

Maintenance

Series 26d-Type C Ball Valve



Fig. 1 – Series 26d-Type C Ball Valve



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

In these maintenance and assembly instructions, the term skilled staff refers to individuals who are able to judge the responsibilities assigned to them as well as recognize potential hazards due to their specialized training, knowledge and experience as well as their special knowledge of the relevant standards

1. Design, operation and dimensions

Design, operation and dimensions as well as all further details and technical data can be found in **Data Sheet <TB 26d-c_EN>**.

2. Installation, start-up and maintenance

Instructions for the installation, start-up and maintenance can be found in **Operating Instructions**

< **BA 26a-01_EN** > for pneumatic ball valves,
< **BA 26a-02_EN** > for manually operated ball valves.

0. Introduction

These instructions are intended to assist the user on assembling and repairing **Series 26d-Type C** Ball Valves.

Specifications are subject to change without notice. The text and drawings do not necessarily display the scope of supply or any ordering of spare parts.

Drawings and graphics are not to scale. Customer-specific designs not in accordance with our standard product range are not shown.

The transfer of these instructions to third parties is only allowed with the written approval of **Pfeiffer Chemie-Armaturenbau GmbH**.

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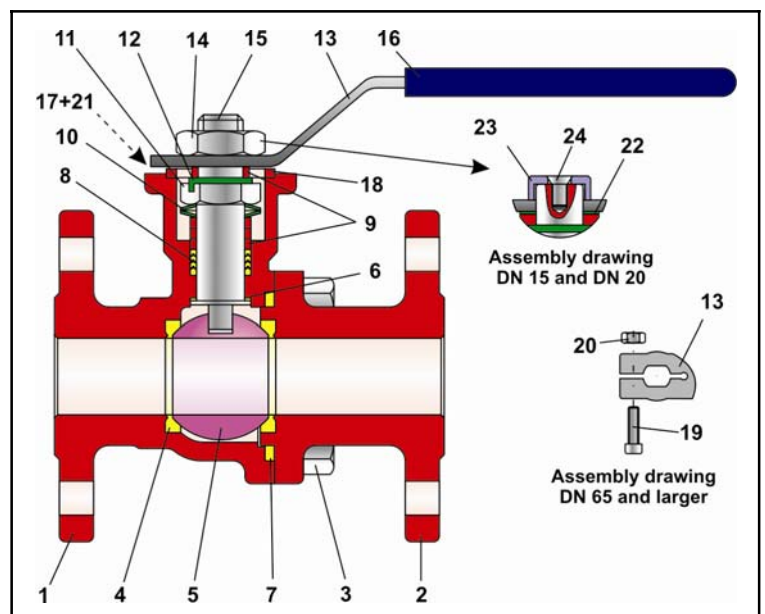


