

# Operator's manual



## TruTool N 160 (2A5)

Nibbler

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# Table of contents

<b>1</b>	<b>Safety</b>	<b>2</b>
1.1	General safety information	2
1.2	Specific safety information for nibblers	2
1.3	Additional safety warnings	2
<b>2</b>	<b>Description</b>	<b>3</b>
2.1	Intended use	3
2.2	Technical data	4
2.3	Icons	5
2.4	Noise and vibration information	5
<b>3</b>	<b>Setting work</b>	<b>7</b>
3.1	Setting the speed	7
3.2	Chip bag (optional)	7
<b>4</b>	<b>Operation</b>	<b>8</b>
4.1	Switching TruTool on/off	8
4.2	Working with TruTool N 160	8
4.3	Changing the cutting direction	9
4.4	Producing interior cutouts	9
<b>5</b>	<b>Maintenance</b>	<b>10</b>
5.1	Replacing the tool	10
5.2	Mounting the extension	12
5.3	Changing the punch	13
5.4	Changing the die	13
5.5	Changing the carrier	13
5.6	Checking loading status	14
5.7	Changing rechargeable battery	14
<b>6</b>	<b>Accessories and consumables</b>	<b>16</b>
6.1	Ordering consumables	16
<b>7</b>	<b>Appendix: Declaration of conformity, guarantee, replacement parts lists</b>	<b>18</b>

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## 1. Safety

### 1.1 General safety information

 **WARNING**

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**Read all the safety information and instructions.**

- Failure to comply with the safety information and instructions can cause electric shock, burns and/or serious injury.
  - Retain all the safety information and instructions for future use.
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### 1.2 Specific safety information for nibblers

 **WARNING**

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**Risk of injury to hands.**

- Do not reach into the processing line with your hands.
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### 1.3 Additional safety warnings

**Personal safety**    **Note**

**Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.**

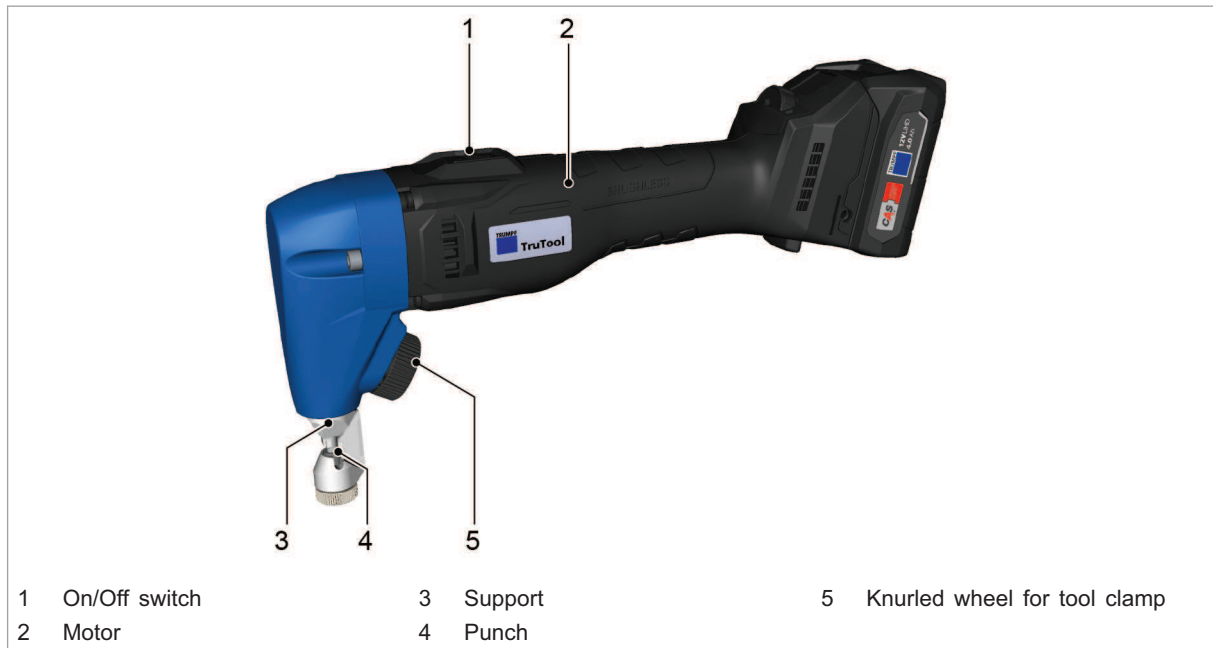
A careless action can cause severe injury within a fraction of a second.

