

Ball valves

Model 58268 2-part ATEX ball valve with class 150 flanges and ISO mounting plate - API 607 - 316 stainless steel
Full bore - Lockable handle



Specifications

Dimensions: DN15 to DN200 (1/2" to 8")

Connection: with flanges

Pressure: Class 150 (equivalent to PN20)

Temperature: -29°C to +200°C

Material: 316 or 1.4408 stainless steel
(for the stainless steel parts in contact with the fluid)

ISO 5211 mounting plate for
pneumatic or electric actuators

PTFE + TFM I600 15% carbon "GraFoil"
+ TFM 4215 + FKM gaskets

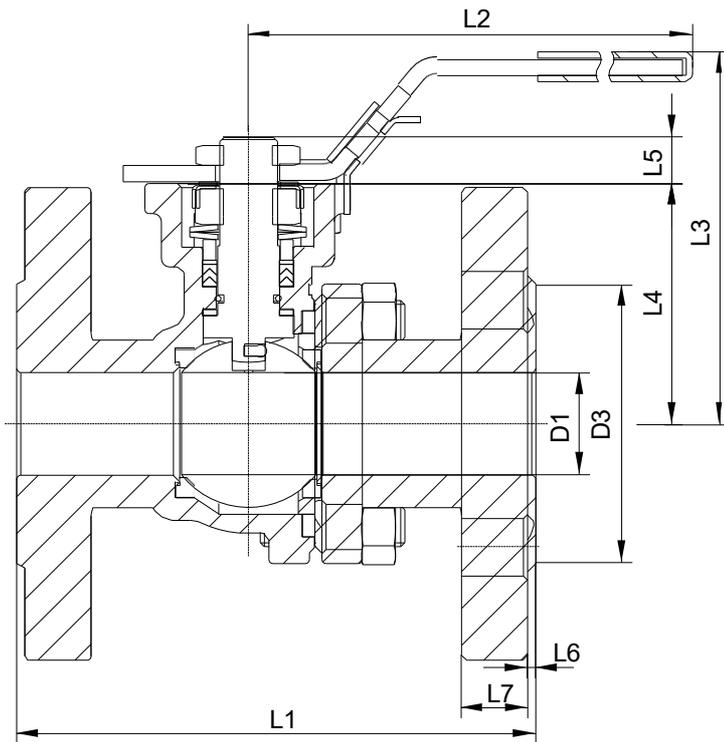
ATEX II 2 G D

API 607 (fire safety)

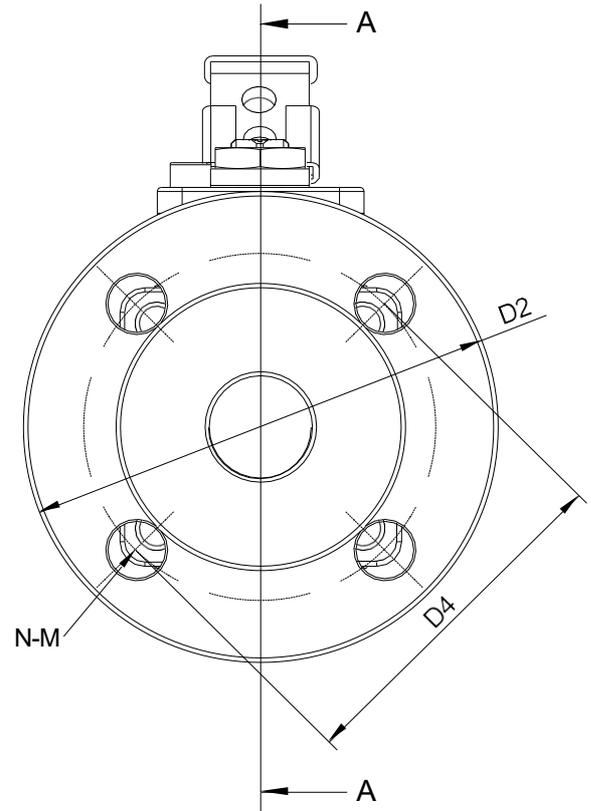


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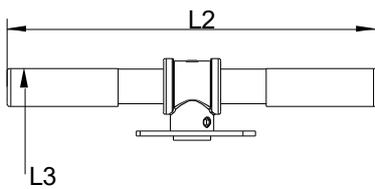
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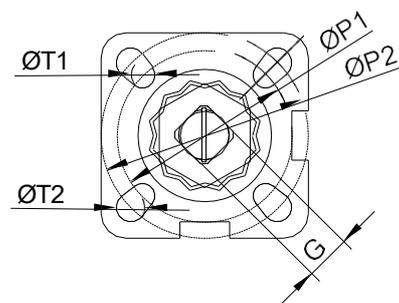
A-A Cross Section



