

## 2 WAY – BALL VALVE – FLANGED - DN150 (6") – PPGF, PVDF

Conform to the 2014/68/EU Directive



DN150 - PPGF

### MAIN FEATURES

- Flanged compact ball valve, 2-piece construction limiting interfaces for an optimal sealing.
- Reinforced Flanges with metal inserts.
- Full 150mm bore
- Color Handle indicating type of Seals (Red = EPDM, Green = FPM, blue = FEP/FFPM)
- Inner Shape promoting flow and limiting retention zones.
- Moulded Sealing rings on Flanges. (Prevents the deformation of the Gasket).
- Easy to actuate manual valve by interchangeable handle to desired control. (Electric or Pneumatic).
- Screws and nuts in Uranus B6 (Consult us for other grades).

### STANDARDS & APPROVALS



DGS/SD7A N°571 : Circular on the terms and conditions for the verification of the sanitary conformity of the constituent materials of accessories or subassembly accessories, consisting of organic elements in contact with water intended for human consumption (Food Grade Approval)



Industrial valves — Measurement, test and qualification procedures for fugitive emissions — Part 1: Classification system and qualification procedures for type testing of valves



NR320 : Certification scheme of materials and equipment for the classification of marine units

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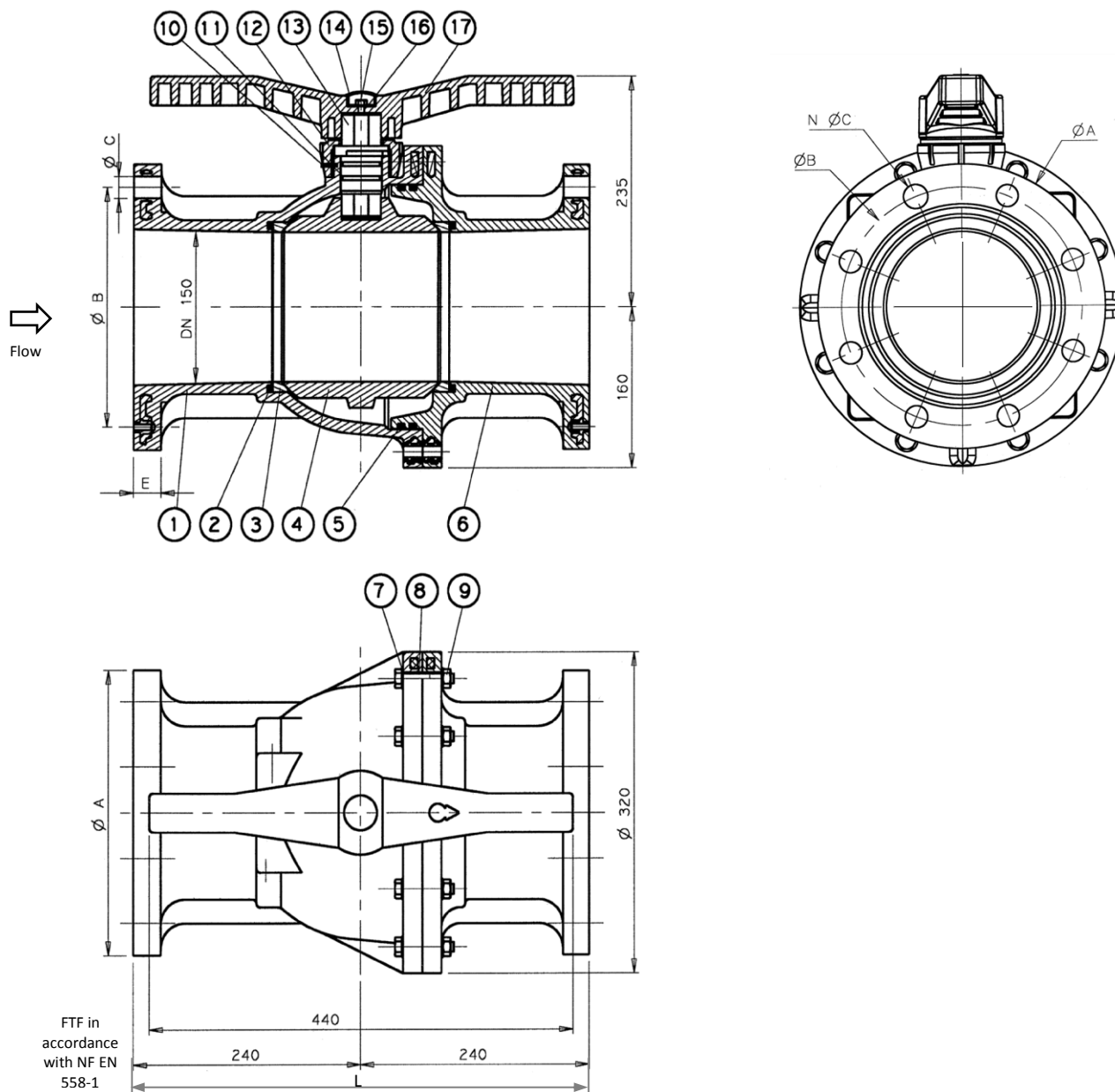
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## DIMENSIONS



