Range 41
PRESS FITTING CONNECTORS

Press Fitting Connectors

Model 41153 3-part PN16 female/female valve for press fitting - M-profile - 316 stainless steel

Specifications

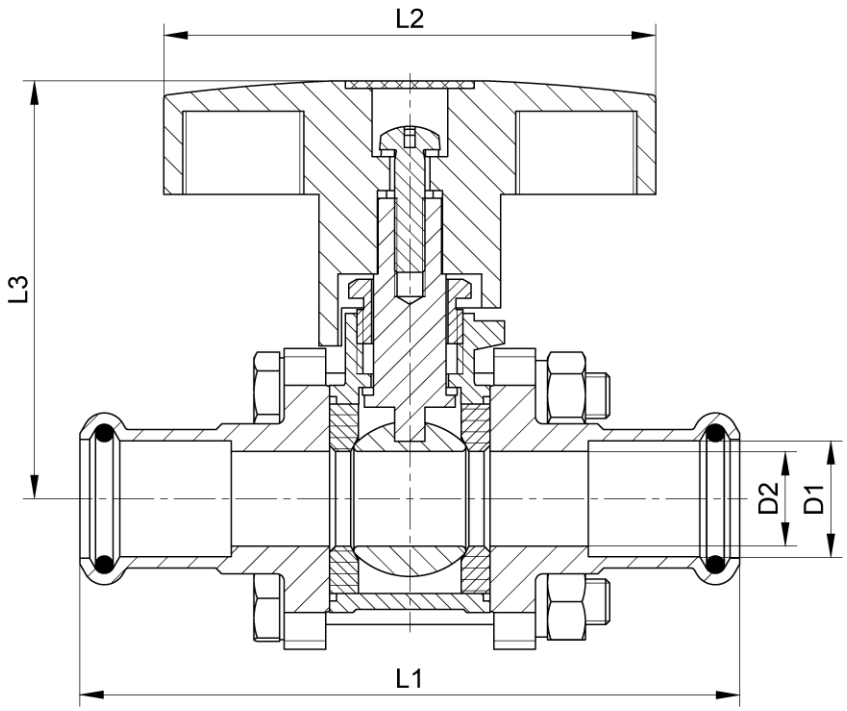
Dimensions: Ø15 to Ø76.1
Connection: For press fitting - M-profile
Operating pressure: -0.95 to 16 bar
Temperature: -20°C to +120°C (standard)
Material: 316 or CF8M stainless steel
PTFE gaskets (valve)
EPDM ACS gaskets (connections)

ISO 9001 BUREAU VERITAS Certification

CE

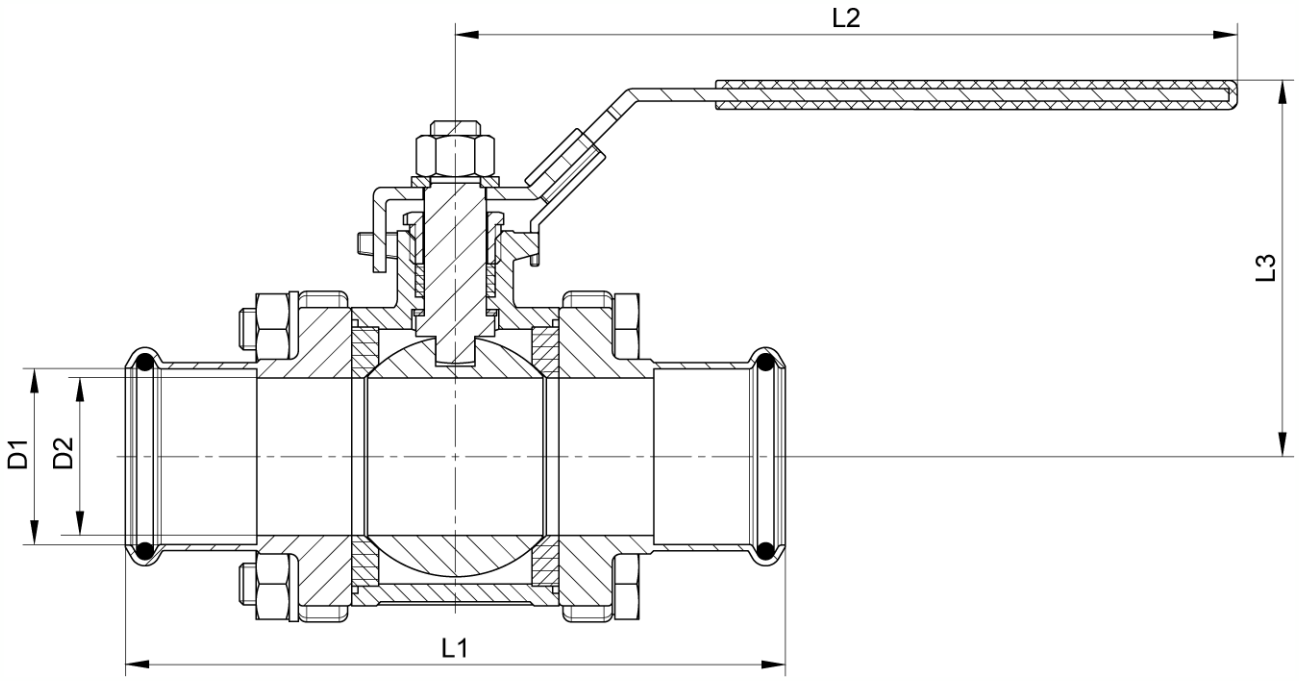
Béné Inox – 11 chemin de la Pierre Blanche – 69800 SAINT-PRIEST – S.A.S with 240 000 € share capital – SIREN N° 311 810 287
Tel. N°: +33 (0)4 78 90 48 22 – Fax N°: +33 (0)4 78 90 69 59 – www.bene-inox.com – bene@bene-inox.com