Handle DN80 - 200 (3" - 8")



ISO mounting plate

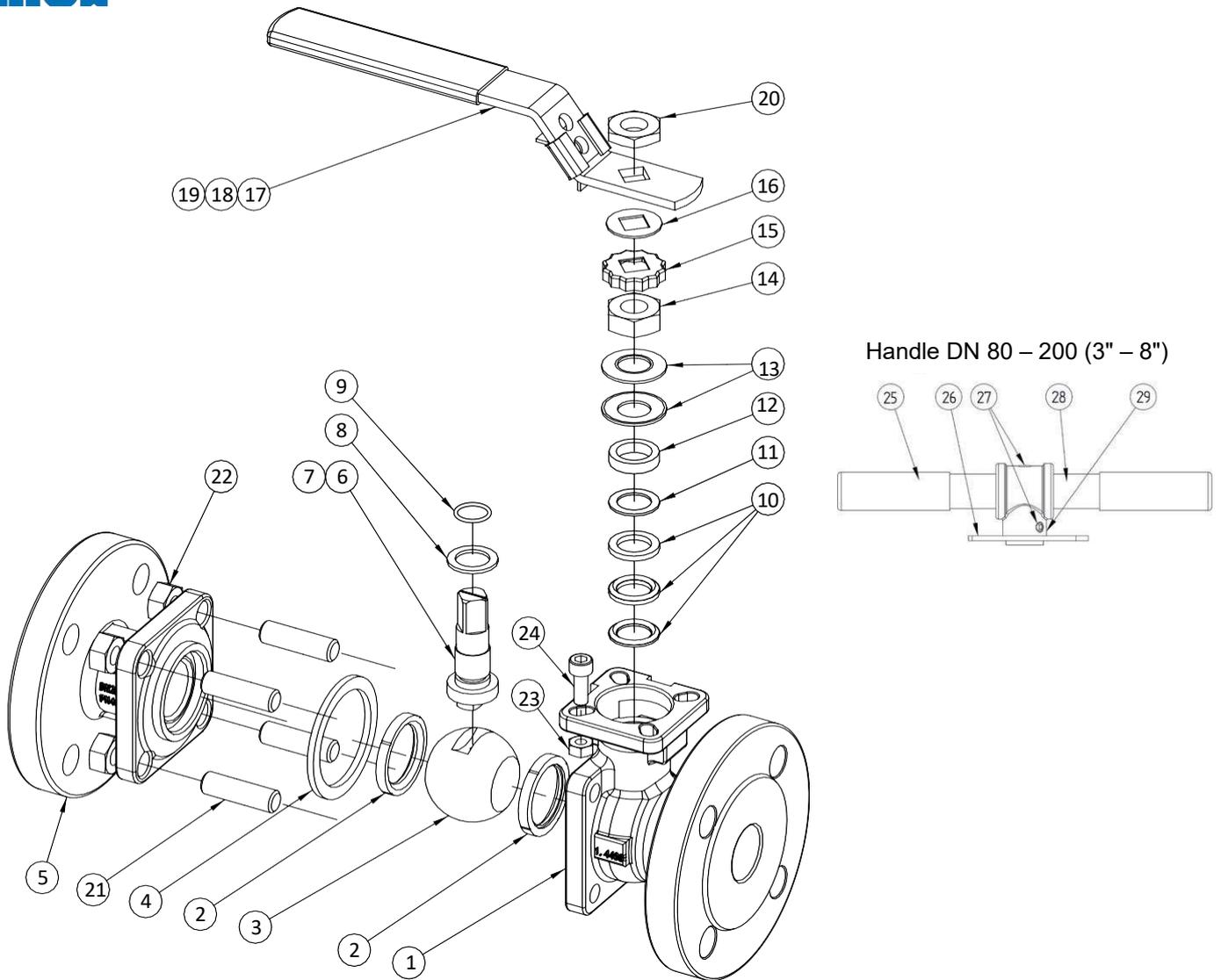


DN (mm)	NB (inches)	D1 (mm)	D2 (mm)	D3 (mm)	D4 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
15	1/2"	15	90	35	60.3	108	147	79	49	9	2	8
20	3/4"	20	100	43	69.9	117	147	84	53	9	2	8.9
25	1"	25	110	51	79.4	127	177	90	59	11	2	9.6
32	1"1/4	32	115	64	88.9	140	177	102	71	11	2	11.2
40	1"1/2	38	125	73	98.4	165	197	110	76	14	2	12.7
50	2"	50	150	92	120.7	178	197	115	82	14	2	14.3
65	2"1/2	64	180	105	139.7	190	267	150	102	17	2	15.9
80	3"	76	190	127	152.4	203	300*	176	112	17	2	17.5
100	4"	100	230	157	190.5	229	400*	211	140	22	2	22.3
125	5"	125	255	186	215.9	356	600*	263	183	27	2	22.3
150	6"	150	280	216	241.3	394	800*	284	204	27	2	23.9
200	8"	200	345	270	298.5	457	800*	334	253	27	2	27.0

DN (mm)	NB (inches)	G (mm)	M (mm)	N (Qty)	ØP1 (mm)	ØP2 (mm)	ØT1 (mm)	ØT2 (mm)	ISO mounting plate	Torque (Nm)	Weight (kg)	Part number
15	1/2"	9	16	4	36	42	6	6	F03-F04	5	2.35	458268-15
20	3/4"	9	16	4	36	50	6	7	F03-F05	6	3.20	458268-20
25	1"	11	16	4	42	50	6	7	F04-F05	11	4.20	458268-25
32	1"1/4	11	16	4	42	70	6	9	F04-F07	17	5.80	458268-32
40	1"1/2	14	16	4	50	70	7	9	F05-F07	24	7.45	458268-40
50	2"	14	19	4	50	70	7	9	F05-F07	35	10.10	458268-50
65	2"1/2	17	19	4	70	102	9	11	F07-F10	54	16.80	458268-65
