Operator's manual

TruTool F 140 (1A1)

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english

TRUMPF

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1. Safety

USA/CAN

- Read the operator's manual and the general safety rules (material number 1239438, red document) in their entirety before putting the machine into service. Follow precisely the instructions contained therein.

Other countries

- Read the operator's manual and the safety instructions (material number 125699, red document) in their entirety before putting the machine into service. Follow precisely the instructions contained therein.
- Adhere to the safety regulations in accordance with DIN VDE, CEE, AFNOR and to the other specific regulations of the respective countries.

Danger

Lethal danger due to electric shock!

- Remove the plug from the plug socket before undertaking any maintenance work at 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 a earth leakage (EL) circuit breaker with a maximum release current of 30 mA when using the electrical tool outside.

Warning

Danger of injury due to improper handling!

- Wear safety glasses, hearing protection, protective gloves and work shoes when working at the machine.
- Do not insert the plug unless the machine is switched off. Pull the power plug after use.

Warning

Danger of injury to hands!

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

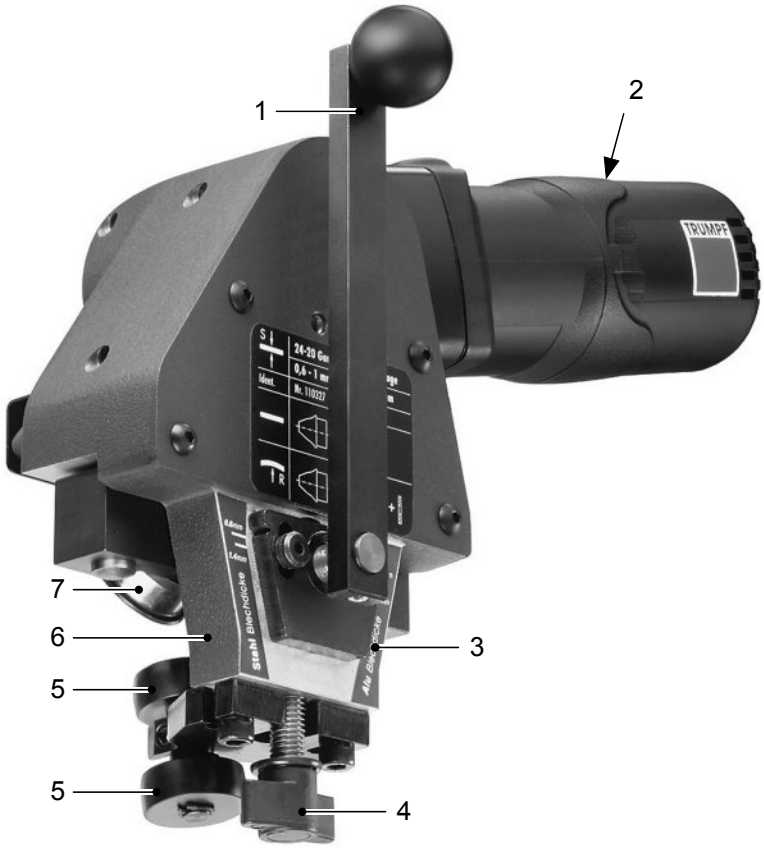
Caution

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 hand-held electrical tools serviced and checked by a qualified electrician. Only use original TRUMPF accessories.

2. Description



1	Eccentric lever	4	Adjusting screw	7	Rim roll
2	On/Off switch	5	Supporting roller		
3	Aluminum mm scale Aluminum GA scale	6	Steel mm scale Steel GA scale		

Fig. 38119

2.1 Intended use

Warning

Danger of injury!

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

The TRUMPF TruTool F 140 lock seam closer is an electrical hand-held device used for the following applications:

- Closing Pittsburgh lock seams on correspondingly pre-machined workpieces, such as ventilation ducts, housings, containers, etc.

Note
The lock seam can be closed on straight or curved contours.

