

Operator's manual



TruTool C 160 (2A1), (2B1)

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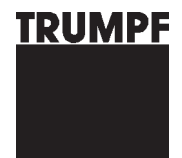


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1. Safety

1.1 General safety information

WARNING

Read all safety warnings and all instructions.

- Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury
- Save all warnings and instructions for future reference.

DANGER

Electrical voltage! Risk of fatal injury due to 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 fault current (FI) circuit breaker with a maximum breaking current of 30 mA when using the electric tool outside.
- Only use original TRUMPF accessories.

WARNING

Damage to the machine due to improper handling.

- Wear safety glasses, hearing protection, breathing protection, protective gloves and working shoes when working.
- Connect the plug only when the machine is switched off. Pull the power plug after use.
- Do not carry the machine by the cable.
- Have maintenance carried out by specialists.

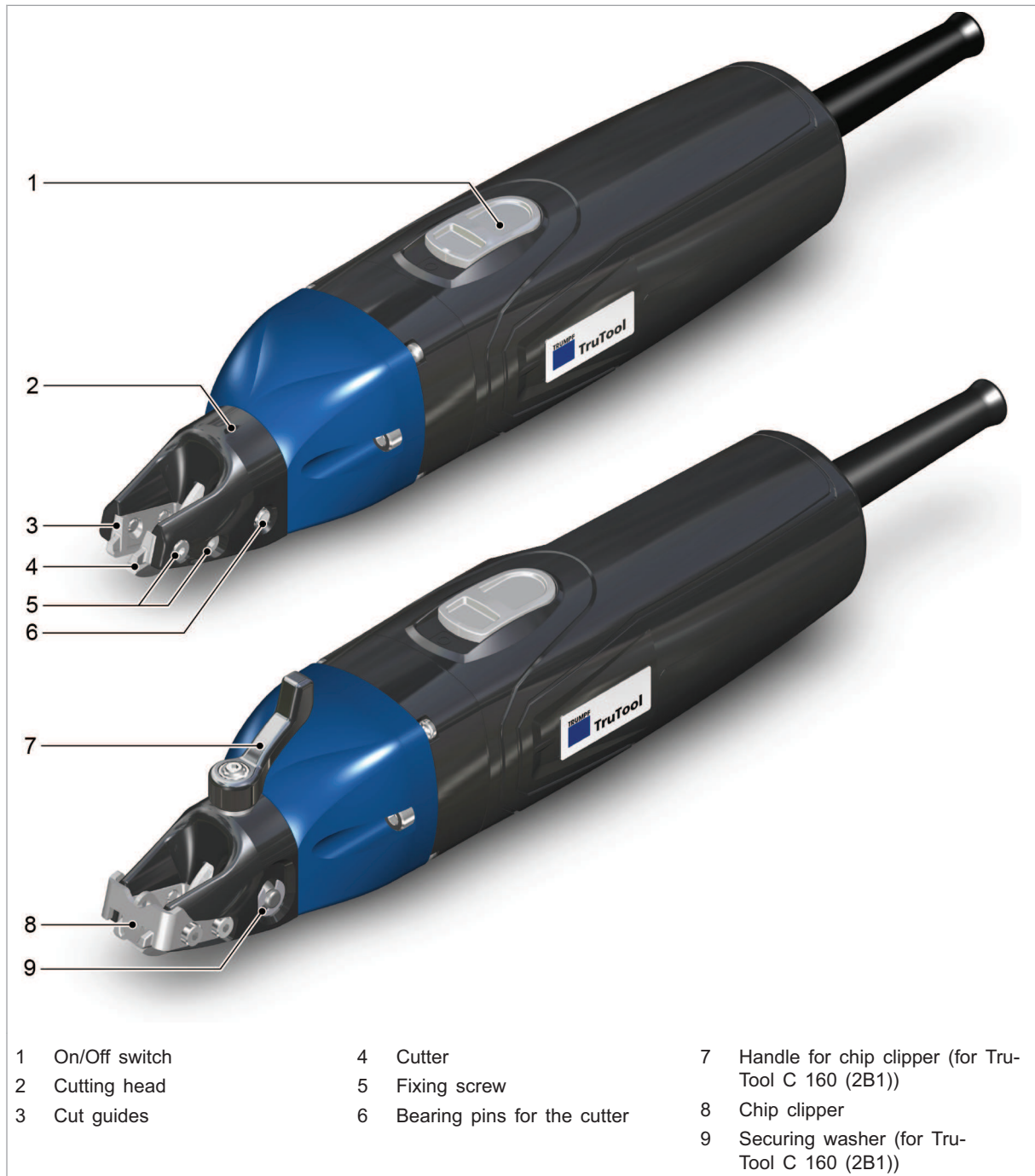
1.2 Specific information for slitting shears

