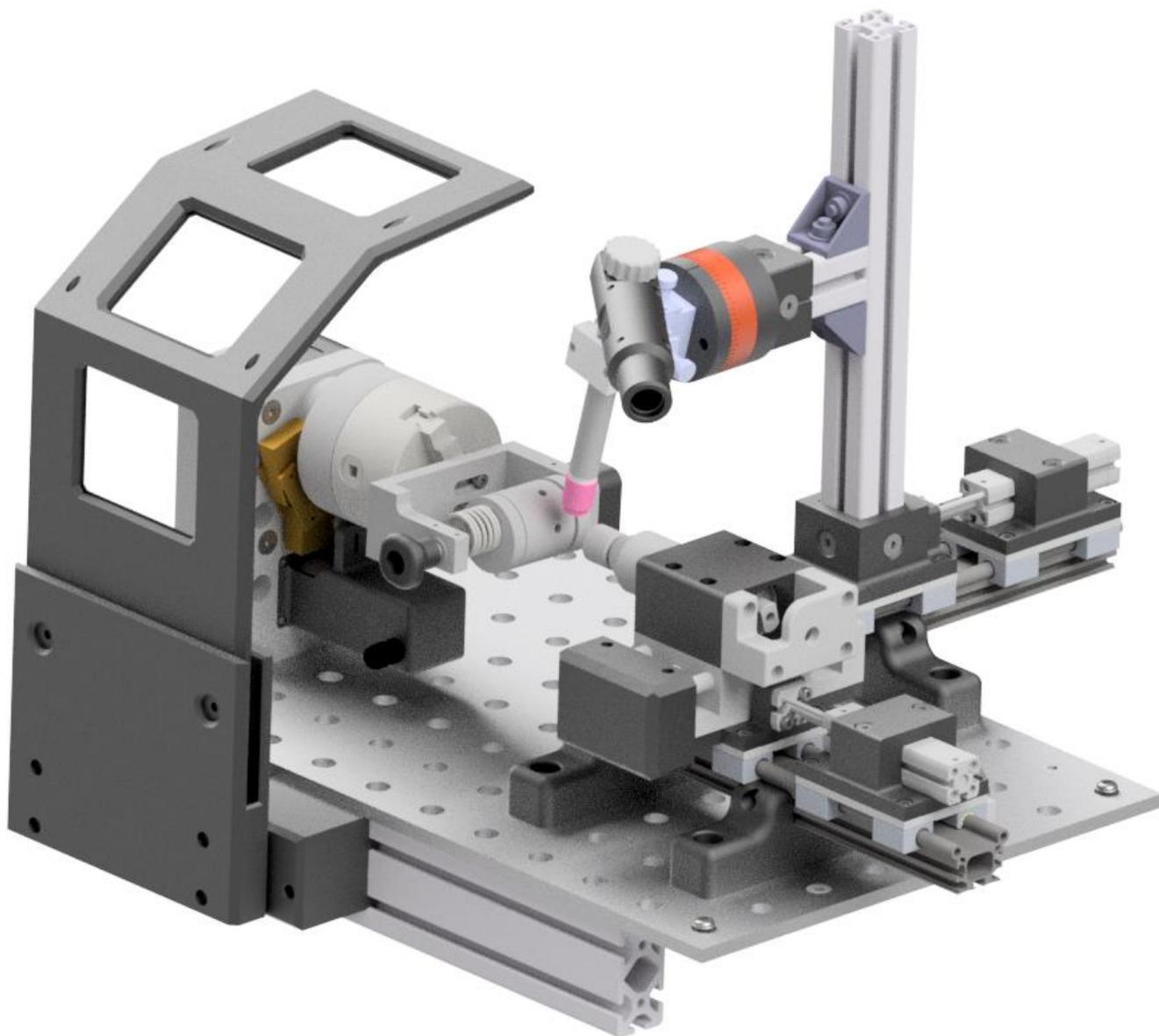


Turn 100 system pressure reducer housing





Contents

1. General information	3
2. Safety instructions	4
3. Scope of delivery	5
4. Parts list and exploded view diagram	6
4.1 GCE E028 Turn100 system	6
4.1.1 Exploded view diagram	7
4.1.2 Parts list	8
4.2 Torch holder	14
4.2.1 Exploded view diagram	14
4.2.2 Torch holder parts list	15
4.3 Pressure reducer holding fixture	18
4.3.1 Exploded view diagram	18
4.3.2 Torch holder parts list	18
5. Accessories	20
5.1 Machine torch with ceramic nozzle	20
5.1.1 Exploded view diagram	21
5.1.2 Parts list	21
5.2 Turn 100 system	23
5.2.1 Exploded view diagram	23
5.2.2 Parts list	24
6. Operating the system	28
7. Care and maintenance	35
8. Customer service and after-sales support	36



1. General information

Our liability in relation to the operation of this system is expressly limited to its proper function. Other forms of liability of any kind whatsoever are expressly excluded. The user acknowledges this exclusion of liability when putting the system into operation.

The manufacturer is not able to monitor compliance with this manual; the conditions under which the equipment is installed, operated, used and maintained; or the methods used for this purpose.

Improper installation may result in damage to property and, in turn, put people at risk. Consequently, we assume no responsibility or liability whatsoever for loss, damage or costs that result directly from – or are in any way connected with – faulty installation, improper operation, or incorrect use and maintenance.

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2. Safety instructions

Arc welding poses a risk of injury both to you and to others. When carrying out orbital welding, you must therefore observe the applicable safety and accident prevention regulations just as you would when performing other types of welding work.

	<p>Warning of dangerous voltage</p> <ul style="list-style-type: none"> - Install and earth welding equipment in accordance with local standards. - Do not touch live parts or electrodes with your bare hands or wet protective equipment. - The work area must be safe and secure.
	<p>Warning of risk of fire</p> <ul style="list-style-type: none"> - Welding spatter can cause fires. - Do not store any flammable objects in the work area. - Dirt is often also flammable. - Remove all flammable cleaning agents prior to welding.
	<p>Warning of optical radiation</p> <ul style="list-style-type: none"> - Protect your eyes and body. Wear a suitable safety helmet with a filter unit and also protective clothing. - Nearby personnel must be protected by setting up protective curtains/screens/panels.
	<p>Warning of harmful fumes and gases</p> <ul style="list-style-type: none"> - Turn your face away from the welding fumes. - If necessary, extraction equipment should be used.
	<p>Warning of risk of explosion from hydrogenous gases</p> <ul style="list-style-type: none"> - Extreme caution must be exercised when using forming gases or gases that contain hydrogen. These gases are flammable. - Please observe the instructions and specifications provided in the relevant safety data sheets. - Before switching on the system, make sure that the room air is completely free of solvents, e.g. in the case of painting systems.
	<p>Warning of high temperatures</p> <ul style="list-style-type: none"> - During welding, parts of the welding head can get hot (e.g. side sections).
	<p>General instructions</p> <ul style="list-style-type: none"> - Observe the safety regulations for welding work in confined spaces and enclosed containers/vessels. - Do not wear any jewellery or loose clothing.