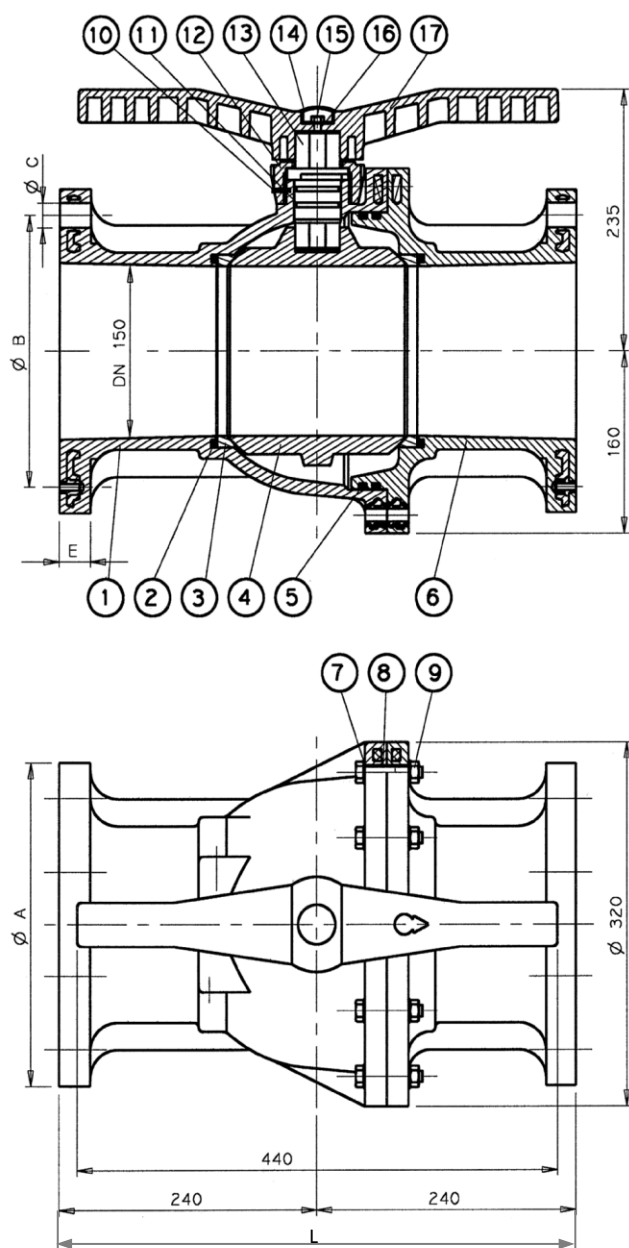
| DN  | DIN<br>Flanges |     |   |    | ANSI<br>Flanges |       |   |       | BS<br>Flanges |        |   |       | E  |     | L    |      | WEIGHT (in Kg) |  |
|-----|----------------|-----|---|----|-----------------|-------|---|-------|---------------|--------|---|-------|----|-----|------|------|----------------|--|
|     | ØA             | ØB  | N | ØC | ØA              | ØB    | N | ØC    | ØA            | ØB     | N | ØC    |    |     | PPGF | PVDF |                |  |
| 150 | 285            | 240 | 8 | 22 | 285             | 241,3 | 8 | 22.22 | 279           | 234.95 | 8 | 19.05 | 26 | 480 | 15   | 20   |                |  |

DIN = Drilling in accordance with EN 1092-1 PN10/PN16 - ANSI = Drilling in accordance with EN1759-1/ASME B16.5 Class 150 - BS = Drilling in accordance with BS10 Table D (BS)

