

# SMS Ball valves

**Model 61376** 3-way ball valve with T-shaped bore, ISO mounting plate, male ends - 304 or 316L stainless steel



## Specifications

**Dimensions:** DN25 to DN104 (1" à 4")

**Connections :** SMS thread in accordance with DIN 405

### Operating pressure:

- PN63 from DN25 to DN38
- PN40 from DN51 to DN76
- PN16 for DN104

**Temperature:** -20°C to +150°C

**Material:** 304 or 316L stainless steel

PTFE gaskets as standard

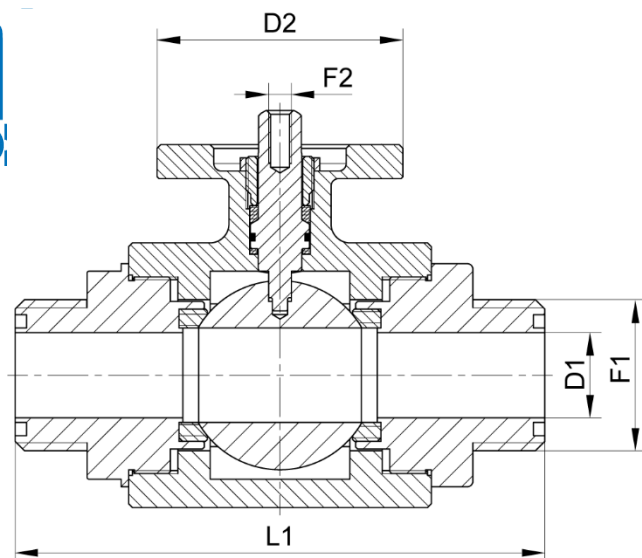
ISO 9001

BUREAU VERITAS  
Certification

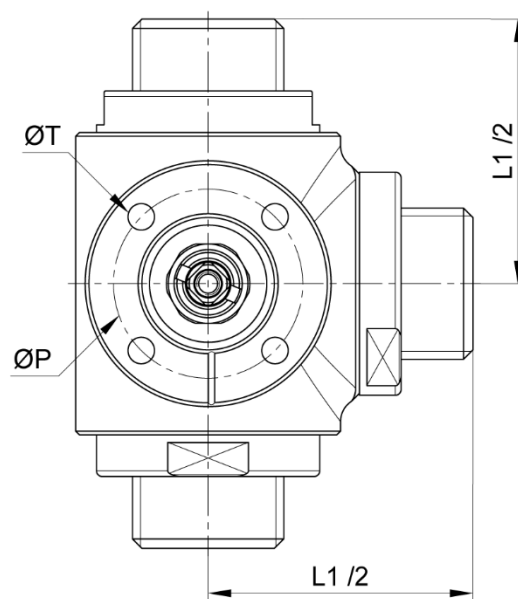
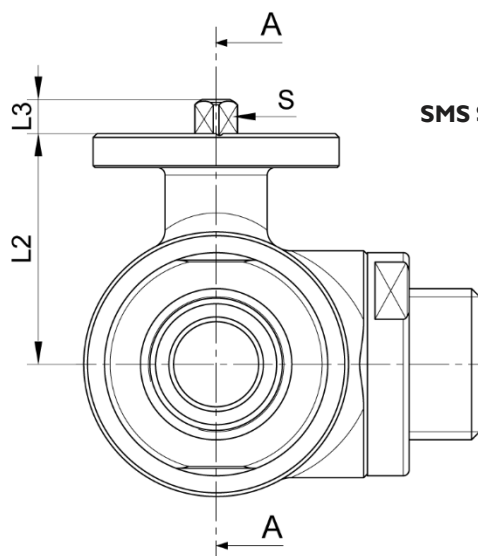


**Béné Inox** – 11 chemin de la Pierre Blanche – 69800 SAINT-PRIEST – S.A.S with 240 000 € share capital – SIREN N° 311 810 287 Tel. N°: +33 (0)4 78 90 48 22 – Fax N°: +33 (0)4 78 90 69 59 – [www.bene-inox.com](http://www.bene-inox.com) – [bene@bene-inox.com](mailto:bene@bene-inox.com)

Technical information, illustrations and photographs are provided for information only, they are not contractual. Some may vary according to the tolerances accepted in the profession and the applicable standards. All instructions for use, disassembly and maintenance are recommendations only. These could also vary depending on product usage conditions, its installation environment and purchaser requirements – of which the purchaser alone is responsible for their definition.



