



PROFACTOR[®]
DER DEUTSCHE QUALITÄTSSTANDARD

EN

TECHNICAL DATA SHEET AND USER MANUAL

PRODUCT CODE

PF FBV 282
PF FBV 283
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**BALL VALVE
"STRONG"**

1. PURPOSE AND SCOPE

The PROFACTOR® STRONG ball valve is used as shut-off equipment on pipelines for drinking water, domestic, and industrial applications, hot water supply, heating, compressed air, liquid hydrocarbons, as well as on process pipelines conveying fluids that are non-corrosive to the valve materials.

PROFACTOR® STRONG valves are designed for installation in plumbing systems requiring the highest category of reliability: high-rise buildings, main pipelines with elevated nominal pressure, and special-purpose facilities.

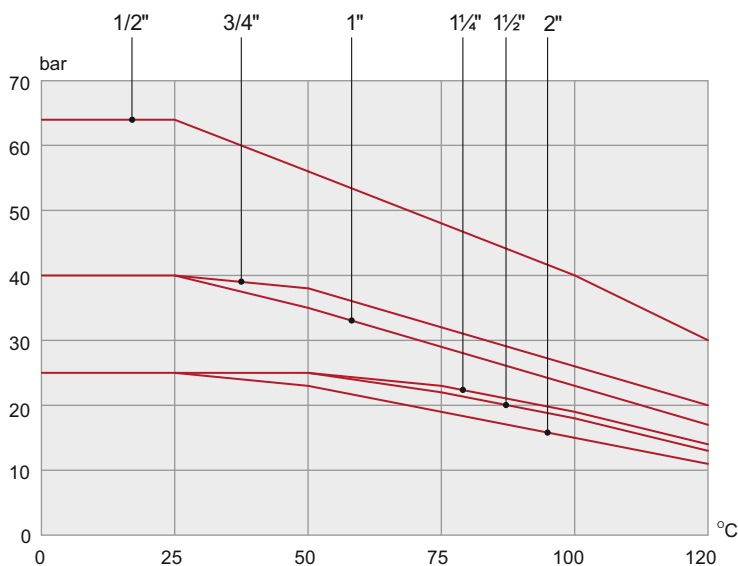
2. TECHNICAL SPECIFICATIONS

Table 1

Parameter	Value	Standard
Nominal Size (DN), mm	DN15 – DN50	ISO 6708
Connection Thread (G)	1/2" – 2"	ISO 228/1, DIN 259
Nominal Pressure (PN), bar	25 – 64 (see Table 3)	—
Operating Temperature, °C	–30°C to +120°C (see chart)	—
Seat Tightness Class	"A"	—
Effective Diameter Ratio (Valve Bore to Pipe Bore), %	>95 Full bore valve	—
Average Service Life, cycles	40 000	—
Repairability	Repairable	IEC 60050 (191):1990-12, NEQ
Average Service Life, years	40	—

The valves are in an accordance with DIN EN 13828.

Chart of Maximum Working Pressure vs. Temperature:



3. DESIGN

The valve body is made of two nickel-plated brass parts (1) and (2), connected by a thread secured with an anaerobic polymer adhesive that has WRAS approval (approved for contact with potable water).

The valve's shut-off mechanism consists of a chrome-plated brass ball (4), actuated by a vertical nickel-plated brass stem (5). The seal seats use PTFE rings (3).

The valve stem is non-rising, as it is inserted from inside the body (1) and features a positive stop shoulder. A PTFE stem packing (6), tightened by a nickel-plated threaded gland (7), ensures stem sealing.

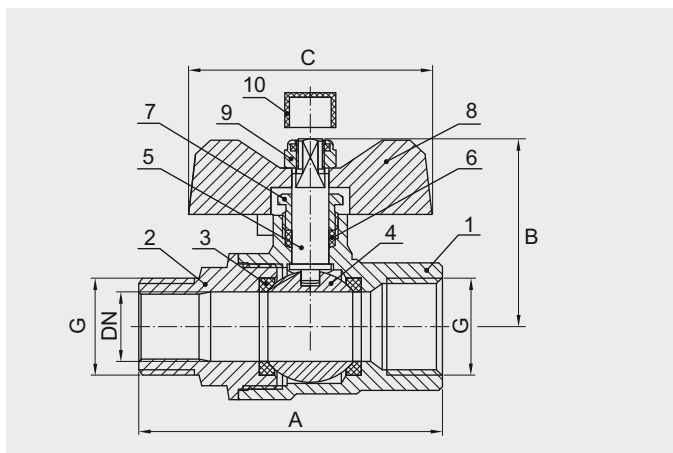
The handle (8) is attached to the stem using a self-locking nut (9) with a nylon insert and has a special provision for sealing/tamper-proofing. A blue or red silicone cap (10) is placed over the nut.

