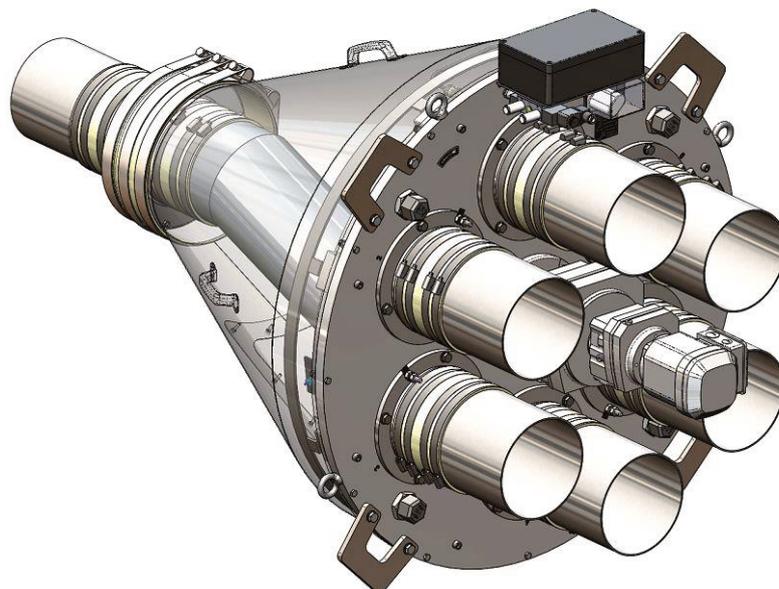
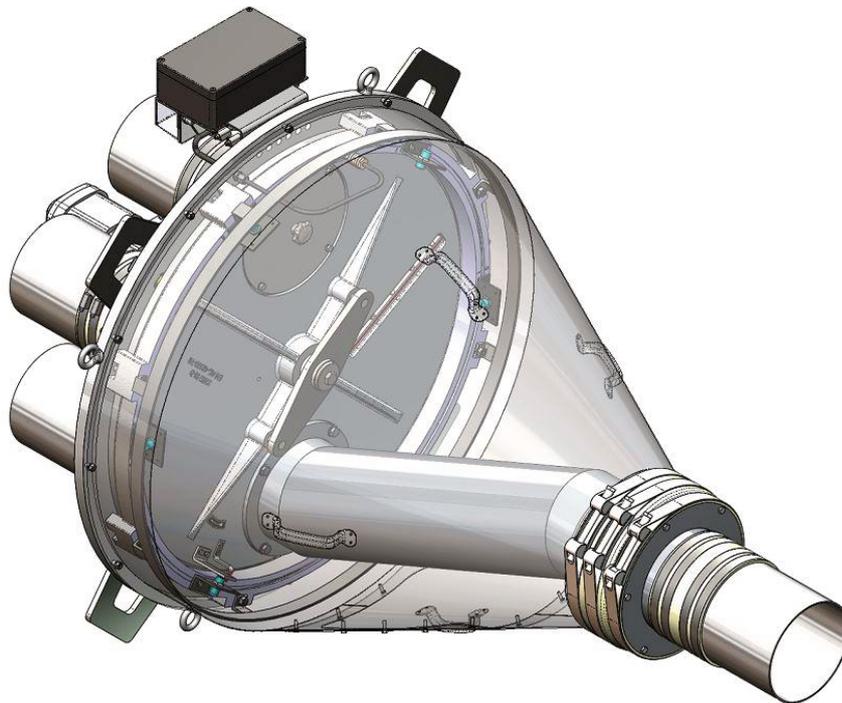


Spare parts catalog

Rotary tube diverter DWR 11

Spare parts catalog number **S70856_EN_2023-05**



If necessary, contact our Service Center:

Mailing address:

Coperion GmbH

Niederbieger Straße 9

D-88250 Weingarten

Plant and delivery address:

Coperion GmbH

Eisenbahnstraße 15

D-88255 Baienfurt-Niederbiegen

Tel:

+49 / 751 4 08-0

+49 / 751 4 08-450 (service number)

Fax:

+49 / 751 4 08-200

Email:

service@coperion.com

To ensure smooth and speedy handling, we need the following information from you:

- Serial number (information on the name plate)
- Type designation
- Coperion order number with assembly (if available)
- Operating data (information on the name plate)
- Description of the problem

© 2023 Coperion GmbH • D-88250 Weingarten

All rights reserved, in particular the rights of duplication, distribution and translation. No part of this manual may be saved, edited, reproduced or distributed using electronic systems or reproduced in any form (print, photocopy, microfilm or other method) without the written permission of the Coperion Co.

Subject to change

Contents

1	Spare and wear parts	4
1.1	Spare parts inventory	4
1.2	Service	5
1.3	Rotary tube diverter DWR 11 explosion-view drawing and parts list.....	7
1.4	Exploded-view drawing and parts list, rotary tube diverter DWR 11, reinforced.....	15
2	Appendix	23
2.1	Tightening torques	23

1 Spare and wear parts

1.1 Spare parts inventory

Having the most important spare and wear parts on hand at the setup location is an important condition for the continuous functioning and operational readiness of the rotary tube diverter.

Please use the spare parts list to order spare parts.

The spare parts drawings listed in the spare parts list can provide additional information.

We only guarantee the genuine spare parts that we supply.

We expressly state that genuine spare parts and accessories not supplied by us have also not been tested or approved by us. Installing and/or using such products may have a negative impact, under certain circumstances, on the properties of the rotary tube diverter specified in the design and consequently may impair active and/or passive safety. Coperion does not assume any liability or provide any warranty for damage resulting from the use of non-genuine spare parts and accessories.



Malfunction or failure of the machine resulting from poor-quality spare parts!

When being used in potentially explosive atmospheres and/or as a protection system, poor-quality or incorrect spare parts may lead to the creation of an ignition source and may trigger explosions.

- ▶ Use only genuine Coperion spare parts.
- ▶ The use of genuine spare parts is required, depending on national specifications.

Keep in mind that, for in-house or foreign materials, there are often special manufacturing and shipment specifications. We always offer you spare parts that are up-to-date and that comply with the latest legislative regulations.

When ordering spare parts, specify the following data:

Machine data:

- Serial number (information on the name plate)
- Type designation (information on the name plate)
- Coperion order number with assembly (if available)

Spare part data:

- Repair manual number (see the cover sheet)
- Item
- Designation
- Quantity

1.2 Service

Regular service performed by our qualified personnel is recommended. We would like to increase the operational readiness of your components even after being in service for a long time. For this, we offer the services provided by our Service Center.

- We would be happy to negotiate a maintenance contract with you. With such a contract, we do not just perform the actual maintenance activities, we also monitor maintenance cycles, etc. This works very simply: We enter you into our service EDP file and contact you to schedule a time automatically.
- If you wish to perform maintenance yourself, we would be glad to train your operating personnel intensively regarding the operation and servicing of Coperion components. In our Technical Center and our training rooms, we give courses that provide comprehensive knowledge about rotary valves, shut-off devices and diverter elements. This improves the option of in-house maintenance and correcting malfunctions.
- Of course, we would also be glad to perform the installation and commissioning of your Coperion components.



Malfunction or failure of the machine resulting from poor-quality maintenance!

If the system is used in potentially explosive atmospheres and/or as a protection system, poor-quality or incorrect maintenance may lead to the creation of an ignition source and may trigger explosions.

- ▶ Maintenance may only be carried out by qualified personnel with up-to-date training.
- ▶ Maintenance by COPERION Service.

If necessary, contact our Service Center:

Coperion GmbH

Niederbiegerstraße 9

D-88250 Weingarten

Phone: +49 / 751 4 08-0

+49 / 751 4 08-450 (service number)

Fax: +49 / 751 4 08-200



Information

For safety reasons, use only genuine Coperion spare parts.

