Operator's manual

F 300-2 PLUS

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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 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.
- Use both hands to hold the machine.

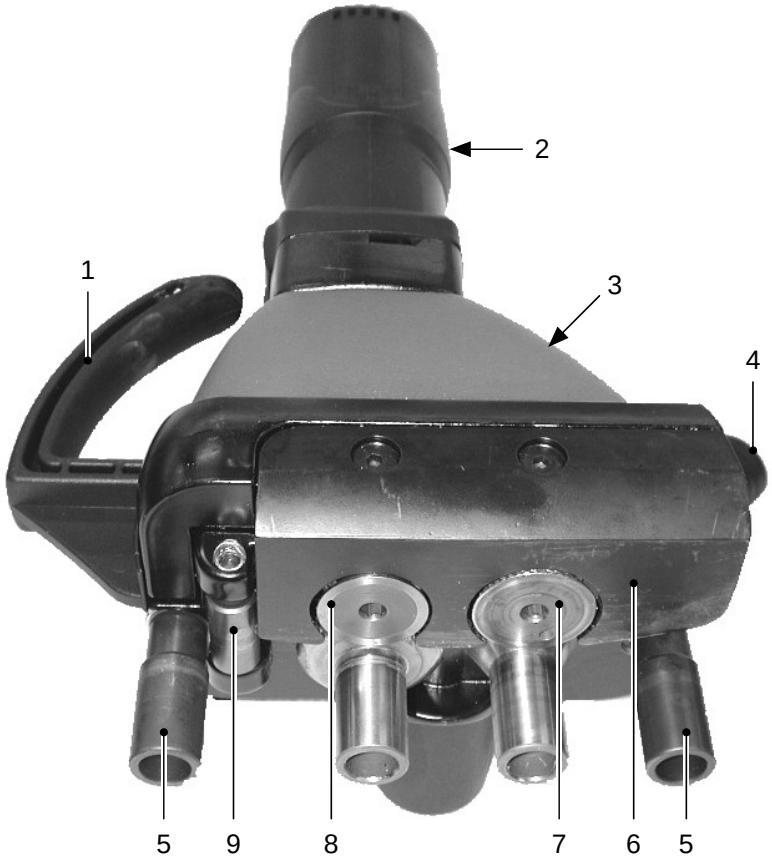
Caution

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.

2. Description



1	Handle	4	Move lever to set the positions "Tool open" and "Tool in work position"	6	Guide rail
2	On/Off switch			7	Driver roller 30°
3	Suspension eyelet			8	Driver roller 75°
		5	Supporting roller	9	Roller

Fig. 38112

2.1 Correct use

Warning

Risk of injury!

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

The TRUMPF Fold closer 300-2 is an electric hand tool used for the following applications:

- Closing of Pittsburgh lock joints on correspondingly pre-machined workpieces, e.g. ventilation ducts, housings, containers, etc.
- Machining of all lock seam elevations.

Notes

- The lock seam can be closed on straight or curved contours.
- The machine adjusts itself automatically to the sheet thickness to be processed.

2.2 Technical data F 300-2

F 300-2 PLUS	Pittsburgh Seam Locker	
Max. sheet thickness	**u/m**	Value
Mild steel, 57,000 tensile, minimum	in. / ga.	.030 / 22
Mild steel, 57,000 tensile, maximum	in. / ga.	.050 / 18
Min. flange height at .030" to .040"	in.	7 / 16
Min. flange height at .040" to .050"	in.	9 / 16
Working speed	ft. / min.	20 -34
Smallest inner radius (preformed)	in.	6.0
Smallest outer radius	in.	12.0
Motor rating	W	1400
Weight without cable	lbs.	13.7

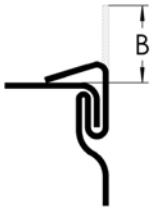
Noise and vibration	Measured values in accordance with EN 60745
A-weighted sound level	Typically 81 dB (A)
A-weighted noise level	Typically 85 dB (A)
Hand-arm vibration	Typically less than or equal to 2.5 m/s^2