The lever handle is nickel-plated steel with a PVC coating; the wing handle is aluminum with a paint coating.

Flow shut-off is achieved by turning the handle 90° clockwise. For better grip of the thread sealing material during installation, the external connecting thread of the valve has knurling.

A design feature of the valve is the presence of special thickened sections on the body at points of increased mechanical stress, which ensures the integrity of the product during installation and operation.

Ball Valve "STRONG", F/M, Butterfly Handle



Ball Valve "STRONG", F/F, Lever Handle

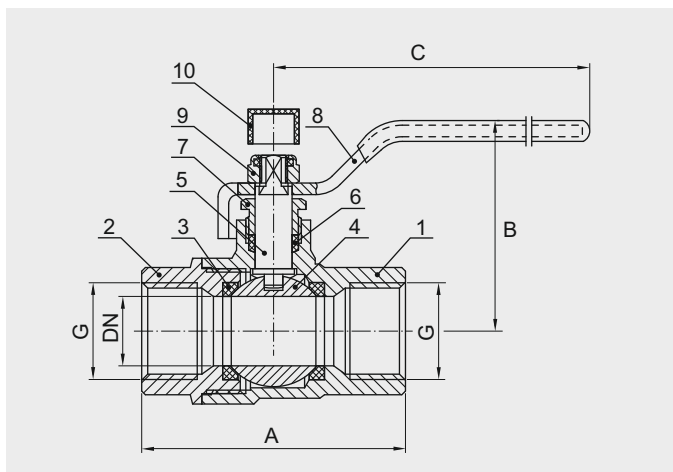


Table 2

Pos.	Name	Material	Standard
1	Body	Brass CW617N	DIN EN 12165
2	Body Insert	BrassCW617N	DIN EN 12165
3	Ball Seat Rings (O-rings)	PTFE	FDA21 CFR177.1550
4	Ball	Brass CW614N	DIN EN 12165
5	Stem	Brass CW614N	DIN EN 12165
6	Stem Packing	PTFE	FDA21 CFR177.1550
7	Gland Nut	Brass CW614N	DIN EN 12165
8	Lever Handle / Wing Handle	Steel S235JR / Aluminum Al	DIN EN 10025/ DIN EN 1676
9	Handle Nut	Stainless Steel AISI 304	DIN 985, ISO 10511
10	Colored Cap	Silicone Rubber	—

4. NOMENCLATURE AND DIMENSIONS

Ball Valve "STRONG", F/F, Butterfly Handle

Table 3.1

Product Code	DN	G	PN, bar	A, mm	B, mm	C, mm	Weight, g
PF FBV 282	15	1/2"	64	57	40,5	52,5	212
PF FBV 283	20	3/4"	40	66	50,5	63	335
PF FBV 284	25	1"	40	79	54	63	535

Ball Valve "STRONG", F/M, Butterfly Handle

Table 3.2

Product Code	DN	G	PN, bar	A, mm	B, mm	C, mm	Weight, g
PF FBV 285	15	1/2"	64	65,5	40,5	52,5	224
PF FBV 286	20	3/4"	40	74,5	50,5	63	350
PF FBV 287	25	1"	40	89,8	54	63	572

Ball Valve "STRONG", F/F, Lever Handle

Table 3.3

Product Code	DN	G	PN, bar	A, mm	B, mm	C, mm	Weight, g
PF FBV 288	15	1/2"	64	57	45,5	87,5	234
PF FBV 289	20	3/4"	40	66	54	104	364
PF FBV 290	25	1"	40	79	57,5	104	570
PF FBV 291	32	1¼"	25	88	70	136	785
PF FBV 292	40	1½"	25	100	77	150	1110
PF FBV 293	50	2"	25	115	85	150	1780