To ensure smooth and speedy handling, we need the following information from you:

- Serial number (information on the name plate)
- Type designation (information on the name plate)
- Coperion order number with assembly (if available)
- Description of the problem
- Operating data

Selection chart for size, pipe size and number of outputs (pipe connections)

Standard design rotary tube diverter 11 up to +1 bar operating pressure (gray field = design is possible)

Nominal diameter Connection ø Inside diameter	Number of pipe outputs											
	3	4	5	6	7	8	9	10	11	12	13	
DN 50 / 60.3 / 55												
DN 65 / 76.1 / 71												
DN 80 / 88.9 / 83												
DN 100 / 114.3 / 109												
DN 125 / 139.7 / 134												
DN 150 / 168.3 / 162												
DN 200 / 219.1 / 213												

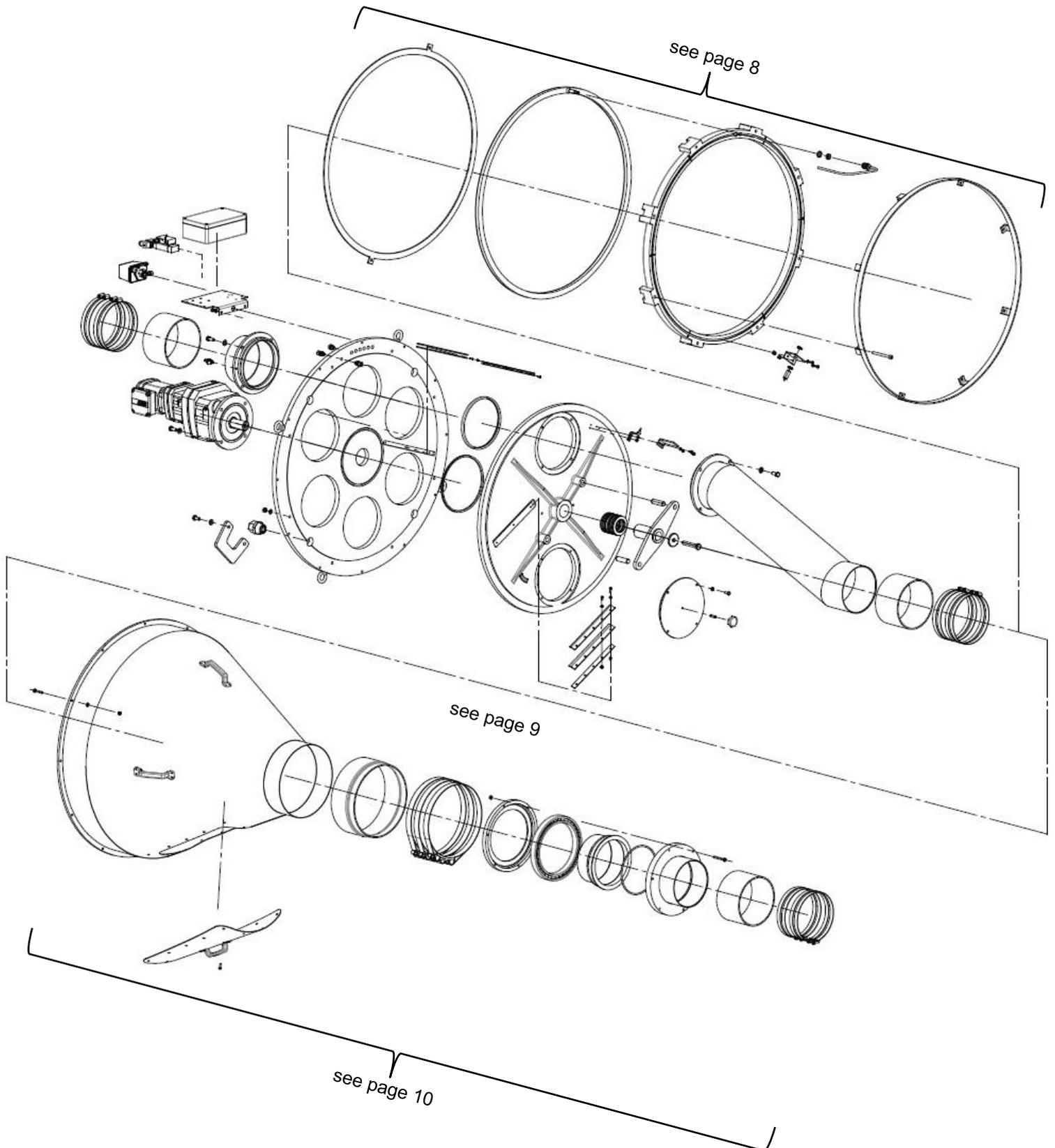
Reinforced design, rotary tube diverter 11 up to +4 bar operating pressure (special version)
(gray field = design is possible)

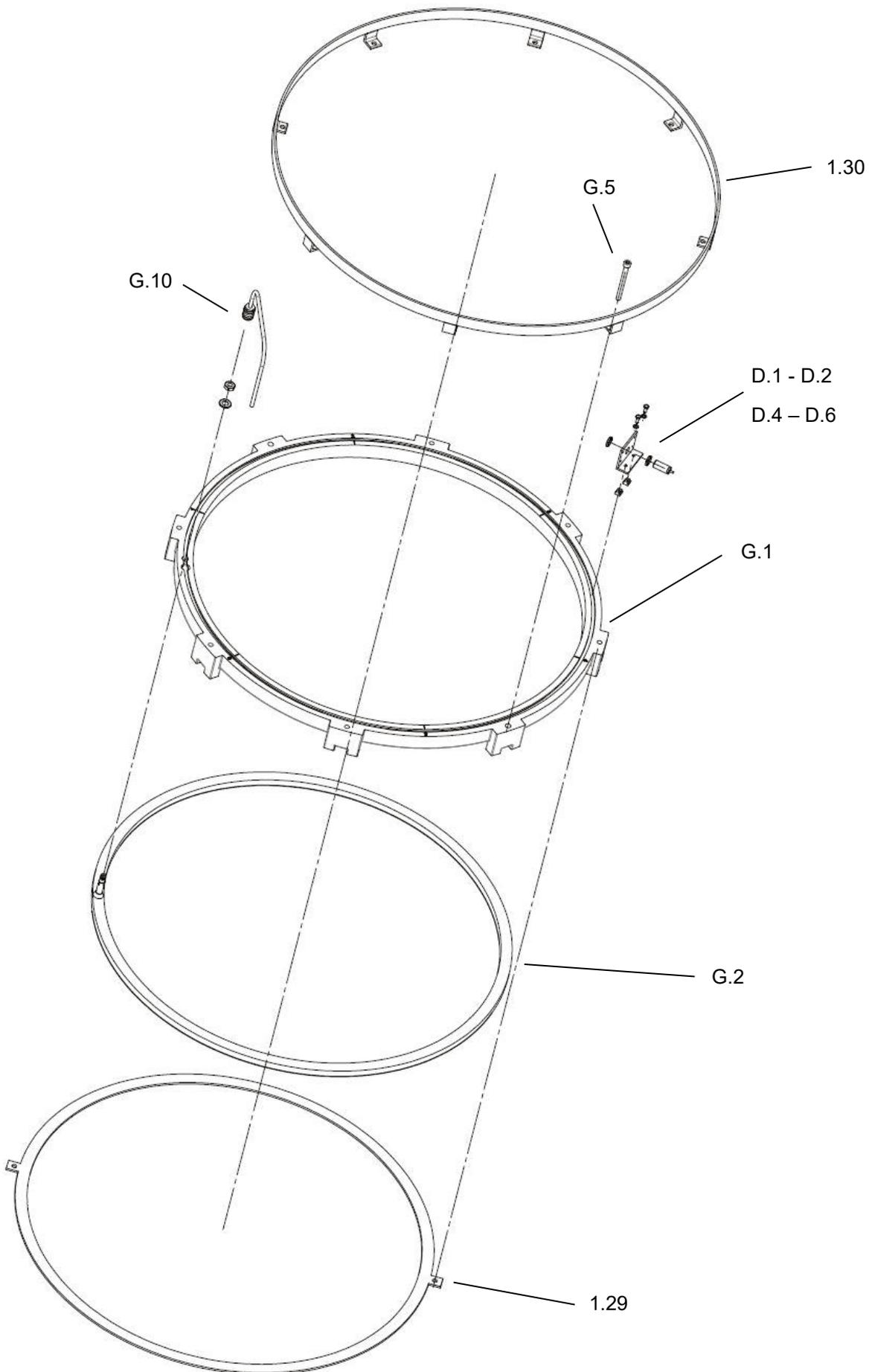
Nominal diameter Connection ø Inside diameter	Number of pipe outputs											
	3	4	5	6	7	8	9	10	11	12	13	
DN 50 / 60.3 / 55												
DN 65 / 76.1 / 71												
DN 80 / 88.9 / 83												
DN 100 / 114.3 / 109												
DN 125 / 139.7 / 134												
DN 150 / 168.3 / 162												
DN 200 / 219.1 / 213												