Table 2

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

2.3 Lock seams

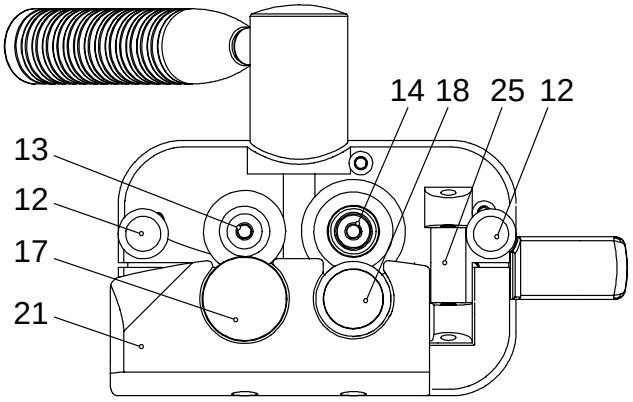
"Pittsburgh lock seam" geometry

Sheet thickness range		Height of flange (B) [mm]	Picture
[mm]	[Gauge]		
0.75-1	22-21 0.03-0.04 in	9-11	 B Height flange
>1-1.25	21-18 0.04-0.05 in	11-13	

Pittsburgh lock seam geometry Table 3

Note
The lock seam quality depends essentially on the height of the flange B. If B is too small, then the lock seam cannot be properly closed. When the Pittsburgh lock seam machine is set to 1.25 mm sheet thickness, the correct flange heights will also appear automatically on all thinner sheets.

Roller arrangement

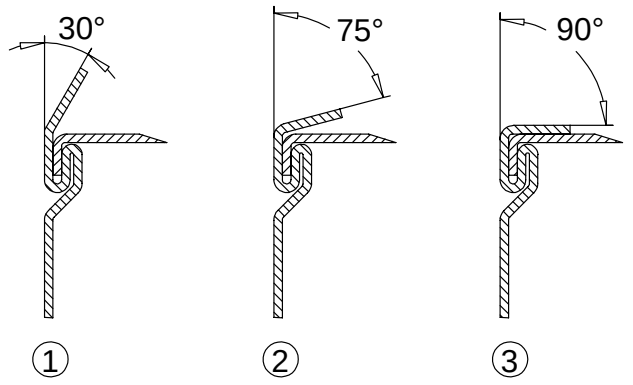


12	Supporting roller	18	Driven roller for the second forming stage (75°)
13	Driven roller for the first forming stage (30°)	21	Guide rail
14	Driven roller for the second forming stage (75°)	25	Horizontal roller for the third forming stage (90°)
17	Driven roller for the first forming stage (30°)		

View of the machine from below: roller arrangement

Fig. 13418

Folding process sequence



1	1st stage	3	3rd Stage
2	2nd stage		

Folding process

Fig. 13416

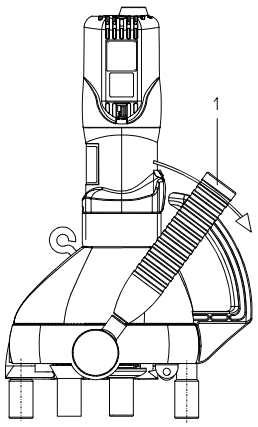
3. Tool assembly

3.1 Setting the tool

The clearance between the rollers and the guide rails can be locked into place in order to be able to place the machine at the desired position of the channel (and) to be able to remove it from the machining position at the end of the channel:

- Adjustment lever (1) in position against the direction of feed: Tool open.
- Adjustment lever (1) in end position in direction of feed:
- Tool in work position.

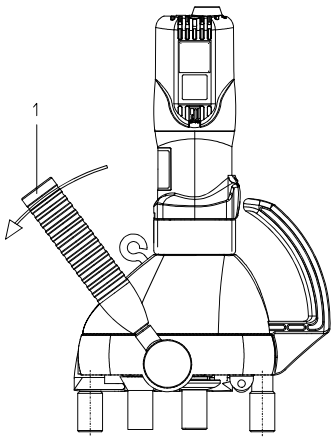
Tool open



1 Adjustment lever

Tool open Fig. 37864

Tool in work position



1 Adjustment lever

Tool in work position Fig. 37863

Note
No adjustment for sheet thickness is required, because the machine automatically accommodates itself to the sheet thickness.