2.2 Technical data of the TruTool F 140

	Other countries			USA
	Values	**Values**	**Values**	**Values**
Voltage	230 V	120 V	110 V	120 V
Frequency	50 Hz	50/60 Hz	50 Hz	50/60 Hz
Material tensile strength 400 N/mm²	0.6-1.4 mm	0.6-1.4 mm	0.6-1.4 mm	0.024-0.04 in 24-17 gauge
Working speed	6-10 m/min	6-10 m/min	6-10 m/min	20-32 ft/min
Nominal power consumption	500 W	500 W	500 W	500 W
Idle speed n_0	110/min	110/min	110/min	110/min
Weight	4.0 kg	4.0 kg	4.0 kg	9.3 lbs
Inner radiuses	Min. 300 mm	Min. 300 mm	Min. 300 mm	Min. 11.8 in
Outer radiuses	Min. 500 mm	Min. 500 mm	Min. 500 mm	Min. 19.7 in
Protective insulation	Class II	Class II	Class II	Class II

Technical data Table 1

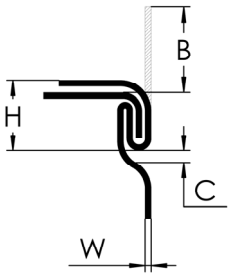
Noise and vibration	**Measured values in accordance with EN 60745**
A-classified sound pressure level	Typically 81 dB (A)
A-classified noise level	Typically 85 dB (A)
Hand-arm vibration	Typically less than or equal to 2.5 m/s²

Table 2

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

2.3 Lock seams

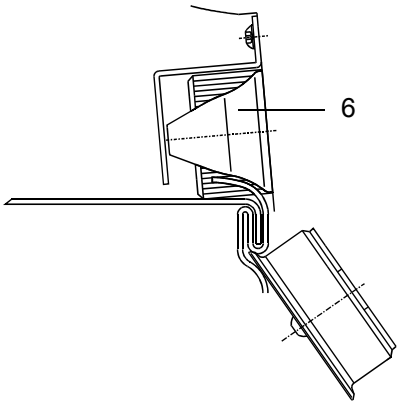
"Pittsburgh lock seam" geometry

Sheet thickness range		B [mm]	H [mm]	C [mm]	Diagram
[mm]	[Gauge/in]				
0.6-1	24-20 GA 0.024-0.04 in	10-15	13	2.5	
>1-1.4	20-18 GA 0.04-0.055 in	0.4-0.6"	1/2"	0.08"	H Lock seam height B Height of flange C Air gap W Material thickness

Pittsburgh lock seam geometry Table 3

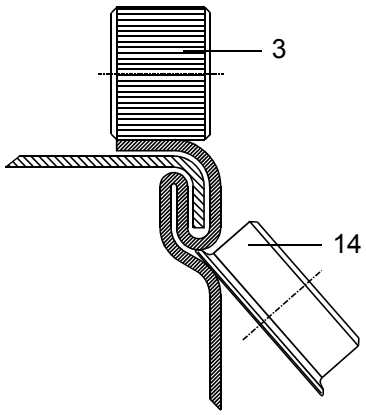
The machine is operated on the workpiece via the rim rolls (7). Sufficient space for the rollers is important in order to achieve good results.

The roller (6) shifts the flange. A minimum flange height is required here.



