

SMS Ball valves

Model **61377** **3-way ball valve with T-shaped bore, male ends - 304 or 316L stainless steel**



Specifications

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

Connections: SMS thread in accordance with DIN 405

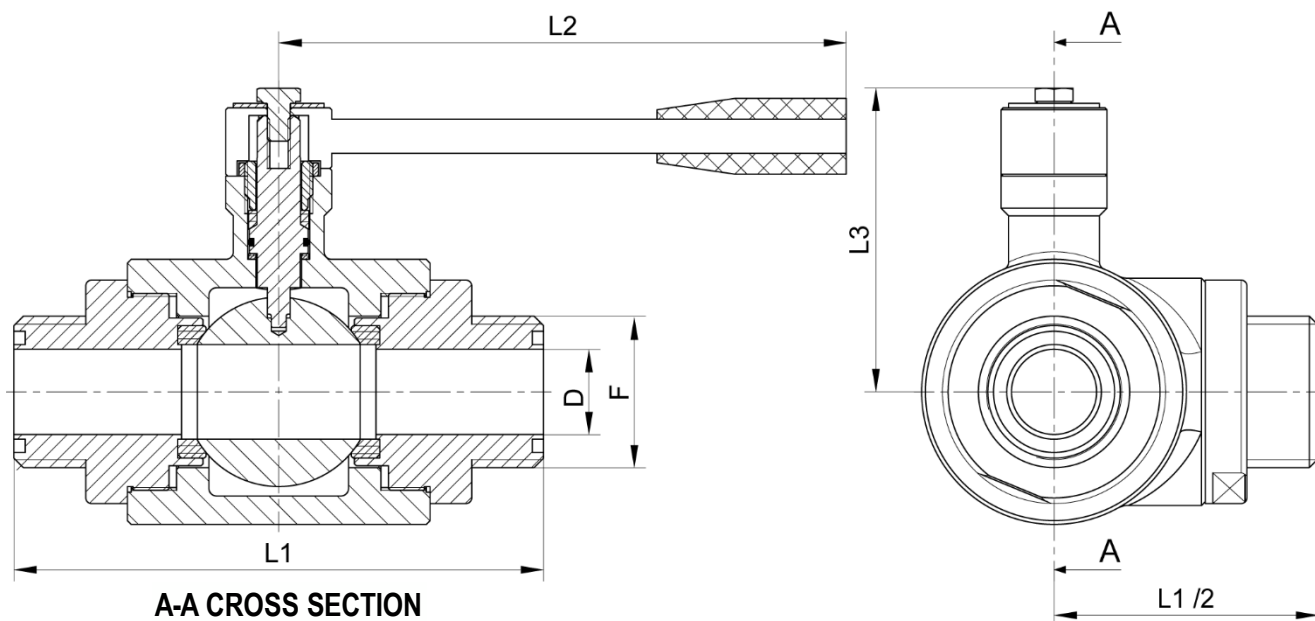
Operating pressure:

- PN64 from DN25 to DN38
- PN40 from DN51 to DN76
- PN16 for DN104

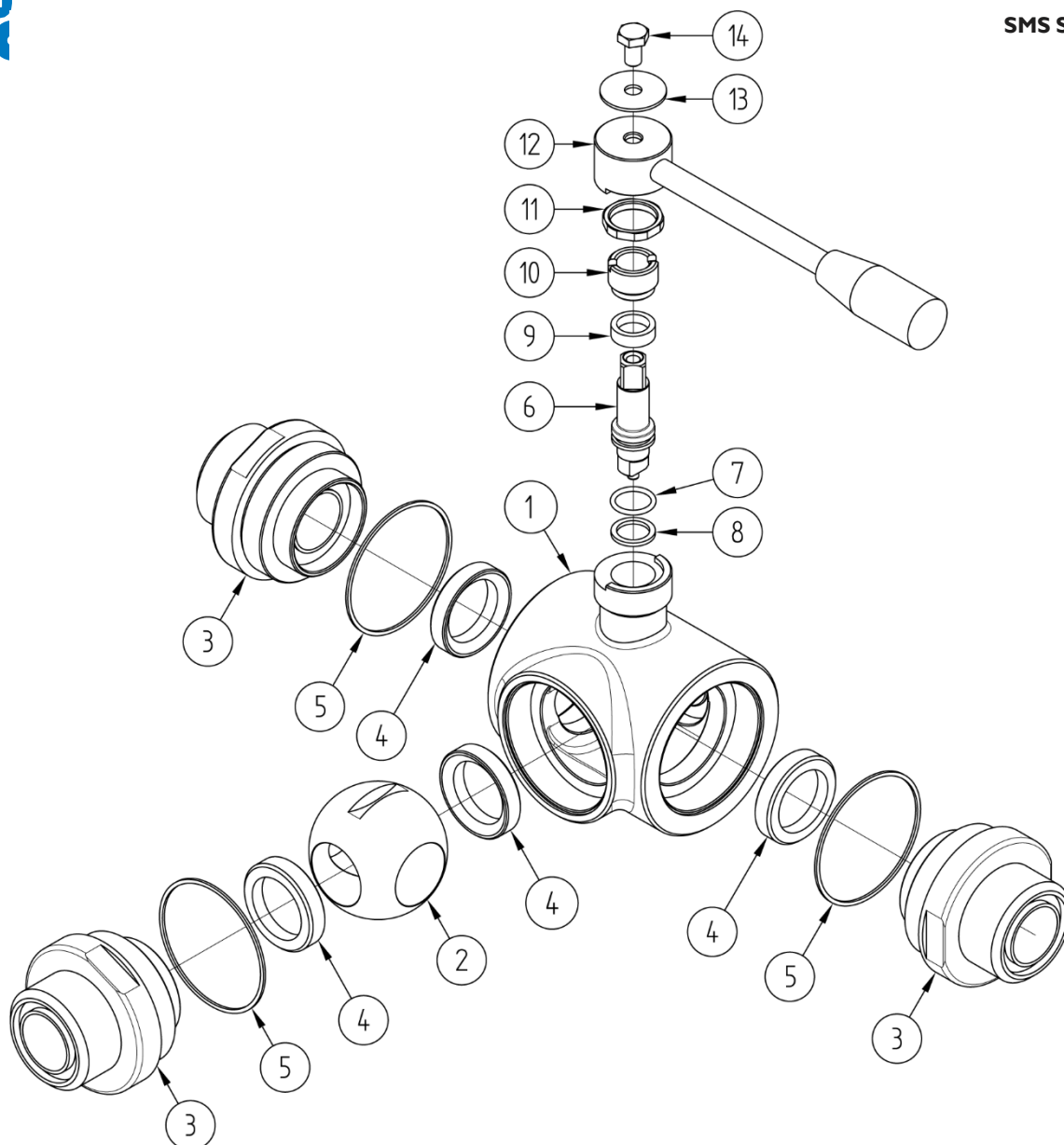
Temperature: -20°C to +170°C

Material: 304 or 316L stainless steel

PTFE and FKM gaskets as standard



DN (mm)	NB (inches)	F (mm)	D (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Weight (kg)	Part number SS 304	Part number SS 316L
25	1"	40x1/6"	25	140	160	80	3.10	261377-25	661377-25
38	1"1/2	60x1/6"	40	172	190	110	7.42	261377-38	661377-38
51	2"	70x1/6"	50	182	235	120	9.01	261377-51	661377-51
63	2"1/2	85x1/6"	65	196	285	130	10.95	261377-63	661377-63
76	3"	98x1/6"	80	256	310	145	22.40	261377-76	661377-76
104	4"	125x1/4"	100	286	310	160	35.00	261377-104	661377-104



N°	Part Name	Material
1	BODY	AISI 304 / AISI 316L
2	BALL	AISI 304 / AISI 316L
3	MALE END PART	AISI 304 / AISI 316L
4	SEAT	PTFE
5	BODY GASKET	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 303 / AISI 304L
11	LOCKNUT	AISI 303
12	HANDLE	AISI 304L
13	WASHER	AISI 304L
14	SCREW	AISI 304L

