

Three-way Ball Valve, vertical version

Pfeiffer Type BR 26v

Pfeiffer
Chemie-Armaturenbau GmbH



Application

Tight-closing three-way ball valve made of stainless steel suitable for corrosive media, especially for high demands in chemical and pharmaceutical industries.

Nominal size	DN 15 to DN 100
Nominal pressure	PN 16/40
Temperatures	-10 to 200 °C

The control valve consists of a stainless steel three-way ball valve equipped with either a pneumatic rotary actuator, a manual gear or a lever. They are designed according to the modular principle and can be combined with various accessories.

Special features

- **BR 26v** - vertical version with "L" port
- Face-to-face dimensions according to EN 558-1 Series 1 (F1 acc. to DIN 3202)
- ISO bore, light-duty series
- Flanges for attachment of actuators acc. to DIN ISO 5211

The ball valves fitted with a pneumatic actuator can be equipped with positioners, solenoid valves as well as accessories according to VDI/VDE 3845.

Versions

Standard version · Pfeiffer Type BR 26v Ball Valve for nominal sizes DN 15 to 100, nominal pressure PN 16/40 available in the following versions:

- **BR 26v** · Ball valve with lever
- **BR 26v** · Ball valve with manual gear
- **BR 26v** · Ball valve with pneumatic rotary actuator, either with or without spring return mechanism (see corresponding data sheet for details)

Further versions

- Three-way ball valve in horizontal version with "L" or "T" port
- Four-way ball valve (optionally with double L-port ball)
- 5/4-way ball valve (DN 25 and larger)
- Set of metal seals (with HSB)
- Live-loaded set of seals
- Body with reduced number of cavities
- Shaft extension
- Air filter reducing stations
- Electric rotary actuator
- Sterile connection
- Heating jacket
- Rinsing connections
- High-temperature version
- Body made of other materials such as special austenite, duplex steels, Hastelloy, titanium on request

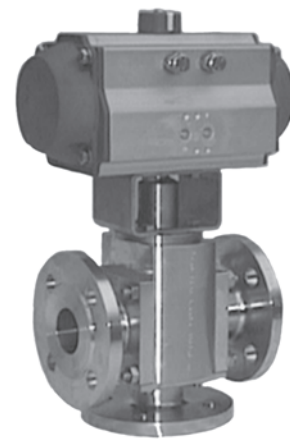


Fig. 1 · Vertical Type BR 26v Three-way Ball Valve

Principle of operation (Figs. 2 and 4)

The various passages horizontally and vertically through the valve result in the corresponding flow pattern.

Legend for Fig. 2

- 1 Body
- 2 Body flange
- 3 Outlet flange
- 4 Ball
- 5 Shaft
- 6 Packing flange
- 7 Seal unit
- 8/9 Body gasket
- 10/11 Bearing bushing
- 12 Set of spring washers
- 13 V-ring packing
- 14 Cheese-head screw
- 15/17 Stud bolt/hexagon head bolt
- 16 Hexagon nut

Pressure-temperature diagram

The range of application is determined by the course of the pressure-temperature diagram. The process data and the process medium itself can affect the values. Please contact us concerning operating data outside of the limits.