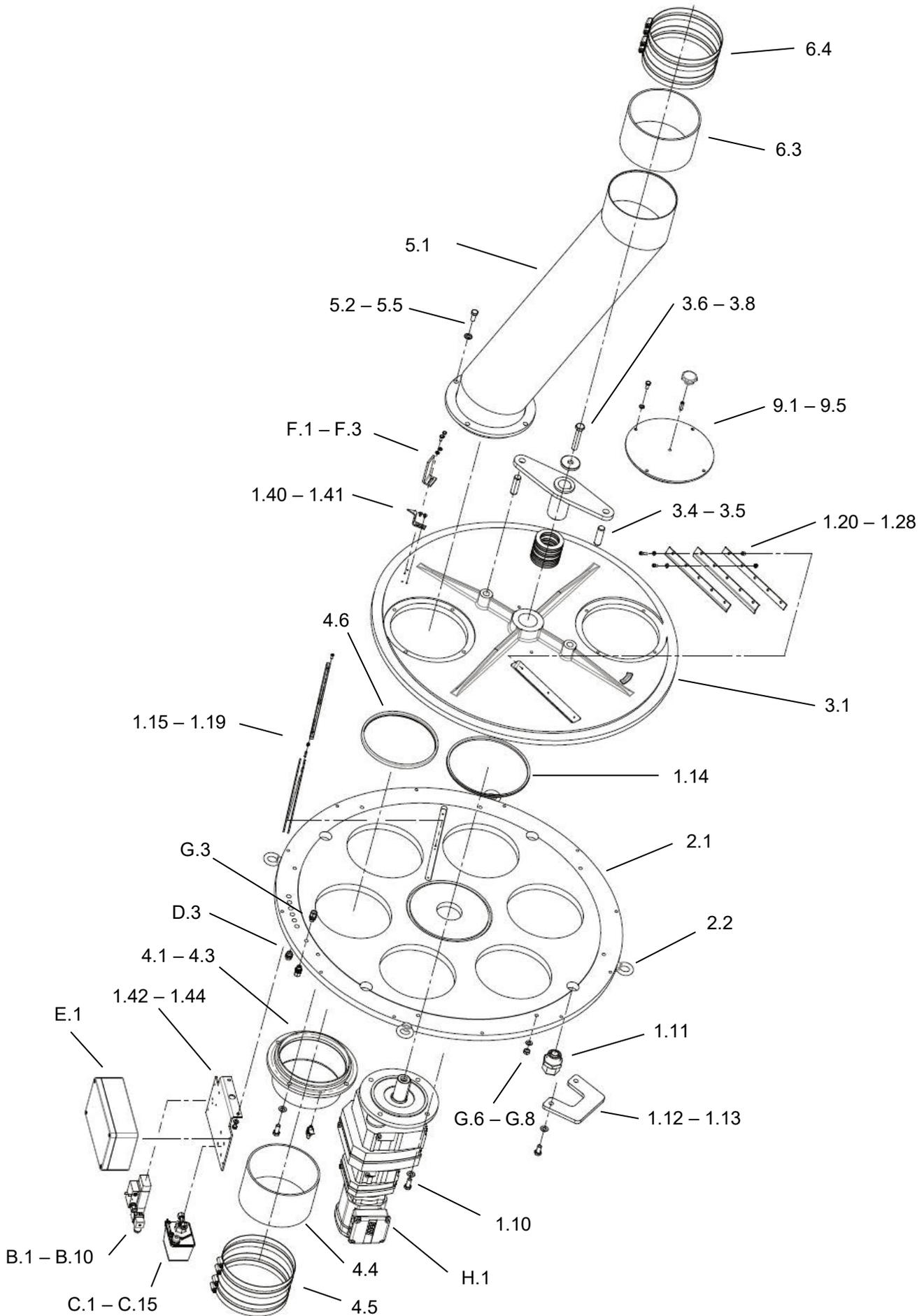
The type designations can be seen in accordance with the contract documentation and/or on the name plate of the rotary tube diverter.

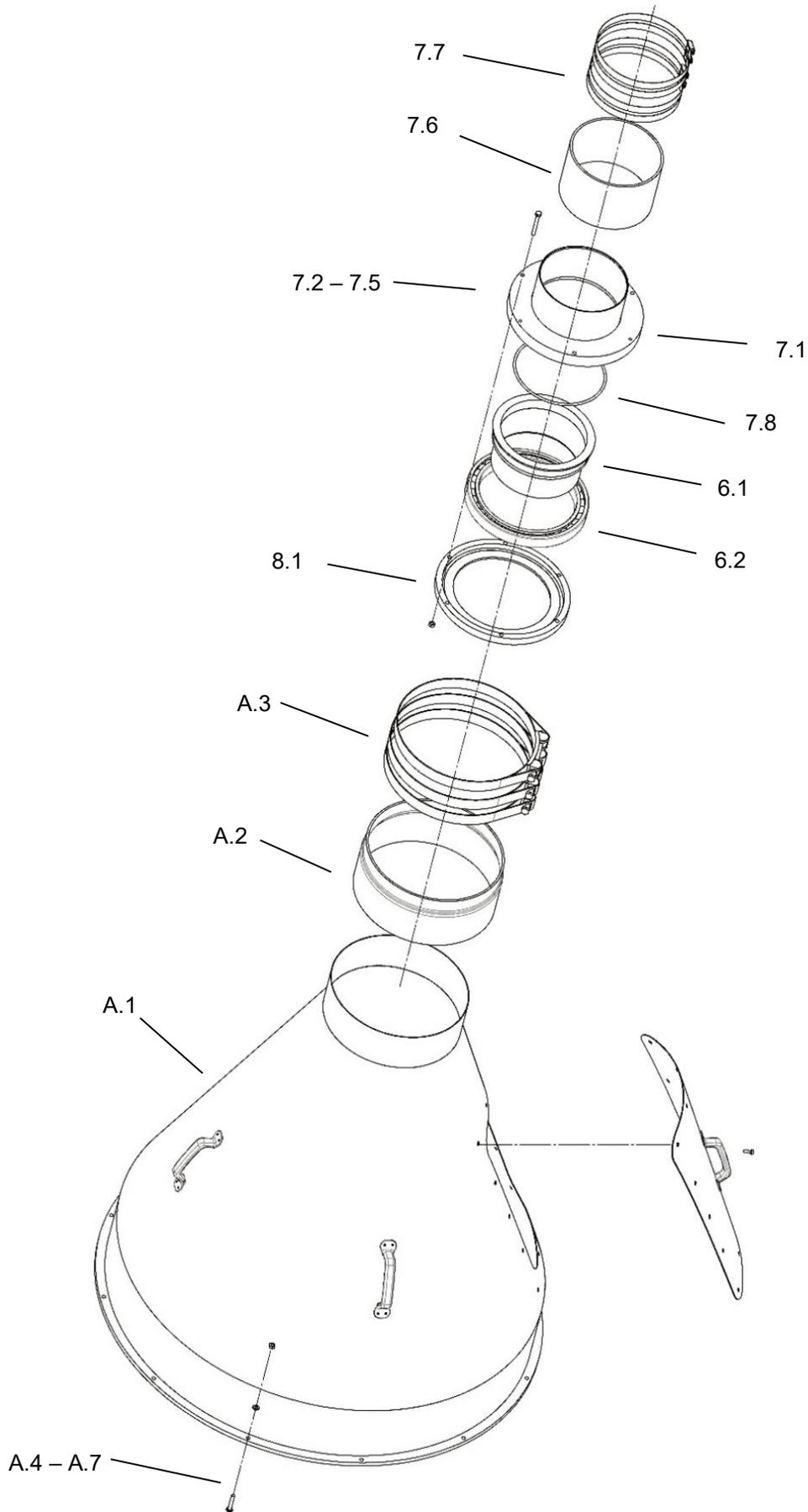
The following exploded-view drawings show a DWR 11 P-6 / DN 200 – SS, standard (chapter 1.3) and the reinforced version (chapter 1.4).