3. Scope of delivery

The following parts are included in the scope of delivery:

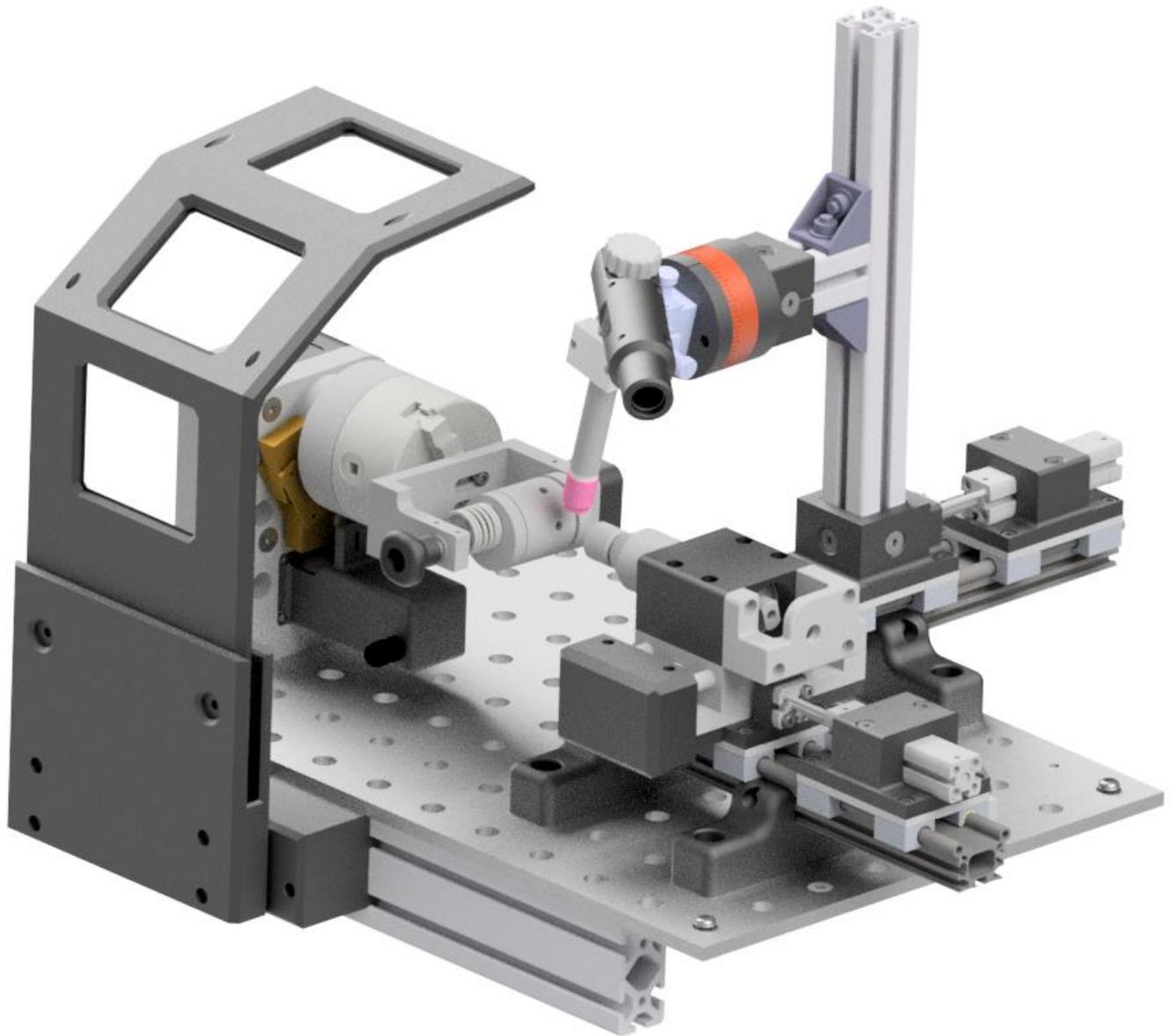
1x GCE E028 Turn100 system pressure reducer housing system

Please check that all the listed parts and assemblies are present and correct.



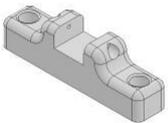
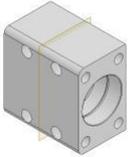
4. Parts list and exploded view diagram

4.1 GCE E028 Turn100 system

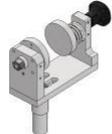
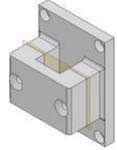




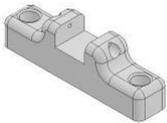
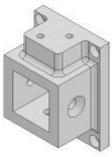
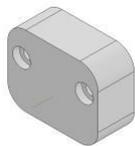
4.1.2 Parts list

Item	QUANTITY	Component number	REV.	Thumbnail	Material
42	4	ANSI B18.3.4M – M8 x 1.25 x 25, FHSBHCSM			Steel, soft
43	4	UNI 6592 – 3.2 x 6			Steel, soft
44	1	ISO 13337 - 2 x 28			Stainless steel, austenitic
45	3	UNI 5931 - M3 x 8			Steel, soft
48	2	WW_10_40_10_HKA_2			Generic
49	2	WSX_10_40_200_3			Generic
50	2	Carriage_holder			PETG
51	1	Carriage_base_plate			PETG
55	2	WW_10_40_10_1		*	Generic
56	1	Mandrel_holding_fixture			ASA
57	1	033.0007	03		3.3547

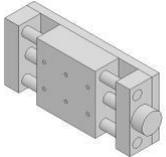
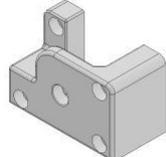
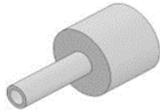
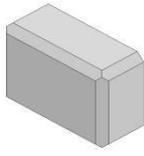


58	1	Drill chuck			Generic
61	2	Aluminium_profile_8_40x40_lightweight			General
64	1	Torch_holderXY_Support2			Generic
66	2	537123 ADNGF-12-80-P-A---(0)			
67	1	Support washer			PETG
68	1	Support washer GG			PETG
69	1	Support washer cyl.			PETG
70	1	Pressure reducer holding fixture			3.3547
72	2	Cylinder_holder_carriage			PETG
75	2	23800-102004212			General

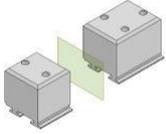


76	1	07331-401750 steel			General
77	1	07330-201200			General
78	1	Grommet_holding_fixture			ASA
79	2	Carriage_holder_torch			PETG
80	1	Profile_holder_carriage			PETG
81	1	Screw_cover			PETG
82	8	UNI 5934 - M8 x 1 x 16			Steel, soft
83	20	UNI 5931 - M6 x 10			Steel, soft
84	4	UNI 5933 - M6 x 10			Steel, soft



87	4	UNI 5931 - M5 x 8			Steel, soft
88	4	UNI 5931 - M5 x 12			Steel, soft
89	4	ISO 2338 - B - 5 x 20			Stainless steel, austenitic
90	8	UNI 5931 - M4 x 12			Steel, soft
91	1	Linear slide			Generic
92	1	Forming holding fixture			PETG
93	1	Aluminium sleeve			3.3547
94	1	E028_0008	00		3.3547
95	1	Knob cover			PETG



96	1	Welding shield			PETG
97	1	Aluminium profile_8_80x40_lightweight			General
98	1	Shield cover			PETG
99	1	Slider_shield			PETG
100	2	Angle connector aluminium profile			General
101	1	07534-10X25 steel			General
102	1	ANSI B18.16.3M - property class 5 and 10 - metric M8 x 1.25 metallic			Steel, soft
103	1	Pressure spring			Steel
104	1	DIN 126 - 11			Steel, soft
105	2	07652-03 steel			General