80	3"	17	19	4	70	102	9	11	F07-F10	90	23.90	458268-80
100	4"	22	19	8	NA	102	NA	11	F10	135	32.50	458268-100
125	5"	27	22.3	8	125	NA	14	NA	F12	285	54.50	458268-125
150	6"	27	22.3	8	125	NA	14	NA	F12	530	76.00	458268-150
200	8"	27	22.3	8	125	NA	14	NA	F12	760	120.00	458268-200

* positionable tubular handle

It is recommended to use a minimum safety factor of 30% for the valve torque if you motorise the valve.



N°	Part Name	Material
1	BODY	CF8M
2	SEAT RING	TFM1600
3	BALL	AISI 316
4	BODY GASKET	GRAFOIL
5	END FLANGE	CF8M
6	SHAFT	AISI 316
7	SPRING + BALL BEARING (ANTI-STATIC)	AISI 316
8	SHAFT RING	PTFE/TFM1600
9	FLAT SHAFT GASKET	FKM
10	SHAFT PACKING	GRAPHITE
11	SUPPORT RING	AISI 304
12	SPACER	AISI 316
13	BELLEVILLE WASHER	AISI 301
14	SHAFT NUT (GLAND)	A194-8
15	STOP NUT	AISI 304

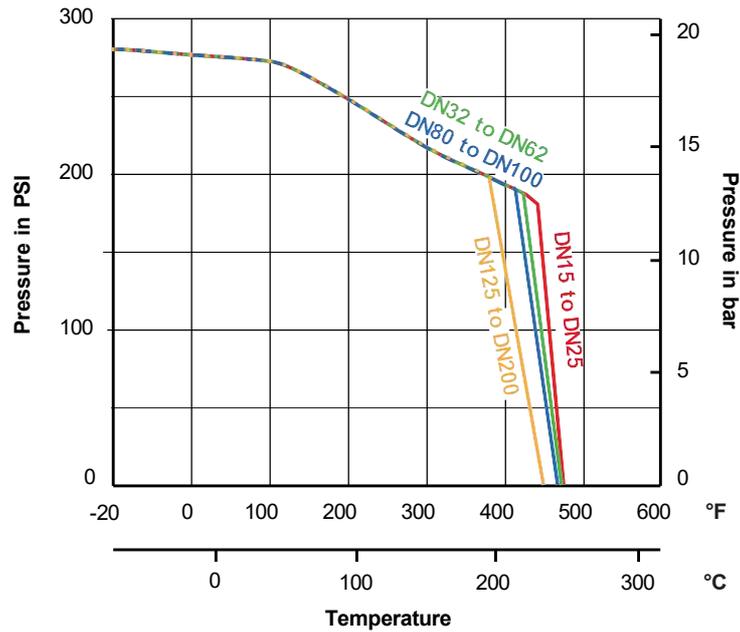
N°	Part Name	Material
16	FLAT WASHER	AISI 304
17	HANDLE (DN 15-65)	AISI 304
18	HANDLE COVERING	PLASTIC
19	LOCKING DEVICE	AISI 304
20	HANDLE NUT (DN 15-65)	A194-8
21	BOLT (FLANGE)	A193-B8
22	NUT (FLANGE)	A194-8
23	NUT (HANDLE STOP)	A2-70
24	BOLT (HANDLE STOP)	A2-70
25	HANDLE COVERING (DN 80-100)	PLASTIC
26	LOCKING DEVICE (DN 80-100)	AISI 304
27	SCREW	A2-70
28	TUBULAR HANDLE (DN 80-200)	GALVANISED STEEL
29	HANDLE ADAPTER (DN 80-200)	A351-CF8