Ø15 to Ø28



Ø (mm)	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Weight (kg)	Part number
15	15,2	12,5	103	65	54,2	0.40	**641153-15**
18	18,2	15,0	106	65	55,7	0.54	**641153-18**
22	22,2	20,0	118	65	63	0.64	**641153-22**
28	28,2	25,0	135	65	70	0.98	**641153-28**

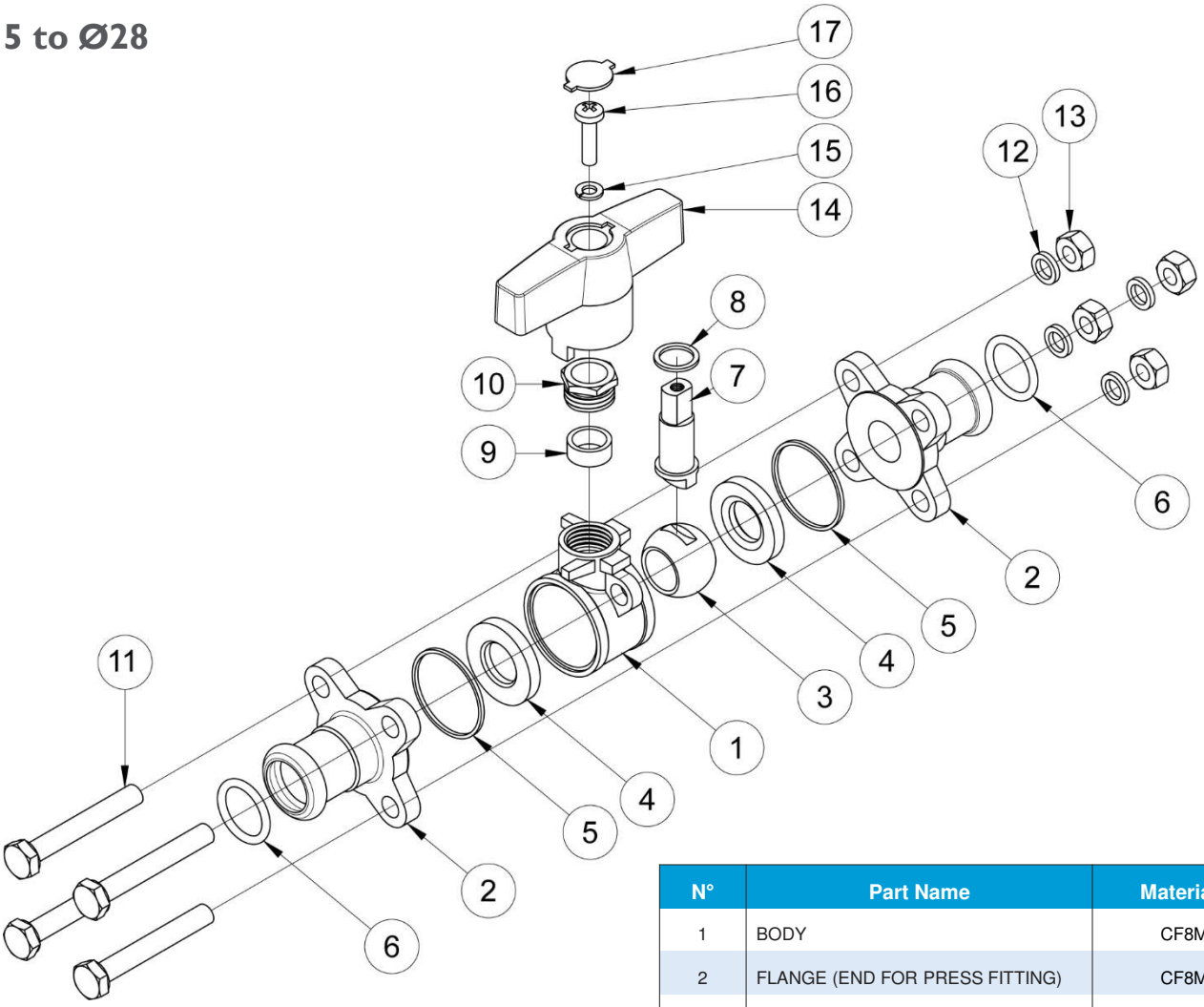
Ø35 to Ø76



Ø (mm)	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Weight (kg)	Part number
35	35,3	32,0	150	144	81,5	1.78	**641153-35**
42	42,3	38,0	168	189	94,5	2.90	**641153-42**
54	54,4	50,0	200	189	102	4.48	**641153-54**
76	76,7	65	273	223	119	7.35	**641153-76**

Béné Inox – 11 chemin de la Pierre Blanche – 69800 SAINT-PRIEST – S.A.S with 240 000 € share capital – SIREN N° 311 810 287
Tel. N°: +33 (0)4 78 90 48 22 – Fax N°: +33 (0)4 78 90 69 59 – www.bene-inox.com – bene@bene-inox.com