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## PARTS LIST

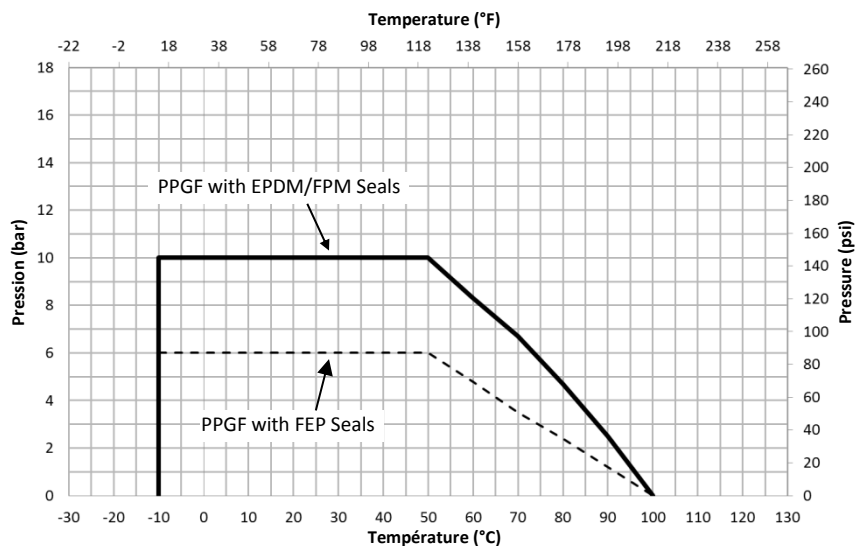


| N°  | QTY | DESCRIPTION                | MATERIAL          |
|-----|-----|----------------------------|-------------------|
| 1   | 1   | MAIN BODY DIN/ANSI/BS      | PPGF, PVDF        |
| 2*  | 2   | SEAT O-RING                | EPDM, FPM**, FEP  |
| 3*  | 2   | SEAT                       | PTFE              |
| 4*  | 1   | BALL                       | PPGF, PVDF        |
| 5*  | 2   | O-RING                     | EPDM, FPM         |
| 6   | 1   | SECONDARY BODY DIN/ANSI/BS | PPGF, PVDF        |
| 7   | 16  | WASHER Z10                 | UB6               |
| 8   | 8   | SCREW TH M10x60            | UB6               |
| 9   | 8   | NUT H10                    | UB6               |
| 10  | 1   | GRUB SCREW                 | SS 304            |
| 11* | 2   | O-RING                     | EPDM, FPM**, FFPM |
| 12  | 1   | NUT                        | PPGF, PVDF        |
| 13* | 1   | STEM WITH METAL INSERT     | PPGF, PVDF        |
| 14  | 1   | BLOCKAGE CAP               | PE                |
| 15  | 1   | SCREW TH M6x20             | UB6               |
| 16  | 1   | WASHER M6                  | UB6               |
| 17  | 1   | RED HANDLE                 | PPGF              |
|     |     | GREEN HANDLE               | PPGF              |
|     |     | BLUE HANDLE                | PPGF              |

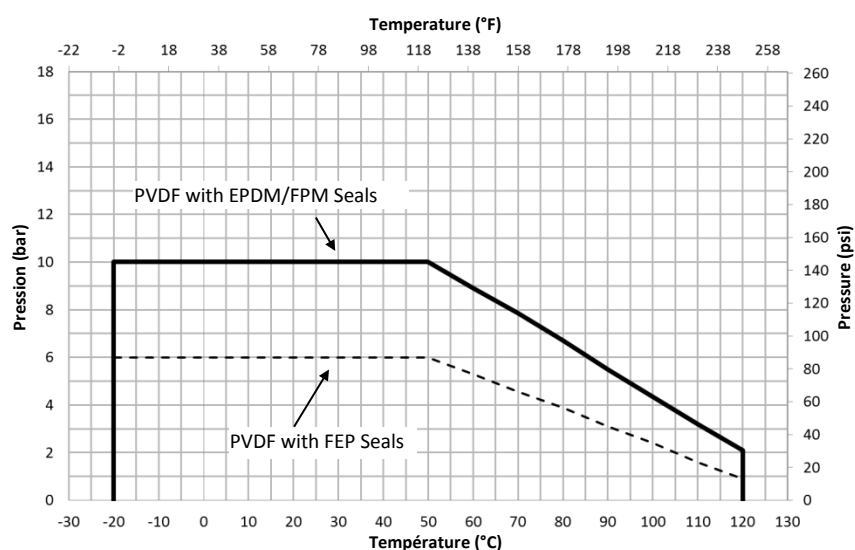
(\*) Spare Parts    (\*\*) FPM type SAFKM5

DIN = Drilling in accordance with EN 1092-1 PN10/PN16  
 ANSI = Drilling in accordance with EN1759-1/ASME B16.5 Class 150  
 BS = Drilling in accordance with BS10-Table D

## PRESSURE / TEMPERATURE CURVES



PPGF



PVDF

## Pressure /Temperature Summary

| Type of Seals | Working Pressure | Working Temperature |                  |
|---------------|------------------|---------------------|------------------|
|               |                  | PPGF                | PVDF             |
| EPDM          | 10 bars at 20°C  | - 10°C to +100°C    | - 20°C to +120°C |
| FPM           | 10 bars at 20°C  | - 10°C to +100°C    | - 20°C to +120°C |
| FEP/FFPM      | 6 bars at 20°C   | - 10°C to +100°C    | - 20°C to +120°C |

