges.
- Have servicing and inspections of hand-held electric tools carried out by a qualified specialist. Only use original accessories provided by TRUMPF.

2. Description



1	Die	7	Grip for tool clamp	10	Max. sheet thickness 1.5 mm for stainless steel up to 600 N/mm²
2	Wearing plate	8	On/Off switch		
3	Punch	9	Fixing screw for fixing the punch guide and the die	11	Max. sheet thickness 2.0 mm for steel up to 400 N/mm²
4	Punch guide				
5	Die carrier				
6	Index sleeve for direction of tool				

Example: TruTool PN 200 Fig. 36727

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 PN 161 or TruTool PN 200 is an electrically operated portable machine for the following applications:

- For slitting sectional sheets such as trapezoidal sheet, corrugated sheet, boxed sheet, offset profiled strips
- 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
- For nibbling from scribed lines

Information
The nibbling process produces cutting edges free of deformations.

2.2 Technical data TruTool PN 161/TruTool PN 200

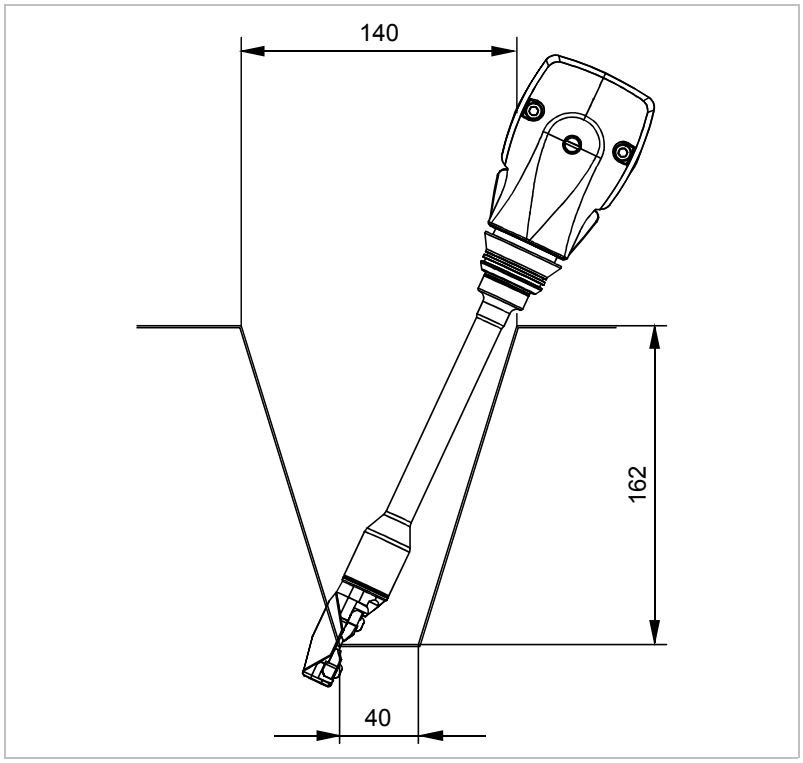
	Other countries			USA
	Value	**Value**	**Value**	**Value**
Voltage	230 V	120 V	110 V	120 V
Frequency	50/60 Hz	50/60 Hz	50 Hz	50/60 Hz
• **Steel 400 N/mm²**	2.0 mm (standard) 1.6 mm (round punch)	2.0 mm (standard) 1.6 mm (round punch)	2.0 mm (standard) 1.6 mm (round punch)	0.079 in/14 Ga (standard) 0.063 in/16 Ga (round punch)
• **Steel 600 N/mm²**	1.5 mm (standard)	1.5 mm (standard)	1.5 mm (standard)	0.06 in/16 Ga (standard)
• **Steel 800 N/mm²**	1.0 mm (standard)	1.0 mm (standard)	1.0 mm (standard)	0.039 in/20 Ga (standard)
• **Aluminum 250 N/mm²**	3.0 mm (standard) 2.0 mm (round punch)	3.0 mm (standard) 2.0 mm (round punch)	3.0 mm (standard) 2.0 mm (round punch)	0.126 in/11 Ga (standard) 0.079 in/14 Ga (round punch)
Working speed	2 m/min	2 m/min	2 m/min	6.5 ft/min
Starting hole diameter	24 mm	24 mm	24 mm	0.94 in
Radius	Min. 50 mm	Min. 50 mm	Min. 50 mm	Min. 2.0 in
Nominal power consumption	500 W	500 W	500 W	500 W
Idle stroke rate	2180/min	2040/min	2040/min	2040/min
Weight • **TruTool PN 161** • **TruTool PN 200**	 2.3 kg 2.1 kg	 2.3 kg 2.1 kg	 2.3 kg 2.1 kg	 5.1 lbs 4.7 lbs
Cutting track width	5 mm	5 mm	5 mm	0.2 in
Protective insulation	Class II	Class II	Class II	Class II