**Power tool use and care**    **Note**

**Keep handles and grasping surfaces dry, clean and free from oil and grease.**

Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

## 2. Description



TruTool N 160 profiling nibbler

Fig. 97971

### 2.1 Intended use

#### **⚠ WARNING**

#### **Damage to the machine due to improper handling.**

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

The TRUMPF profiling nibbler TruTool N 160 is a hand-held power tool 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.

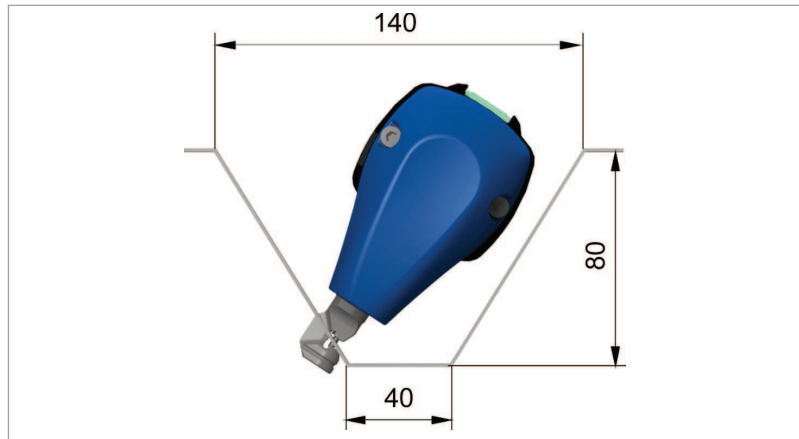


Fig. 52873

## 2.2 Technical data


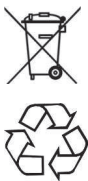


TruTool N 160	Other countries	USA
<b>Voltage</b>	12 V	
<b>Permissible material thickness: steel up to 400 N/mm<sup>2</sup></b>	1.6 mm	0.063 in
<b>Permissible material thickness: steel up to 600 N/mm<sup>2</sup></b>	1.0 mm	0.039 in
<b>Permissible material thickness: steel up to 800 N/mm<sup>2</sup></b>	0.7 mm	0.03 in
<b>Permissible material thickness: aluminum up to 250 N/mm<sup>2</sup></b>	2.0 mm	0.078 in
<b>Working Speed</b>	2.2 m/min	7.22 ft/min
<b>Smallest radius</b>	24 mm	0.94 in
<b>Starting hole diameter</b>	22 mm	0.87 in
<b>Diameter of smallest hole that can be cut</b>	48 mm	1.89 in
<b>Clearance for template cutting</b>	1.5 mm	0.06 in
<b>Idle stroke rate</b>	2350/min	
<b>Stroke rate with nominal load</b>	1500/min	
<b>Weight without rechargeable battery</b>	1.24 kg	2.73 lbs
<b>Weight with rechargeable battery</b>	1.57 kg	3.46 lbs
<b>Weight of extension</b>	0.24 kg	0.53 lbs

Tab. 1

## 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.
	Disposal	Batteries may not be disposed of in domestic waste! They contain harmful substances which are damaging to health and the environment. All dealers of TRUMPF machines in the EU and the USA accept empty batteries without charge.
Ni Cd		The characters under the symbols stand for: Battery contains nickel Battery contains cadmium
	Information symbol	Do not throw batteries into fire.
	Information symbol	Do not charge a damaged battery, but replace it immediately.
— — —	Direct current	Type or property of current
V	Volt	Voltage
Ah	Ampere hours	Electrical load
Wh	Watt hours	Electrical work
mm	Millimeters	Dimensions e.g.: material thickness, chamfer length
in	Inch	Dimensions e.g.: material thickness, chamfer length
$n_o$	Idle speed	Revolution speed without load

Tab. 2

## 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)	$m/s^2$	10.0
Uncertainty K for vibration emission value	$m/s^2$	1.5
A-class acoustic pressure level $L_{pA}$ typically	dB (A)	90
A-class acoustic power level $L_{WA}$ typically	dB (A)	101
Uncertainty K for noise emission value	dB	3

Tab. 3



### 3. Setting work

#### 3.1 Setting the speed

- Use the setting wheel to set the revolution speed depending on the application.

