

Assembly and repair instructions

End station Series 28z



Fig 1 - manual End station series 28z with connected control panel series 28s

0. Introduction

These instructions are intended to support the user in the assembly and repair of the End stations of series 28z.

Technical details, as a result of further development of the valves mentioned in these instructions, are subject to modification. The text and illustrations do not necessarily display the scope of supply, or an eventual order of spare parts. Drawings and graphics are not to scale. Customer related special designs, which are not in accordance with our standard offer, are not shown.

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The equipment may only be dismantled and disassembled, by skilled staff, who are familiar with the assembly, the start-up and the operation of this product.

Skilled staff in the sense of these repair and assembly instructions are persons who, as a result of their training, knowledge and experience, also their knowledge of the relevant standards, are able to judge the tasks assigned to them, and are able to recognise possible dangers.

1. Design, operation and dimensions

Design, operation and dimensions, as well as all further details may be found in the data sheet **Data sheet < TB 28z_EN >**.

2. Installation, start-up and maintenance

Guidelines for the installation, start-up and maintenance can be found in the respective operating instructions

< **BA 28a-01_EN** > for automated end stations, e.g.

< **BA 28a-02_EN** > for hand operated End stations.

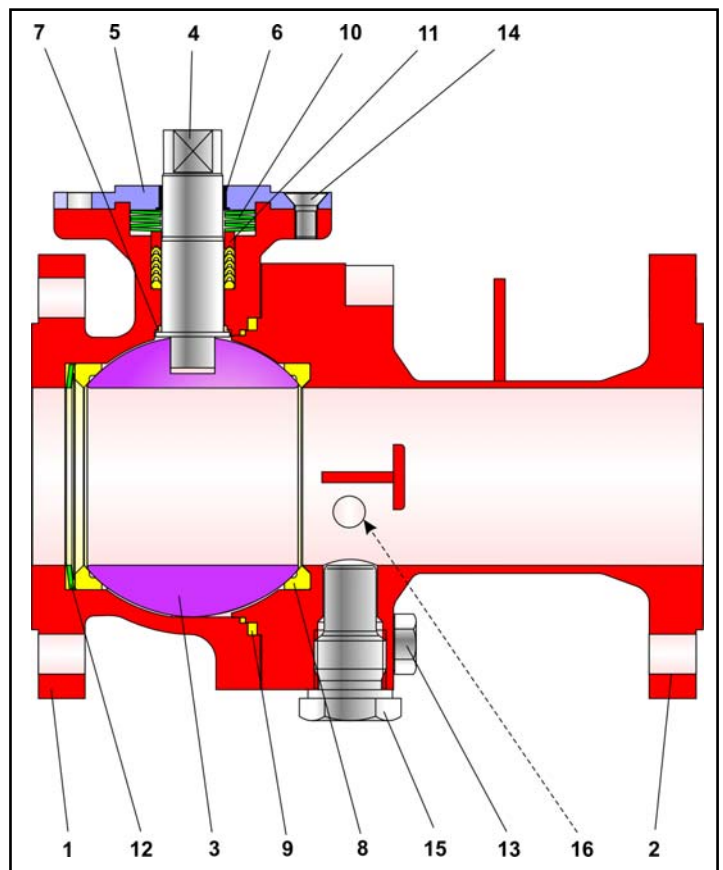


Fig 2 - Sectional view of the End station series 28z => Parts list, see table 1 on page 2

