Ball valves

ISO 7-1

Model 58123 2-part valve male/female BSP
- 316 stainless steel

1000 lbs/PN63 - Full bore - Lockable handle

Specifications

Dimensions: DN8 to DN50 (1/4" to 2")

Connection: ISO 7-1 BSP female/male thread

Pressure: PN63 (1000 lbs)

Temperature: -20°C to +150°C

Material: 316/CF8M stainless steel
(for the parts that can come into contact with the transported fluid)
PTFE gaskets

ISO 9001 BUREAU VERITAS Certification

ATTESTATION DE CONFORMITÉ SANITAIRE ACS

CE

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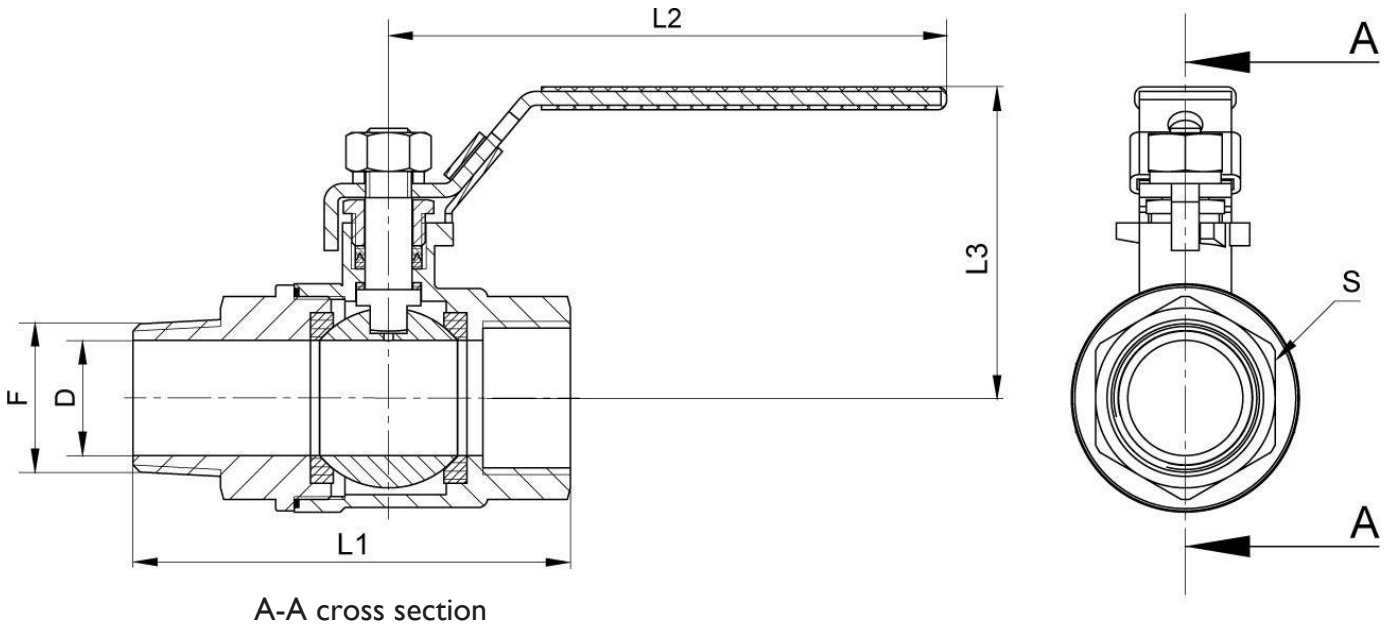

A-A cross section

DN (mm)	NB (inches)	D (mm)	F (inches)	L1 (mm)	L2 (mm)	L3 (mm)	S (mm)	Weight (kg)	Part number
8	**1/4"**	9	1/4"	62	98	50	19	0.24	**458123-8**
10	**3/8"**	13	3/8"	64	98	50	22	0.27	**458123-10**
15	**1/2"**	15	1/2"	69	100	50	26	0.37	**458123-15**
20	**3/4"**	20	3/4"	81	100	53	33	0.57	**458123-20**
25	**1"**	25	1"	95	128	69	39	0.97	**458123-25**
32	**1"1/4**	32	1"1/4	107	128	73	50	1.40	**458123-32**
40	**1"1/2**	38	1"1/2	120	143	81	55	2.10	**458123-40**
50	**2"**	50	2"	142	143	99	67	3.50	**458123-50**