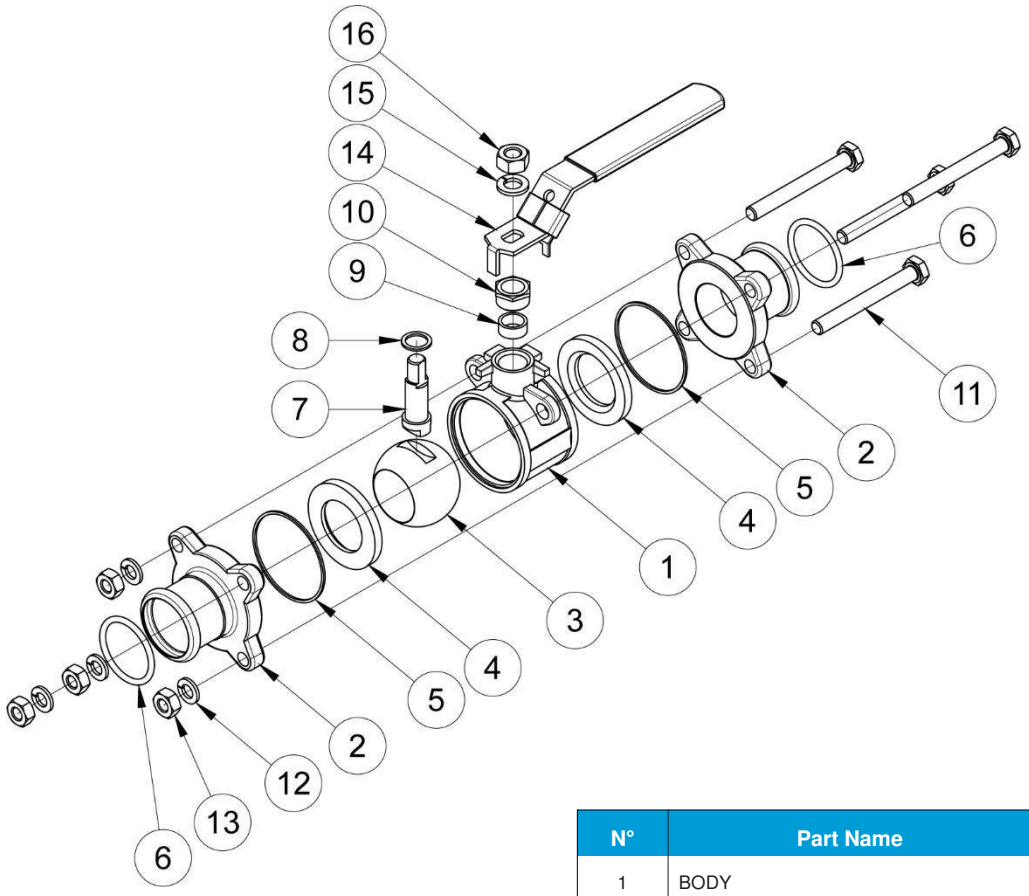
Ø15 to Ø28



N°	Part Name	Material
1	BODY	CF8M
2	FLANGE (END FOR PRESS FITTING)	CF8M
3	BALL	AISI 316
4	SEAT	PTFE
5	BODY GASKET	PTFE
6	FLANGE END O-RING	EPDM
7	SHAFT	316
8	FLAT SHAFT GASKET	PTFE
9	SHAFT PACKING	PTFE
10	SHAFT NUT (GLAND)	AISI 304
11	BOLT (TIE ROD)	AISI 304
12	WASHER (TIE ROD)	AISI 304
13	NUT (TIE ROD)	AISI 304
14	HANDLE	AISI 304
15	WASHER (HANDLE)	AISI 304
16	BOLT (HANDLE)	AISI 304
17	BOLT COVER	PLASTIC

Béné Inox – 11 chemin de la Pierre Blanche – 69800 SAINT-PRIEST – S.A.S with 240 000 € share capital – SIREN N° 311 810 287
Tel. N°: +33 (0)4 78 90 48 22 – Fax N°: +33 (0)4 78 90 69 59 – www.bene-inox.com – bene@bene-inox.com

Ø35 to Ø76



N°	Part Name	Material
1	BODY	CF8M
2	FLANGE (END FOR PRESS FITTING)	CF8M
3	BALL	AISI 316
4	SEAT	PTFE
5	BODY GASKET	PTFE
6	FLANGE END O-RING	EPDM
7	SHAFT	316
8	FLAT SHAFT GASKET	PTFE
9	SHAFT PACKING	PTFE
10	SHAFT NUT (GLAND)	AISI 304
