

# Ball valves

**Model 58269** 2-part ATEX ball valve with flanges and ISO mounting plate - API 607 - 316 stainless steel  
Full bore - Lockable handle



## Specifications

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

**Connection:** flanges in accordance with EN 1092-1

**Pressure:** PN depending on flange dimensions

**Temperature:** -29°C to +200°C

**Material:** 316 or 1.4408 stainless steel

TFM 1600 seats

PTFE + Graphite + FKM gaskets

ISO 5211 mounting plate for pneumatic or electric actuators

ATEX II 2 G D

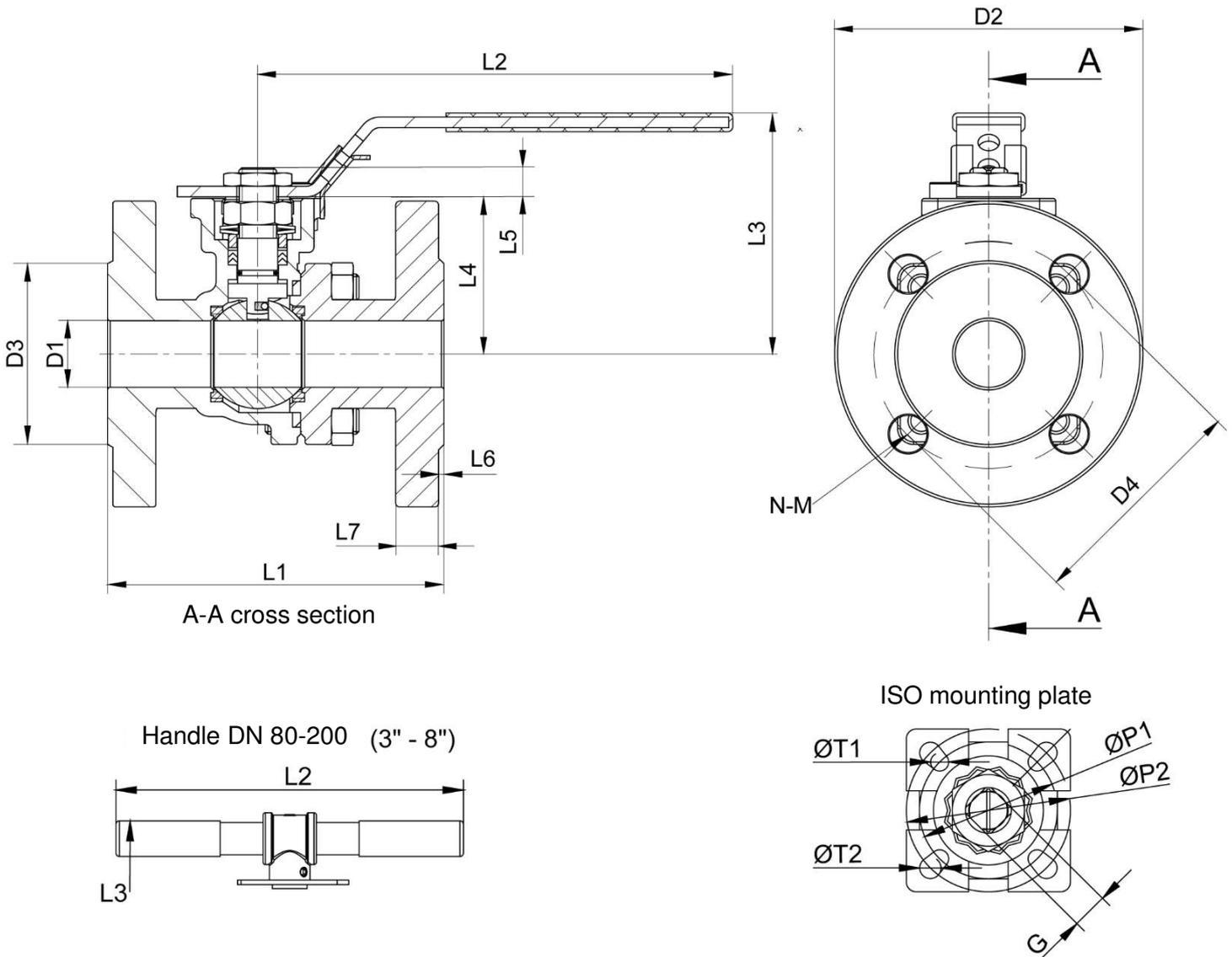
API 607 (fire safety)