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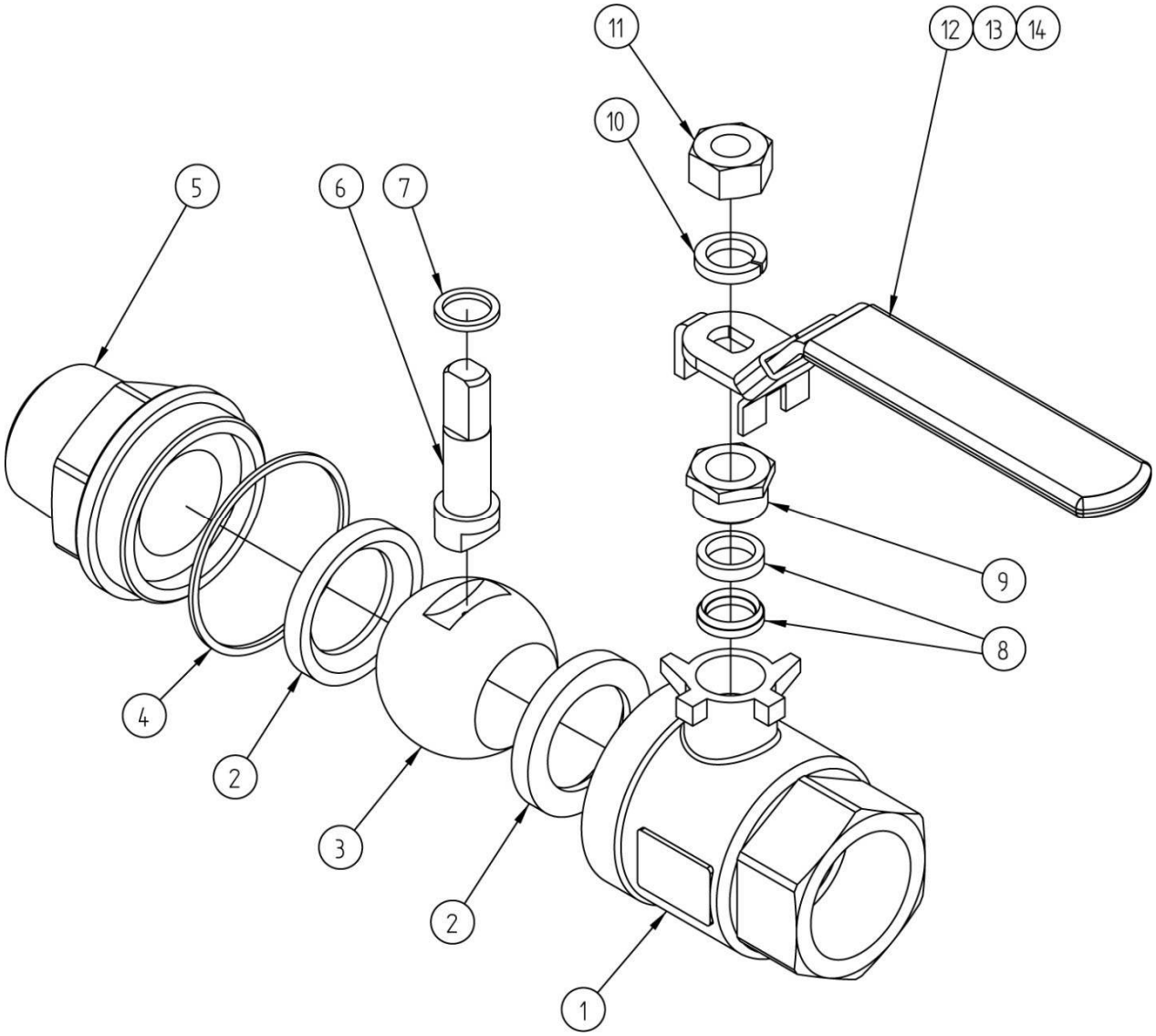

N°	Part Name	Material
1	BODY	EN 1.4408
2	SEAT RING	PTFE
3	BALL	ASTM CF8M
4	BODY GASKET	PTFE
5	FLANGE (MALE THREADED END)	EN 1.4408
6	SHAFT	AISI 316
7	SUPPORT RING	PTFE
8	SHAFT PACKING	PTFE
9	SHAFT NUT (GLAND)	AISI 304
10	LOCK WASHER	A2
11	HANDLE NUT	A2
12	HANDLE	AISI 304
13	LOCKING DEVICE	AISI 304
14	HANDLE COVERING	PLASTIC

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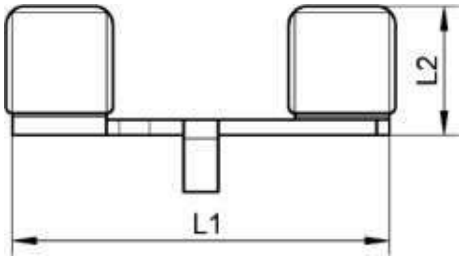
Options

- You can order a valve with a blue handle by adding "B" to the part number.
  Example: 458143-8**B**

- You can order a wing handle to replace the existing handle using the part numbers shown in the table:



For DN valve	L1 (mm)	L2 (mm)	Flat side (mm)	Part number
DN8 / DN10 / DN15 / DN20	60	21	5	**458137-60**
DN25 / DN32	80	21	6.5	**458137-82**

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Use

This valve is a 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.