Technical data Table 1

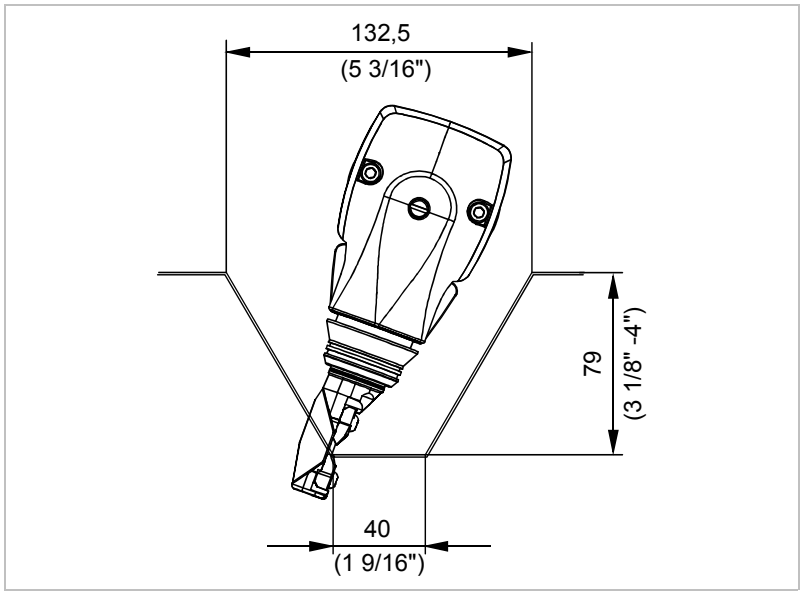
Noise and vibration	**Measured values in accordance with EN 60745**
A-class sound pressure level L_{PA} Uncertainty K	Typically 81 dB 3 dB
A-class acoustic power level L_{WA} Uncertainty K	Typically 92 dB (A) 3 dB
Hand-arm vibration Uncertainty K	Typically TruTool PN 161: 8.4 m/s² TruTool PN 200: 11.3 m/s² 1.8 m/s²

Measured noise and vibration values Table 2

Note
The measured values specified above may be exceeded while working.



TruTool PN 161 in sectional sheets Fig. 25947



TruTool PN 200 in sectional sheets Fig. 25948

3. Setting work

3.1 Selecting the tool

Note
A round punch yields a high-quality cut, but it is less suitable for cutting in sectional sheets.

Two tool configurations are available for machining work:

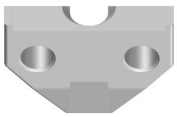
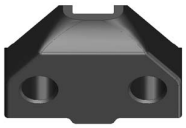
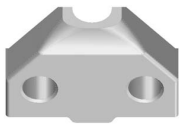
	Standard tool	Round tool
Application **Advantage**	Tool for machining sectional sheets	Tool for flat and corrugated workpieces
Identification		Yellow-coated
Punch		
Punch guide		
Dies		

Table 3

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

Material	Oil
Steel	Punching and nibbling oil, Material No. 103387
Aluminum	Wisura oil, Material No. 125874

Table 4

4. Operation

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 PN 200 and the TruTool PN 161

- ➢ Shift the On/Off switch forwards.

Working with the TruTool PN 200 and the TruTool PN 161

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 machine (still running) a few millimeters back towards where the cutting track has already been cut open.
4. Switch the machine off.