WARNING

Risk of injury to hands.

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

2. Description



Slitting Shears TruTool C 160 (2A1) and TruTool C 160 (2B1)

Fig. 78425

2.1 Intended use



Damage to the machine due to improper handling.


- Only use the machine for work and materials as described under "Intended use."

The TRUMPF Slitting Shears TruTool C 160 is a manually operated power tool for the following applications:

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

Die TRUMPF Slitting Shears TruTool C 160 (2B1) offers the opportunity to cut off the chip that occurs during processing anywhere within the workpiece.

2.2 Technical data

	Other countries			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
Working Speed	6 - 10 m/min			20- 33 ft/min
Nominal power consumption	350 W			
Idle stroke rate	5800/min	6600/min	6200/min	6600/min
Weight	1.4 kg			3.1 lbs
Smallest radius for curved cutouts				
Curve cutter	40 mm			1.57 in
Straight cutter	90 mm			3.5 in
Blade Cr	160 mm			6.3 in
Starting hole diameter				
Straight cutter	15 mm			0.6 in
Blade Cr	8 mm			0.32 in
Protective insulation	II / 			

Technical Data

Tab. 1

	Steel up to 400 N/mm ²	Steel up to 600 N/mm ²	Aluminum up to 250 N/mm ²
Straight cutter	1.6 mm (0.063 in)	1.2 mm (0.048 in)	2.0 mm (0.075 in)
Curve cutter	1.0 mm (0.039 in)	0.8 mm (0.031 in)	1.2 mm (0.048 in)

	Steel up to 400 N/mm ²	Steel up to 600 N/mm ²	Aluminum up to 250 N/mm ²
Blade Cr	1.6 mm (0.063 in)	1.2 mm (0.048 in)	2.0 mm (0.075 in)




Permissible material thicknesses

Tab. 2

2.3 Icons

Note

The following symbols are important for reading and understanding the operator's manual. The correct interpretation of the symbols will help you operate the machine better and safer.

Icon	Name	Description
	Read operator's manual	Read the operator's manual and safety information in their entirety before starting up the machine. Closely follow the instructions given.
	Safety class II	Indicates a doubly insulated tool.
	Alternating current	Type or property of current
V	Volt	Voltage
A	Ampere	Current, current input
Hz	Hertz	Frequency (oscillations per second)
W	Watt	Power, power input
mm	Millimeters	Dimensions e.g.: material thickness, chamfer length
in	Inch	Dimensions e.g.: material thickness, chamfer length
n ₀	Idle speed	Revolution speed without load
.../min	Revolutions/strokes per minute	Revolution speed, stroke rate per minute

Tab. 3

2.4 Noise and vibration information



Noise emission value may be exceeded.

- Wear hearing protection.

⚠ WARNING**The vibration emission value can be exceeded!**

- Select the right tools and exchange them in time in the event of wear.
- Have maintenance carried out by trained specialized technicians.
- Define additional safety measures for protecting the operator from the effect of vibrations (e. g. keep hands warm, organization of working procedures, machining at normal feed force).
- Depending on the operating conditions and state of the electric tool, the actual load might be higher or lower than the specified measured value.

Notes

- The specified vibration emission value was measured in accordance with a standardized testing procedure and can be used to compare one electric tool with another.
- The specified vibration emission value can also be applied for a provisional estimate of the vibration load.
- Times during which either the machine is switched off or running but not actually in use can considerably reduce the vibration load during the entire working period.