Ball Valve "STRONG", F/M, Lever Handle

Table 3.4

Product Code	DN	G	PN, bar	A, mm	B, mm	C, mm	Weight, g
PF FBV 294	15	1/2"	64	65,5	45,5	87,5	245
PF FBV 295	20	3/4"	40	74,5	54	104	380
PF FBV 296	25	1"	40	89,8	57,5	104	600
PF FBV 297	32	1¼"	25	95	70	136	840
PF FBV 298	40	1½"	25	109	77	150	1165
PF FBV 299	50	2"	25	125	85	150	1920

5. INSTALLATION INSTRUCTIONS

The valve may be installed in any orientation. The valve must not be subjected to loads from the pipeline (bending, compression, tension, torsion, misalignment, vibration, pipe misalignment, uneven tightening of fasteners). If necessary, supports or compensators must be provided to reduce the load on the valve from the pipeline.

The misalignment of the connected pipelines must not exceed 3 mm for lengths up to 1 m, plus 1 mm for each subsequent meter.

Sealing of threaded connections must be performed using PTFE-tape (fluoropolymer sealing material — polytetrafluoroethylene), polyamide thread with silicone, flax with special pastes, or other sealing materials that ensure joint tightness at the design temperature and pressure of the working medium, and which are approved for use according to established procedures.

After installation, sanitary system assemblies must be tested for leaks. They must be subjected to hydrostatic (hydraulic) or bubble (pneumatic) testing.

6. OPERATION AND MAINTENANCE

The valve must be operated without exceeding the pressure and temperature specified in p. 2. Operating the valve with a loose handle attachment nut is not permitted, as this may damage the stem end.

Using the valve in media containing abrasive components is not recommended, as this may shorten its service life. Therefore, if the valve is used in systems conveying media with a high content of mechanical impurities, the installation of additional filtering equipment upstream is required.

For proper long-term operation, it is recommended to operate (open/close) the valve once a month as a preventive measure.

If a minor leak occurs from the stem seal under the handle during operation, the handle must be removed, and the gland packing nut must be tightened until the leak stops.

7. WARRANTY OBLIGATIONS

The warranty period is 120 months (10 years) from the date of sale to the end consumer. Throughout the entire warranty period, the manufacturer guarantees the proper functioning of the product and its compliance with safety requirements, provided that the consumer follows the rules for storage, transportation, installation, operation, and maintenance of the product. The warranty covers all defects arising through the manufacturer's fault.

The warranty does not cover defects resulting from:

- Violation of storage, transportation, installation, operation, or maintenance conditions;
- Exposure to substances aggressive to the materials of the product;
- Signs of mechanical damage;
- Damage caused by fire, natural disasters, or other force majeure circumstances;
- Damage caused by improper actions of the user;
- Evidence of unauthorized interference with the product design.

The product described in this technical manual is a technically complex device that must be installed by a qualified specialist with appropriate experience working with this type of equipment.

Installation and commissioning must be carried out by an authorized and certified company.

Profactor Armaturen GmbH reserves the right to make changes to the product design that do not affect its technical characteristics or functional features.



INTERNATIONAL WARRANTY CARD

NAME OF THE PRODUCT

PRODUCT CODE, SIZE

QUANTITY

SELLER NAME AND ADDRESS

DATE OF PURCHASE

SELLER STAMP

SELLER SIGNATURE

For the warranty term refer to the Warranty obligation clause in the technical manual

FOLD LINE

FOLD LINE

In case of any claims to the product quality the following documents should be submitted:

1. Application with customer and product details:

- Name of the customer, actual address and phone number
- Article of the product
- Reason for the claim and photo
- Plumbing system where installed (name, address, phone number)

2. Invoice copy and receipt

3. Warranty card

RETURN/EXCHANGE COMMENTS

DATE

SIGNATURE



Profactor Armaturen GmbH

Ruffinallee 9, c/o Kanzlei Antegra, 82166 Gräfelfing, Germany;
Tel.: +49 89 21546092; info@pf-armaturen.de; www.profactor.de