**A-A CROSS SECTION**

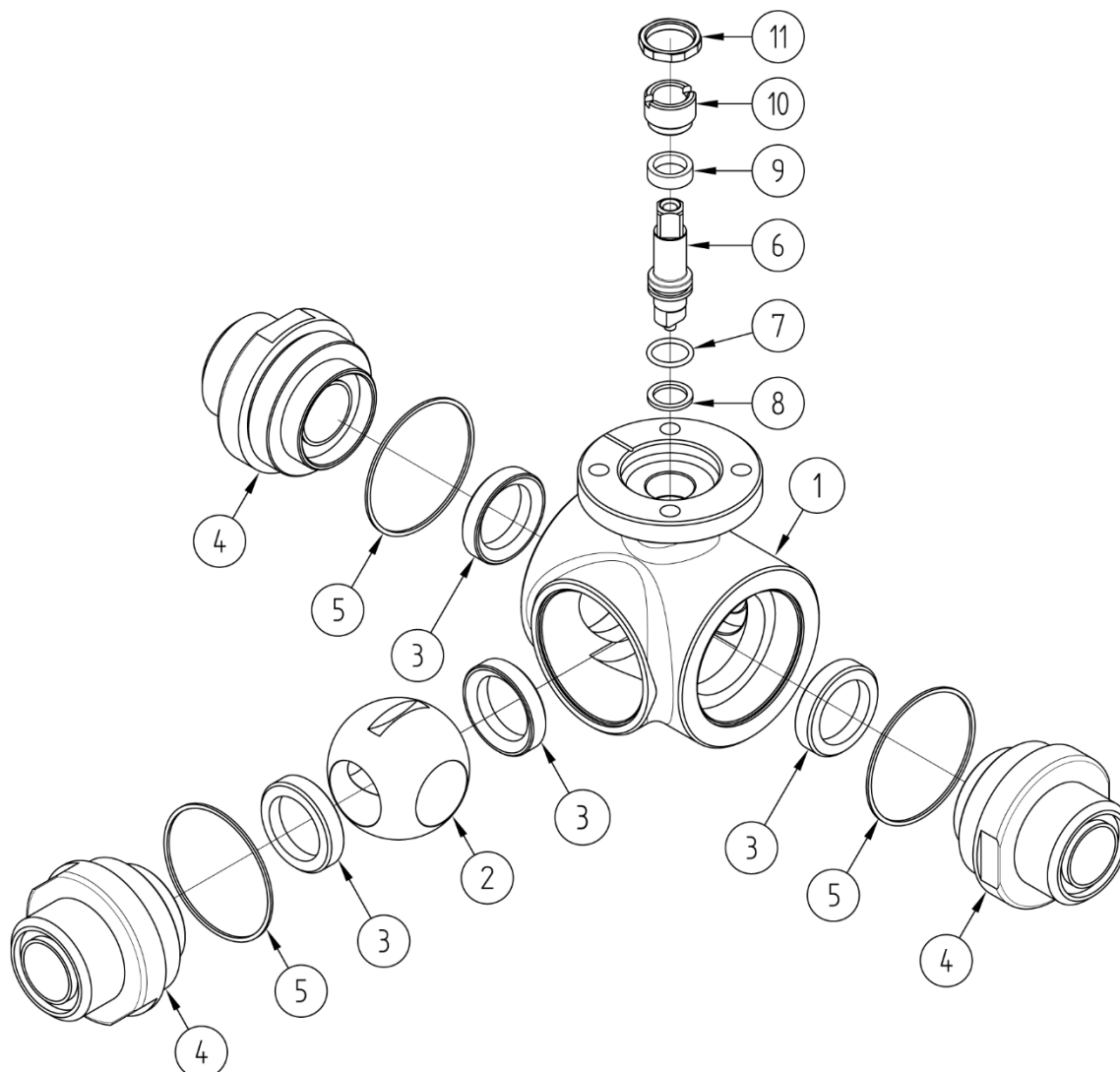


DN (mm)	NB (inches)	D1 (mm)	D2 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	F1 (mm)	F2 (mm)	S (mm)	ØT (mm)	ØP (mm)
25	1"	22.5	65	140	61.0	13	40x1/6"	M6	14x14	7	50
38	1 1/2"	35.5	65	172	89.0	13	60x1/6"	M6	14x14	7	50
51	2"	48.5	90	182	91.5	15	70x1/6"	M8	17x17	9	70
63	2 1/2"	60.5	90	196	101.5	15	85x1/6"	M8	17x17	9	70
76	3"	72.9	90	256	116.0	15	98x1/6"	M8	17x17	9	70
104	4"	100.0	125	286	131.0	18	125x1/4"	M10	22x22	11	102

DN (mm)	NB (inches)	Weight (kg)	Part number SS 304	Part number SS 316L
25	1"	3.15	261376-25	661376-25
38	1 1/2"	7.59	261376-38	661376-38
51	2"	9.10	261376-51	661376-51
63	2 1/2"	11.00	261376-63	661376-63
76	3"	22.63	261376-76	661376-76
104	4"	35.36	261376-104	661376-104

**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](http://www.bene-inox.com) – [bene@bene-inox.com](mailto:bene@bene-inox.com)