1.3 Rotary tube diverter DWR 11 explosion-view drawing and parts list





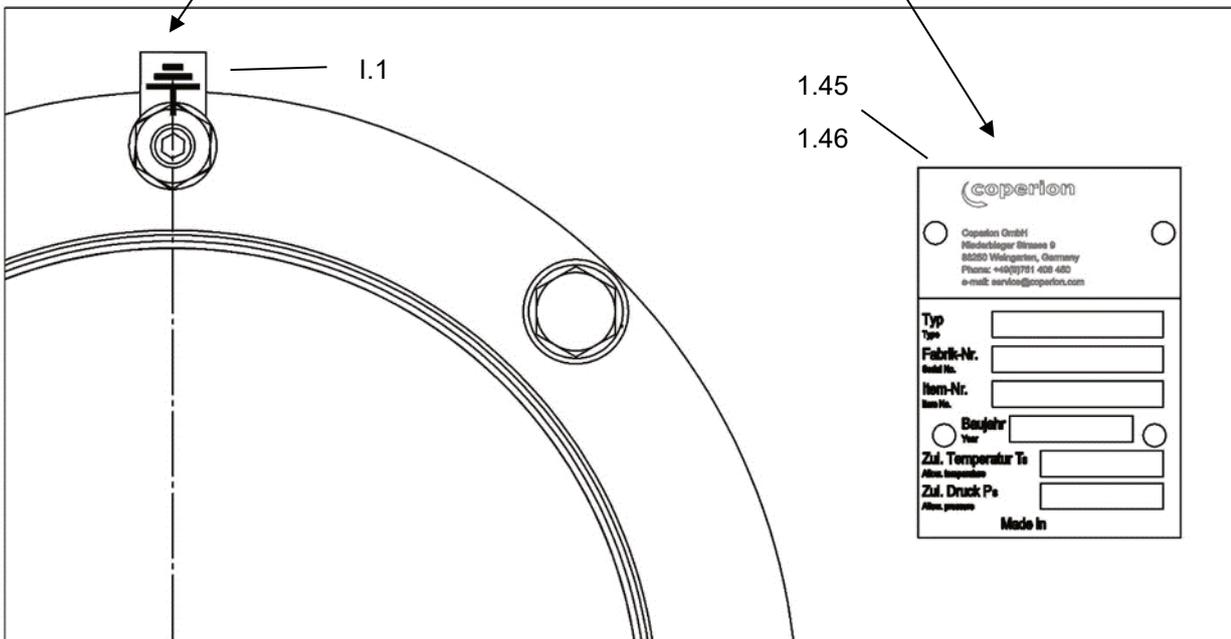
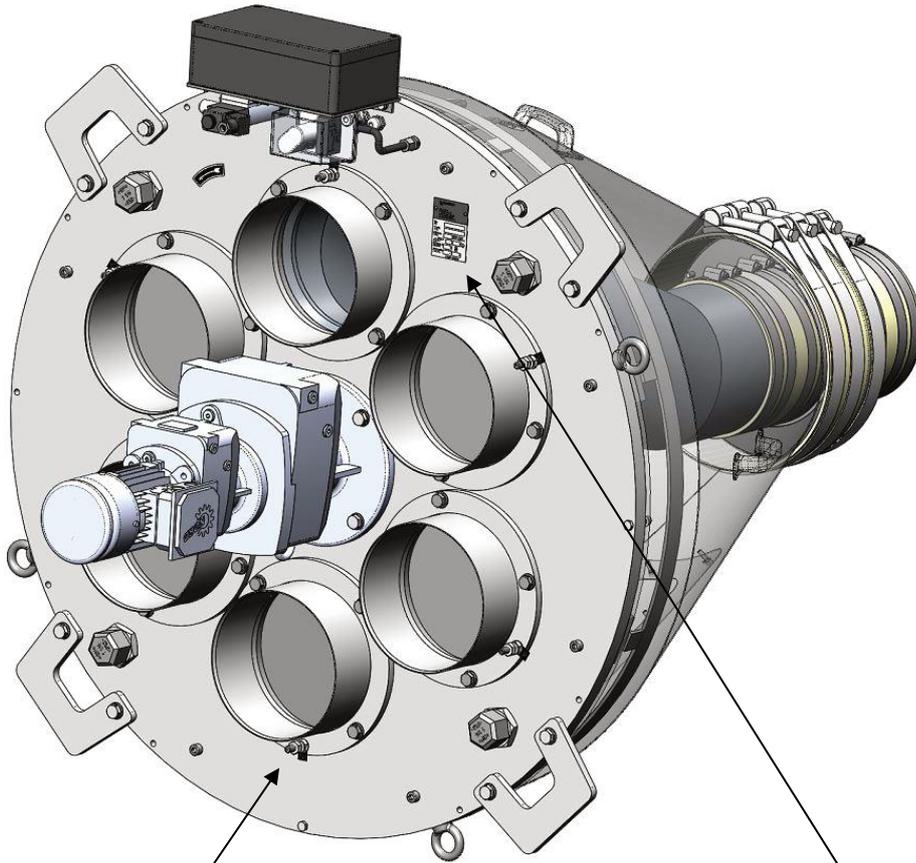