#### 3.2 Chip bag (optional)

A chip bag can be used to catch the chips.



TruTool N 160 with chip bag

Fig. 97973

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

### 4.1 Switching TruTool on/off

#### Switching on the machine

##### Note

If the power tool does not work after it has been switched on, check if the batteries have been fully recharged.

1. Slide the On/Off switch forwards.

#### Switching off the machine

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

### 4.2 Working with TruTool N 160

##### Note

In order to improve the cutting result and increase the service life of the punch, coat the cutting track with oil before machining the workpiece.

Material	Oil
Steel	Punching and nibbling oil (0.5 l, order number 103387)
Aluminum	Wisura oil (1 l, order no. 125874)

Tab. 4

##### Note

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

1. Edit material.
  - Process the desired cutting line.
2. If the cutting track ends in the sheet: retract the running machine a few millimeters in the direction of the already free-cut cutting track.
3. Switch the machine off.

### 4.3 Changing the cutting direction

The direction of the cut can be rotated to the right or the left in 8 indexed positions (all 45°) or rotated freely as needed.

- Set the tool for right-hand/left-hand operation.
- Process profile sheets.



Fig. 97974

1. Loosen the knurled wheel for the tool clamp.
2. Turn the tool in the desired direction.
3. Retighten the knurled wheel.

### 4.4 Producing interior cutouts

- Make a start bore of at least  $\varnothing$  15 mm.

## 5. Maintenance

### WARNING

#### Risk of injury from rechargeable battery!

- Remove the rechargeable battery 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 tool hourly for wear. A sharp tool provides good cutting performance and is easier on the machine.
- Change blades in a timely manner.

Maintenance point	Procedure and interval	Recommended lubricants
Punch	Change as needed	-
Ventilation slots	Clean as needed	-
Carrier	Change if needed / lubricate after tool change	Lubricating grease "G1"
Gearbox and gear head	Every 300 operating hours, have a trained specialist relubricate or replace the lubricating grease.	Lubricating grease "G5"
Rechargeable battery	Change as needed	-

Maintenance positions and maintenance intervals

Tab. 5

### 5.1 Replacing the tool

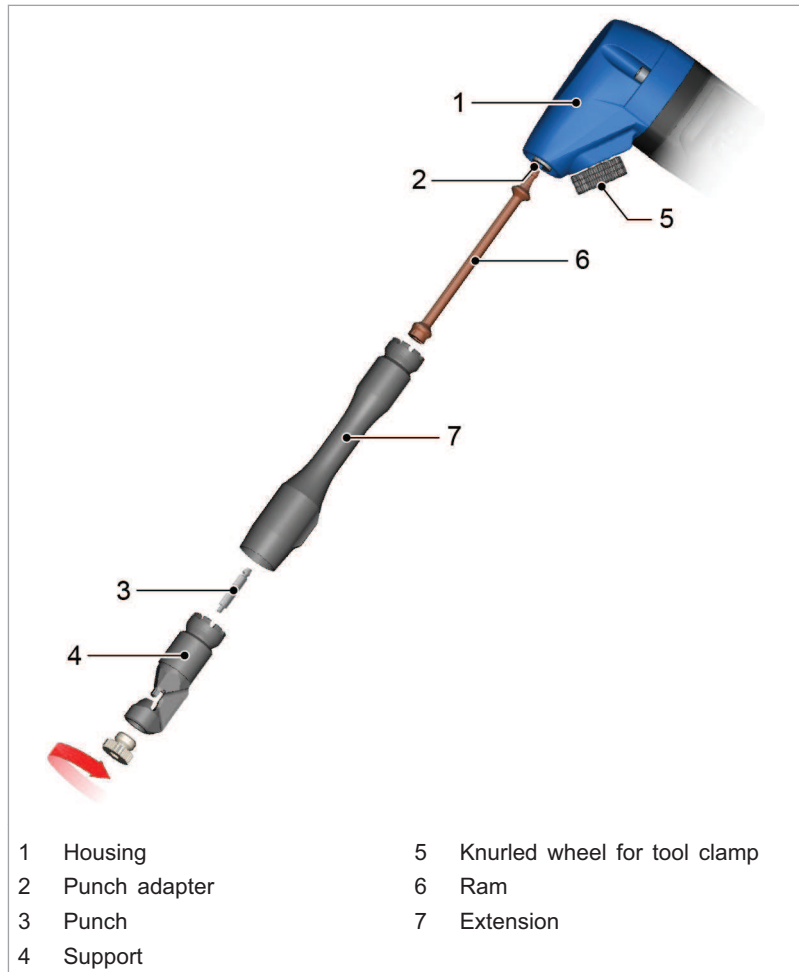
#### Note

A blunt punch can cause the carrier to break.