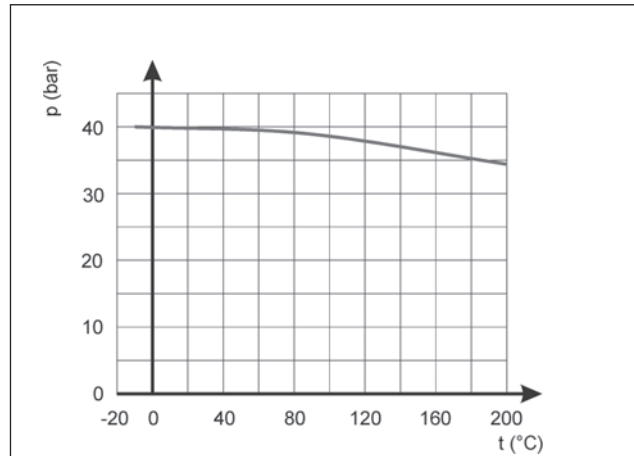


Fig. 3 · Pressure-temperature diagram

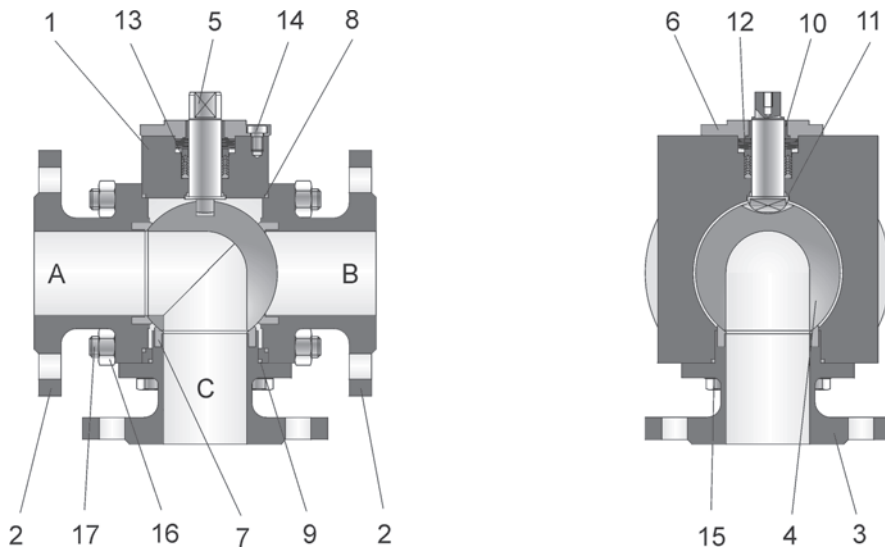


Fig. 2 · Vertical Type BR 26v Ball Valve with "L" port

Fig. 4 · Flow schematics of Type BR 26v Three-way Ball Valve with vertical "L" port



Table 1 · Technical data for Type BR 26v Ball Valve

Nominal size	DN	15 to 100
Nominal pressure	PN	16/40
End connection		Flanges acc. to DIN 2501 PN 16/40
Ball sealing		TFM
Shaft sealing		PTFE V-ring packing
Temperature range		-10 to 200 °C
Leakage acc. to DIN EN 12266-1		Test P12, leakage rate "A"

Table 2 · Materials

Body		1.4571
Ball		1.4408/1.4571
Shaft		1.4462
Seal rings		TFM (PTFE)
Packing		PTFE V-ring packing with spring washers made of spring steel 1.8159
Bearing bushing	Upper	PTFE with 25 % carbon
	Lower	PTFE with 25 % glass
Body gasket		PTFE white