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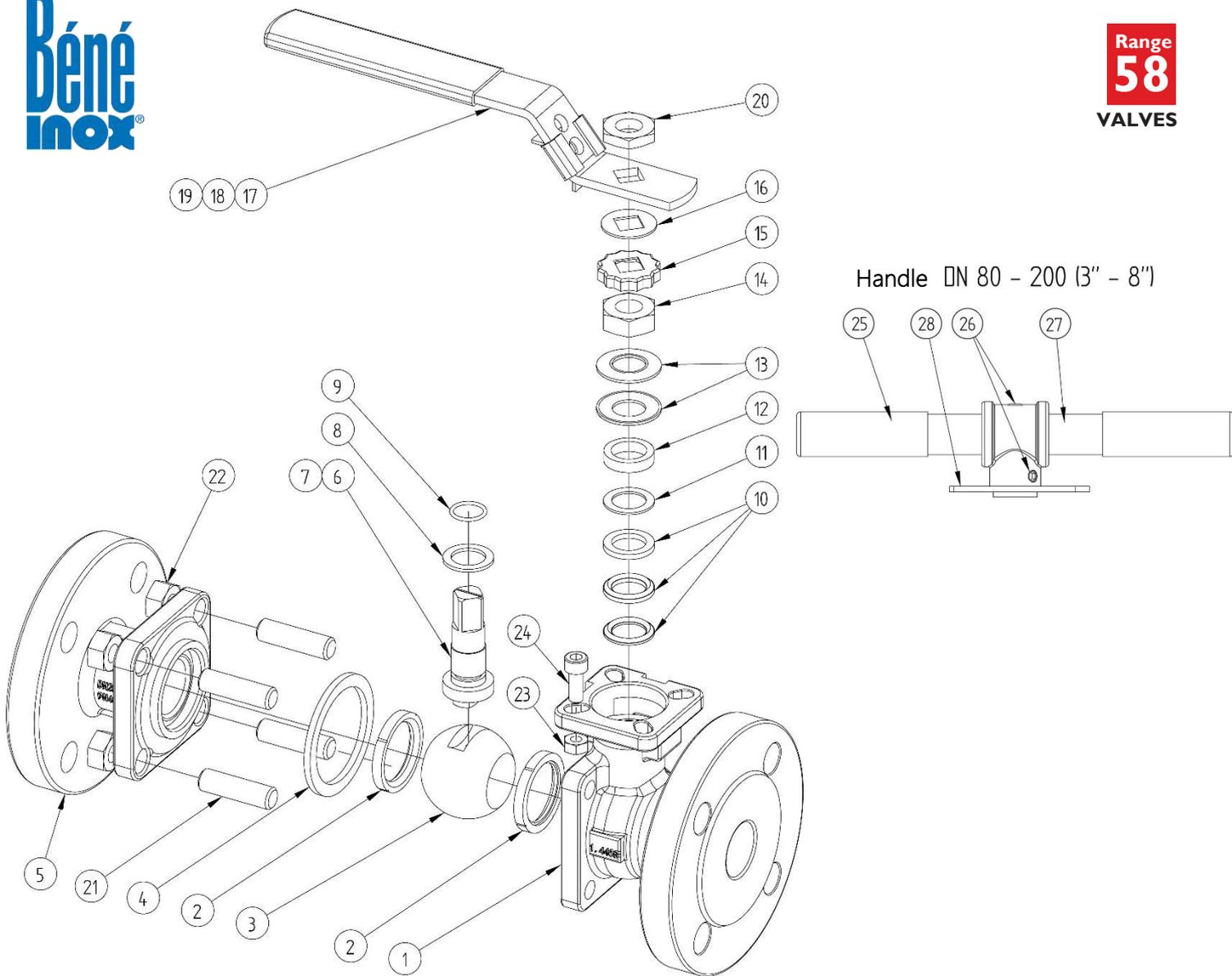
58269-G V0126



