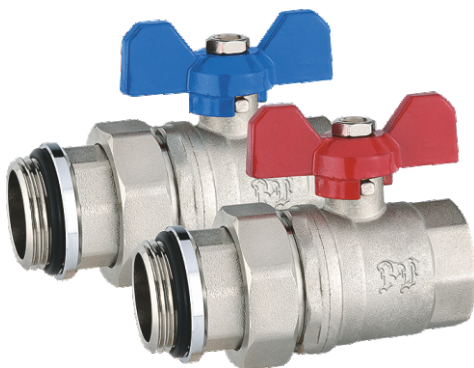




PROFACTOR®
DER DEUTSCHE QUALITÄTSSTANDARD

EN

TECHNICAL DATA SHEET AND USER MANUAL



PRODUCT CODE

PF MB 847.20
PF MB 847.25
PF MB 847.32

**BALL VALVE WITH UNION
FOR MANIFOLD GROUPS**

1. PURPOSE AND SCOPE

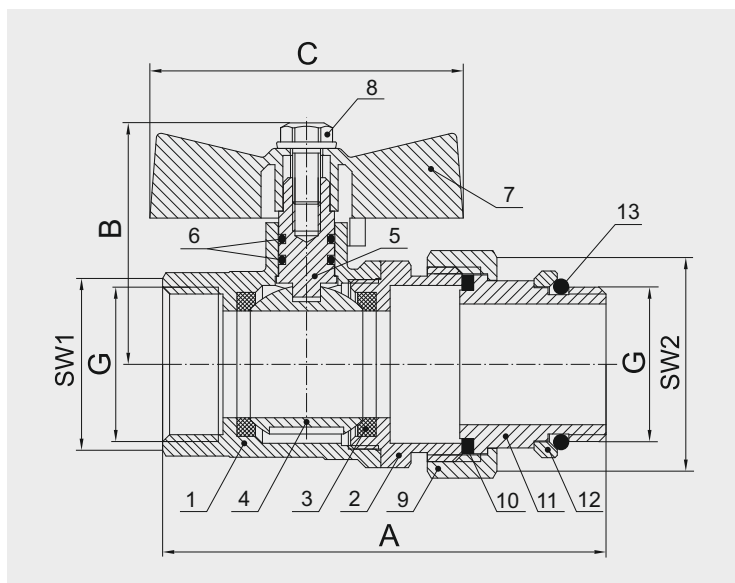
The ball valve is used as a shut-off device in pipelines for potable, domestic, and industrial applications, including hot water supply, heating systems, compressed air, liquid hydrocarbons, and other technological pipelines carrying liquids non-aggressive to the valve materials.

The ball valve with union for manifold groups enables the creation of easily detachable connections in plumbing and pipeline systems. The O-ring seal of the union end ensures a leak-tight connection between the valve and the pipeline. Each set is supplied with two valves: one with a red handle and one with a blue handle.

2. TECHNICAL SPECIFICATIONS

Product Code	PF MB	847.20	847.25	847.32
Nominal size	DN	20	25	32
	G	3/4"	1"	1¼"
Nominal pressure, PN	bar	20	25	
Operating medium temperature	°C	−20 °C to +120 °C		
Valve tightness class	—	“A”		
A	mm	97	96	113
B	mm	47,5	52,5	61
C	mm	69	67,5	75
Wrench size Sw1	mm	30	37	47
Wrench size Sw2	mm	38	46	52
Weight	g	393	516	832
Average service life	cycles	30 000		
Average operating life	years	30		

3. DESIGN



- | | |
|------------------------|---------------------|
| 1 – Body | 8 – Fixing screw |
| 2 – Body bushing | 9 – Union nut |
| 3 – Ball seat rings | 10 – Union gasket |
| 4 – Ball | 11 – Union |
| 5 – Stem | 12 – Retaining ring |
| 6 – Stem sealing rings | 13 – Union O-ring |
| 7 – Butterfly handle | |

The body (1) is a tube with an internal cylindrical connection thread 1" on one end, an internal metric thread on the other end for screwing in the body bushing (2), and a lateral top outlet for the valve stem (5). The connection between the body (1) and the bushing (2) is secured using a polymer anaerobic adhesive approved for use in potable water systems (WRAS-certified).

The nickel-plated brass union (11) is connected to the body bushing by means of a nickel-plated brass union nut (9). The union gasket (10) ensures a tight seal of the connection. The retaining ring (12) and O-ring (13) provide sealing between the valve union end and the pipeline. This type of connection does not require any additional sealing materials.

A valve of this design forms an easily detachable assembly, which is highly convenient for installation and maintenance.

The valve body (1), body bushing (2), union nut (9), and union (11) are made of brass CW617N (according to European standard DIN EN 12165:2011), with nickel-plated surfaces.

The shut-off mechanism consists of a chrome-plated brass ball (4) actuated by a vertical brass stem (5) and sealed with PTFE ball seats (3). The ball seat rings (3) are made of high-temperature-resistant fluoroplastic (PTFE — polytetrafluoroethylene). The stem sealing is ensured by two O-rings (6).

The non-blowout stem is inserted from inside the valve body (1) and secured by a retaining flange. The ball (4), stem (5), and retaining ring (12) are made of brass CW614N (DIN EN 12165:2011). The ball has a chrome-plated surface, and the retaining ring is nickel-plated.

A butterfly handle (7) made of aluminum with a painted coating (DIN EN 1676:2010) is attached to the stem with a fixing screw (8) made of structural steel S235JR (DIN EN 10025-2005).

The sealing elements (6, 10, 13) are made of ethylene propylene rubber (EPDM).

All cylindrical pipe threads are in an accordance with ISO 228-1:2000, DIN 259, and all metric threads are in an accordance with ISO 261:1998.

4. OPERATING PRINCIPLE

Flow shut-off is performed by turning the handle 90° clockwise.

5. INSTALLATION INSTRUCTIONS

The valve can be installed in any mounting position. The valve must not be subjected to loads from the pipeline such as bending, compression, tension, torsion, misalignment, vibration, or uneven tightening. If necessary, supports or compensators must be installed to reduce the load on the valve from the pipeline.

The misalignment of connected pipelines must not exceed 3 mm per meter of length, plus 1 mm for each additional meter.

For thread sealing, use PTFE-tape, polyamide thread with silicone, flax with special sealing pastes, or other approved sealing materials that ensure tightness under the design temperature and working pressure of the medium.

After installation, all plumbing system components must be tested for tightness. They should undergo testing using either the hydrostatic (hydraulic) or bubble (pneumatic) method.

6. OPERATING AND MAINTENANCE

The valve must be operated within the pressure and temperature limits specified in the Technical Specifications table. Operation with a loosened handle fixing screw is not permitted, as this may damage the stem end.

The valve is not recommended for use in media containing abrasive components, as this may significantly reduce service life. Therefore, when operating the valve in systems transporting media with a high content of mechanical impurities, it is necessary to install additional filtration equipment upstream of the valve.

To ensure long-term reliable operation, it is recommended to open and close the valve once a month for preventive maintenance.

7. WARRANTY OBLIGATIONS

The warranty period is 24 months 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



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