End station Series 28z

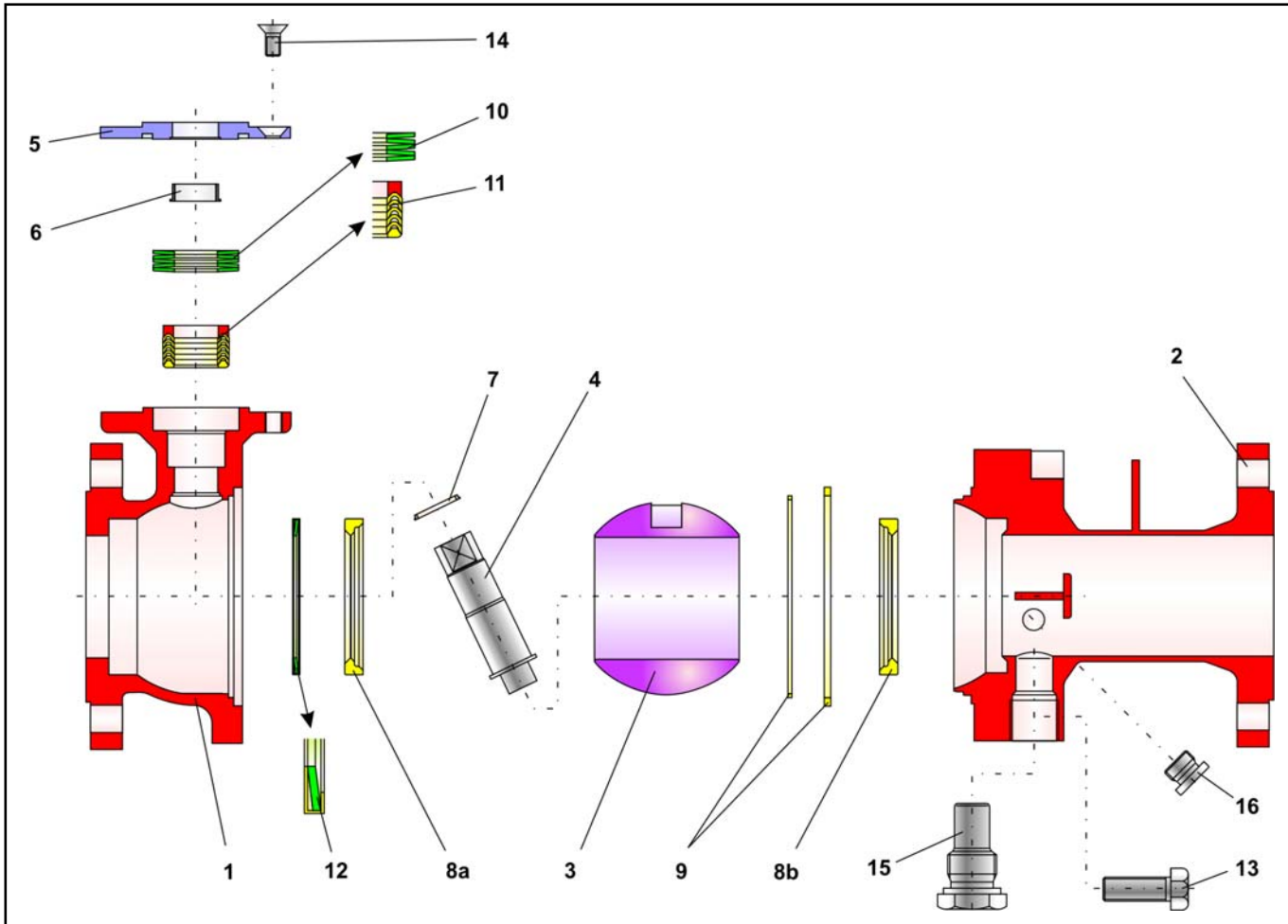


Fig 3 - Exploded drawing of the end station series 28z

Pos.	Qty.	Description	Material	E-Part
1	1	Main body	1.4408 / 1.4571	
2	1	Side body	1.4571	
3	1	Ball	1.4408 / 1.4571	
4	1	Stem	1.4571	
5	1	Stuffing box flange	1.4571	
6	1	Bearing bushing	PTFE with carbon	
7	1	Bearing bushing	PTFE with glass	
8	1	Sealing unit	PTFE	E
9	1	Body sealing	PTFE / EPDM	E
10	1	Spring ring set	1.8159 / Delta Tone	E
11	1	V-ring packing	1.4305 / PTFE	E
12	1	Spring ring	1.4404 / PTFE	E
13	var.	Screw	A2-70	
14	2	Screw	A2-70	
15	1	Plug screw	1.4571 / PTFE	
16	2	Plug screw	1.4571	

Table 1 - Spare parts list

3. Assembly of the End station

3.1 Preparing the assembly

Before assembling the end station, all parts must be first cleaned, e.g. and layed on a soft padding surface (rubber mat or similar.) Take into consideration that parts made of plastic are generally soft and sensitive, in particular the sealing surfaces must be handled with care not be damaged.