DN (mm)	NB (inches)	PN (bar)	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"	40	15	95	45	65	115	147	78	48	9	2	16
20	3/4"	40	20	105	58	75	120	147	84	53	9	2	18
25	1"	40	25	115	68	85	125	177	90	59	11	2	18
32	1"1/4	40	32	140	78	100	130	177	102	71	11	2	18
40	1"1/2	40	38	150	88	110	140	197	110	76	14	3	18
50	2"	40	50	165	102	125	150	197	118	85	14	3	20
65	2"1/2	16	63.5	185	122	145	170	267	150	102	17	3	18
80	3"	16	76	200	138	160	180	300*	176	112	17	3	20
100	4"	16	100	220	158	180	190	400*	210	140	22	3	20
125	5"	16	125	250	188	210	325	600*	263	183	27	3	22
150	6"	16	150	285	212	240	350	800*	284	204	27	3	22
200	8"	16	200	340	268	295	400	800*	334	253	27	3	24

DN (mm)	NB (inches)	PN (bar)	G (mm)	M (mm)	N (Qty)	ØP1 (mm)	ØP2 (mm)	ØT1 (mm)	ØT2 (mm)	ISO mounting plate	Weight (kg)	Part number
15	1/2"	40	9	14	4	36	42	6	6	F03-F04	2.37	458269-15
20	3/4"	40	9	14	4	36	42	6	6	F03-F04	3.15	458269-20
25	1"	40	11	14	4	42	50	6	7	F04-F05	4.09	458269-25
32	1"1/4	40	11	18	4	42	50	6	7	F04-F05	5.56	458269-32
40	1"1/2	40	14	18	4	50	70	7	9	F05-F07	6.98	458269-40
50	2"	40	14	18	4	50	70	7	9	F05-F07	9.67	458269-50
65	2"1/2	16	17	18	4	70	102	9	11	F07-F10	13.9	458269-65
80	3"	16	17	18	8	70	102	9	11	F07-F10	18.1	458269-80
100	4"	16	22	18	8	-	102	-	11	F10	25.3	458269-100
125	5"	16	27	18	8	125	-	14	-	F12	51.0	458269-125
150	6"	16	27	22	8	125	-	14	-	F12	72.5	458269-150
200	8"	16	27	22	8	125	-	14	-	F12	124.0	458269-200

\* positionable tubular handle



N°	Part Name	Material
1	BODY	1.4408
2	SEAT RING	TFM1600
3	BALL	AISI 316
4	BODY GASKET	SPIRAL GASKET 316 + GRAPHITE
5	END FLANGE	1.4408
6	SHAFT	AISI 316 (except for DN150)
7	SPRING + BALL BEARING (ANTI-STATIC)	AISI 316
8	SHAFT RING	PTFE
9	SHAFT O-RING	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

N°	Part Name	Material
15	STOP NUT	AISI 304
16	FLAT WASHER	AISI 304
17	HANDLE (DN 15-65)	AISI 304
18	HANDLE COVERING	PVC
19	LOCKING DEVICE (DN 15-65)	AISI 304
20	HANDLE NUT (DN 15-65)	A194-8
21	BOLT (FLANGE)	A2-70
22	NUT (FLANGE)	A2-70
23	NUT (HANDLE STOP)	A2-70
24	BOLT (HANDLE STOP)	A2-70
25	HANDLE COVERING (DN 80-100)	PVC
26	SCREW (DN 80-100)	A2-70
27	TUBULAR HANDLE (DN 80-200)	GALVANISED STEEL
28	HANDLE ADAPTER (DN 80-200)	CF8M

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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 **19** to be able to turn the valve's handle **17** 1/4 turn, until it cannot be turned any further.