Replacing the tool

Fig. 97975



Replacing the tool

Fig. 99455

- Change the punch and/or the carrier.

## 5.2 Mounting the extension

### Note

During assembly, it is best to hold the machine horizontally.

1. Turn the knurled wheel (5) at least three times.

### Index bolt stuck

- Use T20 wrench.
2. Pull the carriers (4) out of the housing (1).
  3. Remove the punch (3).
  4. Hang the ram (6) in keyway of the punch adapter (2).
  5. Insert the extension (7) in the housing.

6. Hang the punch in the keyway of the extension.
7. Insert the carrier in the extension.
8. Tighten lever by hand.

## 5.3 Changing the punch

### Note

During assembly, it is best to hold the machine horizontally.

1. Turn the lever (5) at least three times.

### Index bolt stuck

- Use T20 wrench.

2. Pull the carries (4) out of the housing (1).
3. Remove the punch (3).
4. Lubricate the new punch (3) and carrier (4) with "G1" lubricating grease.
5. Hang the punch (3) in die keyway of the punch adapter (2).
6. Insert the carrier (4) in the housing (1).
7. Tighten the lever (5) by hand.

## 5.4 Changing the die

### Note

During assembly, it is best to hold the machine horizontally.

1. Undo nut (x).

### Nut stuck

- Use T20 wrench.

2. Remove die (x) and insert new die.
3. Tighten nut (x) by hand.

## 5.5 Changing the carrier

### Note

During assembly, it is best to hold the machine horizontally.

1. Turn the lever (5) at least three times.
2. Remove the carrier (4)
3. Insert a new carrier (4) in the housing (1).
4. Tighten the lever (5).

## 5.6 Checking loading status

The rechargeable battery pack has a capacity and signal display.

- Press the red button on the rechargeable battery pack. The charging status is shown by the LED lights.

If an LED light is flashing, the rechargeable battery pack is nearly empty and must be recharged.

## 5.7 Changing rechargeable battery

### Condition

- Machine is switched off.

### Taking out exchangeable battery



Changing rechargeable battery

Fig. 73106

1. Press rechargeable battery pack releasing device and remove battery pack.





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**Inserting exchangeable  
battery**

2. Insert the rechargeable battery pack until it locks into place.

## 6. Accessories and consumables

Name	Scope of delivery	Consumables	Accessories	Order number
Punch (1-piece set)	-	x	-	2260177
Punch (5-piece set)	-	x	-	1264083
Punch (10-piece set)	-	x	-	1264084
Die (1-piece set)	-	x	-	2260178
Die (2-piece set)	-	x	-	2260560
Die (5-piece set)	-	x	-	1264088
Set (2 punches, 1 die)	-	x	-	0141723
Lubricating grease "G1" tube (25 g)	-	x	-	0344969
Lubricating grease "G5" can (900 g)	-	x	-	1954202
Punching and nibbling oil for steel (0.5 l)	-	-	x	0103387
Punching and nibbling oil for aluminum (1 l)	-	-	x	0125874
TRUMPF Box S2	x <sup>1</sup>	-	x	1763682
TRUMPF Box S203 lining	x <sup>1</sup>	-	x	2578312
Chip bag	-	-	x	2498167
Operator's manual	x	-	-	2581930
Safety notes	x	-	-	0125699

Tab. 6

Name	Scope of delivery	Consumables	Accessories	Order number
Rechargeable battery pack 12 V 4 Ah LiHD	x <sup>2</sup>	-	-	2598770
Recharger 220 - 240 V, 50/60 Hz (D)	x <sup>2</sup>	-	-	2569784
Recharger 115 V, 60 Hz (USA)	x <sup>2</sup>	-	-	2569785
Recharger 220 - 240 V, 50/60 Hz (GB)	x <sup>2</sup>	-	-	2569786

Tab. 7

### 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:

- 
- 1 Depending on the type of machine ordered
  - 2 Depending on the type of machine ordered

- 
- 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](http://www.trumpf-powertools.com).

4. Send the order to the TRUMPF representative office.

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