Fig. 2 – Series 26d-Type C Ball Valve => See Table 1 and Table 2 for parts list

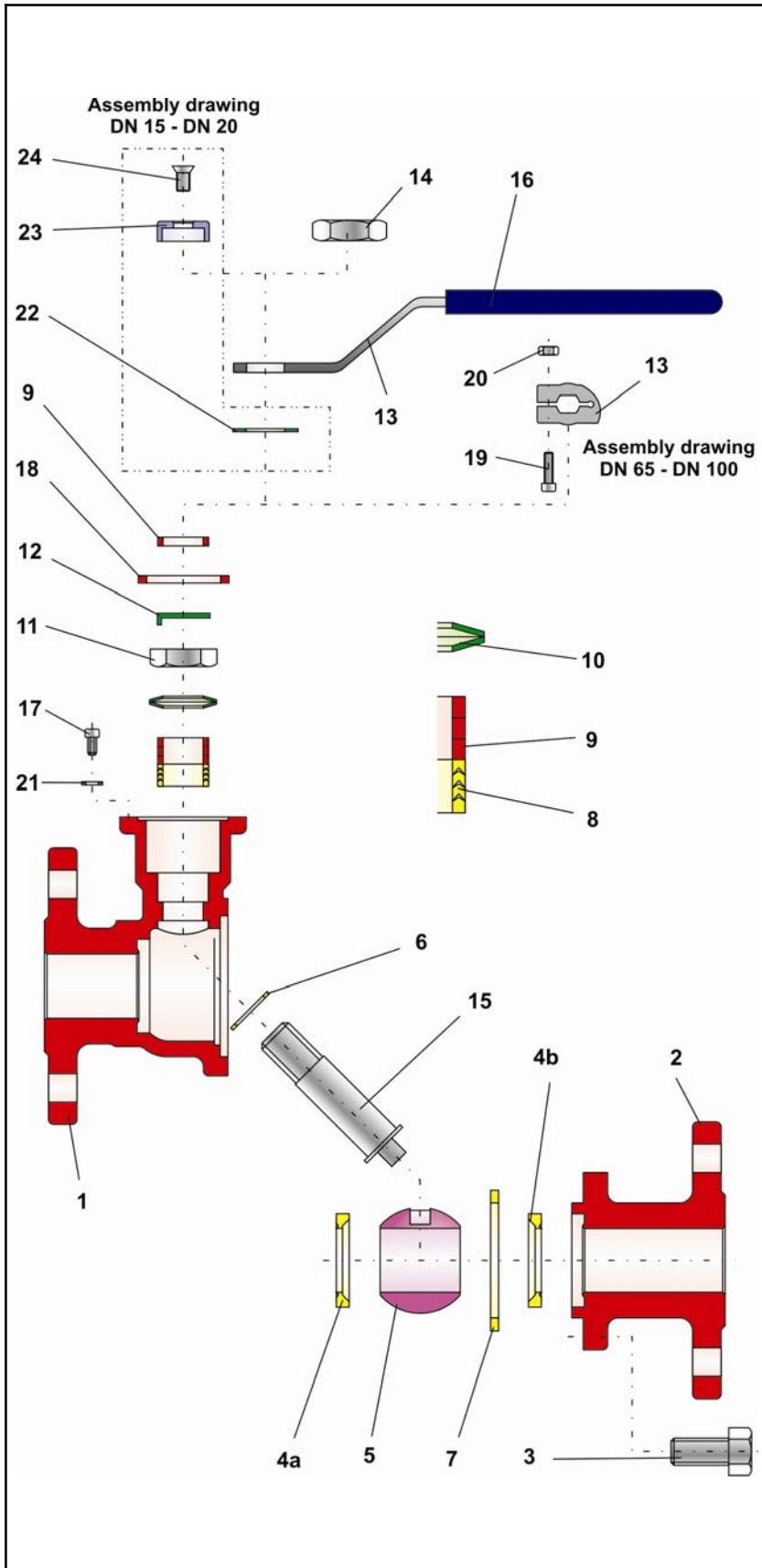


Fig. 3 – Detail drawing of Series 26d-Type C Ball Valve

Item	Description	Material
1	Main body	1.4408
2	Side body	1.4408
3	Screw	A2-70
4	Seat ring	PTFE reinforced
5	Ball	1.4401 / 1.4408
6	Thrust washer	PTFE
7	Body gasket	PTFE
8	V-ring packing	PTFE
9	Packing follower	1.4301
10	Spring washer	1.4301
11	Nut	A2-70
12	Locking plate	1.4301
13	Lever	1.4301
14	Nut	A2-70
15	Shaft	1.4401
16	Jacketing	Plastic
17	End stop	1.4301
18	Ring	1.4301
19	Screw	A2-70
20	Nut	A2-70
21	Washer	1.4301
22	Washer	1.4301
23	Cap	1.4301
24	Screw	A2-70

Table 1 – List of parts

3. Assembly of the ball valve

3.1 Preparation for assembly

Before assembling the ball valve, carefully clean all parts and place them on a soft surface (rubber mat or similar).

Plastic parts are nearly always soft and very sensitive. Take particular care when handling the sealing surfaces to ensure that they do not get damaged.



Note!

A high-performance grease paste is used during manufacturing to prevent the screws from cold welding in the bodies (e.g. Gleitmo 805 by Fuchs).

Do not use this lubricant with valves intended for oxygen service. Use a lubricant suitable for valves that are free of grease, especially for oxygen service.



Note!

The position and arrangement of the individual parts shown in the detail drawing are to be observed during assembly.

3.2. Assembling the main body

The assembly begins with the main body (1).

Place the main body with the flange facing downwards on a flat, clean working surface to allow you to easily access the inside of the valve.

Press the seat ring (4a) into the main body (1).

Push the thrust washer (6), while slightly turning it, onto the shaft (15).