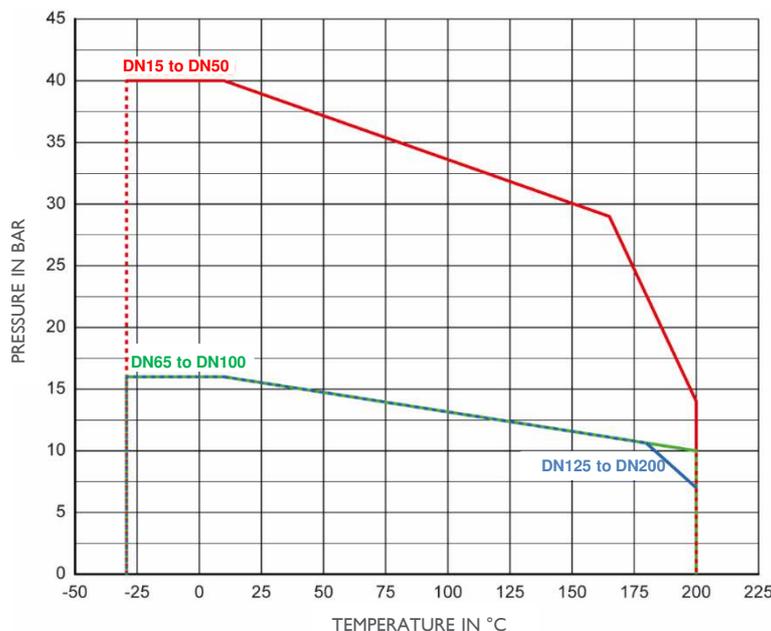
Turn the valve's handle 1/4 turn (90°) clockwise to close the valve or 1/4 turn (90°) anti-clockwise to open it.

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

The data plate indicates the valve's maximum operating pressure and the minimum and maximum operating temperatures (but this information does not cover any associated actuator or servo motor, so if you use one of these with the valve please also check their respective data plates to find this information).  
The operating temperature is between -29°C and +200°C for TFM1600 seats.

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.

## 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"
<b>Kv (m<sup>3</sup>/h)</b>	26	48	83	147	234	407	675	995	1817	3028	4325	8218

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

$$\Delta P = \frac{Q^2}{Kv^2} \quad \text{so:} \quad Kv = \frac{Q}{\sqrt{\Delta P}} \quad \begin{array}{l} Q \text{ in m}^3/\text{h} \\ \Delta P \text{ in bar} \end{array} \quad \begin{array}{l} Kv \text{ in m}^3/\text{h} \\ Cv \text{ in GPM (Gallons} \\ \text{per minute - US)} \end{array} \quad Cv = 1.16 \times Kv$$

## 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.

- Model **50310**: Valve with spring return or double-acting type aluminium pneumatic actuator
- Model **50311**: Valve with spring return or double-acting stainless steel pneumatic actuator
- Model **50313**: Valve with electric servo motor IP65
- Model **50317 - 50318 - 50319**: Valve with electric servo motor IP68
- Model **50321 - 50322 - 50323**: Valve with electric servo motor IP68
- Model **50325 - 50326 - 50327**: Valve with ATEX electric servo motor IP68

## Required operating torque for valve motorisation

Dimension	-	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200
<b>Operating torque for water at 10 bar</b>	N.m	5	6	10	13	19	29	45	72	110	210	306	430
<b>Operating torque for water at 16 bar</b>	N.m	5	6	11	15	22	32	49	81	122	245	340	487
<b>Operating torque for water at 40 bar</b>	N.m	5	6	11	17	24	34	52	88	132	280	510	730
<b>Coupling characteristics</b>	Mounting plate	F03 F04	F03 F05	F04 F05	F04 F07	F05 F07	F05 F07	F07 F10	F07 F10	F10	F12	F12	F12
	square	9x9	9x9	11x11	11x11	14x14	14x14	17x17	17x17	22x22	27x27	27x27	27x27

*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.*

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## Use in ATEX zones

Manual valves (model **58269**) and pneumatic valves (models **50310** and **50311**) 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** models **50313**, **50317**, **50321** and **50325** etc. (valves with electric servo motors) **in ATEX zones.**

You can only use models **50325**, **50326** and **50327** with ATEX electric actuators in ATEX II 2 GD zones.