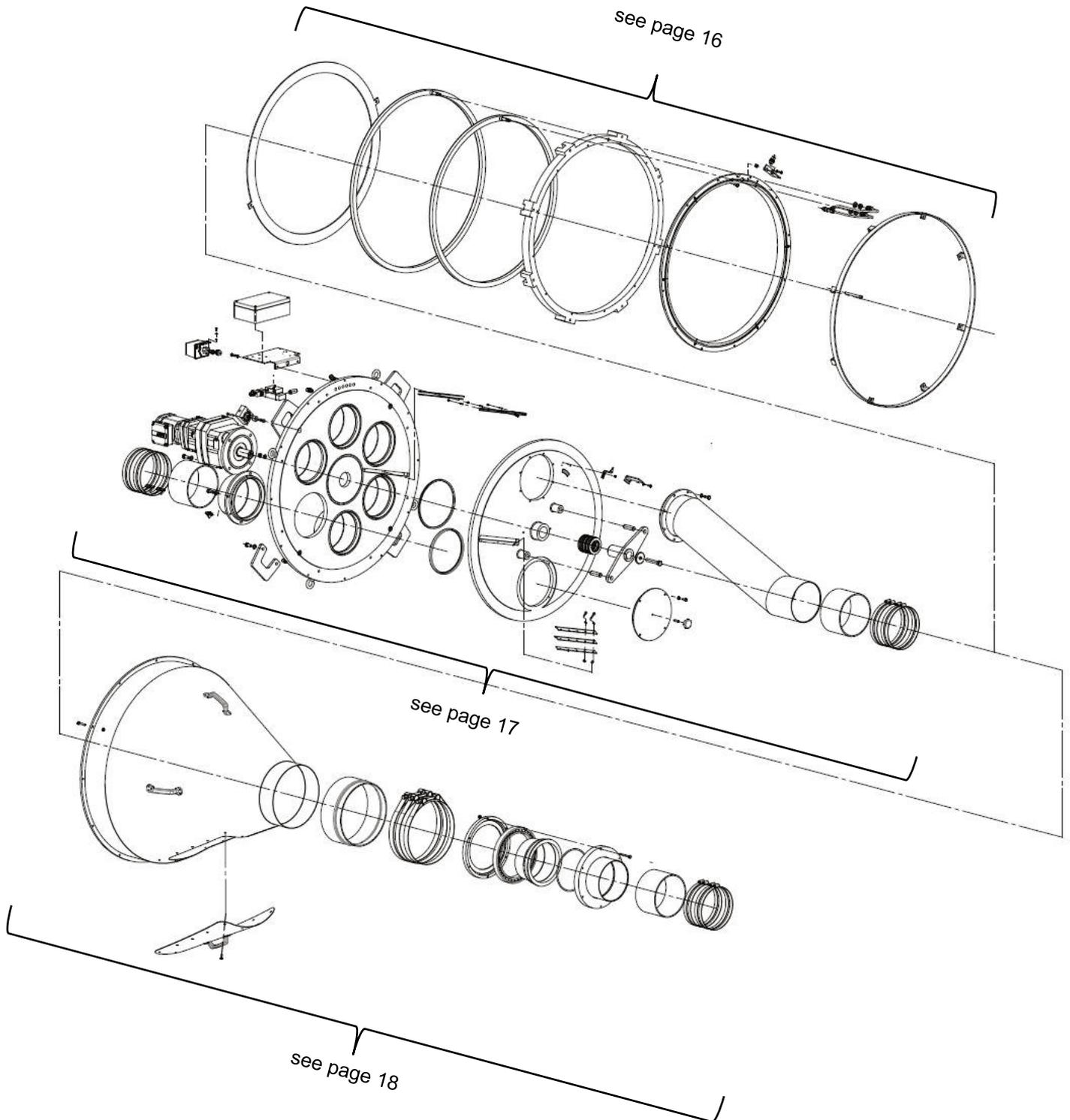
Item	Designation	Piece / device
1	Identical parts DWR 11 P	
1.10	Hexagon bolt DIN 933	4
1.11	Lifting slider	4
1.12	Mounting plate	4
1.13	Hexagon bolt DIN 933	8
1.14	V-seal ring	1
1.15	Scraper bar	1
1.16	Sealing plate	2
1.17	Pressure spring	3
1.18	Pin	3
1.19	Countersunk screw DIN 963	1
1.20	Terminal strip I (with bevel)	1
1.21	Terminal strip II (straight)	1
1.22	Rubber scraper	1
1.23	Cylinder head bolt DIN 912	3
1.24	Cylinder head bolt DIN 6912	2
1.25	Hexagon nut DIN 934	2
1.26	Circlip DIN 127	5
1.27	Washer DIN 7090	5
1.28	DWR spacer	3
1.29	DWR sliding ring	1
1.30	DWR cable holding ring	1
1.40	DWR position indicator	1
1.41	Countersunk screw DIN 963	2
1.42	DWR retaining plate	1
1.43	Hexagon bolt DIN 933	2
1.44	Washer DIN 7090	2
1.45	Label – company imprint	1
1.46	Label – type imprint	1
2	DWR 11 base plate	
2.1	DWR 11 base plate	1
2.2	Eye bolt DIN 580	4
3	DWR 11 rotary table	
3.1	DWR 11 rotary table	1
3.4	Pin	2
3.5	Cup spring	Depending on the version
3.6	DWR washer	1
3.7	DWR driver	1
3.8	Hexagon bolt DIN 931	1
4	DWR 11 pipe connection	
4.1	DWR 11 pipe connection	Depending on the version
4.2	Hexagon bolt DIN 933	4 per pipe connection
4.3	Washer DIN 7090	4 per pipe connection
4.4	Hose sleeve	1 per pipe connection
4.5	Clamp	4 per pipe connection
4.6	DWR seal ring-A	1 per pipe connection

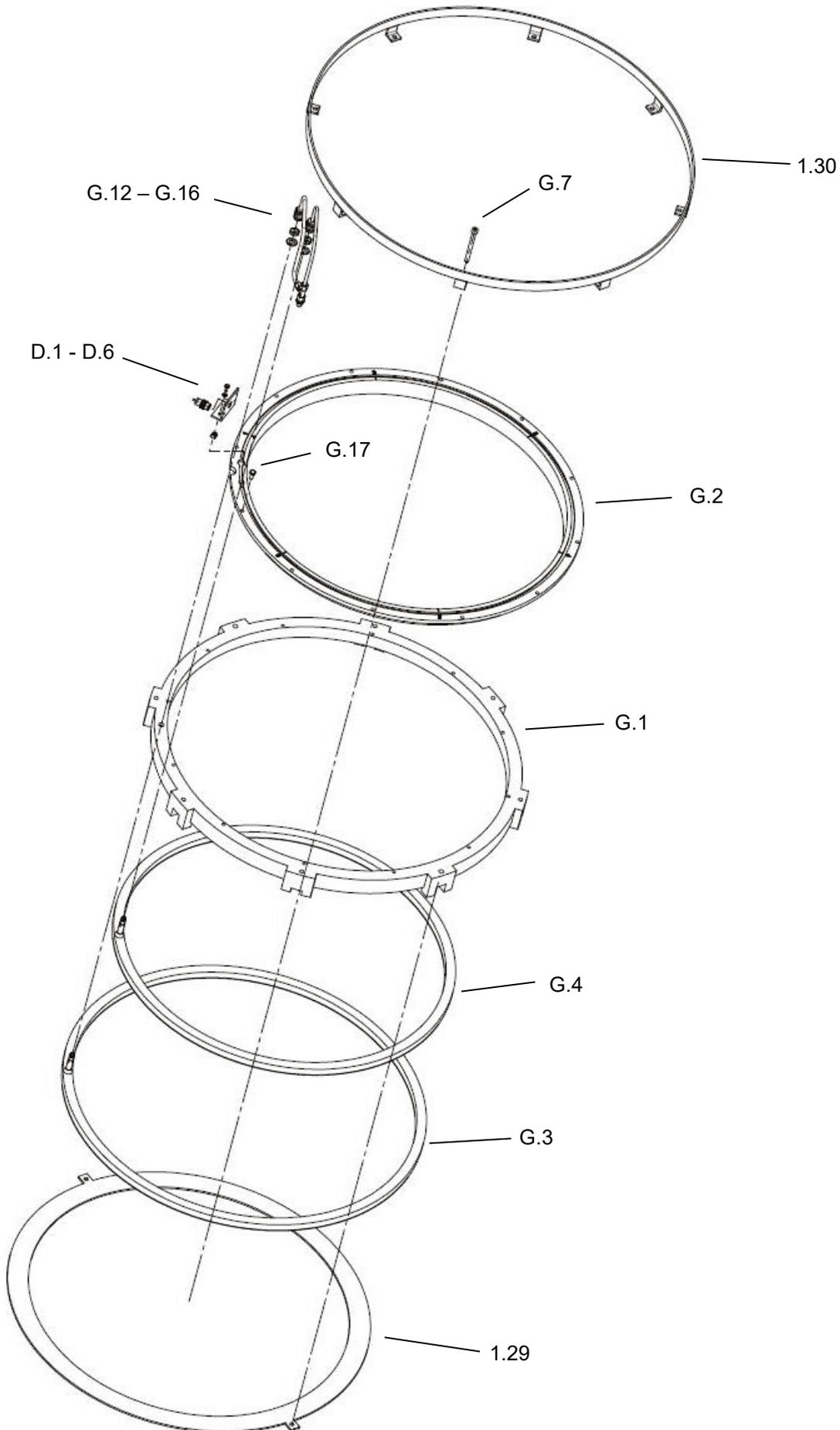
Item	Designation	Piece / device
5	DWR 11 distributor pipe	
5.1	DWR 11 distributor pipe	1
5.2	Hexagon bolt DIN 933	4
5.3	Circlip DIN 127	4
5.4	Pin ISO 2338	2
5.5	Peelable laminated sheets, type A	1
6	DWR 11 inner connecting pipe	1
6.1	DWR 11 inner connecting pipe	1
6.2	Deep-groove ball bearing	2
6.3	Hose sleeve	1
6.4	Clamp	4
7	DWR 11 outer connecting pipe	
7.1	DWR 11 outer connecting pipe	1
7.2	Hexagon bolt DIN 931	6
7.3	Hexagon nut DIN 934	6
7.4	Washer DIN 7090	6
7.5	USIT seal ring	6
7.6	Hose sleeve	1
7.7	Clamp	4
7.8	O-ring ISO 3601	1
8	DWR 11 bearing ring	
8.1	DWR 11 bearing ring	1
9	DWR 11 inspection cover	
9.1	DWR 11 inspection cover	1
9.2	Star knob DIN 6336	1
9.3	Headless bolt DIN 916	1
9.4	Hexagon bolt DIN 933	4
9.5	Washer DIN 7090	4
A	DWR 11 protective casing	
A.1	DWR 11 protective casing	1
A.2	Hose sleeve	1
A.3	Clamp	2
A.4	Hexagon bolt DIN 931	12
A.5	Hexagon nut DIN 934	12
A.6	Sealing profile, round, 6 mm	1
A.7	USIT seal ring	12
B	5/2-way solenoid valve	
B.1	5/2-way solenoid valve	1
B.2	Solenoid valve coil	1
B.3	Sound absorber	2
B.4	Threaded pipe joint	2
B.5	Countersunk screw DIN 963	2
B.6	Washer DIN 7090	2
B.7	Cable 3G x 1.0	1
B.8	Screwed plug DIN 906	1
B.9	Cable screw connection	1
B.10	Threaded pipe joint	1