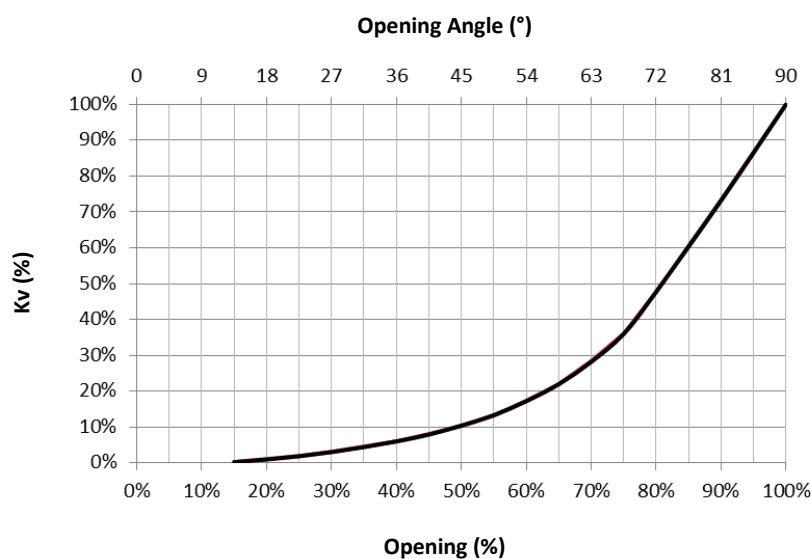
The mechanical characteristics of the FPM and FFPM seals subjected to an ambient temperature below -5°C require the implementation of proper insulation on the valves equipped with such seals. Contact us for more information.

## PRESSURE LOSS

| DN  | Kv (m <sup>3</sup> /h) |
|-----|------------------------|
| 150 | 1287,0                 |

Kv defined according to NF EN 1267

Our valves are guaranteed for an average fluid velocity in the pipeline of ≤ 2 m/s. Please contact us with the working conditions for any higher speed.



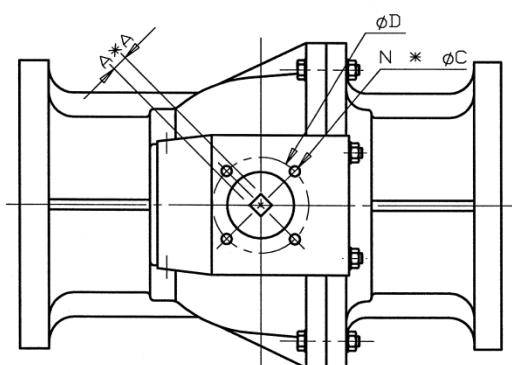
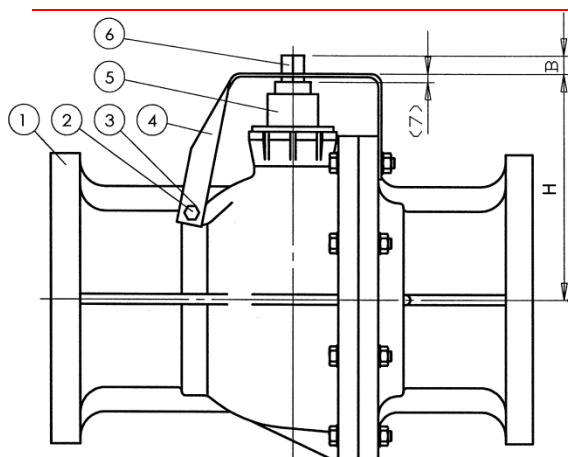
## CHEMICAL RESISTANCE

The chemical resistance of the valve is subject to the type of fluid, the temperature, the pressure, as well as the materials and seals of the valve.

Please contact us to have a personalized analysis of the resistance of one of our products to a given fluid

You can also consult, for information only, the table given in ISO 10358. However, this table cannot be considered as a recommendation by SAFI who could not be held liable for the use of this document.

## OPTION: MOUNTING KIT (ISO 5211)



| N° | QTY | DESCRIPTION            | MATERIAL     |
|----|-----|------------------------|--------------|
| 1  | 1   | 2-Way Ball Valve DN150 | PPGF / PVDF  |
| 2  | 2   | Screw M8               | SS 316       |
| 3  | 2   | Washer M8              | SS 316       |
| 4  | 1   | Bracket F07*           | SS 304+Epoxy |
|    |     | Bracket F10*           | SS 304+Epoxy |
| 5  | 1   | Square Drive           | ZAMAK+Epoxy  |
| 6  | 1   | Square Drive of 17 *   | SS 304       |
|    |     | Square Drive of 22     | SS 304       |

(\*): For a F07 Bracket, the square drive of 17 is recommended.