## Assembly and maintenance instructions

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### 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 a 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 (gland) **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 **B** on page 9).

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" and "Spare parts" section.

## 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 filter 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.

Rinse the valve's body before you disassemble the valve, to do this place the ball at 45°, i.e. in the half open position.

Unscrew the nuts **22** from the bolts **21** in the end flange **5**. Separate the end flanges **5** from the valve's body **1**.

Remove the seats **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** 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 shaft o-ring **9** and the shaft ring **8** (be careful you do not scratch the shaft).

Remove the graphite 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 the sealing packing) if it has been disassembled, as well as the ball's seat rings.

Follow the disassembly steps in reverse to reassemble the valve.

You must adhere to the tightening torques for the nut (gland) **14** (see table **B**) and the nuts and bolts that hold the 2 parts of the valve's body together **21 + 22** (see table **A**).

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

<b>Table A</b>	Dimensions	M8	M10	M12	M14	M16	M18	M20	M22
Max. tightening torque Flange nuts and bolts	Nm	14~19	28~38	50~67	80~107	127~170	173~230	248~331	344~458

<b>Table B</b>	Dimensions	DN15-20	DN25-32	DN40-50	DN65-80	DN100	DN125-150	DN200
Max. tightening torque Nut (Gland)	Nm	9~12	12~16	17~22	25~32	42~50	65~75	80~90

## Spare parts



### Gasket kits

A gasket kit contains:

- 2 seat rings **2**
- 1 body gasket **4**
- 1 shaft ring **8**
- 1 o-ring **9**
- 1 shaft packing **10**
- 1 shaft ring **11**

(quantity could vary according to the DN)

DN (mm)	NB (inches)	Part number
15	1/2"	D5381-15
20	3/4"	D5381-20
25	1"	D5381-25
32	1"1/4	D5381-32
40	1"1/2	D5381-40
50	2"	D5381-50

DN (mm)	NB (inches)	Part number
65	2"1/2	D5381-65
80	3"	D5381-80
100	4"	D5381-100
125	5"	D5381-125
150	6"	D5381-150

### Handle **17 ; 18 ; 19**

For DN15 to DN65

### Tubular handle **25 ; 26 ; 27 ; 28**

For DN80 to DN200

DN (mm)	NB (inches)	Part number
15 à 20	1/2" à 3/4"	D5121-820
25 à 32	1" à 1"1/4	D5121-2532
40 à 50	1"1/2 à 2"	D5121-4050
65	2"1/2	D5121-6580
80	3"	D5121-80

DN (mm)	NB (inches)	Part number
100	4"	D5121-100
125	5"	D5121-125
150	6"	D5121-150
200	8"	D5121-200

## Standards and compliance

- This valve is designed in accordance with ASME B16.34 and EN 12516-1 standards.
- Connection: flanges in accordance with NF EN 1092-1.
- Leak testing according to EN 12266/API 598.
- This valve complies with European Pressure Equipment Directive (PED) 2014/68/EU
  - from DN8 according to Annex I Paragraph 4.3
  - from DN32 according to Annex III Module H: Certificate No. DGR 0036-QS-1045-23.
- ATEX Group II Category 2 G D in accordance with Directive 2014/34/EU: Certificate No. EX9A 082326 0003
  - II 2G Ex h IIC T6-T1 Gb (gas and vapour)
  - II 2D Ex h IIIC T85°C-T450°C Db (combustible dust)
- This valve meets fire safety regulations according to API 607 and ISO 10497 standards.