Designation of measured value	Unit	Value according to EN 60745
Vibration emission value a_h (vector sum of three directions)	m/s^2	6.3
Uncertainty K for vibration emission value	m/s^2	1.5
A-class acoustic pressure level L_{PA} typically	dB (A)	77
A-class acoustic power level L_{WA} typically	dB (A)	88
Uncertainty K for noise emission value	CM	3

Tab. 4

3. Setting work

3.1 Cut parallel strips

With the help of the parallel stop, parallel strips with widths of 35-300 mm can be made.

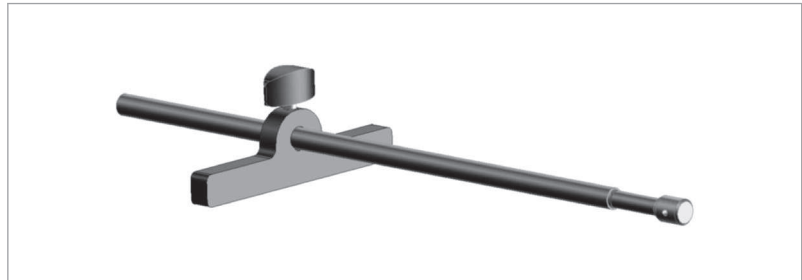


Fig. 17756

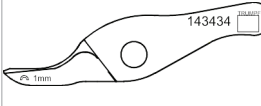
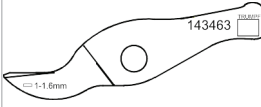
1. Remove cutter bearing pin.
2. Mount parallel stop.

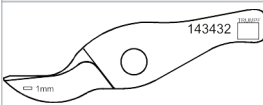
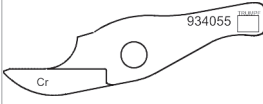
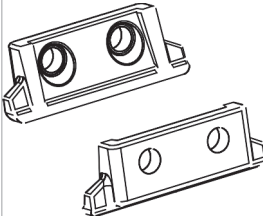
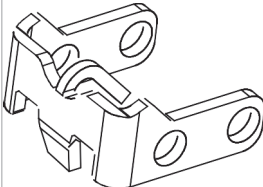
The rod of the parallel stop takes on the function of cutter bearing.

3.2 Select tool

Note

The cutters have two blades. These cannot be regrinded.

Tool Type	Designation	Material thickness
	Curve cutter 1.0 mm	Aluminum max. 250N/mm ² 0.3 to 1.2 Steel max. 400 N/mm ² 0.3 up to 1.0 Stainless steel max. 600N/mm ² 0.3 to 0.8
	Straight cutter 1.0 - 1.6 mm	Aluminum max. 250N/mm ² 1.0 to 2.0 Steel max. 400 N/mm ² 1.0 up to 1.6 Stainless steel max. 600N/mm ² 0.8 up to 1.2

Tool Type	Designation	Material thickness
	Straight cutter 1.0 mm	Aluminum max. 250N/mm^2 0.3 to 1.2 Steel max. 400 N/mm^2 0.3 up to 1.0 Stainless steel max. 600N/mm^2 0.3 up to 1.0
	Blade Cr	Aluminum max. 250N/mm^2 1.0 to 2.0 Steel max. 400 N/mm^2 1.0 up to 1.6 Stainless steel max. 600N/mm^2 0.8 up to 1.2
	Cutting blades (1 set = 2 pieces) with screws	All materials
	Chip clipper TruTool C 160 (2B1)	All materials

Cutter selection

Tab. 5

- Depending on the thickness or strength of the material, different types of cutters are needed.

If the cutter selection is not done according to the table:

The cut quality will be impaired considerably.

The feed force will increase considerably.

The cutter breaks.

4. Operation

⚠ WARNING

Damage to the machine due to improper handling.

- Wear safety glasses, hearing protection, breathing protection, protective gloves and working shoes when working.
- Connect the plug only when the machine is switched off. Pull the power plug after use.
- Do not carry the machine by the cable.
- Have maintenance carried out by specialists.

⚠ CAUTION

Damage to property due to excessively high line voltage!

Motor damage.