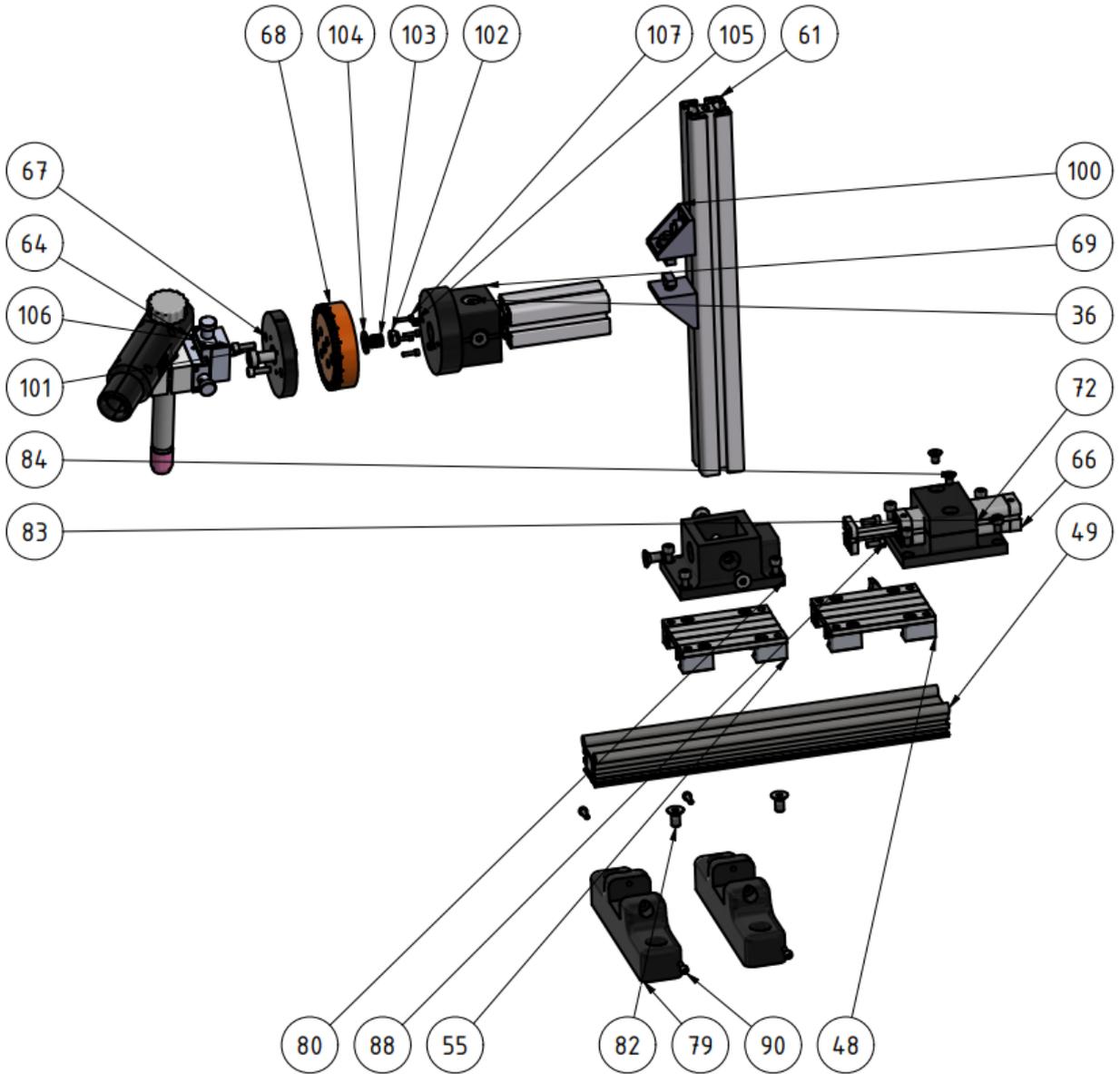


106	2	UNI 5931 - M5 x 16		Steel, soft
107	4	UNI 5931 - M3 x 12		Steel, soft



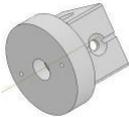
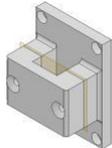
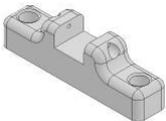
4.2 Torch holder

4.2.1 Exploded view diagram

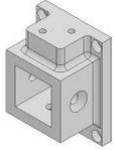




4.2.2 Torch holder parts list

Item	Quantity	Component number	Thumbnail
36	13	UNI 5933 - M8 x 16	
48	2	WW_10_40_10_HKA_2	
49	2	WSX_10_40_200_3	
55	2	WW_10_40_10_1	
61	2	Aluminium_profile_8_40x40_lightweight	
64	1	Torch_holderXY_Support2	
66	2	537123 ADNGF-12-80-P-A---(0)	
67	1	Support washer	
68	1	Support washer GG	
69	1	Support washer cyl.	
72	2	Cylinder_holder_carriage	
79	2	Torch_holder	



80	1	Profile_holder_carriage	
82	8	UNI 5934 - M8 x 1 x 16	
83	20	UNI 5931 - M6 x 10	
84	4	UNI 5933 - M6 x 10	
88	4	UNI 5931 - M5 x 12	
90	8	UNI 5931 - M4 x 12	
100	2	Aluminium profile angle connector	
101	1	07534-10X25 steel	
102	1	ANSI B18.16.3M - property class 5 and 10 - metric M8 x 1.25 metallic	



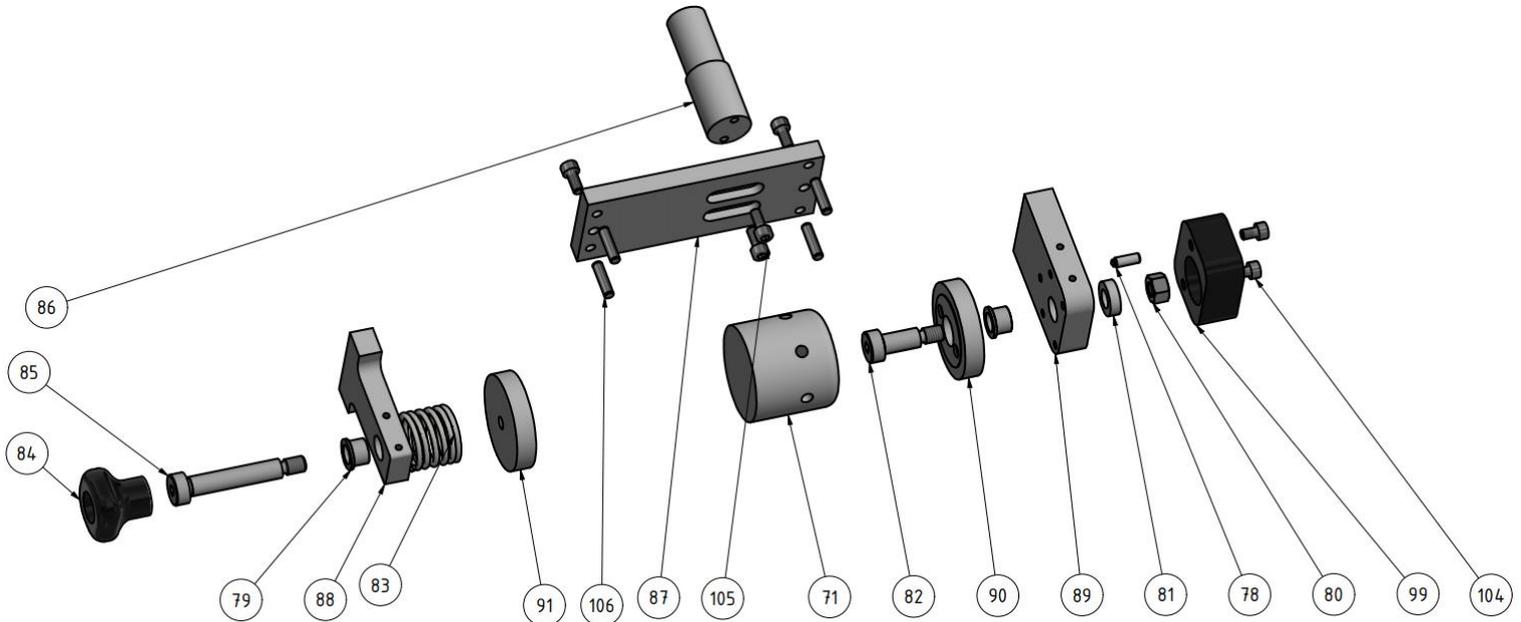
103	1	Pressure spring	
104	1	DIN 126 - 11	
105	2	07652-03 steel	
106	2	UNI 5931 - M5 x 16	
107	4	UNI 5931 - M3 x 12	