3.2 Machining of inner radiuses

1 Supporting rollers

Fig. 38111

➢ Unscrew supporting rollers (1) before the machining of inner radiuses.

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 F 300-2

Switching on

- ➢ Move the On/Off switch downwards.

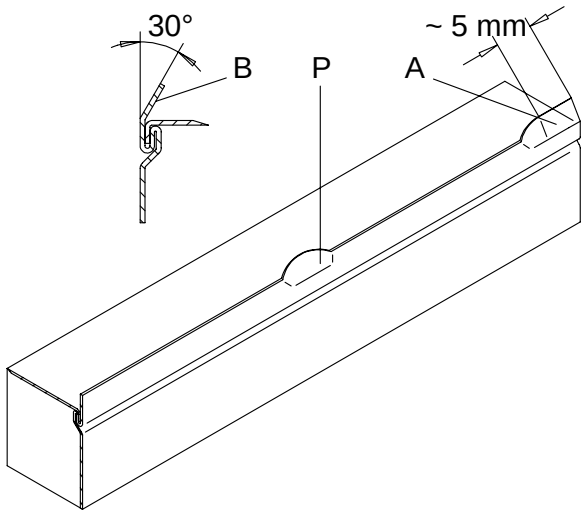
Working with the F 300-2

In order to improve work results, lightly oil the rollers or the sheet with universal oil (Order No. 138648).

Depending on the construction type of the channel to be machined, a distinction is made between 2 possible ways of commencing work:

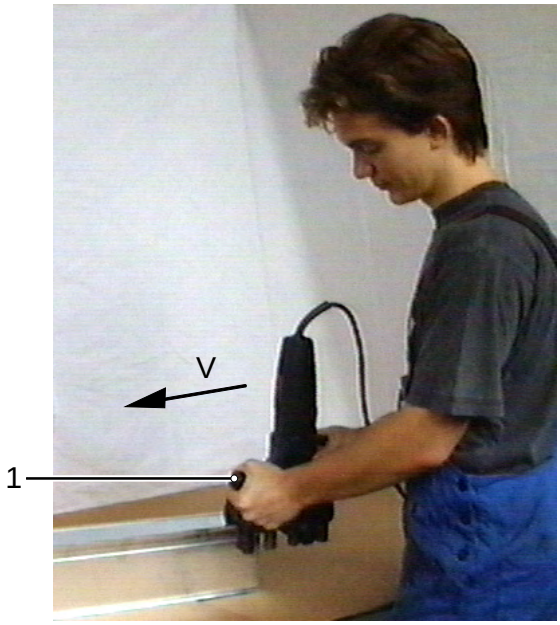
- Channel open.
- Flange at the beginning of the channel.

Channel open Bevel the web at the beginning of the channel approximately 30° for a length of approximately 5 mm.