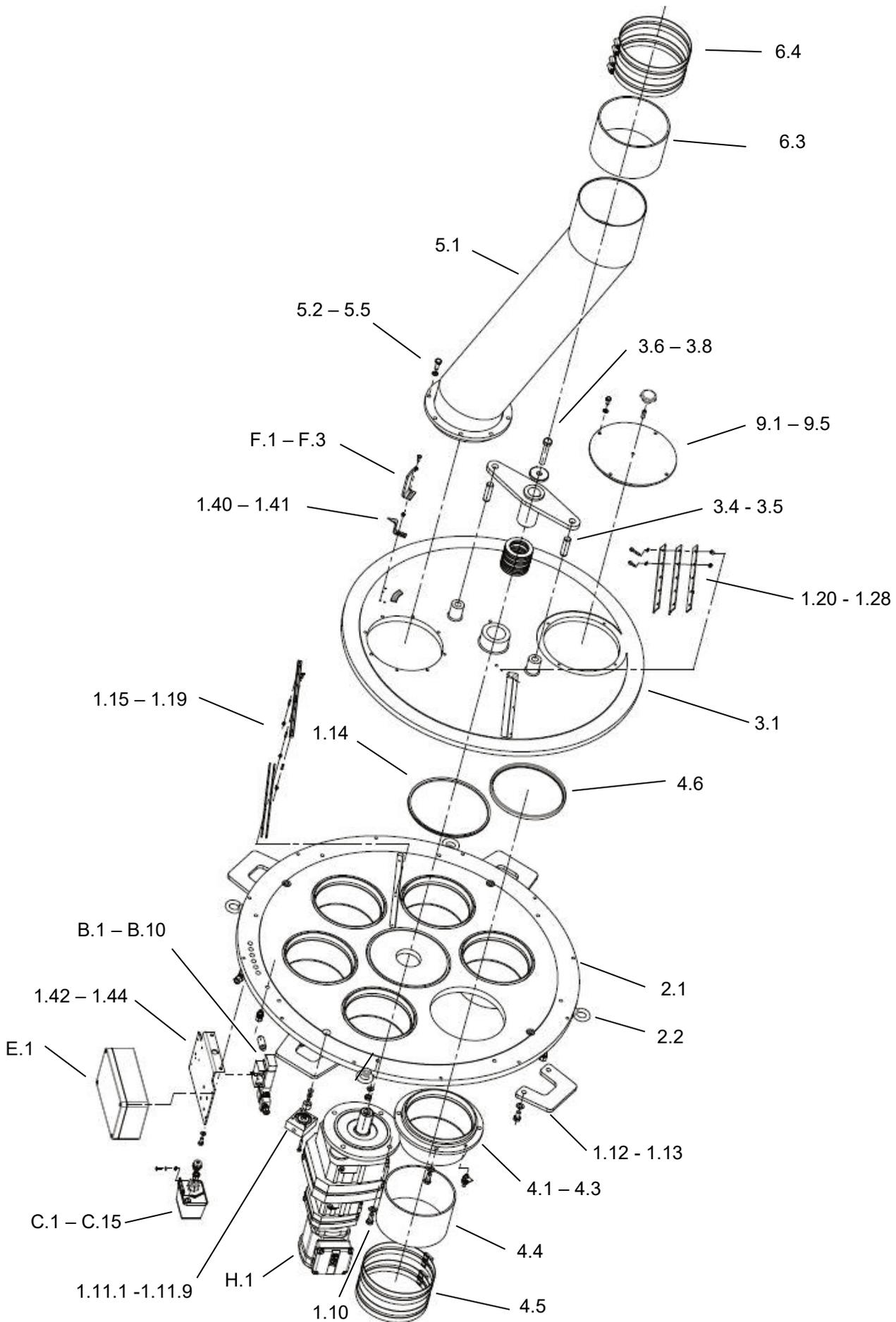
Item	Designation	Piece / device
C	DWR pressure controller	
C.1	Pressure switch	1
C.2	Countersunk screw DIN 963	2
	Hexagon nut DIN 934	2
C.3	Washer DIN 7090	2
C.4	Cable 4G x 0.75	1
C.5	Cable screw connection	1
C.6	Nut	1
C.7	Gasket	1
C.8	Threaded pipe joint	1
C.9	Reducer	1
C.10	Hose	1
C.15	Cable screw connection	1
	Hose	1
D	DWR limit switch	Depending on the version
D.1	Angle bracket for limit switch	1
D.2	Inductive or mechanical limit switch	1
D.3	Cable screw connection	1
D.4	Hexagon bolt DIN 933	2
D.5	Washer DIN 9021	2
D.6	T-slot nut DIN 508	2
D.7	Gasket	2
E	DWR terminal box	
E.1	Terminal box, complete, equipped	1
F	DWR cam switch	
F.1	DWR cam switch	1
F.2	Cylinder head bolt DIN 6912	2
F.3	Washer DIN 7090	2
G	DWR 11 hose holding ring	
G.1	DWR 11- I hose holding ring	1
G.2	DWR 11 pneumatic pressure hose	1
G.3	Threaded pipe joint	2
G.4	Dowel pin ISO 13337	2
G.5	Cylinder head bolt DIN 912	8
G.6	Hexagon nut DIN 934	8
G.7	Washer DIN 7090	8
G.8	USIT seal ring	8
G.10	Quick-release coupling	1
	Hose	1
H	Gear motor	
H.1	Gear motor	1
I	Ground	
I.1	Grounding bolt	Depending on the version