d



4.3 Pressure reducer holding fixture

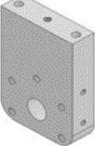
4.3.1 Exploded view diagram



4.3.2 Torch holder parts list

Item	Quantity	Part designation	Thumbnail
78	1	07534-10X50 steel	
79	2	23761-01001310	
80	1	UNI 5591 - M8	
81	1	Thrust ball bearing F10-18M 10x18x5.5 mm	
82	1	07534-10X20 steel	
83	2	Compress spring1	



84	1	Spring compressor	
85	1	07534-10X50 steel	
86	1	E028_0001	
87	1	E028_0003	
88	1	E028_0004	
89	1	E028_0002	
90	1	E028_0005	
91	1	E028_0006	



5. Accessories

5.1 Machine torch with ceramic nozzle



Figure 1 Model of machine torch with ceramic nozzle



5.1.1 Exploded view diagram

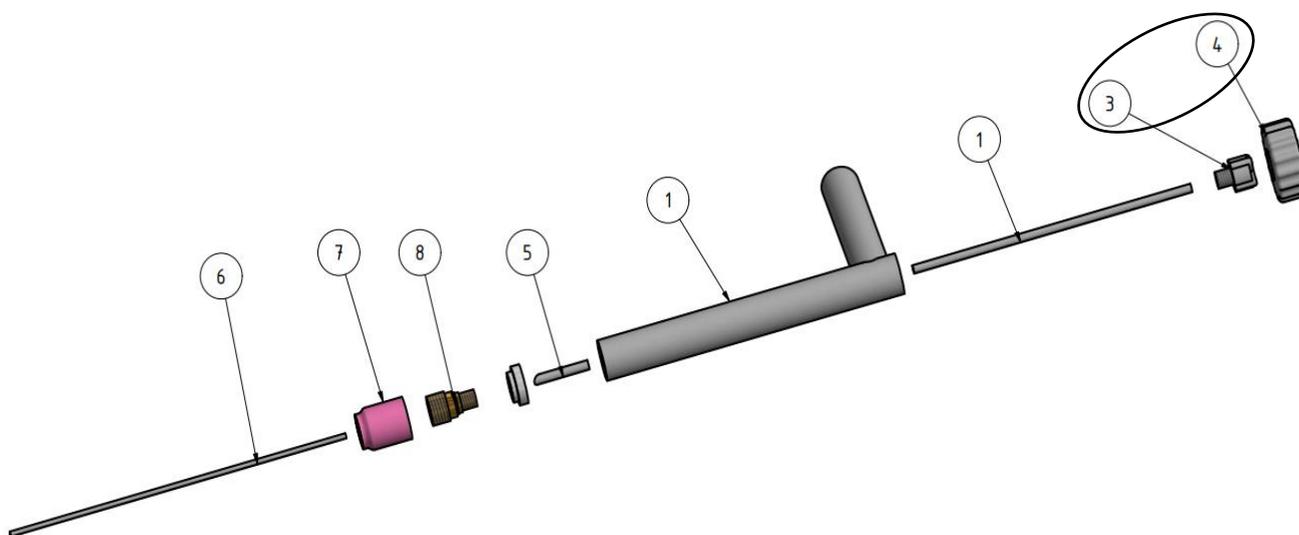


Figure 2 Exploded view diagram of machine torch with ceramic nozzle

5.1.2 Parts list

Item	Component number	Thumbnail	Quantity	Article no.
1	Torch_grip, gas-cooled or water-cooled		1	Gas-cooled AB100K001G Water-cooled AB100K001W
2	Torch sleeve_internal		1	AB100K002
3	Torch_knob Only in combination with item no. 4		1	AB100K003
4	WP22_TIG_torch_head_knob		1	AB100K004
5	Clamping sleeve_torch_ WP22_TIG_torch_head		1	AB100K005



6	Tungsten_electrode		1	AB100K006
7	Size 8 ceramic nozzle		1	AB100K007
8	Torch_nozzle		1	AB100K008
9	Strain relief		1	AB100K009
10	Hose pack 4 m Gas-cooled			TiO-1028b
11	ALTERNATIVE TO ITEM NO. 10 Hose pack 4 m Water-cooled			TiO-1029b



