

Operator's manual



TruTool S 160 (1A1)

english



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Warranty

Replacement parts list

Addresses

1. Safety

- 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

Lethal danger due to electric shock!

- Remove the plug from the plug socket before undertaking any maintenance work on the machine.
 - Check the plug, the cable and the machine for damage each time before the appliance is used.
 - Keep the machine 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.
-



Warning

Danger of injury possible due to improper handling!

- When working with the machine, wear safety glasses, hearing protection, protective gloves and work shoes.
 - Do not plug in the plug unless the machine has been switched off. Pull out the mains plug after use.
-



Warning

Risk of injury to the hands!

- Do not place your hand into the processing line.
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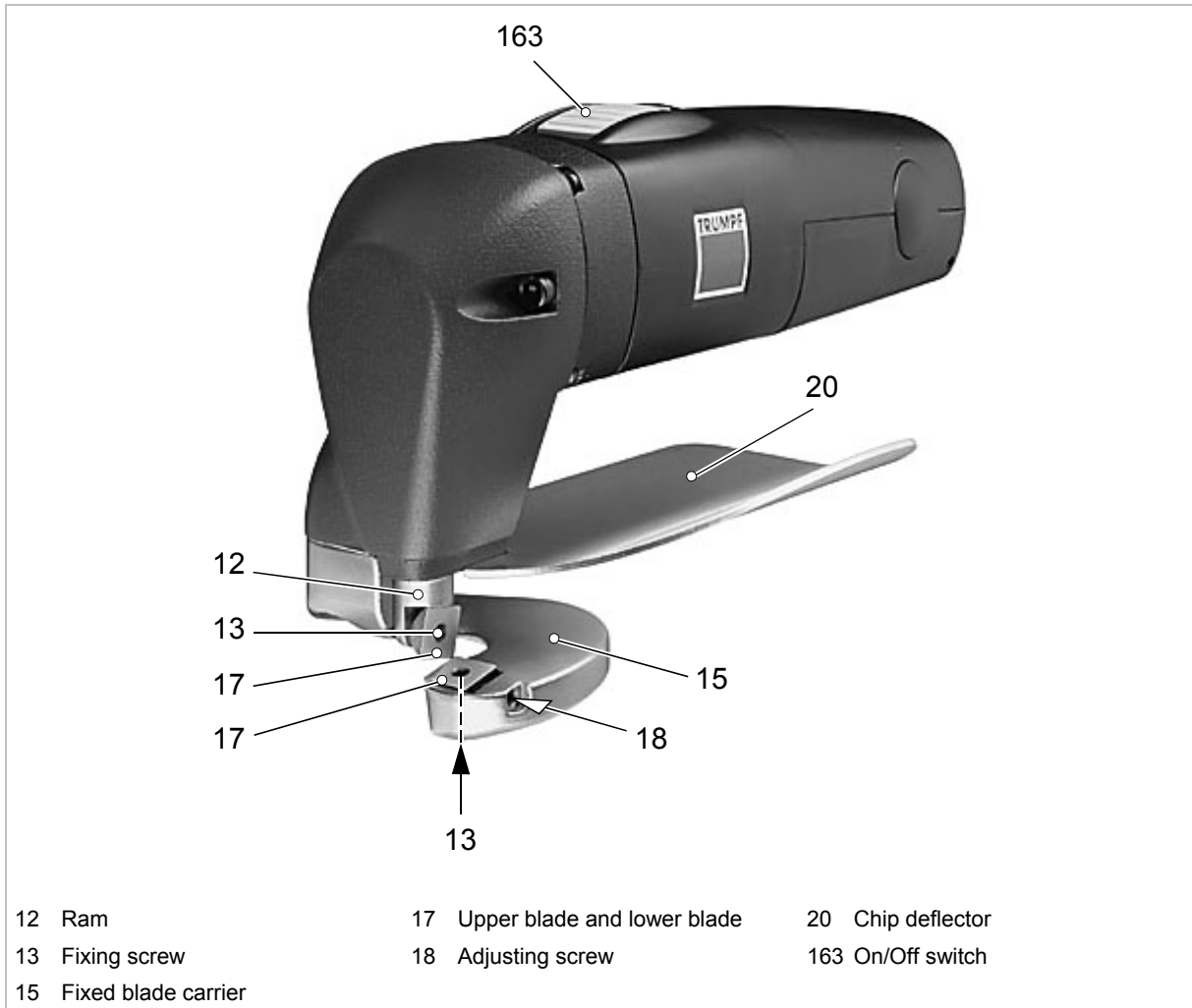
Caution

Damage to property possible due to improper handling!

The machine will be damaged or destroyed.

- Do not use the power cord to carry the machine.
 - Always guide the electric cord away from the back of the machine and do not pull it across sharp edges.
 - Arrange for start-ups and checks on manual electric tools to be carried out by a trained specialist. Only used the original accessories provided by TRUMPF.
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2. Description



TruTool S 160

Fig. 24013

2.1 Correct use



Warning

Risk of injury!