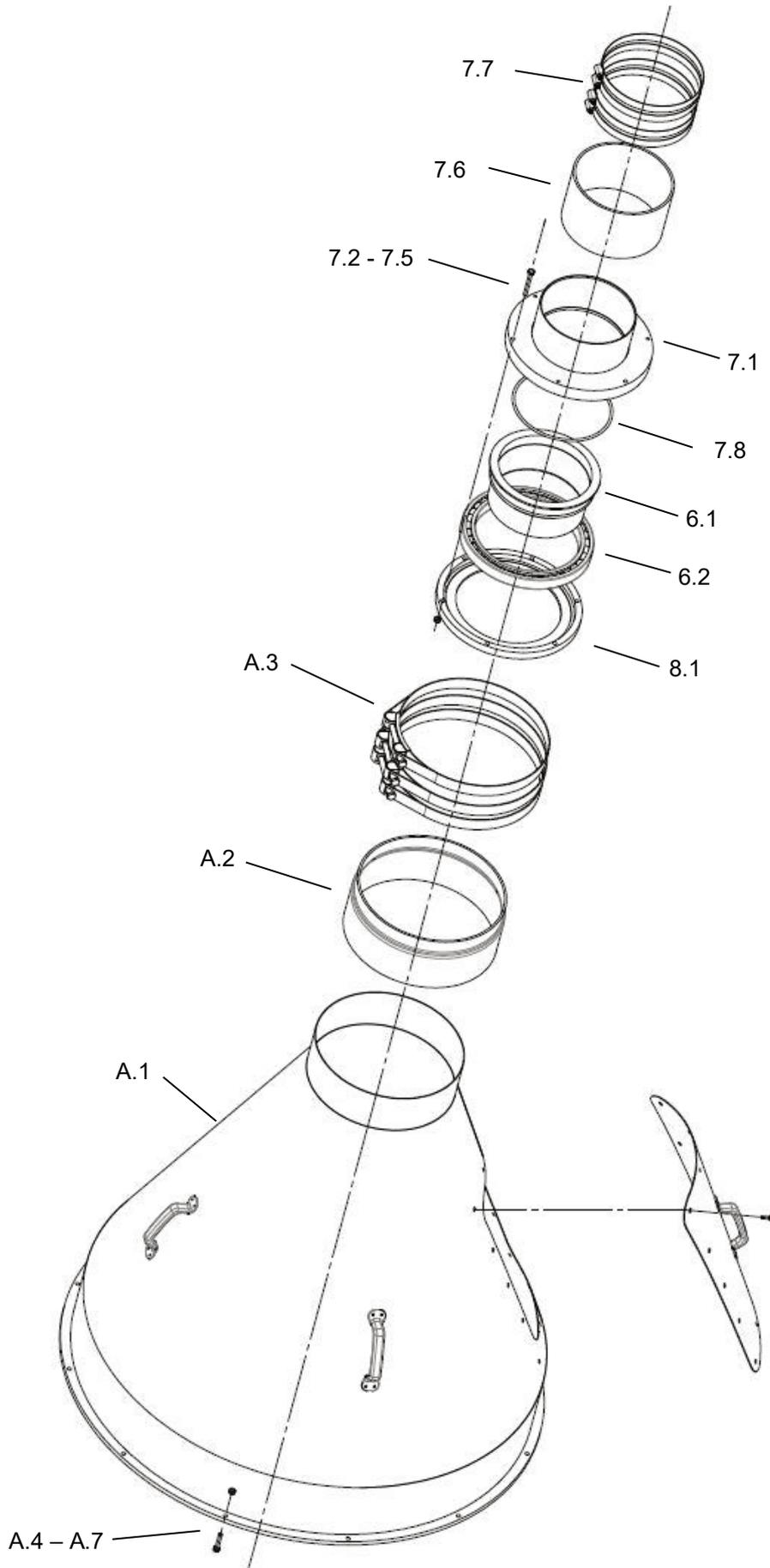


1.4 Exploded-view drawing and parts list, rotary tube diverter DWR 11, reinforced







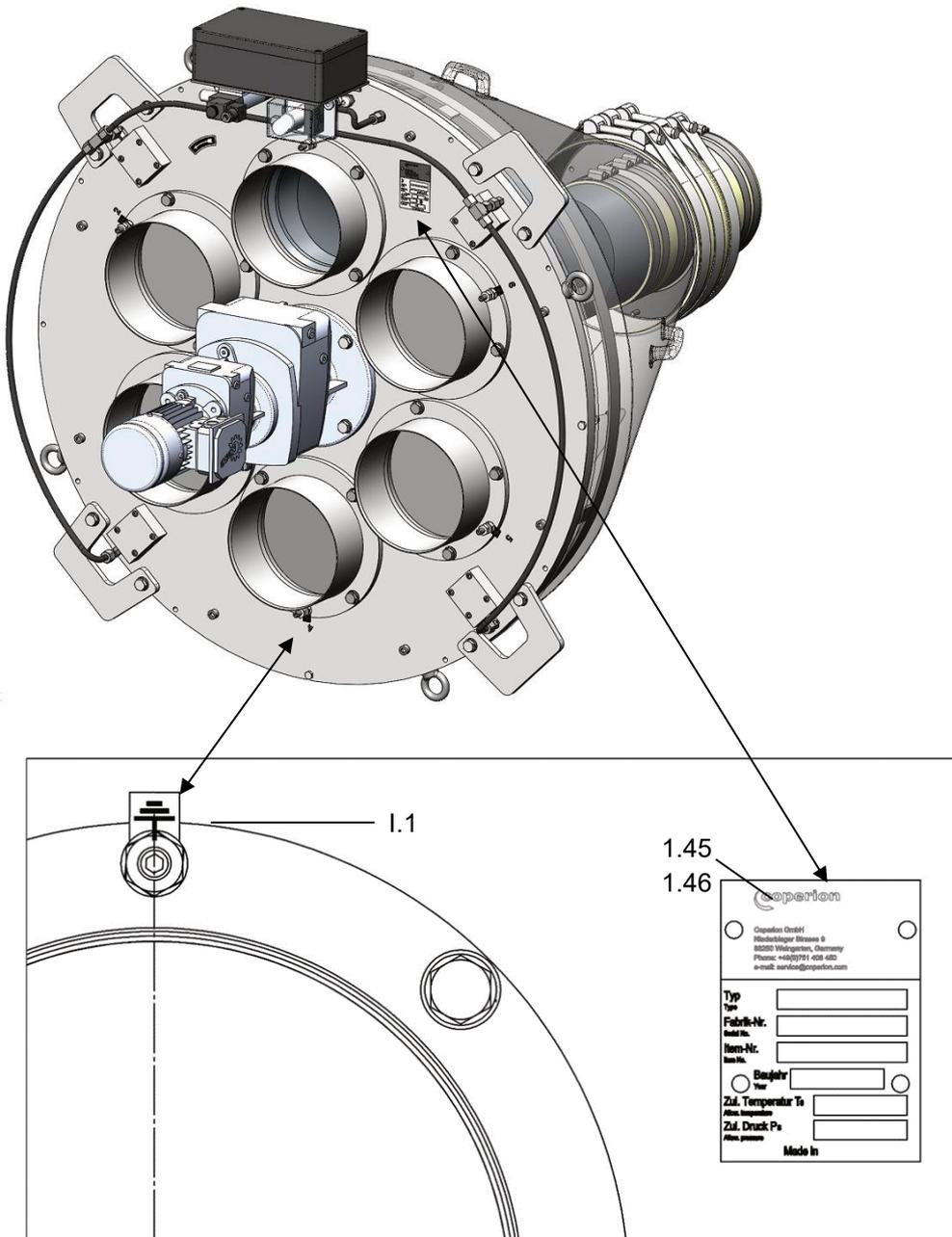


Item	Designation	Piece / device
1	Identical parts DWR 11 P	
1.10	Hexagon bolt DIN 933	4
1.11.1	DWR 11 slider	4
1.11.2	Short stroke cylinder	4
1.11.3	DWR 11 plug	4
1.11.4	Cylinder head bolt DIN 6912	4
1.11.5	Cylinder head bolt DIN 912	16
1.11.6	Threaded pipe joint	4
1.11.7	Threaded pipe joint	3
1.11.8	Threaded pipe joint	1
1.11.9	Hose	1
1.12	Mounting plate	4
1.13	Hexagon bolt DIN 933	8
1.14	V-seal ring	1
1.15	DWR 11 scraper bar	1
1.16	Sealing plate	2
1.17	Pressure spring	3
1.18	Pin	3
1.19	Countersunk screw DIN 963	2
1.20	Terminal strip I (with bevel)	1
1.21	Terminal strip II (straight)	1
1.22	DWR 11 rubber scraper	1
1.23	Cylinder head bolt DIN 912	3
1.24	Cylinder head bolt DIN 6912	2
1.25	Hexagon nut DIN 934	2
1.26	Circlip DIN 127	5
1.27	Washer DIN 7090	5
1.28	DWR spacer	3
1.29	Sliding ring DWR 11, reinforced	1
1.30	DWR 11 cable holding ring	1
1.40	DWR position indicator	1
1.41	Countersunk screw DIN 963	2
1.42	DWR retaining plate	1
1.43	Hexagon bolt DIN 933	2
1.44	Washer DIN 7090	2
1.45	Label – company imprint	1
1.46	Label – type imprint	1
2	Base plate DWR 11, reinforced	
2.1	Base plate DWR 11, reinforced	1
2.2	Eye bolt DIN 580	4
3	Rotary table DWR 11, reinforced	
3.1	Rotary table DWR 11, reinforced	1
3.4	Pin	2
3.5	Cup spring	Depending on the version
3.6	DWR 11 washer	1
3.7	DWR 11 driver	1
3.8	Hexagon bolt DIN 931	1

Item	Designation	Piece / device
4	DWR 11 pipe connection	
4.1	DWR 11 pipe connection	Depending on the version
4.2	Hexagon bolt DIN 933	4 per pipe connection
4.3	Washer DIN 7090	4 per pipe connection
4.4	Rubber expansion joint	1 per pipe connection
4.5	Clamp	4 per pipe connection
4.6	DWR seal ring-A	1 per pipe connection
5	Distributor pipe DWR 11, reinforced	
5.1	Distributor pipe DWR 11, reinforced	1
5.2	Hexagon bolt DIN 933	4 - 8
5.3	Circlip DIN 127	4 - 8
5.4	Pin ISO 2338	2
5.5	Peelable laminated sheets, type A	1
6	DWR 11 inner connecting pipe	1
6.1	DWR 11 inner connecting pipe	1
6.2	Deep-groove ball bearing	2
6.3	Rubber expansion joint	1
6.4	Clamp	4
7	DWR 11 outer connecting pipe	
7.1	DWR 11 outer connecting pipe	1
7.2	Hexagon bolt DIN 931	6
7.3	Hexagon nut DIN 934	6
7.4	Washer DIN 7090	6
7.5	USIT seal ring	6
7.6	Rubber expansion joint	1
7.7	Clamp	4
7.8	O-ring ISO 3601	1
8	DWR 11 bearing ring	
8.1	DWR 11 bearing ring	1
9	Inspection cover DWR 11, reinforced	
9.1	Inspection cover DWR 11, reinforced	1
9.2	Star knob DIN 6336	1
9.3	Headless bolt DIN 916	1
9.4	Hexagon bolt DIN 933	4
9.5	Washer DIN 7090	4
A	DWR 11 protective casing	
A.1	DWR 11 protective casing	1
A.2	Hose sleeve	1
A.3	Clamp	2
A.4	Hexagon bolt DIN 931	12
A.5	Hexagon nut DIN 934	12
A.6	Sealing profile, round, 6 mm	1
A.7	USIT seal ring	12

Item	Designation	Piece / device