11	BOLT (TIE ROD)	AISI 304
12	WASHER (TIE ROD)	AISI 304
13	NUT (TIE ROD)	AISI 304
14	HANDLE WITH LOCKING DEVICE	AISI 304
15	WASHER (HANDLE)	AISI 304
16	NUT (HANDLE)	AISI 304

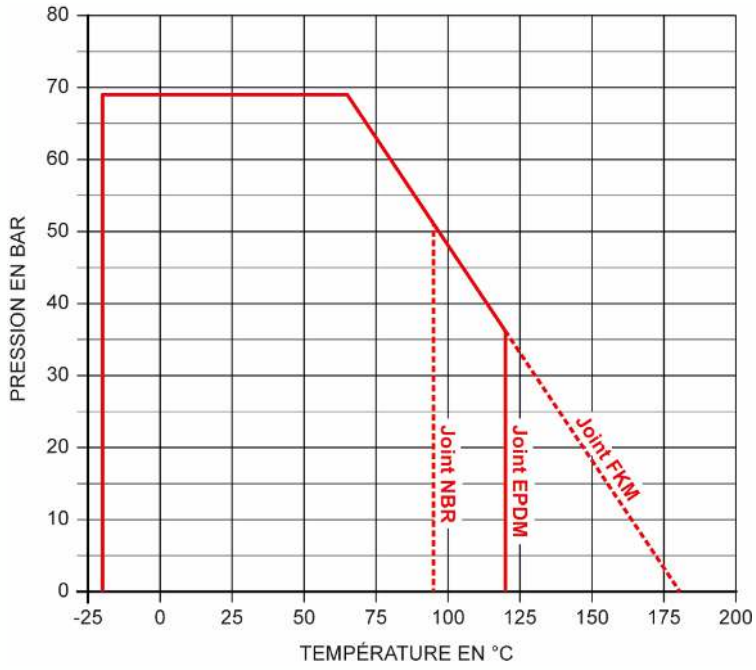
Use

This valve is a full bore shut-off valve: it must be either fully open or fully closed.
Do not leave the valve partially open: an opening default, or leaving the ball valve partially open to decrease flow, could lead to cavitation which is likely to damage the valve.

Turn the valve's handle **14** 1/4 turn (90°) clockwise, until it cannot be turned any further, to close it or 1/4 turn (90°) anti-clockwise to open it. For valves with a diameter of Ø35 and above you will need to lift the locking device to be able to turn the valve's handle. You can use a padlock on the locking device to safely block the valve in one position.
The valve is open if the handle is in line with the piping.