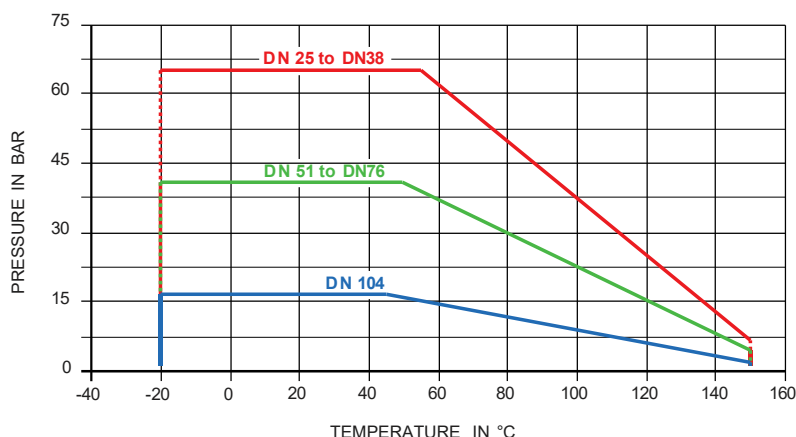
Technical information, illustrations and photographs are provided for information only, they are not contractual. Some may vary according to the tolerances accepted in the profession and the applicable standards. All instructions for use, disassembly and maintenance are recommendations only. These could also vary depending on product usage conditions, its installation environment and purchaser requirements – of which the purchaser alone is responsible for their definition.



N°	Part Name	Material
1	BODY	AISI 304 / AISI 316L
2	BALL	AISI 304 / AISI 316L
3	SEAT	PTFE
4	MALE END FLANGE	AISI 304 / AISI 316L
5	GASKET (FLANGE/BODY )	PTFE
6	SHAFT	AISI 304 / AISI 316L
7	GASKET (SHAFT/BODY )	FKM
8	THRUST WASHER	PTFE
9	SEALING RING	PTFE
10	SHAFT NUT (GLAND)	AISI 304
11	LOCKNUT	AISI 303

## Pressure and temperature

For pressure/temperature ratings, see the graph below.



**Warning:** If the ball valve is used with fluids that have a temperature above 60°C then people could burn themselves if they touch the ball valve.

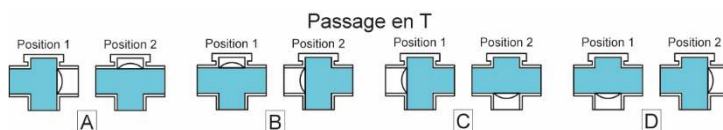
## Fluids

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.

You can motorise the valve through direct mounting using its ISO mounting plate (ISO 5211 standard). Here is a list of actuators that are compatible with this valve.

- Model **50800**: Spring return or double-acting type aluminium pneumatic actuator
- Model **50802**: Spring return or double-acting type stainless steel pneumatic actuator
- Model **50835**: IP65 electric servo motor
- Model **50840 - 50841 - 50843**: IP66 electric servo motor
- Model **50844 - 50845 - 50847**: valve with IP68 electric servo motor

You must choose the valve operating cycle using the diagram below when you place your order:



For example: spring return pneumatic actuator, valves with type C cycle return to **position 2** (spring return)

### Required operating torque for valve motorisation

Dimensions	-	DN25	DN38	DN51	DN63	DN76	DN100
Operating torque	Nm	25	40	50	60	110	130
Coupling characteristics	Mounting plate	F05	F05	F07	F07	F07	F10
	Square	14x14	14x14	17x17	17x17	17x17	22x22

*Torque required for water at 63 bar.*

*It is recommended to use a minimum safety factor of +30% for motorisation with a pneumatic actuator and +50% for motorisation with an electric actuator.*

*You can find this information on the product data sheet for each actuator.*

## 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 male ends:

Use a wrench that is suitable for the flat parts of the valve end flanges. You must not use the valve's body or the handle when you are tightening the assembly (this could damage the valve). Use a gasket that is suitable for the working conditions (e.g.: EPDM L-shaped gasket, model **61115**, etc.) to make sure the valve's threaded connections are sealed correctly.

Clean the installation leaving the valve fully 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.

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/reassembly of the ball 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 ball valve is used with fluids that have a temperature above 60°C then people could burn themselves if they touch the ball valve.

**Warning:** Beware of hazardous materials - follow the instructions provided by the suppliers.

Remove the handle or the actuator (see the relevant product data sheet).

Loosen the 3 male end flanges 4.

Loosen the locknut 11 and the shaft nut 10.

Screw a suitable screw (see the dimension table) into the shaft 6.

Pull on the screw head, that you have just screwed in, using pliers in order to extract the shaft 6.

Finish unscrewing the male end flanges 4 and take the 3 seats 3 out of their housings.

Remove the ball 2 from the body 1 through the perpendicular channel and remove the last seat 3.

Replace the worn gaskets.

Follow the disassembly steps in reverse order to reassemble the valve.

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

## Standards and compliance

- This valve complies with EC Directive 1935/2004.