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Use

Pressure and temperature



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 valve.

Flow coefficient and pressure loss

Dimensions	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"	5"	6"	8"
Kv (m³/h)	15.57	31.14	41.52	80.45	142.73	179.06	389.25	674.7	1176.4	1470.5	2249	3633

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

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

Q in m³/h
 ΔP in bar

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 defect, 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 **I9** to be able to turn the valve's handle **I7** 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.

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), see the corresponding product data sheets.

- Valve with spring return or double-acting pneumatic actuator (model 50330)
- Valve with electric servo motor (model 50333)

Use in ATEX zones

Manual valves (model **58268**) and pneumatic valves (models **50330**) can be used in ATEX II 2 GD zones.

If you add any other element (e.g. position detection, solenoid valves etc.), you must check that this addition can be used in ATEX zones.

You **cannot use** model **50333** (valve with electric servo motor) **in ATEX zones.**

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 flanges:

Weld flanges (e.g. flanges with collar) onto the piping and respect the required spacing and alignment of the mounting holes. You must check that the valve is correctly lined up with the flanges during installation. For heavy parts, use lifting devices if necessary (do not lift the valve by its handle).

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 **6**, during operation (or during the valve installation testing phase), tighten the shaft nut **14**. 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. You must adhere to the tightening torques (see table **A** on page 8).

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

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

Remove the valve; unscrew the flange **5** from the valve's body

1. Remove the 2 seat rings **2** and the body gasket **4**.

Close the valve to remove the ball **3**. Check the condition of the ball's surface. You must replace it at the same time as the two seat rings **2** if it is scratched or damaged.

If you need to replace the shaft's sealing, remove the parts from the upper part of the valve in the following order: handle nut **20**, handle **19/18/17** and flat washer(s) **16** in the case of a manual valve (otherwise remove the valve's motorisation), then the stop nut **15**, shaft nut **14**, Belleville washers **13** and stainless steel rings (**11** + **12**).

Push the shaft **6** towards the inside of the body **1** in order to remove it, and remove the flat shaft gasket **9** and the PTFE ring **8** (be careful you do not scratch the shaft).

Remove the graphite shaft packing (v-washers) **10** from its housing (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 (gaskets and graphite packing) if it has been disassembled, as well as the ball's TFM seat rings and GraFoil gasket.

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.

Table A	Dimensions	DN 8	DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100
	Tightening torque for shaft nut (gland)	Nm	8.0 ~ 9.0	8.0 ~ 9.0	8.0 ~ 9.0	8.0 ~ 9.0	9.0 ~ 11.3	9.0 ~ 11.3	15.8 ~ 18.1	15.8 ~ 18.1	20.4 ~ 22.6	20.4 ~ 22.6

Standards and compliance

- This valve is designed in accordance with ASME B16.34 and API 608 standards
- Leak testing according to EN 12266
- This valve complies with European Pressure Equipment Directive (PED) 2014/68/EU (formerly 97/23/EC) according to the annexe III module H (certificate DGR 0036-QS-1045-14)
- ATEX Group II Category 2 G/2D, in accordance with Directive 94/9/EC (certificate EX9 13 09 82326 002)
- This valve meets fire safety regulations according to API 607 and ISO 10497 standards