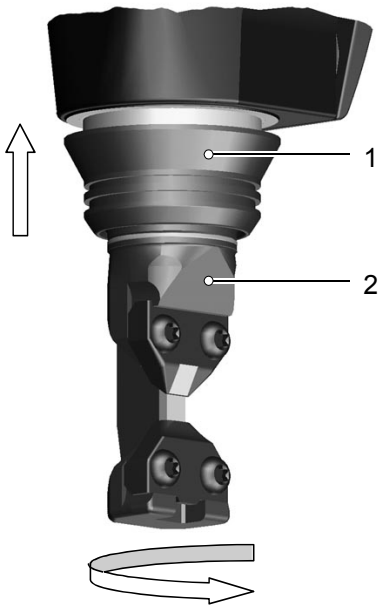
Switching off the TruTool PN 200 and the TruTool PN 161

- ➢ Shift the On/Off switch to the rear.

4.1 Changing the cutting direction

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

- Adjust for right-handed/left-handed operation.
- Machining sectional sheets.



1 Sleeve 2 Tool

Fig. 25850

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.

4.2 Making inner cutouts

➢ Make a start hole at least 24 mm in diameter.

5. Maintenance

Danger

Risk of fatal injury from electric shock!

- Pull the plug out of the socket whenever tools have to be replaced or prior to maintenance work on the machine.

Caution

Damage to property caused by dull tools!

Machine overload.

- Check the cutting edge of the cutting tool hourly for wear. Sharp cutting tools provide good cutting performance and are 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 specialist.

Maintenance point	Procedure and interval	Recommended lubricant	Lubricant material no.
Punch guide	With each tool change	Lubricating grease "G1"	344969
Gearbox and gear head (2)	Have a specialist either lubricate again or replace the lubricating grease every 300 operating hours.	Lubricating grease "G1"	139440
Punch	Replace as necessary	-	-
Die	Replace as necessary	-	-
Wearing plate	Replace as necessary	-	-
Ventilation slots	Clean as needed	-	-

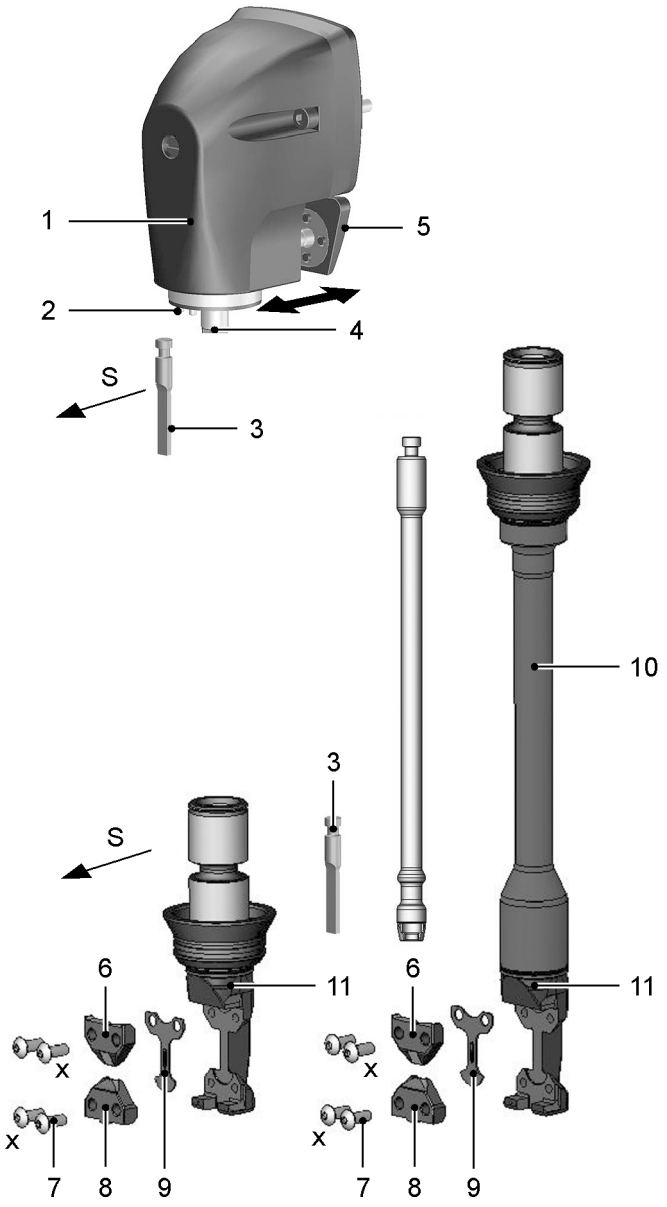
Maintenance table Table 5

5.1 Changing the tool

The tools can be changed by the user as required.