Attention: To avoid cold corrosion of the screws in the bodies, the manufacture supplies a high performance grease (Gleitmo 805. from Fuchs).

This grease however, may not be applied to valves, which are used in an oxygen environment. For grease free valves, for operations especially in an oxygen enviroment, an appropriate lubrication must be selected.



Note: The position and arrangement of the individual parts shown in the exploded view diagram (Fig. 3) must be strictly adhered to when assembling the valve.

3.2 Assembly of the main body

The assembly starts with the main body (1).
Insert the lined spring washer (12) into the main body (1). The assembly position for the spring washer can be taken from the drawing (Fig. 3).

The sealing ring (8a) is pressed onto the spring washer.

With a light rotating movement press the bearing sleeve (7) onto the stem (4). Guide the stem (4) together with the bearing sleeve (7) through the intended stem opening in the inside of the main body (1).



Note: The sealing surface of the stem (4) must not be damaged. It is also necessary to ensure, that the sealing sleeve (7) with the stem (5) are so positioned in the opening of the body (1) to avoid slanting when inserted.

The stem (4) must now be rotated, so that the squared end ist vertical to the working surface. The ball (3) can now be carefully inserted.

Place the body sealing rings (9) in the grooves in the main body. (1)

3.3 Assembly of the side body

The sealing ring (8b) is placed in the side body. (2)
The side body (2) together with the pre-assembled sealing ring (8b) is placed onto the main body (1) and carefully pressed together.

3.4 Final assembly of the End station

Turn the side body (2) so that the bores of both body parts (1 and 2) are aligned to each other.

Apply grease to the screws. (13) Both body parts (1 und 2) are screwed together evenly and in an alternating pattern.

Press the V-ring packing (11) with a light rotating movement over the assembled stem (4) and place in the V-pack seating of the main body. (1)

Refer to the exploded view diagram (Fig. 3) for the exact positioning of the V-rings.

Now place the spring washer set (10) onto the packing.
Also here, refer to the exploded view diagram (Fig. 3) for exact positioning of the spring washers.

The bearing sleeve (6) is pressed into the stuffing box flange (5)
After this, place the stuffing box flange (5) over the stem onto the body, and align with the pre-greased cheese head screws. (14)
Tighten the screws evenly in an alternating pattern.

To complete the assembly, the plug screws (15 und 16) are screwed in.



Note: Before testing for leak tightness, the valve should be operated once or twice, to enable the ball to sit correctly in the sealing rings, and therefore ensuring a good sealing function.

The assembly of the end station is now completed.

4. Trouble shooting

Action to be taken in the event of a malfunction, is described in the **Operating instructions**.

< BA 28a-01_EN > for automatic end stations, e.g.
< BA 28a-02_EN > for hand operated end stations

5. Repairing the end station

5.1 Replacing the V-ring packing

Should the V-ring packing show signs of leakage, the PTFE-rings of the V-ring packing (11) could be defect. It is therefore recommended to check the condition of the packing.

To dismantle the V-ring packing, proceed to disassemble the valve in the reverse order as described in the assembly instructions in Chapter 3.

The PTFE-rings of the V-ring packing should be checked as well as all other plastic parts for damage, if in doubt, replace these parts.

5.2 Replacing the sealing unit and the ball

If the ball valve in the passage shows signs of leakage, the sealing ring set (8a und 8b) and the ball (3) could be defect. It is therefore recommended to check the condition of these parts.

To dismantle the sealing rings and the ball, proceed to disassemble the valve in the reverse order as described in the assembly instructions in Chapter 3.

The sealing rings and the ball should be checked as well as all other plastic parts for damage. If in doubt replace these parts .

5.3 Other repairs

In the case of serious damages, it is recommended to have repairs carried out by our skilled team at our Pfeiffer works.

6. Customer inquiries

(when inquiring, please state the following)

1. Commission number.
(Commission no. is always embossed on the type plate)
2. Type, production number, nominal size and design of the metering valve.
3. Pressure and temperature of the medium.
4. Flow through in m³/h.
6. Possible. installation drawing.

**For your special requirements please contact
our technical sales department.**

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