For a F10 Bracket, the square drive of 22 is recommended.

| DN  | H   | ISO 5211 FIXINGS |    |   |      |    |     |    |   |       |     |
|-----|-----|------------------|----|---|------|----|-----|----|---|-------|-----|
|     |     | F07              |    |   |      |    | F10 |    |   |       |     |
|     |     | A                | B  | N | ØC   | ØD | A   | B  | N | ØC    | ØD  |
| 150 | 225 | 17*              | 15 | 4 | Ø8,5 | 70 | 17  | 15 | 4 | Ø10,5 | 102 |
|     | 225 | 22               | 21 | 4 | Ø8,5 | 70 | 22* | 21 | 4 | Ø10,5 | 102 |

Other Dimensions : On Request \*Suggested Assembly

### Available Kits

| DN    | ISO 5211 FIXINGS<br>(CONNECTION / SQ* 45°) |    | Weight of Kit | PRODUCT CODE |
|-------|--------------------------------------------|----|---------------|--------------|
| DN150 | F05/F07                                    | 17 | Contact us    | KIT0152      |
|       | F05/F07                                    | 22 |               | KIT0154      |

\*SQ = Square drive 45°

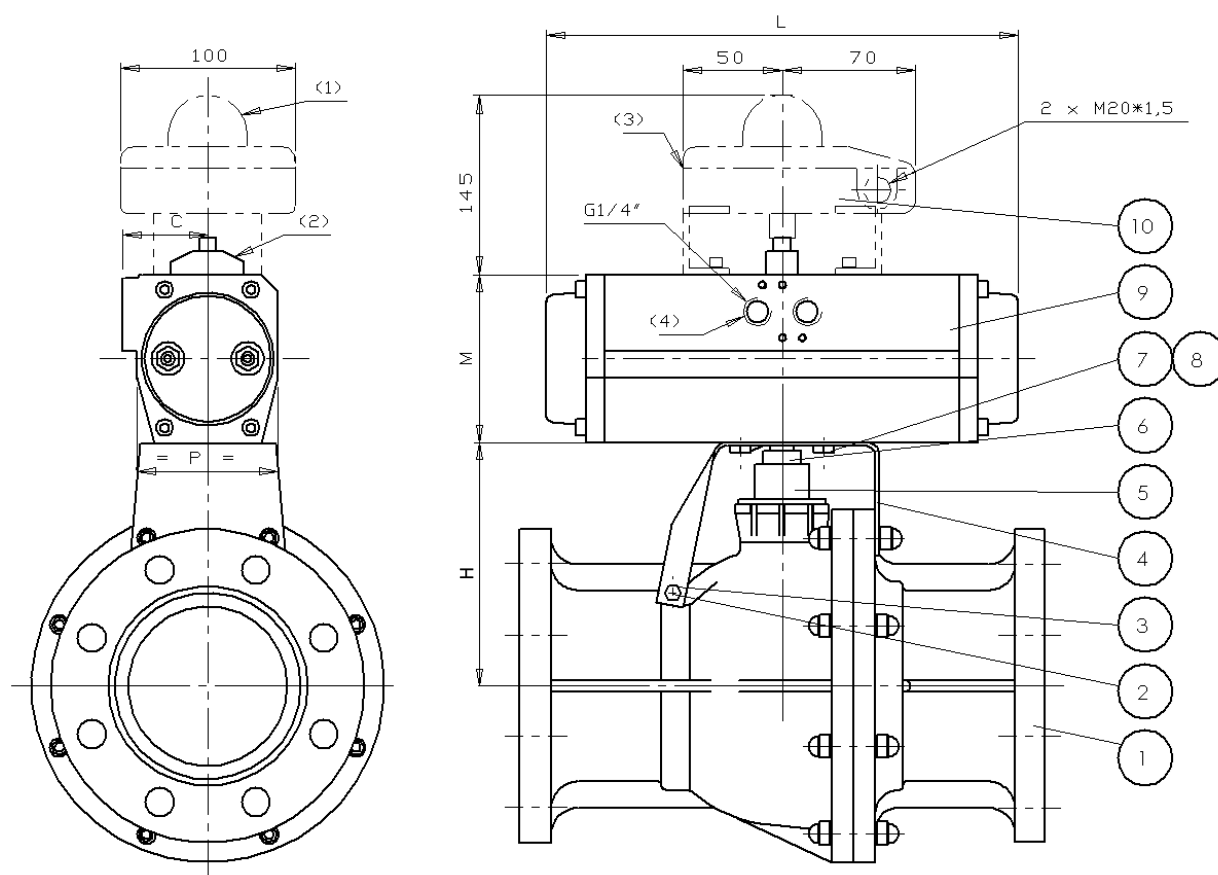
### Minimum operating torque required to actuate valve

| MINIMUM REQUIRED TORQUE<br>(Safety Coefficient x2 included) |         |         |
|-------------------------------------------------------------|---------|---------|
| DN                                                          | PPGF    | PVDF    |
| DN150                                                       | 120 N.m | 100 N.m |

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## OPTION: PNEUMATIC ACTUATION



| N° | QTY | DESCRIPTION                            | MATERIAL                        |
|----|-----|----------------------------------------|---------------------------------|
| 7  | 4   | Screw                                  | SS316                           |
| 8  | 4   | Washer                                 | SS316                           |
| 9  | 1   | Actuator<br>Double Acting or Fail Safe | Aluminium<br>or Stainless Steel |
| 10 | 1   | Limit Switch Box (option)              | Aluminium<br>ou Stainless Steel |

(1) Visual position indicator of Limit Switch Box.