Apply a small amount of lubricant to the shaft (15).

Insert shaft together with the thrust washer (6) through the shaft bore from the inside into the main body (1).



Note!

Take care not to damage the sealing surface of the shaft (15).
Make sure the thrust washer (6) is positioned, together with the shaft (15), in the groove of the main body (1) without being jammed.

Turn the shaft (15) until the flattened part is vertical to the worktop.

Lightly spray the ball (5) with silicone and carefully insert it.

Insert the PTFE body gasket (7) into the groove of the main body (1).

3.3 Assembling the side body

Insert the seat ring (4b) into the side body (2).

Place the side body (2) together with the ready-mounted seat ring (4b) on the main body (1) and carefully push them together.

3.4 Final assembly of the ball valve

Turn the side body (2) until the boreholes of the two body halves (1 and 2) are aligned with one another.

Tighten the slightly greased screws (3) evenly in a criss-cross pattern.

Push the packing follower (9) and the V-ring packing (8), turning them slightly, over the mounted shaft (15) and position them in the packing seat of the main body (1). Refer to Fig. 3 for the arrangement of the V-rings.

Stack the spring washers (10) on the V-ring packing. Refer to Fig. 3 for the arrangement of the spring washers.

Thread the nut (11) until it rests on the spring washers.

Use a suitable tool to prevent the ball (5) from rotating in the open position.



Caution:

The tool must be made of plastic to prevent it from damaging the ball.

Tighten the nut (11). Align the final position of the nut to allow the locking plate (12) to be mounted.



Note!

The locking plate must completely rest on the nut.

After performing this mounting work, remove the tool.



Note!

Actuate the valve a few times before leak-testing it to allow the ball to center itself on the seat rings, thus ensuring a tight shut-off.

3.5 Mounting the manual lever (option)

Press the ring (18) into the corresponding place of the packing seat in the ball valve.

Place the packing follower (9) over the shaft (15) onto the locking plate (12).

3.5.1 Manual lever DN 15 and DN 20

Place the washer (22) on the packing follower (9).

Slide the lever (13) with ready-mounted jacketing (16) over the shaft (15) until it reaches the washer (22).

Fasten the lever using the cap (23) and screw (24).

To complete mounting the manual lever, screw the end stop (17) together with washer (21) into the bonnet.

3.5.2 Manual lever DN 25 to DN 50

Slide the lever (13) with ready-mounted jacketing (16) over the shaft (15) until it reaches the packing follower (9).

Fasten the lever using the nut (14).

To complete mounting the manual lever, screw the end stop (17) together with washer (21) into the bonnet.

3.5.3 Manual lever for DN 65 and higher

Slide the lever (13) with ready-mounted jacketing (16) over the shaft (15) until it reaches the packing follower (9).

Fasten the lever using the bolt (19) and nut (20).

To complete mounting the manual lever, screw the end stop (17) together with washer (21) into the bonnet.

Assembly of the ball valve is now completed.

4. Troubleshooting

Refer to section 7 of **Operating Instructions**

< **BA 26a-01_EN** > for pneumatic ball valves or

< **BA 26a-02_EN** > for manually operated ball valves.

5. Repair of the ball valve

5.1 Replacing the V-ring packing

If a leak is detected at the packing, the PTFE rings of the V-ring packing (8) may be defective. We recommend checking the condition of the packing.

To remove the packing, disassemble the valve in reverse order to that described in section 3. Check the PTFE rings of the packing and all plastic parts for damage. In case of doubt, replace the parts with new ones.

5.2 Replacing the sealing unit and ball

If the ball valve does not shut off tightly, the set of seat rings (4a and 4b) and the ball (5) may be defective. We recommend checking the condition of these components.

To remove the seat rings and the ball, disassemble the valve in reverse order to that described in section 3.

Check the seat rings and the ball as well as all plastic parts for damage. In case of doubt, replace the parts with new ones.

5.3 Further repair work

In case of severe damage, we recommend the repair work to be carried out by Pfeiffer.

6. Customer inquiries

Should you have any inquiries, please submit the following details:

1. Order number (embossed on the ball valve body)
2. Type, product number, nominal size, and version of the valve
3. Pressure and temperature of the process medium
4. Flow rate in m³/h
5. Installation sketch, if possible

For your special requirements please contact our technical sales department.

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