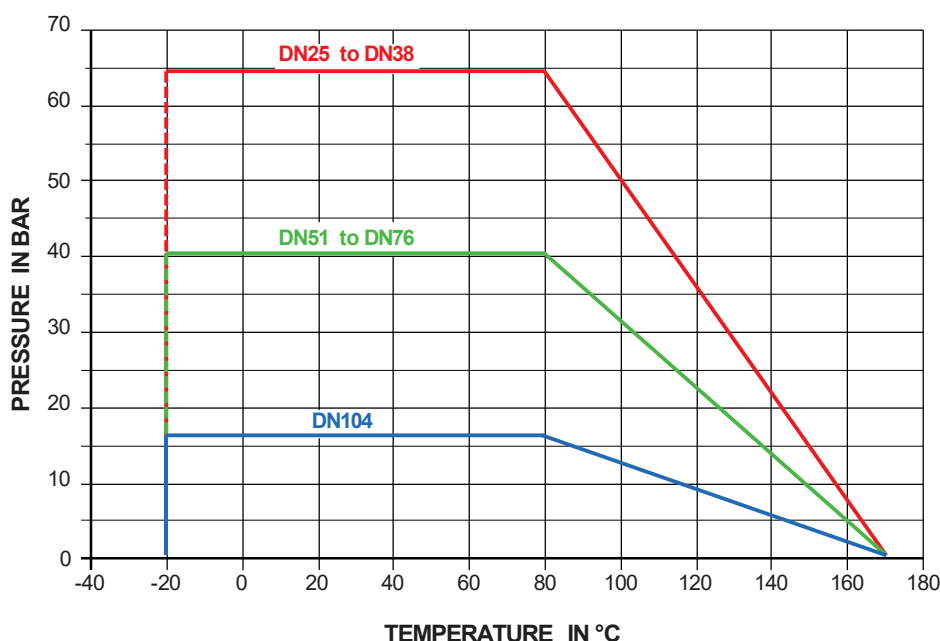
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Technical information, illustrations and photographs are provided for information only, they are not contractual. Some may vary according to the tolerances accepted in the profession and the applicable standards. All instructions for use, disassembly 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.

Pressure and temperature

For pressure/temperature ratings, see the graph below.



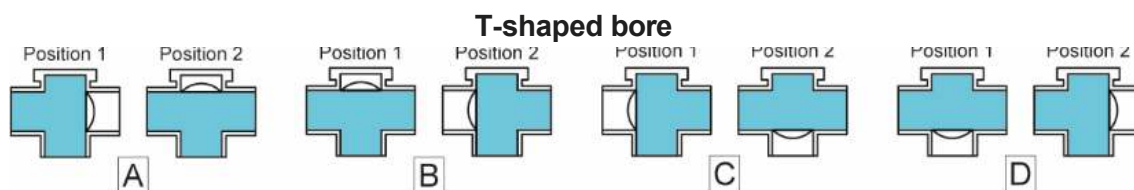
Warning: If the ball valve is used with fluids that have a temperature above 60°C then people could burn themselves if they touch the ball valve.

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 must choose the valve operating cycle when you place your order.

You can choose from several possible configurations (A, B, C or D) as shown in the diagram below:



Assembly and maintenance instructions

Installation

You can install the valve in any position. However, check that all fluids can flow through it freely.

Check that there is enough space to move the valve's handle and to carry out maintenance operations where you are planning to install 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 when you are tightening the assembly (this could damage the valve).

Clean the installation and check that the equipment is clean and free from foreign bodies that could damage the valve.

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 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.

Loosen the three male end parts **3** using a wrench that is suitable for the size of the flat parts on the male end flanges. Unscrew the screw **14** that is holding the handle in place. Remove the washer **13** and the handle **12**.

Unscrew the locknut **11** and the shaft nut **10**.

Screw a suitable screw 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 parts **3** and take the three seats **4** out of their housings.

Remove the ball **2** from the body **1** through the middle channel (the perpendicular track) and take out the last seat **4**.

Replace the worn gaskets (parts **4, 5, 7, 8** and **9**).

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 European Pressure Equipment Directive (PED) 2014/68/EU Article 4 paragraph 3 (formerly 97/23/EC Article 3 paragraph 3)
- This valve complies with EC Directive 1935/2004