(2) Visual position indicator of Actuator

(3) Limit Switch Box (option)

(4) NAMUR mounting pattern for electro pneumatic control

### Pneumatic Actuators recommendation according to DN and Material of the Valves

#### ALUMINUM Actuator

| DN    | ACTUATOR              | ISO 5211<br>FIXINGS<br>(CONNECTION/DSS*) |    | H                                       | C  | L   | M     | P   | WEIGHT of<br>Actuator<br>in Kg | PRODUCT<br>CODE                | MATERIAL             |
|-------|-----------------------|------------------------------------------|----|-----------------------------------------|----|-----|-------|-----|--------------------------------|--------------------------------|----------------------|
| DN150 | Double Acting<br>(DA) | F07                                      | 17 | See dimensions for<br>each DN on page 6 | 73 | 367 | 168,5 | 145 | 10,65                          | 2007-83F                       | Actuator in Aluminum |
|       | Fail Safe             | F07                                      | 17 |                                         | 73 | 367 | 168,5 | 145 | 13,21                          | 2007-84I (NC)<br>2007-85I (NO) |                      |

\*DSS = Double Square Socket NC= Normally Closed – NO = Normally Open

Find all the information concerning these actuators by consulting our TDS-ACTPN-0001 data sheet.

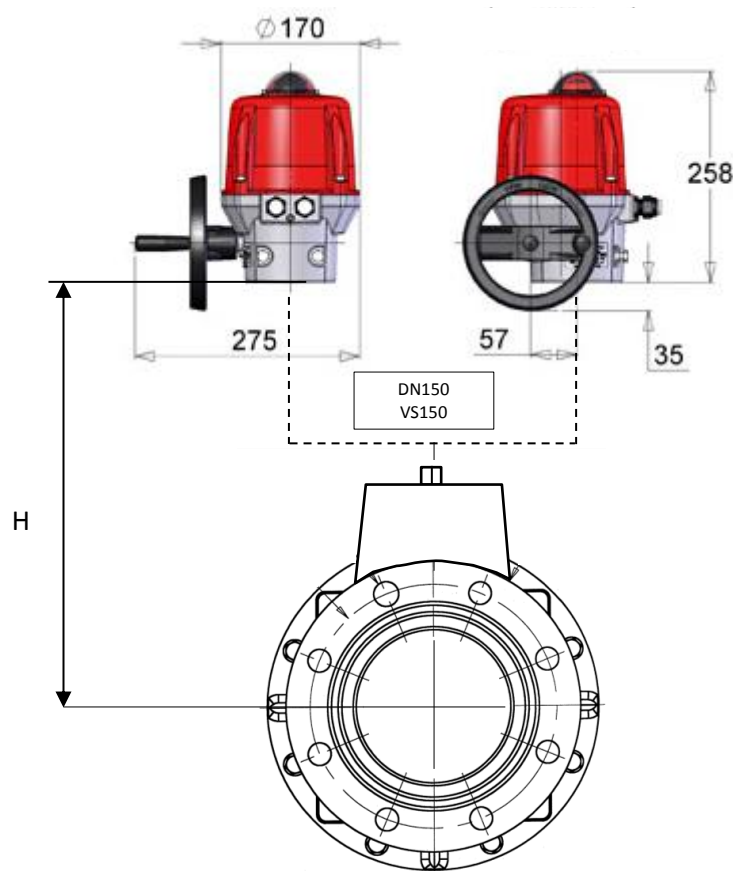
**Contact us, for other type of Actuators or Limit Switch Boxes**

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## OPTION: ELECTRIC ACTUATION