6 Roller

Fig. 10168



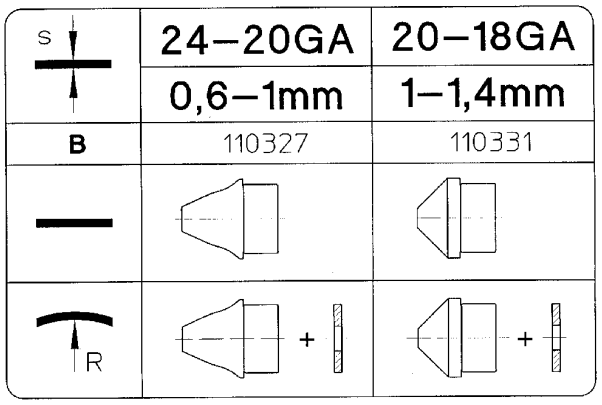
3 Drive shaft 14 Rim roll

Fig. 10169

3. Tool assembly

3.1 Selecting rollers

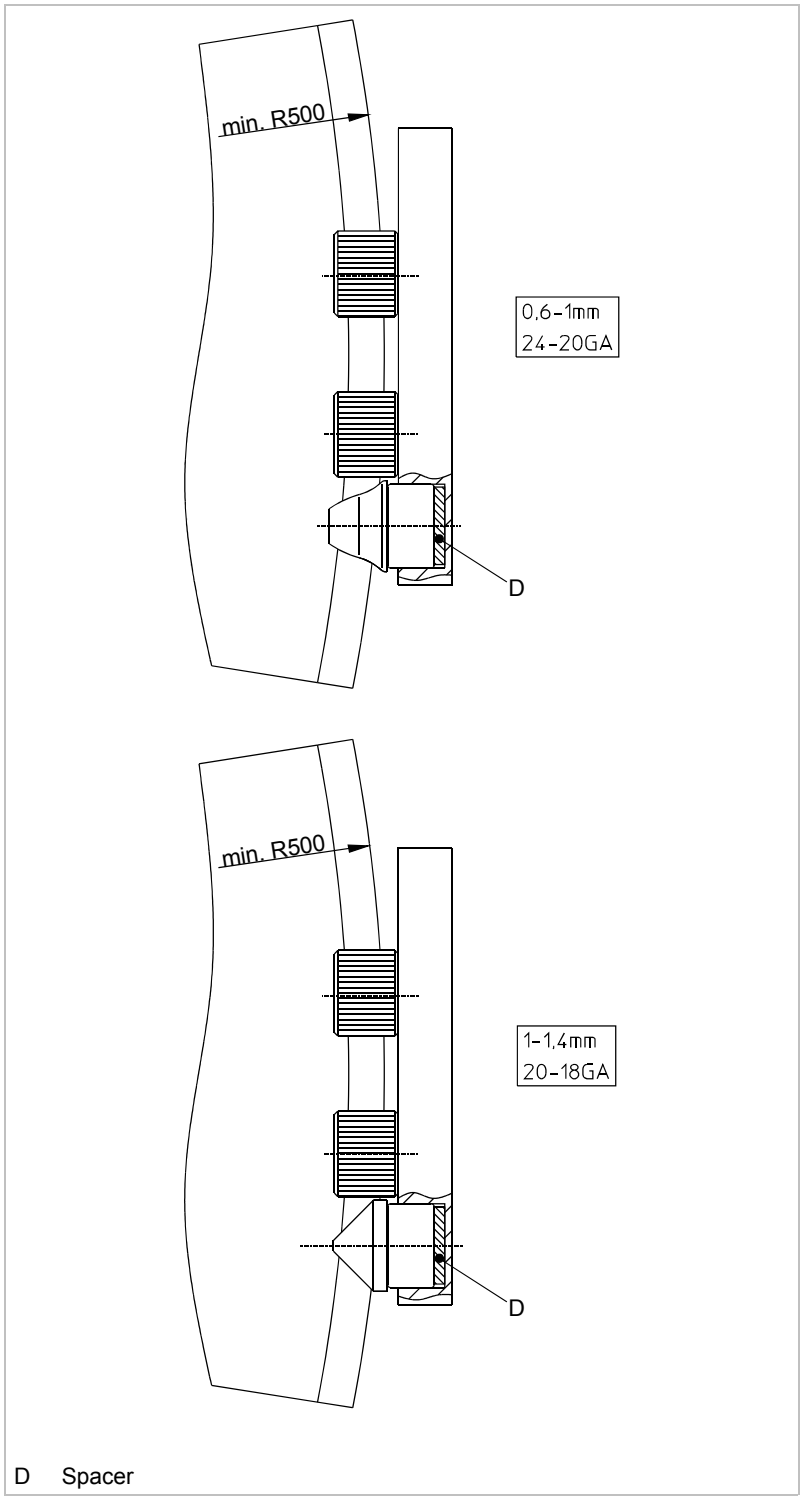
The rollers are selected in accordance with the sheet thickness.