A Bevelling for the placement of the machine
B Flange
P Tacking point

Fig. 13411



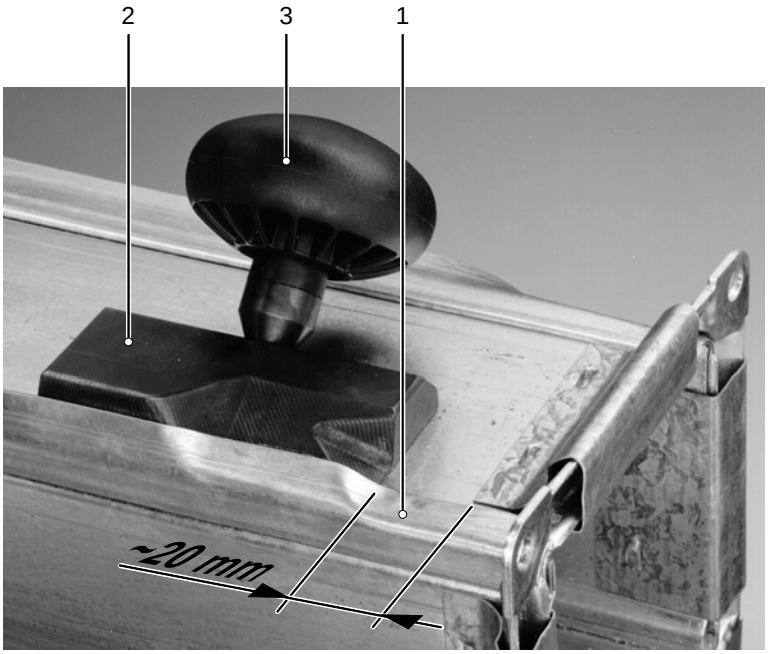
V Advance direction 1 Lever

Fig. 13415

1. Move lever (1) in direction of feed in end position (tool in work position).
2. Switch on machine and place against the beginning of the channel.
   - The curved guide rail ensures a simple placement of the machine at the beginning of the machining process.
3. The machine is drawn through the driving rollers in the feed direction, meaning that lock seam closure takes place.

Flange at the beginning of the channel

The machine cannot be placed up against the beginning of the channel.
Preparation of the channel so that the machine can be brought into position.



1	Pre-formed suspension lug	3	Handle on the moulding
2	Moulding for pre-forming the suspension lug		

Fig. 13412

1. Move lever (1) into position against the direction of feed (Tool open).
2. Set machine up against desired (prepared) position on the channel.
3. Position lever (1) in direction of feed. (Tool in work position).
   - The working direction (direction of feed) of the machine is determined by its design.
4. Switch on the machine.
5. Close the lock seam.
6. Move lever (1) into tool open position.
7. Switch off machine and remove from the machining position.

Notes

- A minor refinishing operation (length approximately 130 mm) must be carried out manually at the end of the channel following the use of the lock seam closer.
- For small sheet thicknesses (0.75-1 mm), the suspension lug can be pre-formed by 30° without a moulding to a length of approximately 80 mm.

Switching off

➢ Move the On/Off switch upwards.

5. Maintenance

Caution

Risk of possible injury due to improper repairs!

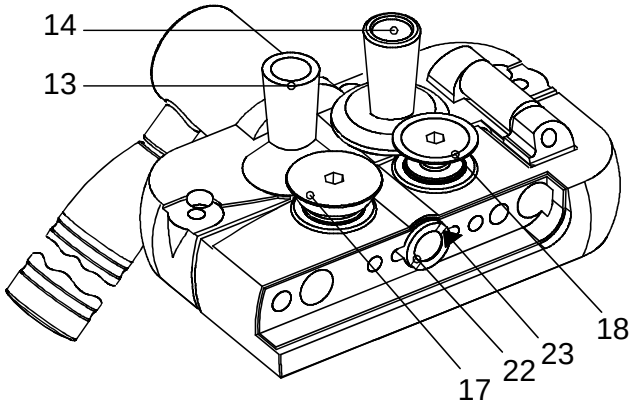
The machine does not function properly.

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

Maintenance point	Procedure and time interval	Recommended lubricants	Order No. Lubrication agents
Guide rails of the machine	A trained specialist should clean with a steel brush and lubricate with oil every 10 operating hours	Universal oil	138648
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
Ventilation slots	Clean as needed	-	-

Maintenance positions and maintenance intervals Table 4

5.1 Tightening screws with turning moment



13	Roller (30°)	18	Driver roller (75°)
14	Roller (75°)	22	Slotted nut
17	Driver roller (30°)	23	Cylindrical pin 5 m 6x24 DIN 6325

View of the F300 lock seam stripper from below, the guide rail is dismounted. Fig. 14423

If parts of the machine have been disassembled, when reassembling:

- tighten screws and nuts with the correct turning moment.
- secure with Loctite 262.

Components	Torque	Threaded nut retention
Roller (30°)	24 Nm	Loctite 262
Roller (75°)	24 Nm	Loctite 262
Driver roller (30°)	24 Nm	-
Driver roller (75°)	24 Nm	-
Slotted nut	16 Nm[1]	Loctite 262
Cylindrical pin 5 m 6x24 DIN 6325	-	-

Table 5

[1] Locking mechanism must be closed (special wrench Material No. 922759).

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 rating plate.