Pressure and temperature

For pressure/temperature ratings, see the graph below.



Warning: If the valve is used with fluids that have a temperature above 60°C then people could burn themselves if they touch it.
The maximum operating temperature of the valve depends on its connection gaskets:
- EPDM: Tmax = +120°C (model **41161** assembled as standard)
- FKM: Tmax = +180°C (model **41162**)
- NBR: Tmax = +95°C (model **41163**)

Fluids

This valve is suitable for non-abrasive and non-coagulable fluids, as long as the fluids are chemically compatible with the valve parts that they can come into contact with.

Assembly and maintenance instructions

Installation

You can install the valve in any position. However, check that there is enough space to move the valve's handle where you are planning to install the valve.
Check that the installation is clean and free from foreign bodies that could damage the valve.

Check that all piping is perfectly aligned and that the piping support structure is dimensioned so that the valve is not subject to any external stresses. The piping support structure must only support the pipes, not the valve.

How to install a valve with ends for press fitting:
Please read our online documentation about the press fitting process as well as our technical documentation for installers.
Use an M-profile pressing collar with a press fitting tool with a force of at least 32kN.
We only guarantee press fittings which have been made using press fitting tools that we sell or rent.

Clean the installation leaving the valve open so that there are no foreign bodies between the ball and the body.
Check the valve is operating correctly.

Pressure test the installation according to the relevant standards (e.g. EN 12266-1), but do not exceed the valve's specifications.

Maintenance

The valve does not require any specific maintenance if it is used in normal operating conditions.

If the valve is never opened or closed during normal operation then you should regularly open and close the valve to check that it is still working correctly.

If any leaks appear around the shaft **7**, during operation (or during the valve installation testing phase), tighten the shaft nut **10**. You can usually stop leaks by tightening the nut by 30 to 60°. But you must not over tighten the nut, as this could reduce the system's service life.

If there is a leak between the valve's body **1** and the flanges **2**, check that the tie rods are correctly tightened (bolt **11** + washer **12** + nut **13**).

You may need to change some of the valve's parts due to unusual wear and tear, or if a fluid has damaged the valve and caused a leak or malfunction.
If this is the case see the "Assembly / Disassembly" section below.

Assembly / Disassembly

The maintenance and removal/installation of the valve must be carried out by personnel who are qualified and trained for this type of intervention.

Warning: Before you work on the valve, check that the installation has been stopped and that the piping is empty and is not pressurised.
Warning: If the valve is used with fluids that have a temperature above 60°C then people could burn themselves if they touch it.
Warning: Beware of hazardous materials - follow the instructions provided by the suppliers.

Remove the tie rods (bolt **11** + washer **12** + nut **13**). You should work with the valve in the open position.

Remove the central part of the valve **1**; you can keep the flanges **2** attached to the piping.

Remove the 2 PTFE seat rings **4** and the 2 PTFE body gaskets **5**.

Close the valve to remove the ball **3**. Check the condition of the ball's surface **3**. You must replace it at the same time as the two seat rings **4** and the PTFE gaskets **5** if it is scratched or damaged.

If you need to replace the shaft's **7** packing, remove the parts from the upper part of the valve in the following order:
- Remove the bolt cover **17** (for valves from Ø15 to Ø28 only).
- Unscrew and remove the handle bolt **16** (for valves up to Ø28) or the handle nut **16** (for valves from Ø35), then remove the washer **15** from the handle.
- Remove the handle **14**.
- Unscrew the shaft nut **10**.

Push the shaft **7** towards the inside of the valve's body **1** in order to remove it and remove the flat shaft gasket **8** (be careful you do not scratch the shaft).
Remove the PTFE packing **9** from it's housing in the valve's body (be careful you do not scratch the surface of this housing).

Clean and inspect all of the parts of the valve. Replace any worn parts. You are strongly advised to replace all the shaft's sealing parts (gasket **8** and PTFE packing **9**) if it has been disassembled, as well as the valve body's seats and PTFE gaskets (**4** and **5**).

Follow the disassembly steps in reverse to reassemble the valve. Make sure you correctly reassemble all of the sealing parts.

You must tighten the tie rods in a criss-cross pattern, with the valve's ball in the open position,

Pressure test the valve and check that it can be opened and closed before you put the installation back into service.

Standards and compliance

- EPDM gaskets comply with ACS certification.
- PTFE gaskets comply with FDA certification.
- This valve complies with European Pressure Equipment Directive (PED) 2014/68/EU (formerly 97/23/EC)
- Leak testing according to EN 12266 / API 598