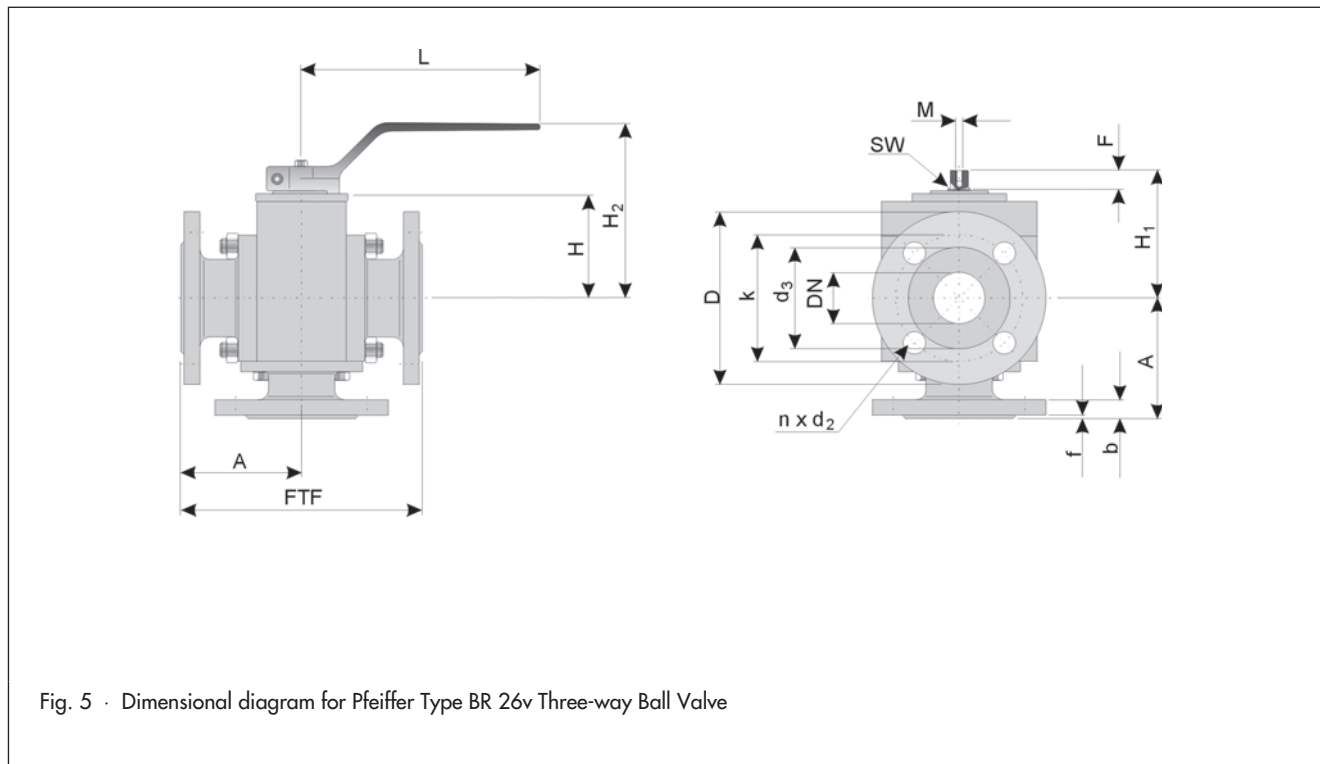
Table 3 · Max. permissible torque M_{Dmax} and required breakaway torque M_{DI} in Nm

The specified breakaway torques are average values which were measured at 20 °C without the corresponding pressure drops. Operating temperature, process medium as well as long operating times may affect the torques considerably. The specified torques apply to the materials used for the standard version as listed in Table 2.

Nominal size DN	Permissible torque M_{Dmax}	Required breakaway torque M_{DI}
15	32	12
25	125	30
40	250	50
50	250	70
80	500	120
100	500	200

Table 4 · Dimensions in mm and weights

Nom. size	DN	15	25	40	50	80	100		
Nom. press.	PN	40					16	40	
FTF		130	160	200	230	310	350	350	
A		65	80	100	115	155	175	175	
D		95	115	150	165	200	220	235	
b		16	18	18	20	24	20	24	
k		65	85	110	125	160	180	190	
n x d2		4 x 14	4 x 14	4 x 18	4 x 18	8 x 18	8 x 18	8 x 22	
d3		45	68	88	102	138	158	162	
f		2	2	3	3	3	3	3	
H		47.5	60	90	100	136	156	156	
H1		61	79	112	122	162	182	182	
F		9	14	17	17	19	19	19	
M		M5	M6	M6	M6	M8	M8	M8	
H2		101	112.5	151.5	161.5	187.5	195.5	195.5	
L		151	155	207	207	350	350	350	



Selecting and sizing the ball valve

1. Calculate the required nominal size.
2. Determine which flow schematic is required
3. Select valve from Tables 1 and 2
4. Select the actuator
5. Select accessories

Ordering text

Three-way ball valve	BR 26v
Nominal size	DN
Nominal pressure	PN
Rotary actuator	Type
Signal pressure bar
Fail-safe position
Accessories	Positioner and/or limit switches, solenoid valve

Specifications subject to change without notice.