5.2 Turn 100 system

5.2.1 Exploded view diagram

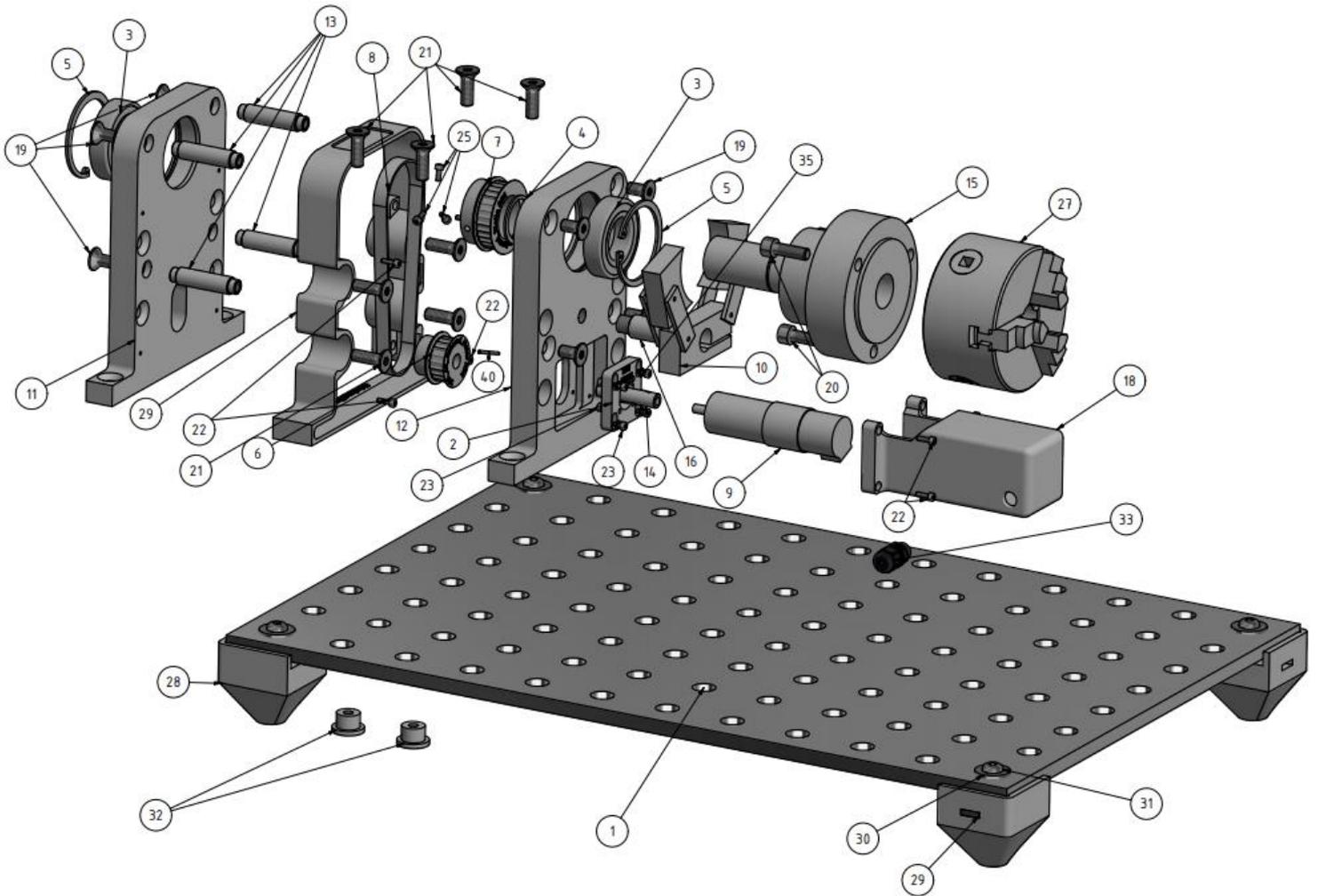
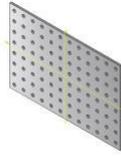


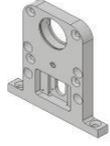
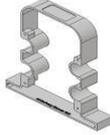
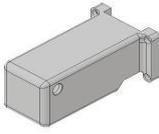
Figure 3 Exploded view diagram of the Turn 100 system



5.2.2 Parts list

Item	QUANTITY	Component number	REV.	Thumbnail	Material	Article no.
1	2	Size 16 perforated plate (600 x 400)			Aluminium 6061	TurnLB100_001
2	1	Motor flange	02		PETG	TurnLB100_002
3	2	23800-203005513			General	TurnLB100_003
4	1	07330-301501 stainless steel			General	TurnLB100_004
5	2	07331-552000 steel			General	TurnLB100_005
6	1	20Z_AT_gear_motor	02		PETG	TurnLB100_006
7	1	30Z_AT_gear_shaft	01		PETG	TurnLB100_007
8	1	22057-0510X0340 belt			Generic	TurnLB100_008
9	1	Motor_Twirl_Budget			Generic	TurnLB100_009



10	1	MACK DDG type 2 DDG4514.80.(B16)			Brass	TurnLB100_010
11	1	033.0003	01		Aluminium	TurnLB100_011
12	1	033.0004	01		Aluminium	TurnLB100_012
13	4	033.0005	01		Aluminium	TurnLB100_013
14	1	033.0002	01		Aluminium	TurnLB100_014
15	1	033.0006	01		Aluminium	TurnLB100_015
16	1	033.0001	00		Aluminium	TurnLB100_016
17	1	Bearing-side_cover	02		PETG	TurnLB100_017
18	1	Motor_cover	02		PETG	TurnLB100_018



19	8	ASME/ANSI B18.3.5M - M8x16(2)			Steel, soft	TurnLB100_019
20	3	UNI 5931 - M8 x 25			Steel, soft	TurnLB100_020
21	4	ASME/ANSI B18.3.5M - M8x30			Steel, soft	TurnLB100_021
22	8	UNI 5931 - M3 x 10			Steel, soft	TurnLB100_022
23	8	UNI 5931 - M3 x 6			Steel, soft	TurnLB100_023
24	1	ISO 8739 - 2 x 10(5)			Steel, soft	TurnLB100_024
25	4	UNI 5923 M3 x 8			Steel, soft	TurnLB100_025
26	10	ASME/ANSI B18.3.5M - M8x25(2)			Steel, soft	TurnLB100_026
27	1	K11 type 3 JAW Self-centring chuck			Steel	TurnLB100_027