6. Original accessories and wearing parts

Designation	Original accessories delivered	Wearing parts	Optional	Material-number
Guide rail	+	+		920881
Driver roller 30°	+	+		135477
Driver roller 75°	+	+		135478
Roller (horizontal)	+	+		135791
Suspension eyelet	+			107666
Allen key DIN 911-4	+			067849
Universal oil (0.1 litre)	+			138648
Case	+			982582
Moulding (aid for the pre-forming of the suspension lug → lock seam preparation)	+			136688
Operator's manual	+			1254076
Safety information (red document), other countries	+			125699
Safety information (red document), USA	+			1239438

Original accessories, wearing parts and optional items Tab. 6

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.

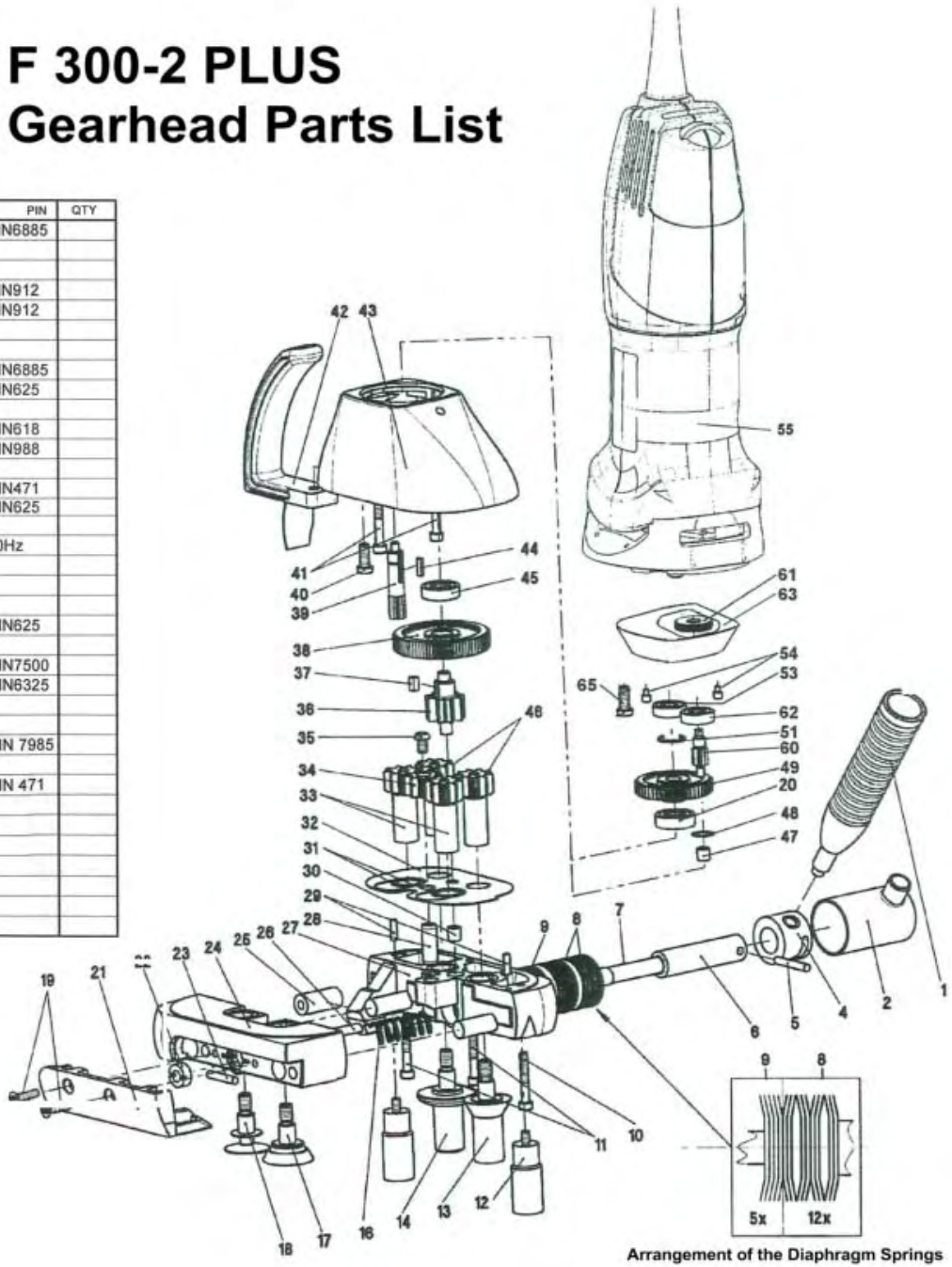
For order or repair information call
(860) 674-8226 or fax (860) 255-6433