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

4.1 Switching on/off TruTool C 160

Switching on the machine

1. Slide the On/Off switch forwards.



Fig. 78427

2. Bring machine to the sheet surface at an angle of approx. 15°.

Switching off the machine

3. Slide the On/Off switch to the rear.

4.2 Working with TruTool C 160

For conservative work and good cutting performance:

- Look out for sharp cutters.
- Turn cutting blades in a timely manner.
- Change cutting blades in a timely manner.

The following requirements must be met when cutting radii:

- Do not tilt the machine.
- Work only with low feed.

4.3 Separating chips

CAUTION

Property damage resulting from broken off chip brake!

Do not continue to work with the machine.

- Replace chip clipper.

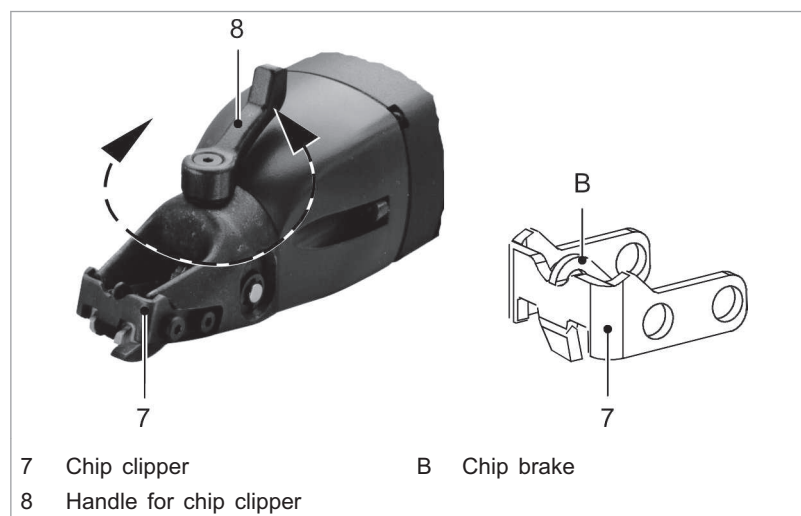


Fig. 17626

Note

Do not move the machine towards the workpiece until full speed has been reached.

1. Separating chips: Rotate the handle $\frac{3}{4}$ of a turn clockwise when the machine is running
2. Continue working: Turn handle to initial position.

5. Maintenance

⚠ DANGER

Risk of fatal injury due to electric shock!

- Remove the plug from the plug socket before changing the tool or undertaking any maintenance work on the machine.

⚠ WARNING

Risk of injury due to incorrect repair work

Machine does not work properly.

- Maintenance may be carried out by trained specialist technicians only.

⚠ CAUTION

Damage to property caused by blunt tools!

Machine overload.

- Check the cutting edge of the blade hourly for wear. Sharp blades have a good cutting performance and prevent damage to the machine.
- Change blades in a timely manner.

Maintenance point	Procedure and interval	Recommended lubricants
Bearing pin	Lubricate when replacing the blade	Lubricating grease "G1"
Cutter	Lubricate when replacing the blade	Lubricating grease "G1"
Gearbox and gear head	After 300 operating hours, arrange for a trained specialist to relubricate or to replace the lubricating grease.	Lubricating grease "G1"
Cutting blades	Turn if necessary	-
Cutting blades	Change as needed	-
Cutter	Change as needed	-

Maintenance positions and maintenance intervals

Tab. 6

5.1 Changing tool TruTool C 160 (2A1) (2B1)

Replacing cutter

The cutter is to be replaced when both cutting edges of a cutting blade are blunt.