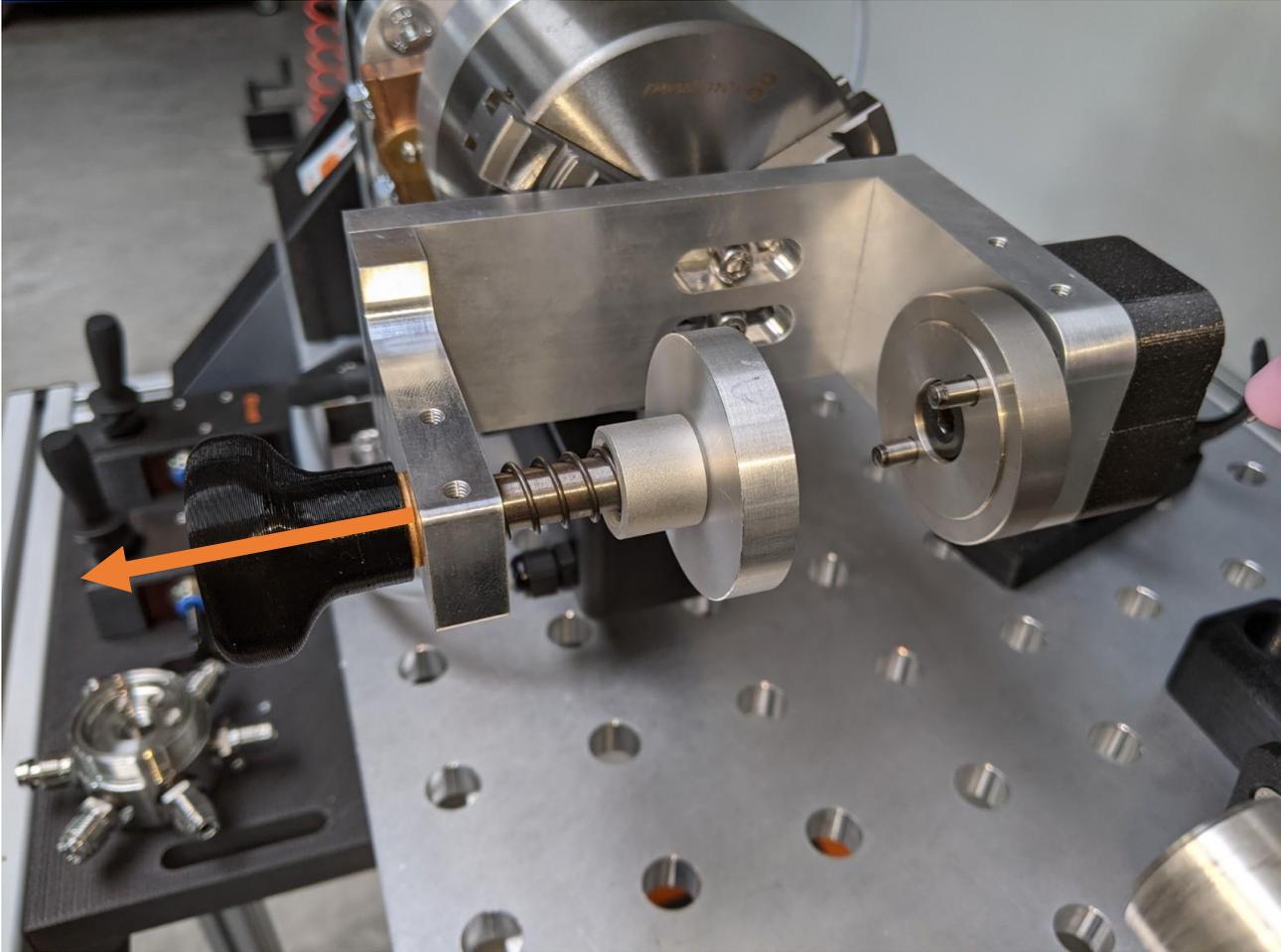


28	4	Foot for perforated plate	00		PETG	TurnLB100_028
29	4	DIN 562 - M8			Steel, soft	TurnLB100_029
30	4	DIN 9021 – 8.4			Steel, soft	TurnLB100_030
31	4	ANSI B18.3.4M – M8 x 1.25 x 25, FHSBHCSM			Steel, soft	TurnLB100_031
32	12	Perforated plate screw fitting			Aluminium	TurnLB100_032
33	1	SKINTOP ST-M 12 x 1.5 Art. no. 53111200(F=3.5), plastic			PC/ABS plastic	TurnLB100_033
34	1	ISO 13337 - 2 x 28			Stainless steel, austenitic	TurnLB100_034
35	4	M3 washer			Steel, soft	TurnLB100_035



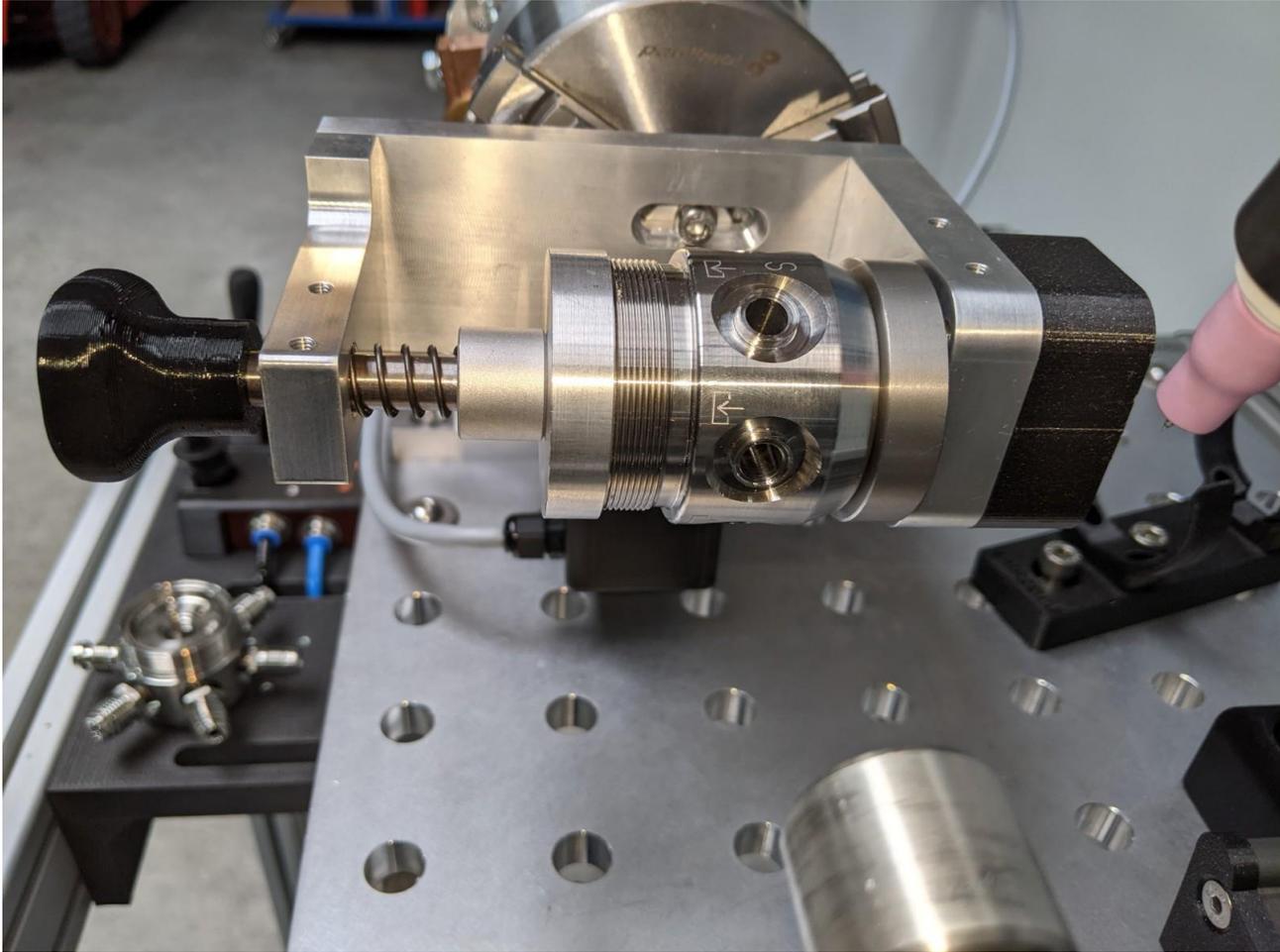
6. Operating the system

- 1) Establish a compressed air supply to the system, at least 5 bar is needed.
- 2) Pull the spring compressor up to insert the pressure reducer housing





3) Lay the housing in the pins provided and release the compressor.