TRUMPF

F 300-2 PLUS
Gearhead Parts List

ITEM	PART NO.	DESCRIPTION	DIN	QTY
1	136604			
2	136078			
4	136077			
5	135927	5m6x36	DIN6325	
6	136076			
8	030910	35.5x18.3x2	DIN2093	
9	135920	35.5x18.3x1.2	DIN2093	
10	137461	M5x35	DIN6912	
11	014605	M5x35	DIN912	
12	136773			
13	135479			
14	135480			
16	135921			
17	135477			
18	135478			
19	075574	M6x20	DIN7991	
20	027758	6000-2Z	DIN625	
21	135481			
22	138946			
23	010740	5m6x24	DIN6325	
24	259286			
25	135791			
26	085437	6m6x6x55	DIN6325	
27	259287			
28	136152	10m6x28	DIN7979	
29	053510	4h6x14	DIN6325	
30	135922	HK 0810	DIN618	
31	136151			
32	257947			
33	256686			
34	256687			
35	136153			
36	256692			

ITEM	PART NO.	DESCRIPTION	PIN	QTY
37	012289	A4x4x10-C4	DIN6885	
38	971512	verstärkt		
39	256646			
40	014745	M6x16	DIN912	
41	014605	M5x35	DIN912	
42	1265950			
43	970584	Blau		
44	050760	A3x3x12-St60	DIN6885	
45	027669	608-2Z	DIN625	
46	256684			
47	102437	HK 0509	DIN618	
48	076424	5x10x0.2	DIN988	
49	256644			
51	021113	10x1-FDST	DIN471	
53	027693	625	DIN625	
54	138800			
55	347724	100V; 120V 50/60Hz		
55	347722	230V 50/60Hz		
60	921207	verstärkt		
61	921208	verstärkt		
62	027650	607	DIN625	
63	1271191			
65	147772	M5x20	DIN7500	
66	131215	3M6X12	DIN6325	
501	096688			
502	349341			
503	100851	M4X12-8.8 MK	DIN 7985	
504	963651			
505	021105	9X1-FDST	DIN 471	
506	356874			
507	349348			
508	349345			
509	356875			
510	349438	100-120V		
511	349343			
512	349344			