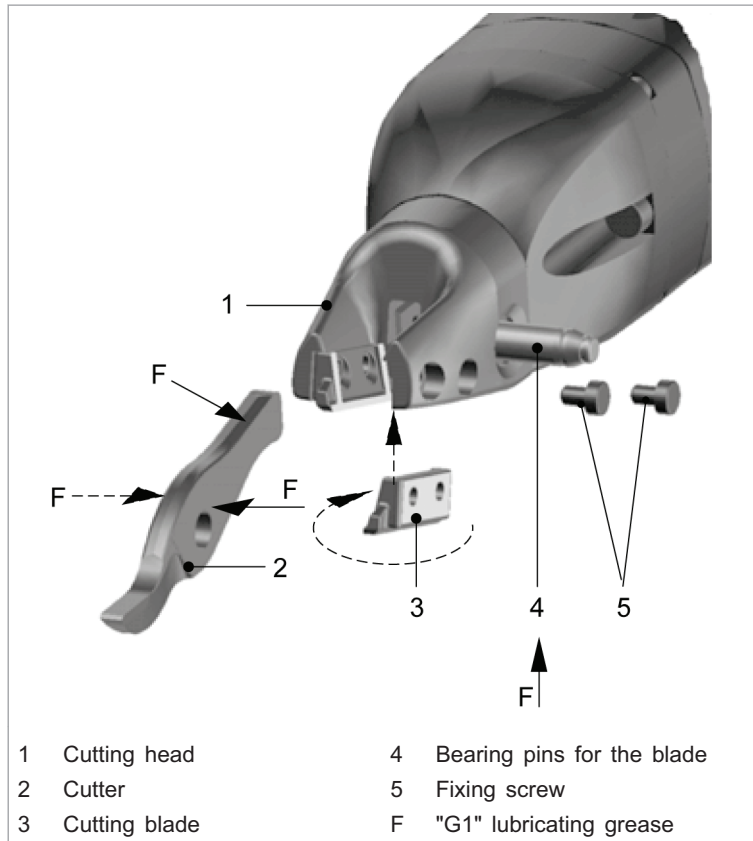


Fig. 73174

Turn/Replace cutting blades

1. Push out snapped in bearing pin.
2. Remove cutter from the cutting head.
3. Lightly lubricate the new cutter and the bearing pin.
4. Insert the new cutter.
5. Insert the bearing pin through the bore hole until it snaps in.
6. Unscrew the fastening screws.
7. Check cutting blades:
 - If a cutting edge is blunt: Turn cutting blades 180°.

or

 - Replace both cutting blades if both sides of the cutting edges of a cutting blade are blunt.
8. Tighten the fixing screw.

5.2 Replacing carbon brushes

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

Notes

- Use only original spare parts from TRUMPF.
- Observe the information on the rating plate.

- Have the carbon brushes checked and replaced as required by a qualified technician.

6. Accessories and consumables

Consumables	Order number	Scope of delivery
Cutting blades C 160 (2A1)		
1 set incl. screws	0927708	x ¹
Cutting blades C 160 (2B1)		
1 set incl. screws	0913520	X ¹
Cutter, straight 1-1.6 mm		
1 piece	-	X
2-pack	1264343	-
5-pack	1264345	-
Cutter, straight 0-1 mm		
2-pack	1264356	-
5-pack	1264357	-
Curve cutter		
2-pack	0143434	-
5-pack	1264359	-
Blade CR		
2-pack	0934055	-
5-pack	1264347	-
Chip clipper for TruTool C 160 (2B1)		
1 piece	-	X
2-pack	1264370	-
Cutter set		
1 cutter, straight 0-1 mm 1 curve cutter	0913521	-
Set C160 (2B1)		
2 cutting blades, 1 chip clipper	0143950	-
Lubricating grease "G1", tube (25 g)	344969	-
Lubricating grease "G5", can (900 g)	1954202	-

Tab. 7

Accessories	Order number	Scope of delivery
Allen key	067822	x
TRUMPF Box S1	1763681	x
TRUMPF Box S101 lining	1771092	x
Parallel stop	143439	-
Operator's manual	2012079	x
Safety notes	125699	X

Tab. 8

1 Depending on the type of machine ordered

6.1 Ordering consumables

Note

The following data must be specified in order to ensure that parts are delivered correctly and without delay.

1. Specify the order number.
2. Enter further order data:
 - Voltage data
 - Quantity
 - Machine type
3. Specify the complete shipping information:
 - Correct address.
 - Desired delivery type (e.g. air mail, courier, express mail, ordinary freight, parcel post).

Note

For TRUMPF service addresses, see www.trumpf-powertools.com.

4. Send the order to the TRUMPF representative office.

**7. Appendix: Declaration of conformity,
guarantee, replacement parts lists**