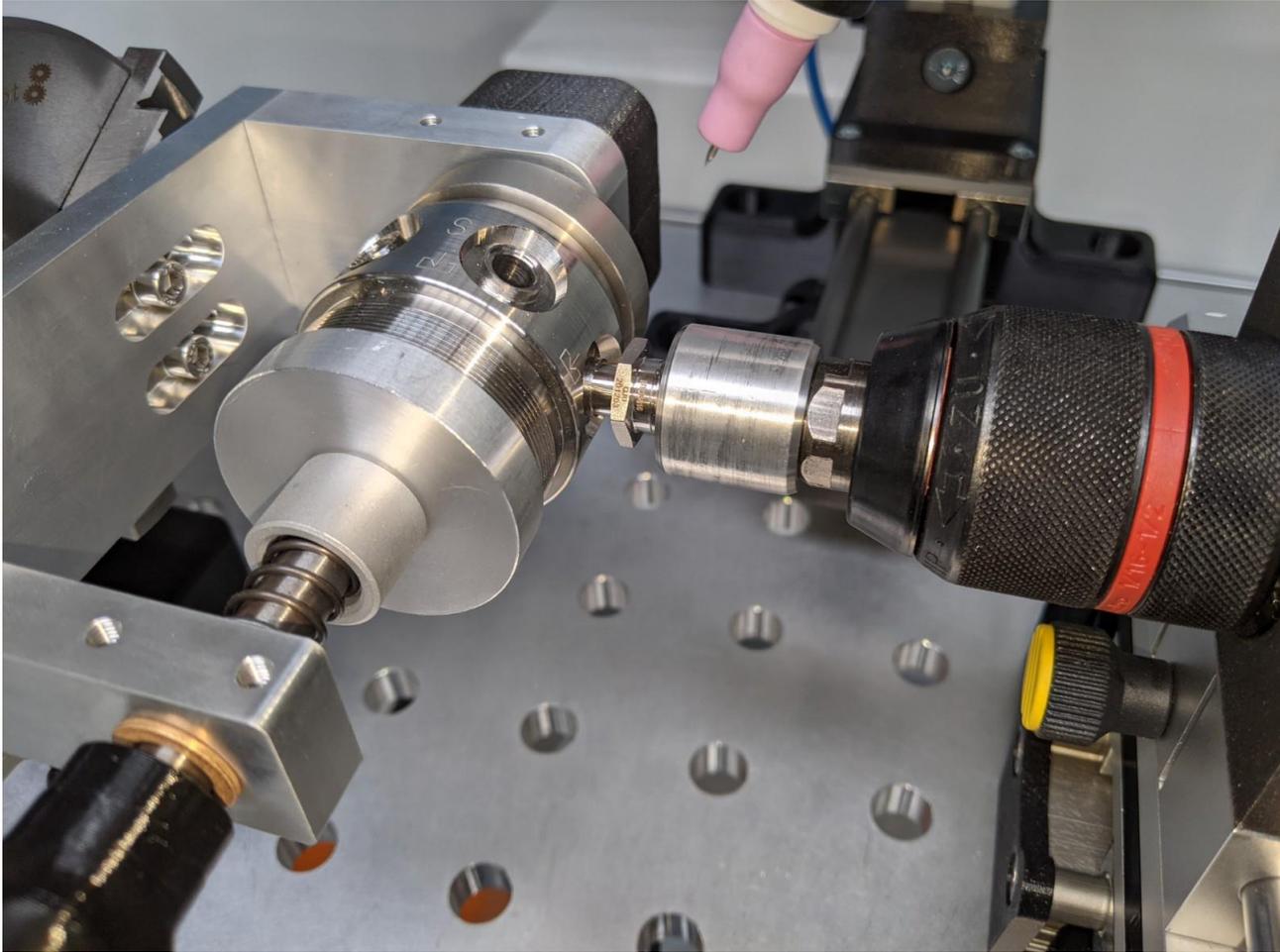


4) Insert gland with screw fitting into the device.





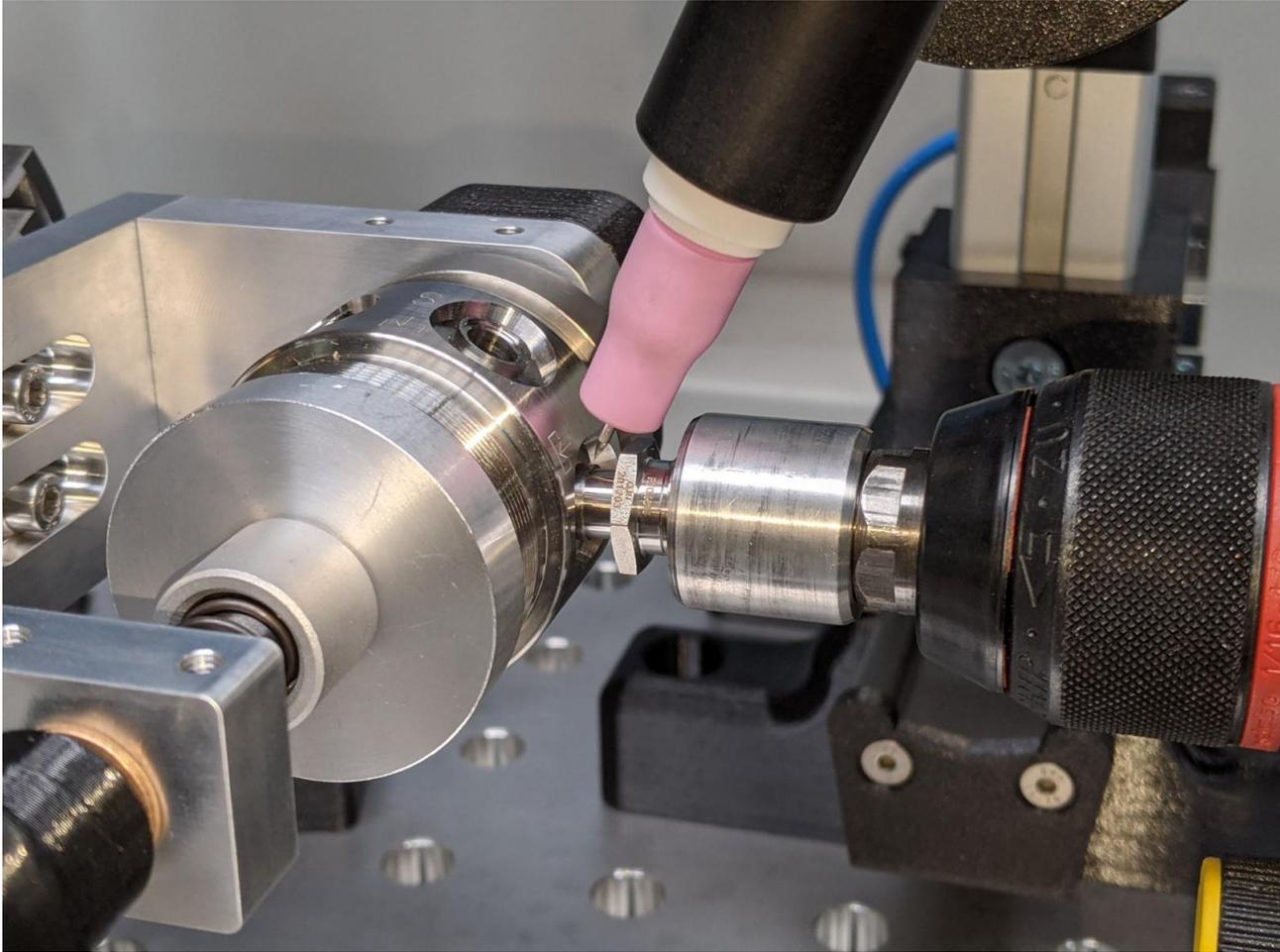
5) Move the gland up to the pressure reducer housing using the manual value