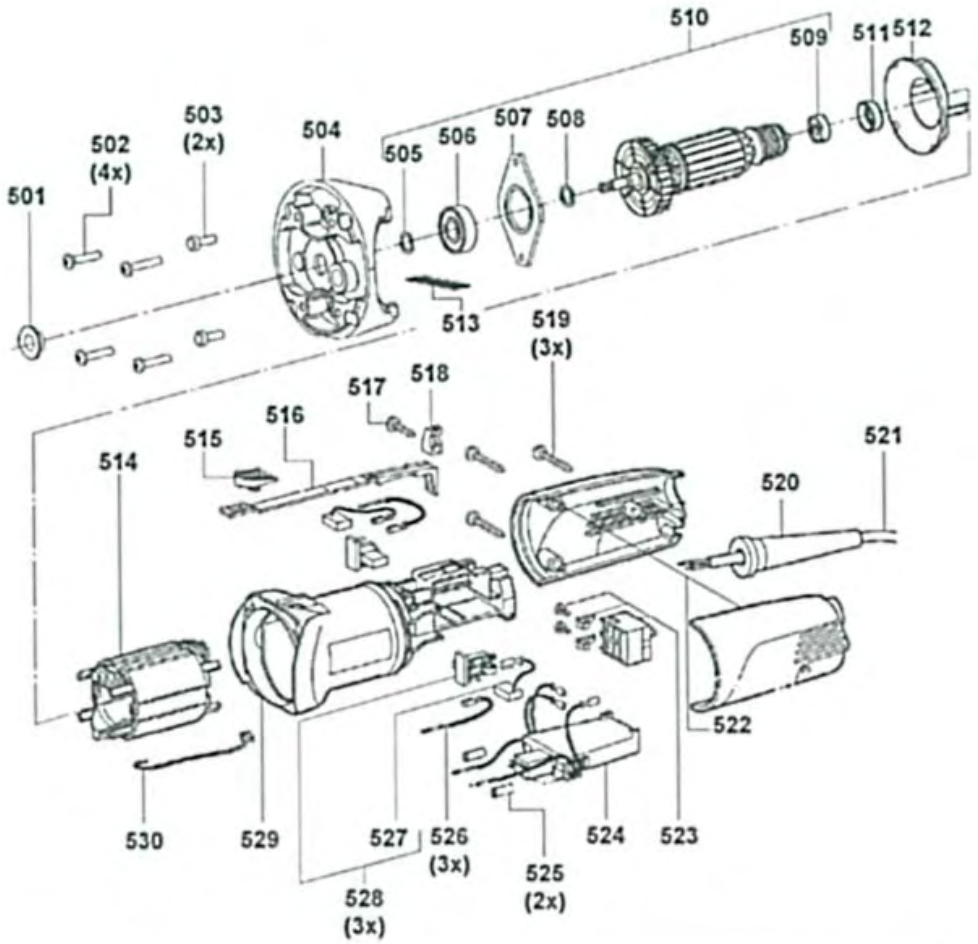


Arrangement of the Diaphragm Springs

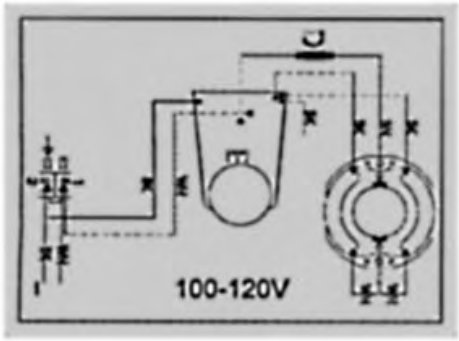
To find the TRUMPF Portable Power Tool
Rep for your area call (860) 674-8226

TRUMPF F300-2 PLUS Motor Parts Breakdown

ITEM	PART NO.	DESCRIPTION DIN	QTY
501	096688		
502	349341		
503	100851	M4X12-8.8 MK DIN 7985	
504	963651		
505	021105	9X1-FDST DIN 471	
506	356874		
507	349348		
508	349345		
509	356875		
510	349438	100-120V	
511	349343		
512	349344		
513	974108		
514	349285	100-230V	
515	349288		
516	349287		
517	349337		
518	349336		
519	349341		
520	349338		
521	054266	USA 120V 50/60Hz	
522	349440		
523	349439		
524	349354	100-120V	
525	349335		
526	349334		
527	349442	100-120V	
528	349353	100-120V	
529	349286		
530	349292		



For order or repair information call
(860) 674-8226 or fax (860) 255-6433



USA Spare Parts List

Attention: Repair, modification, and testing of hand-held power tools must be carried out in accordance with the generally recognised principles of engineering practise. Safety regulations according to DIN VDE, CEE, AFNOR and further regulations applicable in individual countries must be observed.

Warranty USA

A liability limit of 12 months from the date of invoice is valid for TRUMPF electronic and compressed-air tools.
Damages caused by natural wear, overloading or improper handling of the machine, are excluded from the warranty.
Damages arising through material or manufacturing errors will be rectified, free of charge, by substitute delivery or repair work.
Complaints can only be recognised if the unit is dispatched undismantled to your TRUMPF representative.

Our Manufacturer's Rep for your area can direct you to a local distributor or can arrange for an on-site demo using your materials.

For Rep information call (860) 674-8226

Power tool repairs should be sent to TRUMPF through your power tool distributor.

To check status of repair tools at TRUMPF call (860) 674-8226

Additional notes on this document

This document was created by the Technical Documentation Dept. of TRUMPF Werkzeugmaschinen GmbH + Co. KG.

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