Tools TruTool PN 161 and TruTool PN 200 Fig. 38116

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



1	Housing	8	Die
2	Index pins (4 pieces)	9	Wearing plate
3	Punch	10	Ram extension
4	Ram with punch adapter	11	Tool or carrier with punch guide, die
5	Grip for tool clamp	S	Direction of cutting
6	Punch guide	x	First firmly tighten these screws (3 Nm tightening torque)
7	Fixing screws (4 pieces)		

Fig. 52154

Disassembling the punch

1 Pull handle (5) back.

2. Pull tool (11) out of the housing (1).

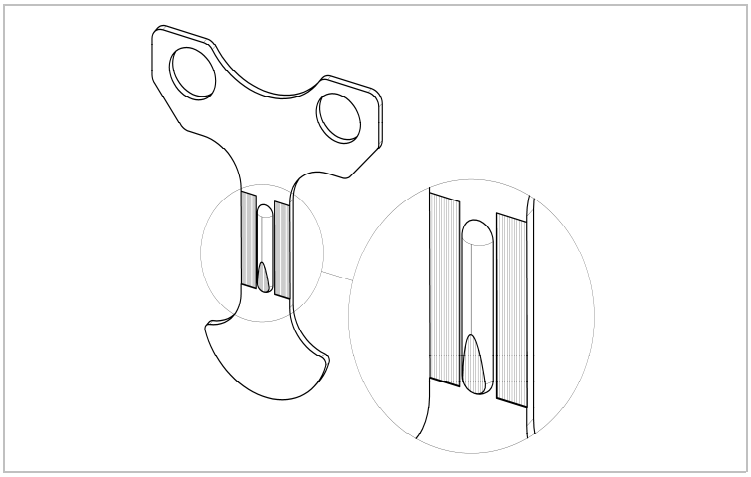
3 Remove punch (3).

Installing the punch

1. Lightly lubricate the punch (3) and the boring in the tool (11) with lubricating grease "G1".
2. Hang the punch in the groove of the punch adapter.
3. Align the cutting direction towards the front.
4. With the TruTool PN 161, install the ram extension (10) between the ram (4) and the punch (3).
5. Insert tool (11) into the housing (1) with cutting direction facing towards the front.
6. Slide handle to the front.

Changing the die and the punch guide

1. Unscrew the die and punch guide fixing screws (7).
2. Remove wearing plate (4) and replace with a new one.



Traces of wear on the wearing plate Fig. 51965

3. Clean the attachment surfaces.
4. Center the punch guide and die using the pegs.
5. Fasten the punch guide and die with the screws.
6. Tighten the screws marked with an "x" first, using a tightening torque of 3 Nm.

5.2 Replacing carbon brushes

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

➢ Have the carbon brushes checked and replaced as required by a qualified specialist.

Note
Only use original replacement parts and observe the specifications on the type plate.

6. Original accessories and wearing parts

Designation	Supplied original accessories	Wearing parts	Options	Order no.
Punch	+	+		945691
Die	+	+		948711
Round punch		+		945698
Round die		+		956443
Lubricating grease "G1" (25 g)	+			344969
Lubricating grease "G1" (900 g)			+	139440
Case	+			345243
Wearing plate	+			1412154
Torx Spanner Tx20	+			359907
Operating manual	+			1254101
Safety information (red document), other countries	+			125699
Safety information (red document), USA	+			1239438
Punching and nibbling oil for aluminum (1 l)			+	125874
Punching and nibbling oil for steel (0.5 l)			+	103387
Tool TruTool PN 200			+	961964
Tool TruTool PN 161			+	961966

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.