B Order number GA Gauge
s Sheet thickness

Fig. 10171

3.2 Machining inner radiuses



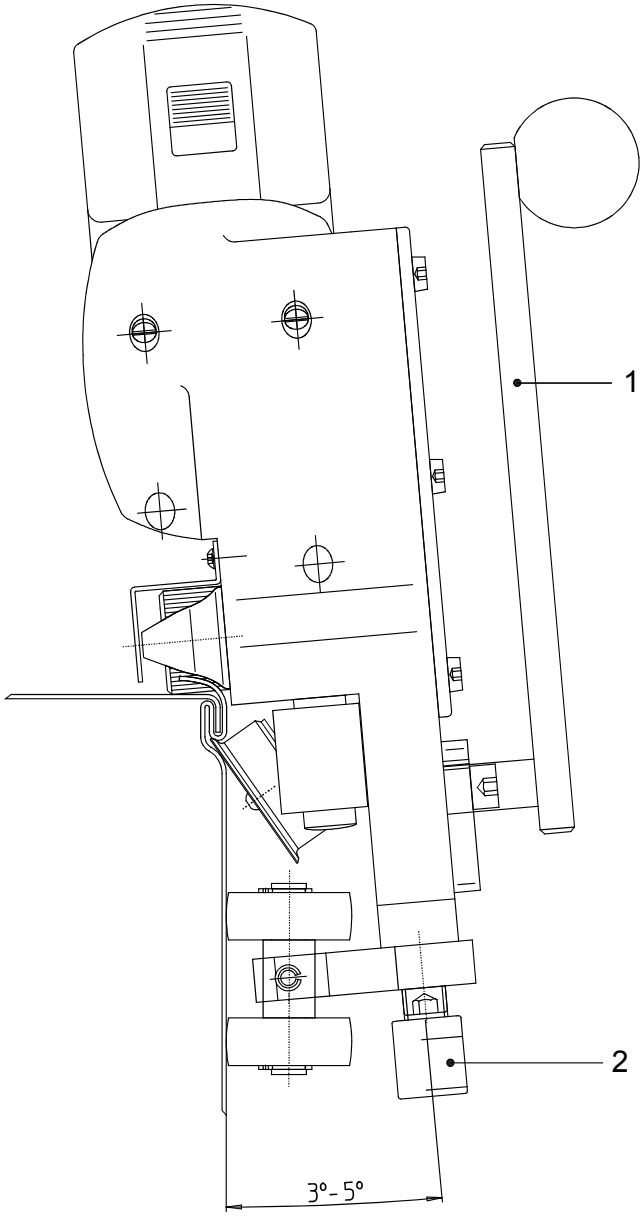
D Spacer

Machining curved radiuses Fig. 10172

The spacers supplied together with the rollers are required to set up the machine for "closing radiuses".

The machine is operated at a tangent to the bent workpiece by means of the two driving rollers. A spacer has to be used in this situation in order to position the rollers correctly.