- For processing and materials, only use machines which are named in "Correct use".
-

The TRUMPF portable shears TruTool S 160 are an electric hand tool used for the following applications:

- Slitting of plate-shaped workpieces made of steel, aluminium, plastic, etc.
- Slitting straight or curved exterior and interior cutouts.
- Slitting along scribed lines.

2.2 Technical data TruTool S 160

	Rest of the world			USA
	Values	Values	Values	Values
Voltage	230 V	120 V	110 V	120 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
• Steel 400 N/mm²	1.6 mm	1.6 mm	1.6 mm	0.063 in
• Steel 600 N/mm²	1.2 mm	1.2 mm	1.2 mm	0.048 in
• Steel 800 N/mm²	1.0 mm	1.0 mm	1.0 mm	0.039 in
• Aluminium 250 N/mm²	2.0 mm	2.0 mm	2.0 mm	0.079 in
Working speed	8-12 m/min	8-12 m/min	8-12 m/min	26-39 ft/min
Nominal power consumption	350 W	350 W	350 W	350 W
Stroke rate with idle run	5800/min	6300/min	6000/min	6300/min
Weight	1.6 kg	1.6 kg	1.6 kg	3.6 lbs
Smallest radius with curved cuts	16 mm	16 mm	16 mm	0.59 in
Starting hole diameter	27 mm	27 mm	27 mm	1.06 in
Protective insulation	Class II	Class II	Class II	Class II

Technical data

Table 1

Noise and vibration	Measured values in accordance with EN 50144
A-weighted sound level	Typically 80 dB (A)
A-weighted acoustic power level	Typically 85 dB (A)
Hand-arm vibration	Typically less than or equal to 2.7 m/s ²

Measured values for noise and vibration

Table 2

Note

The measured values specified above may be exceeded while working.

3. Tool assembly

3.1 Selecting the blade



Caution

Damage to property can result from improper blade selection!

The quality of the cut will be severely impaired and the individual tools will be overloaded.

- Use only appropriate tools.

The blade is notable for the following points:

- Moving cutter blade (upper blade) and fixed cutter blade (lower blade) are identical in shape and can be used interchangeably (above or below).
- All blades have 4 cutting edges.
- They are non-regrindable "4-way multi-edge, throw-away cutters".

Note

Two different blade types can be selected for the machining process, depending on the sheet thickness or the tensile strength of the workpiece.

Note

Standard blades with a tensile strength of ≤ 400 N/mm² have no special identification marking. Chromium steel blades are marked with "Cr".

Note

For these reasons, it is highly recommended that only such tools be used as those which correspond to the specifications contained in this table.

Blade type	Sheet thickness ranges [mm]	Type of material and Tensile strength	Material No.
Standard	0.3-2.0	Aluminium 250 N/mm ²	126471
Standard	0.3-1.6	Mild steel 400 N/mm ²	126471
Cr	0.3-1.2	Stainless steel 600 N/mm ²	919760
Cr	0.3-1.0	Stainless steel 800 N/mm ²	919760

Table 3

3.2 Setting the cutting clearance

The blade clearance "a" is factory-set to a sheet thickness of 1.0 mm when the machine is first delivered.

Set the following values to obtain optimum cutting results:

Sheet thickness "s" [mm]	Blade clearance = cutting clearance "a" [mm]
0.3-0.6	0.1
0.8-1.2	0.2
1.3-1.6	0.3

Table 4

1. Push the On/Off switch several times until the moving cutter blade has reached the lower dead point.
2. Loosen the lower blade.
3. Set the blade to the required clearance using the adjusting screw.
4. Retighten the blade.
5. Tighten the adjusting screw slightly.
6. Check clearance with the setting gauge.

4. Operation



Caution

Damage to property possible due to too-high network voltage!

Damage to the motor.

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



Warning

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.

4.1 Working with the TruTool S 160

Switching on the TruTool S 160

- Move the On/Off switch to the front.

Working with the TruTool S 160

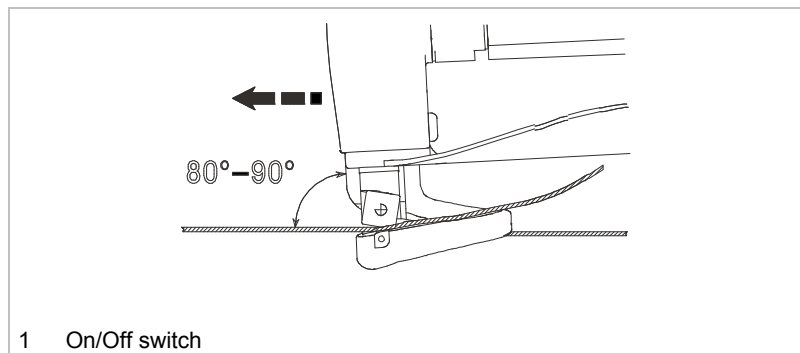


Fig. 24014

1. Do not move the machine towards the workpiece until full speed has been reached.
2. Machine/process the material.
 - Move the device forward at an angle of 80 to 90° to the sheet surface.