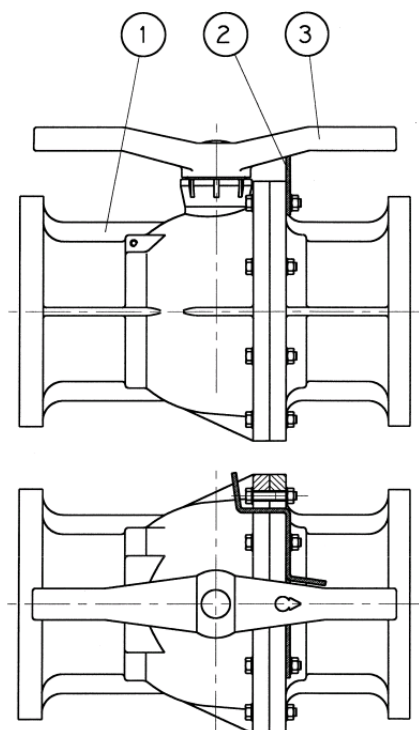
| DN    | MODEL                           | ISO 5211 FIXINGS<br>(CONNECTION/DSS*) |    | H                                          | WEIGHT<br>KG | PRODUCT<br>CODE | MATERIAL  | ROTATION<br>90° |
|-------|---------------------------------|---------------------------------------|----|--------------------------------------------|--------------|-----------------|-----------|-----------------|
| DN150 | VS150<br>(15-30V AC 12-48VDC)   | F07-F10                               | 22 | See dimensions<br>for each DN on<br>page 6 | 5,1 à 6,4    | 2907-46C        | Alu + PA6 | 30s             |
|       | VS150<br>(90-240V AC 90-350VDC) | F07-F10                               | 22 |                                            | 5,1 à 6,4    | 2907-46A        | Alu + PA6 | 30s             |
|       | VS150<br>(400V three phase)     | F07-F10                               | 22 |                                            | 5,1 à 6,4    | 2907-46H        | Alu + PA6 | 20s             |

\*DSS = Double Square Socket

Find all the information concerning these actuators by consulting our TDS-ACTEL-0001 product sheet



## OPTION: LOCKING SYSTEM



| N° | QTY | DESCRIPTION       | MATERIAL       | CODE     |
|----|-----|-------------------|----------------|----------|
| 1  | 1   | Ball Valve DN150  | PPGF, PVDF     | -        |
| 2  | 1   | Handle Stop       | SS 304 + Epoxy | 1102-06B |
| 3  | 2   | Drilled Handle Ø8 | SS 304         | -        |

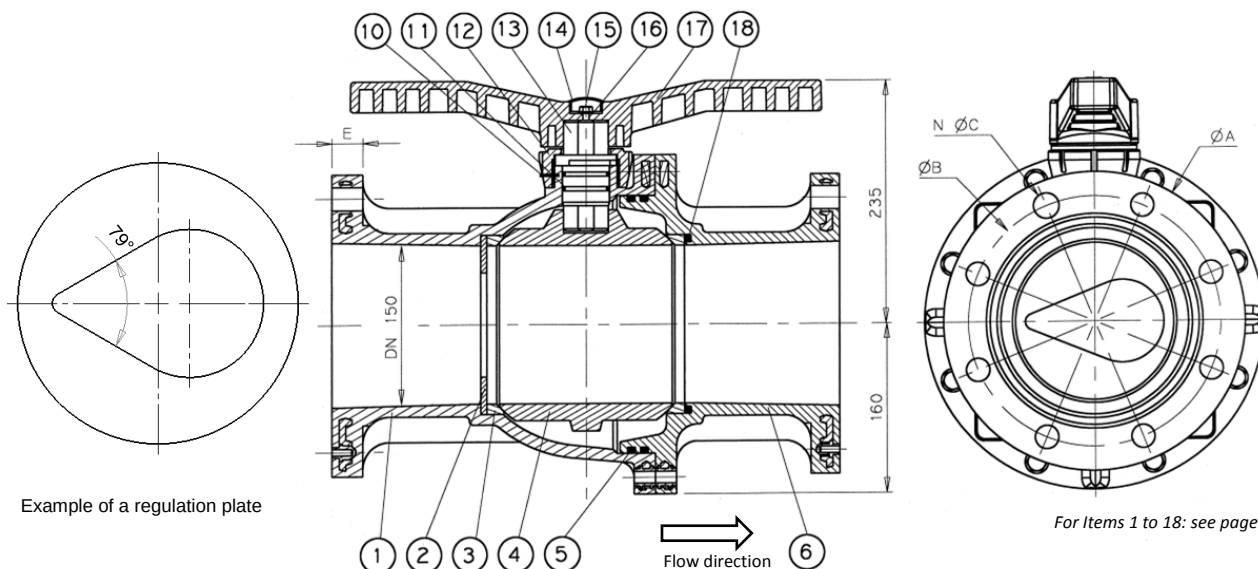
\*For Padlock wire Ø7

Contact us for a Locking system in Stainless Steel 316

### Information:

- 1) The Locking system is directly built-in the DN150 PVDF Ball Valves.
- 2) The Locking system does not include Padlock.