3.3 Setting the slant



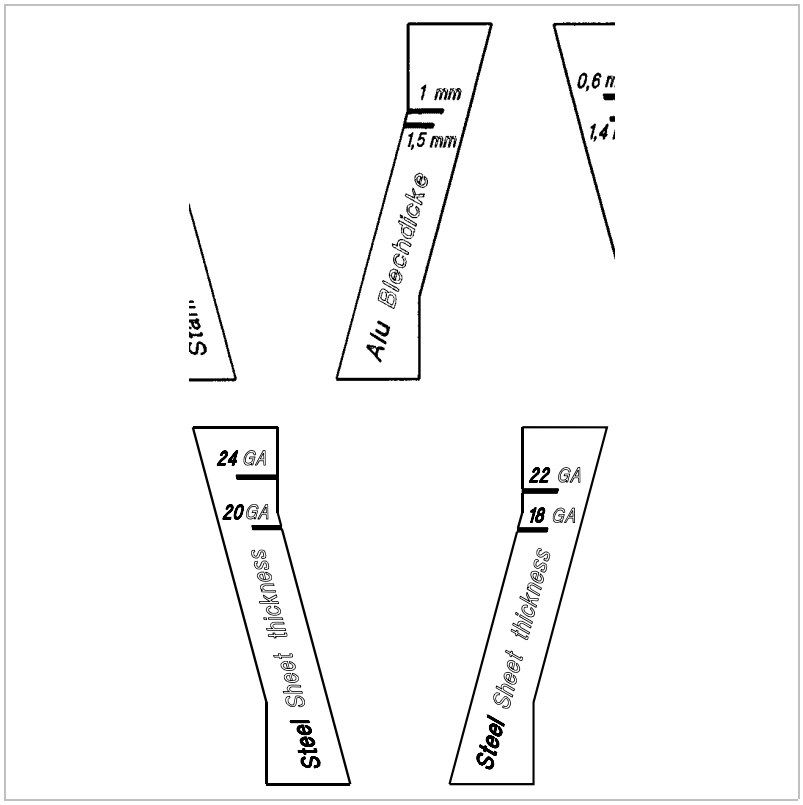
1 Clamping lever 2 Adjusting screw

Setting the slant Fig. 10173

By default, operations are performed at the largest angle. For this purpose the roller holder is pushed to the appropriate side in the oblong hole as far as it will go and fastened there.

The inclined position can be adjusted to about 3° within the thin sheet range (0.6 to 0.9 mm). As a result, the contact angle of the driving roller is reduced and the Pittsburgh connection is improved both visually and in terms of quality (smaller bulge at the Pittsburgh lock seam).

3.4 Setting the initial tension of the tool



Europe at top, USA at bottom Fig. 10174en

The scales indicate the setting values for the initial tension of the various sheet thicknesses and different types of material. The settings are made using the adjusting screw (2). (see Fig. 10173, p. 12).

1. Position the machine at the prepared workpiece.
2. Bring the tool in work position by swinging the clamping lever (1) into its top position (as far as it will go). The clamping lever (1) must engage slightly.
3. The initial tension can be adjusted by means of the adjusting screw (2) after loosening the clamping lever (1).

3.5 Changing the speed

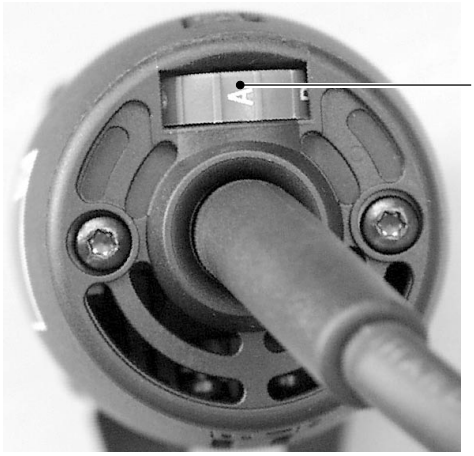
Caution

Damage to property due to low speed!

Motor damage due to overheating

➢ Select the appropriate speed.

The machine is equipped with an electronic module which allows variable speed settings in order to optimize the results and the smoothness of machine operations.



1 Setting wheel for speed controller at motor

Speed controller Fig. 10127

Reducing the speed

➢ Turn the setting wheel for the speed controller counter-clockwise.

It is easier to operate the tool at reduced speed.

Notes

- The speed cannot be adjusted with the 120-volt version. Operations are always performed at maximum speed.
- In general, higher speeds can be recommended for thinner sheets and for workpieces of lower tensile strength. The results most likely to be satisfactory for the various speeds are determined best by the experience of the operator.