Requirements for the cutting of radiuses

- Do not tilt the machine.
- Proceed with a low feed rate.



Requirements for cutting near the margin

Cut in upside-down position, meaning that the cutting table is facing upwards.

Switching off the TruTool S 160

- Move the On/Off switch to the rear.

Note

Do not burden the device to such an extent that it comes to a standstill.

5. Maintenance



Danger

Possible lethal danger due to electric shock!

- Pull the plug out of the socket when carrying out tool changes and before all maintenance work on the machine.



Caution

Damage to property possible due to blunt tools!

Overloading of the machine.

- Check the cutting edge of the cutting tool hourly for wear. Sharp blades provide good cutting performance and are easier on the machine. Replace blades promptly.



Warning

Risk of possible injury due to improper repairs!

The machine does not function properly.

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

Maintenance point	Procedure and time interval	Recommended lubricants	Order No. Lubrication agents
Ram guide	Every 300 operating hours	Lubricating grease "G1"	139440
Gearbox and gear head (2)	After 300 operating hours, arrange for a trained specialist to relubricate or to replace the lubricating grease	Lubricating grease "G1"	139440
Fixed cutter blade	Turn as needed	-	-
Fixed cutter blade	Replace as needed	-	-
Moving cutter blade	Turn as needed	-	-
Moving cutter blade	Replace as needed	-	-
Ventilation slots	Clean as needed	-	-
Tools	Check tools hourly for wear		

Maintenance overview

Table 5

5.1 Changing the blade



Danger

Possible lethal danger due to electric shock!

- Pull the plug out of the socket when carrying out tool changes and before all maintenance work on the machine.

Upper and lower blades are identical. They each have 4 cutting edges and can be used interchangeably.

In the event of insufficient cutting performance, rotate each of the blades by 90° respectively or replace them.

1. Loosen the screw on the respective blade.
2. Rotate blade by 90°.
3. Tighten the screw.

Note

Take care to ensure that the adjusting screw (18) is up against the lower blade.

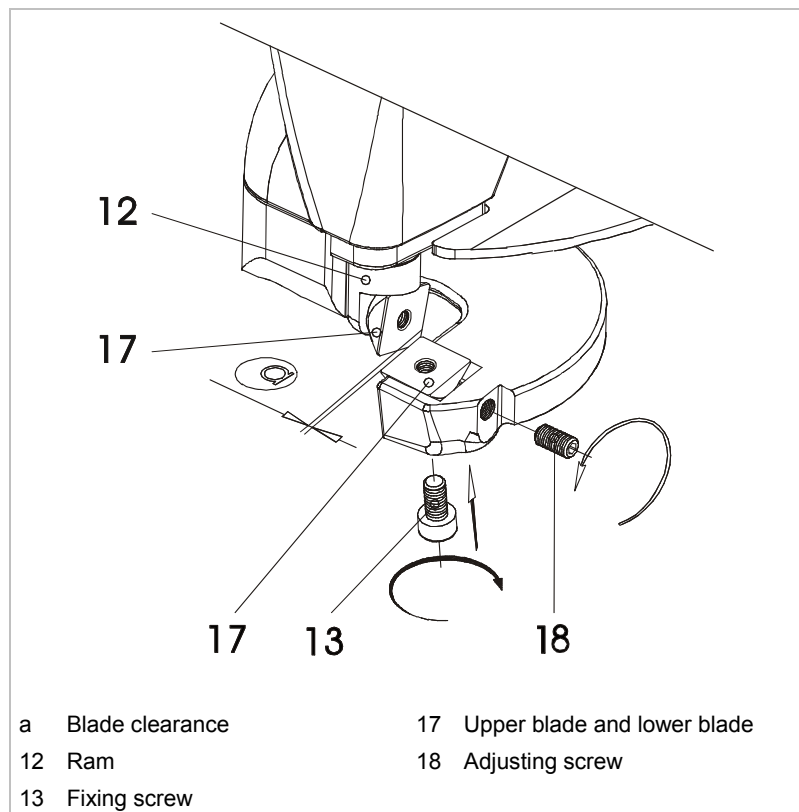


Fig. 24015



5.2 Replacing carbon brushes

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

- Have the carbon brushes checked and replaced as needed by a trained technician.

Note

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

6. Wearing parts

Designation	Material identification number
2 Standard blade for the machining of mild steel	126471
2 Chromium steel blades for the machining of high-tensile sheets	919760

Table 6

Note

Moving cutter blade (upper blade) and fixed cutter blade (lower blade) are identical in shape and can be used interchangeably (above or below).

All blades have 4 cutting edges. They are non-regrindable "4-way multi-edge, throw-away cutters".

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

7. Original accessories

Designation	Material No.
Set of tools (upper and lower multi-edge cutters, mounted) Allen key DIN 911-2	002946
Allen key DIN 911	094840
Case	135280
Operator's manual	947984
Safety information (red document), other countries	125699
Safety information (red document), USA	1239438

Table 7