## OPTION: FLOW REGULATION PLATE

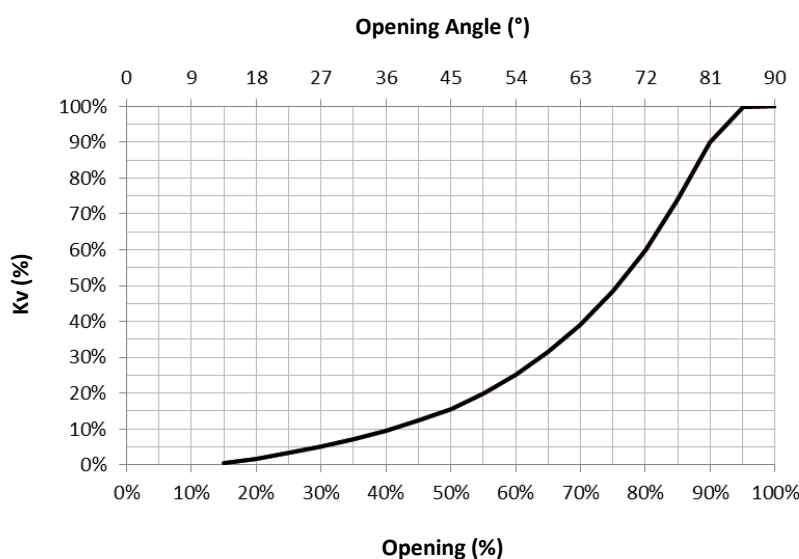


Example of a regulation plate

| N° | DESCRIPTION      | MATERIAL | QUANTITY |
|----|------------------|----------|----------|
| 2  | REGULATION PLATE | PVDF     | 1        |

| DN  | Kv (m <sup>3</sup> /h) |
|-----|------------------------|
| 150 | 686,0                  |

Kv defined according to NF EN 1267



## OTHER AVAILABLE OPTIONS

- . Manual Operation with Spring Return
- . Extended Stem
- . Thermal Insulation Extension
- . Limit Switch Box

Contact us, for more information on the Available Options.

## DETERMINING A PRODUCT CODE

| TYPE                                                           | SPECIFICATION                                                      | DN                | FITTING<br>(Inlet)                                                                                                                                                                                                                              | FITTING<br>(Outlet)                                                                                                                                                                                                                             | SEALS                                                                |
|----------------------------------------------------------------|--------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| <b>2008</b> = PPGF Ball Valve<br><b>2029</b> = PVDF Ball Valve | <b>-</b> = Standard Ball Valve<br><b>O</b> = With Regulation Plate | <b>09</b> = DN150 | <b>F</b> = Flanges with drilling in accordance with EN 1092-1 PN10/PN16 (DIN)<br><b>G</b> = Flanges with drilling in accordance with EN1759-1/ASME B16.5 Class 150 (ANSI)<br><b>H</b> = Flanges with drilling in accordance with (BS10 table D) | <b>F</b> = Flanges with drilling in accordance with EN 1092-1 PN10/PN16 (DIN)<br><b>G</b> = Flanges with drilling in accordance with EN1759-1/ASME B16.5 Class 150 (ANSI)<br><b>H</b> = Flanges with drilling in accordance with (BS10 table D) | <b>E</b> = EPDM<br><b>V</b> = FPM type SAFKM5<br><b>P</b> = FEP+FFPM |

Example: 2008-09FFE

| 2008            | -        | 09    | F                                                                 | F                                                                 | E    |
|-----------------|----------|-------|-------------------------------------------------------------------|-------------------------------------------------------------------|------|
| PPGF Ball Valve | Standard | DN150 | Flange with drilling in accordance with EN 1092-1 PN10/PN16 (DIN) | Flange with drilling in accordance with EN 1092-1 PN10/PN16 (DIN) | EPDM |

Example: Ball Valve + ACTUATOR: 2008-09FFE + KIT0152 + 2007-84I

| 2008-09FFE                                                                                                            | + | KIT0152                     | + | 2007-84I                                                |
|-----------------------------------------------------------------------------------------------------------------------|---|-----------------------------|---|---------------------------------------------------------|
| PPGF Ball Valve, STANDARD<br>DN150<br>With Flanges drilling in accordance with EN1092-1 PN10/PN16 (DIN)<br>EPDM Seals | + | MOUNTING KIT for a<br>DN150 | + | Pneumatic Actuator<br>Fail Safe<br>Normally Closed (NC) |

Example: Ball Valve + LOCKING SYSTEM: 2008-09FFE + 1102-06B

| 2008-09FFE                                                                                                            | + | 1102-06B                              |
|-----------------------------------------------------------------------------------------------------------------------|---|---------------------------------------|
| PPGF Ball Valve, STANDARD<br>DN150<br>With Flanges drilling in accordance with EN1092-1 PN10/PN16 (DIN)<br>EPDM Seals | + | LOCKING SYSTEM<br>For a DN150 in PPGF |