6) Check the alignment

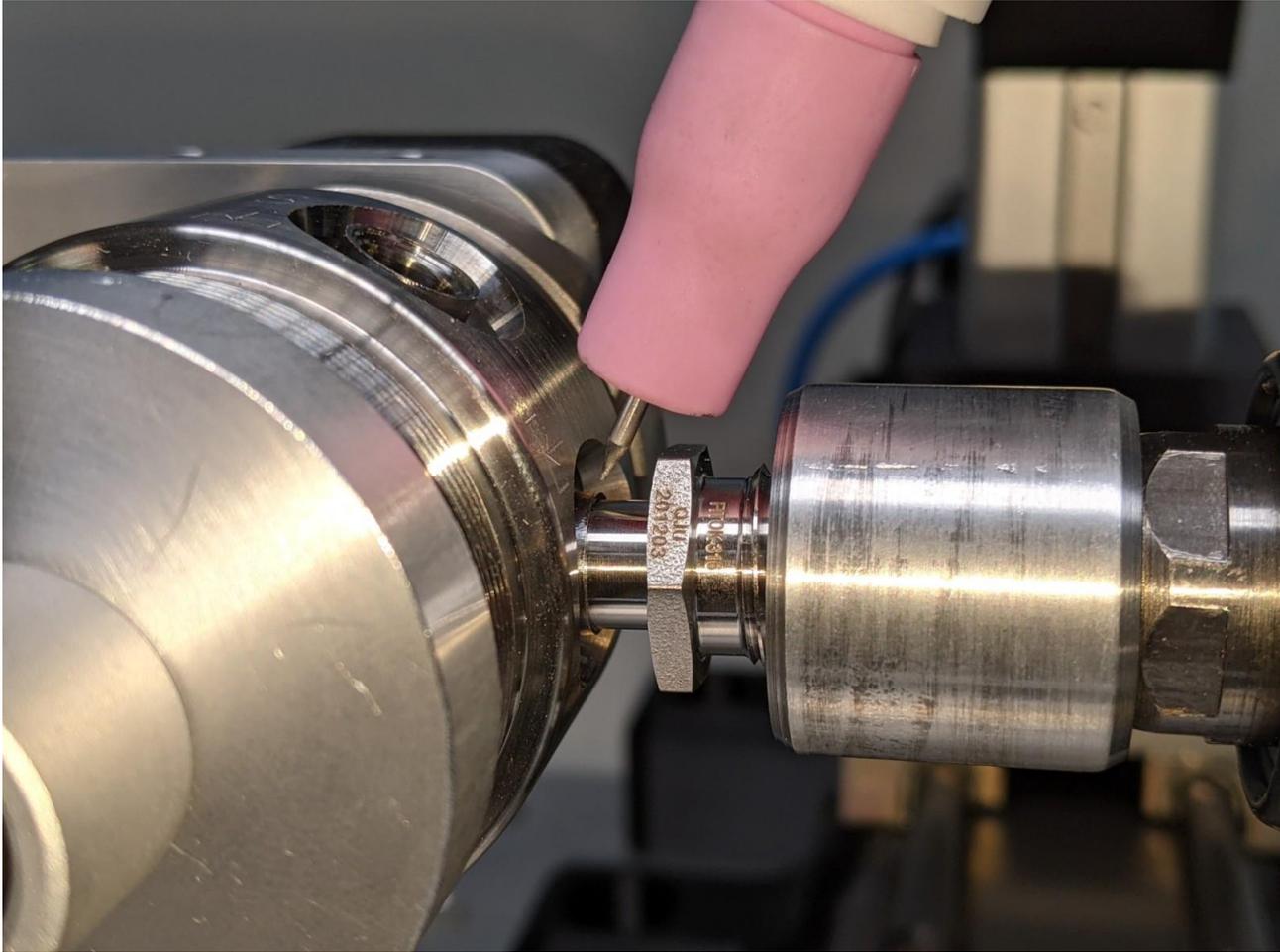


7) Move the torch up to the pressure reducer housing using the manual value





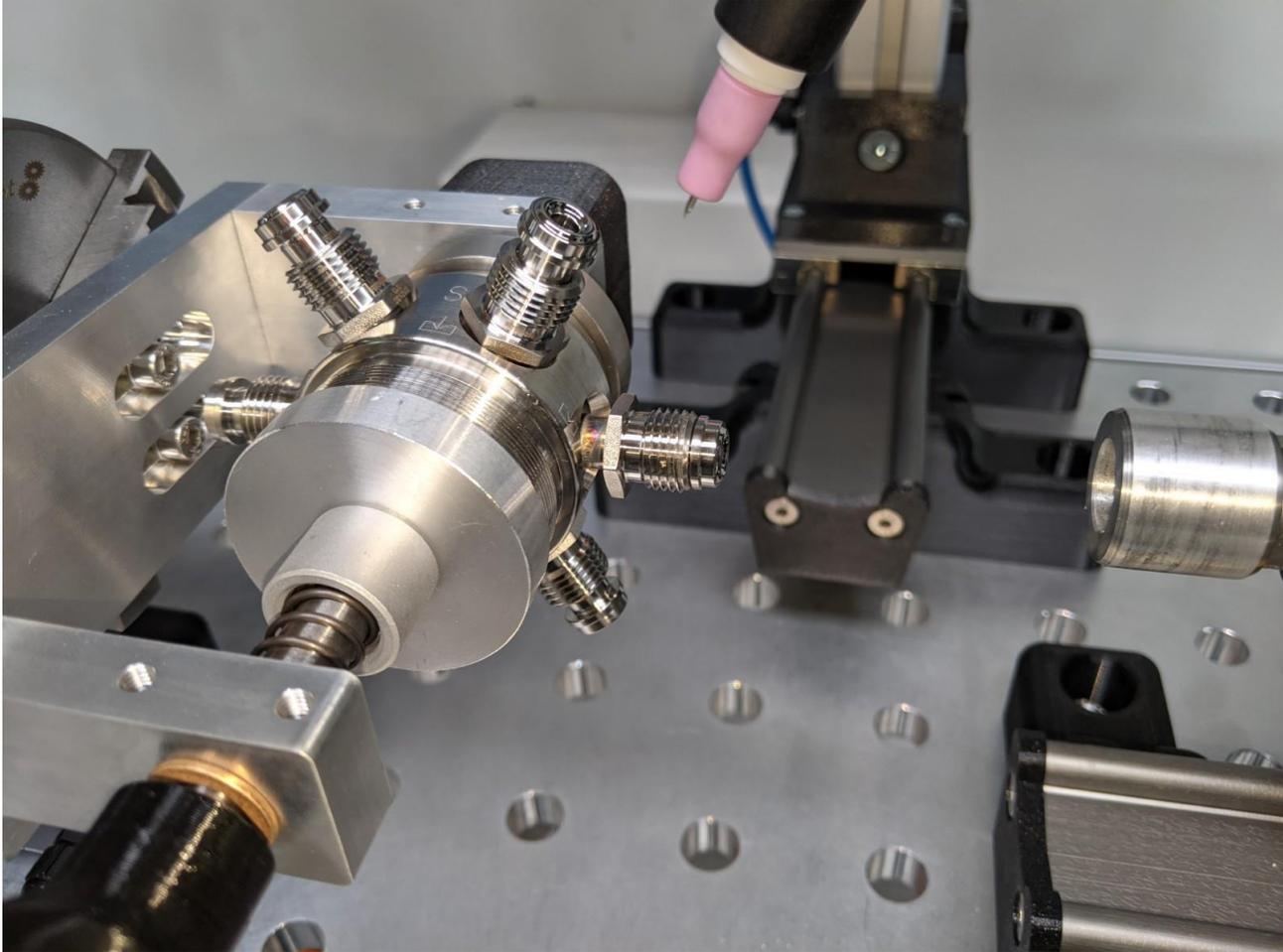
8) Adjust the torch accordingly



9) Welding



10) Reset the manual value after welding so that the gland holding fixture and torch arm swivel away. The housing can be rotated one latch further for the next weld





7. Care and maintenance

The “Turn100” turn table system requires very little maintenance. It is only necessary to grease the chuck and jaws lightly with oil on a regular basis to prevent corrosion. Apart from that, no particular maintenance work is required.



8. Customer service and after-sales support

To order spare parts, please see the separate spare parts list.

Minor defects can be rectified by qualified personnel who have been trained by Orbitalservice GmbH. Major damage to turn tables must be repaired at our facilities.

To have any faults/malfunctions corrected, please contact us directly.

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Internet: www.orbitalservice.de

Please remember to include the following information:

- Turn 100 and spare part number
- Turn 100 + accessory designation and spare part number

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