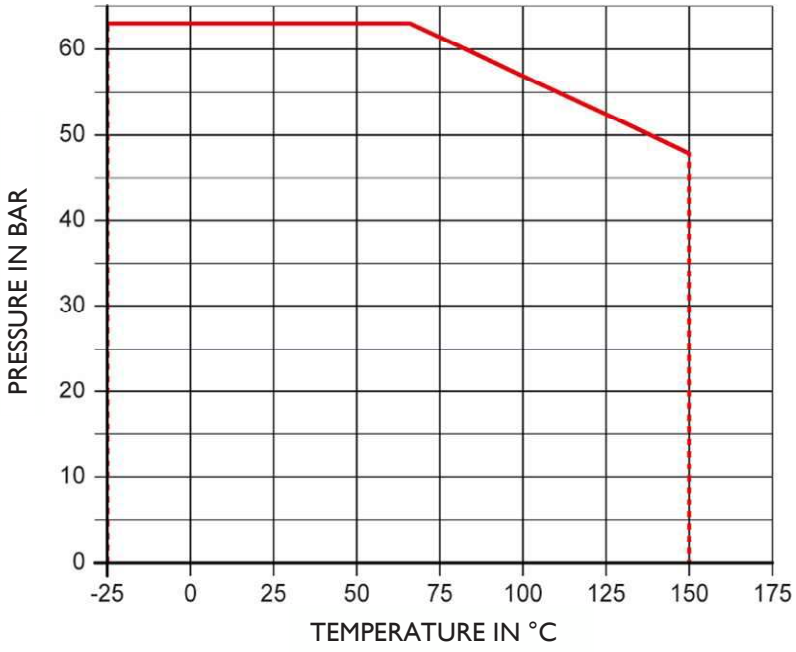
You must lift the locking device **13** to be able to turn the valve's handle **12** 1/4 turn, until it cannot be turned any further.

Turn the valve's handle 1/4 turn (90°) clockwise to close the valve or 1/4 turn (90°) anti-clockwise to open it.

The valve is open if the handle is in line with the piping.
You can lock the handle with a padlock, in the open or closed position.

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.

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.

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Flow coefficient and pressure loss

Dimensions	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50
	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Kv (m^3/h)	10.7	20.7	28.5	50.7	79.2	129.0	183.0	317.0

The flow coefficient Kv defines water flow rate through a device (valve, check valve etc.) for a pressure loss (ΔP) of 1 bar. Kv is expressed mathematically as:

$\Delta P = \frac{Q^2}{Kv^2}$ so: $Kv = \frac{Q}{\sqrt{\Delta P}}$

Q in m^3/h
ΔP in bar

Kv in m^3/h
Cv in GPM (Gallons per minute - US)

$Cv = 1.16 \times Kv$

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 threaded ends:
Use a wrench that is suitable for the hexagon-shaped valve end. You must not use the valve's handle when you are tightening the assembly (this could damage the valve).
Use a product that is suitable for the working conditions (e.g. PTFE tape) to make sure the valve's threaded connections are sealed correctly.

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.

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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 **6**, during operation or during the valve installation testing phase, tighten the shaft nut (gland) **9**. 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.

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.

Unscrew the male threaded end flange **5** and remove the gasket **4** and seat rings **2**.
Unscrew the handle nut **11**, remove the washer **10** and the handle **12**.
Unscrew the shaft nut **9** and remove the packings **8**.
Push the shaft **6** towards the inside of the valve's body in order to remove it, then remove the support ring **7**.

Clean and inspect all of the parts of the valve. Replace any worn parts. You are strongly advised to replace any sealing parts that have been disassembled.

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

Gasket kits

A gasket kit contains:
- 2 seat rings **2**
- 1 body gasket **4**
- 1 support ring **7**
- 2 shaft packings **8**

(quantity could vary according to the DN)

DN (mm)	DN (inches)	Part number
8	1/4"	958141-8
10	3/8"	958141-10
15	1/2"	958141-15
20	3/4"	958141-20
25	1"	958141-25
32	1"1/4	958141-32

DN (mm)	DN (inches)	Part number
40	1"1/2	958141-40
50	2"	958141-50

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Standards and compliance

- Connection: BSP female thread and BSPT male taper thread in accordance with the ISO 7-1 standard.
- Leak testing according to EN 12266 / API 598
- This valve complies with European Pressure Equipment Directive (PED) 2014/68/EU (formerly 97/23/EC)
- ACS certified (French certification for drinking-water piping sanitary compliance)

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