B	5/2-way solenoid valve	
B.1	5/2-way solenoid valve	1
B.1.1	Connection plate	1
B.2	Solenoid valve coil	1
B.2.1	Outlet	1
B.3	Sound absorber	2
B.4	Threaded pipe joint	2
B.5	Countersunk screw DIN 963	2
B.6	Washer DIN 7090	2
B.7	Cable 3G x 1.0	1
B.8	Screwed plug DIN 906	1
B.9	Cable screw connection	1
B.10	Threaded pipe joint	1
C	DWR pressure controller	
C.1	Pressure switch	1
C.2	Countersunk screw DIN 963	2
C.3	Hexagon nut DIN 934	2
C.4	Washer DIN 7090	2
C.5	Cable 4G x 0.75	1
C.6	Cable screw connection	1
C.7	Gasket	1
C.8	Threaded pipe joint	1
C.9	Reducer	1
C.10	Hose	1
C.11	Cable screw connection	1
C.12	Hose	1
D	DWR limit switch	Depending on the version
D.1	Angle bracket for limit switch	1
D.2	Inductive or mechanical limit switch	1
D.3	Cable screw connection	1
D.4	Hexagon bolt DIN 933	2
D.5	Washer DIN 9021	2
D.6	T-slot nut DIN 508	2
D.7	Gasket	2
E	DWR terminal box	
E.1	Terminal box, complete, equipped	1
F	DWR cam switch	
F.1	DWR cam switch	1
F.2	Cylinder head bolt DIN 6912	2
F.3	Washer DIN 7090	2
G	Hose holding ring DWR 11, reinforced	
G.1	Hose holding ring DWR 11-I, reinforced	1
G.2	Hose holding ring DWR 11-II, reinforced	1
G.3	DWR 11-I pneumatic pressure hose (ø926/978)	1
G.4	Pneumatic pressure hose DWR 11-II, reinforced (ø868/920)	1
G.5	Threaded pipe joint	2
G.6	Dowel pin ISO 13337	2

G.7	Cylinder head bolt DIN 912	8
Item	Designation	Piece / device
G.8	Hexagon nut DIN 934	8
G.9	Washer DIN 7090	8
G.10	USIT seal ring	8
G.12	Quick-release coupling	2
G.13	Hose	1
G.16	Threaded pipe joint	1
G.17	Hexagon bolt DIN 933	12
H	Gear motor	
H.1	Gear motor	1
I	Ground	
I.1	Grounding bolt	Depending on the version



2 Appendix

2.1 Tightening torques

If no other data are provided, all fittings on the component must be tightened as per the following tables with due consideration given to the permissible mounting flanges:

Property class (bolt head)	Bolt size										
	M6	M8	M10	M12	M14	M16	M20	M24	M27	M30	M33
	Channel hole [mm]										
	6.4-7	8.4-10	10.5-12	13-14.5	15-16.5	17-18.5	21-24	25-28	28-32	31-35	34-38
	Tightening torque M _a [Nm]										
5.6	4	15	21	36	57	90	176	302	446	610	815
8.8	9	23	45	77	122	192	375	645	951	-	-
10.9	14	33	66	114	179	282	551	947	1397	-	-
A2/A4 – 70	6	14	28	48	76	119	233	402	-	-	-
A2/A4 – 50	-	-	-	-	-	-	-	187	275	271	503

5.6 - 10.9: with washer, dry and zinc plated; A2/A4 – XX: with washer, greased

Property class (bolt head)	Bolt size									
	-	-	-	-	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"
	Channel hole [mm]									
	-	-	-	-	17-19.1	20-22.2	23.2-25.4	26.4-28.6	31.8	32.8-34.9
	Tightening torque M _a [Nm]									
ASTM A 193 B7	-	-	-	-	291	418	679	1015	1428	1827
18 – 8	-	-	-	-	79	139	224	335	473	665

ASTM A 193 B7: with washer, dry and zinc plated; 18 – 8: with washer, greased



Information

The tightening torques given in the tables above must not be exceeded.