4. Operation

Caution

Damage to property due to high power supply voltage!

Motor damage

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

Warning

Danger of injury due to improper handling!

- Make sure the machine is in a stable position when operating it.
- Never touch the tool while the machine is running.
- Always operate the machine away from your body.
- Do not operate the machine above your head.

4.1 Operating the TruTool F 140

Switching on

- Shift the On/Off switch forwards.

Operating the TruTool F 140

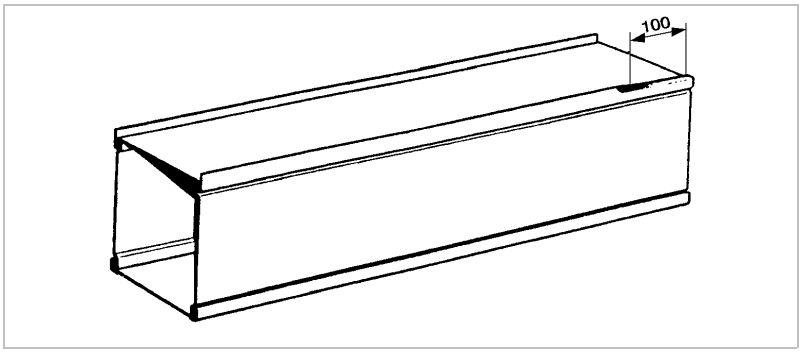


Fig. 10167

1. Close the flange at the start of the channel at a length of 100 mm.
2. Position the machine at the prepared workpiece.
3. Bring the tool in work position by swinging the clamping lever (1) into its top position (as far as it will go). The clamping lever (1) must engage slightly.
4. Switch on the machine and close the flange.
5. Switch off the machine and remove it from the machining position.

Influential factor	Effect	Correction
Higher material strength	Lock seam not sealed	Increase the initial tension on the rollers. Increase the slant.
Lower flange height	Feed power is increased → Machine comes to a standstill	Dimensions for lock seam preparation must be observed. Increase the initial tension of the tool. Select a different roller.
Uneven flange	Sheet runs behind roller	The slat may not be positioned at more than 90° to the surface of the channel.
Driving rollers slip through	Machine comes to a standstill	Increase the initial tension.

Table 4

(see Fig. 10127, p. 14)

Note
The suspension lug can be pre-formed without a moulding by 30° to a length of approximately 80 mm for small sheet thicknesses (0.6-1 mm).

Switching off

➢ Shift the On/Off switch to the rear.

5. Maintenance

Warning

Danger of injury due to the improper conduction of repair work!

Machine does not work properly.

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

Maintenance point	Procedure and interval	Recommended lubricants	Order No. Lubricant
Gearbox and gear head (2)	Have them relubricated or the lubricating grease replaced by a qualified specialist every 300 operating hours.	"G1" lubricating grease	0139440
Ventilation slots	Clean as required	-	-

Table 5

Maintenance points and maintenance intervals

5.1 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 information on the rating plate.

6. Original accessories and wearing parts

Designation	Supp-lied original acces-sories	Wearing parts	Options	Material number
Driving roller	+	+		003523
Rim roll	+	+		023181
Roller, 0.6-1.0 mm	+	+		110327
Roller, 1.0-1.4 mm		+	+	110331
Spacer for roller	+			020214
Operator's manual	+			1254102
Safety information (red document), other countries	+			125699
Safety information (red document), USA	+			1239438
Size-5 DIN 911 screwdriver	+			0067857
Size-2.5 DIN 911 screwdriver	+			0067822
Pulling fixture	+			247536

Original accessories, wearing parts and optional items Table 6

Ordering wearing parts

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

1. Specify the material number.
2. Enter further order data:
   - Voltage data
   - Number of pieces
   - Machine type
3. Specify the complete shipping information:
   - Correct address.
   - Required 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.