

## HERCULES high pressure - high cycle stainless steel ball valve

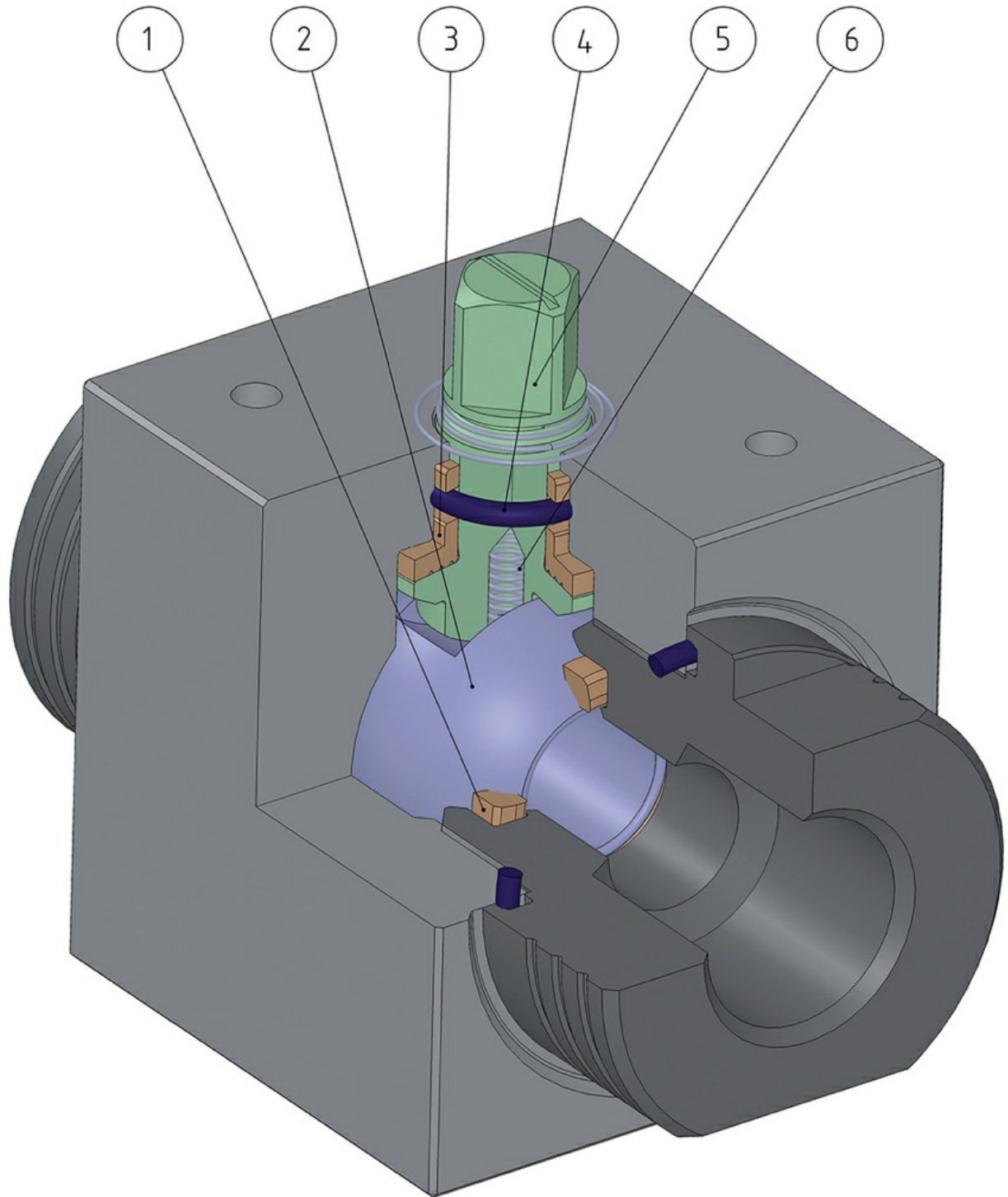


Macro Ball valves

Category HERCULES

Subcategory HERCULES high pressure - high cycle

benefits



**1. Seat in "EXTREME"\*\*\***

Less wear comparing with not modify seat.  
High resistance to stress.

**2. Stainless steel ball, coated with 40µm Hard Chrome**

Longer seal life due to the low wear of the ball.

**3. "POWERAMMIDE"\*\*\* stem bush**

It grants a perfect alignment of the shaft on the body and prevents oscillations with high pressure.  
No seizing.  
High number of cycles.

**4. Elastomer O-Ring with a hardness of 90 Shore A**

No deterioration with quick operations.

**4. Low-permeability O-ring "Rapid Gas Decompression"**

Good resistance to explosive decompression.

**5. Stem in 17-4 PH H900**

Increased mechanical strenght about 5 times more compared to a standard 316 S.S.

**5. Shaft rolling**

Less wear of the seals due to the low roughness (0,4 micron Ra) which facilitate the sliding of the shaft

**6. Antistatic device (electrical continuity between ball, stem and body)**

Static electricity is avoided which can cause sparks and fire in an inflammable/explosive environment.  
Contact safety throughout the entire life of the valve.

**Fire safe design**

Guarantees the tightness of the valve also in case of fire.

**Atex Certificate**

Installation is possible in a potential explosive environment

**UP to SIL 3 certified**

Guarantee of the high level of functional safety

\*Blend of polymers and aramid filler

\*\*Aromatic polyamide long chemical structure

## features

### GENERAL FEATURES:

- Threaded ends EN ISO 228 o NPT
- Working temperature: from -20°C to +100°C with NBR Oring - from -30°C to +160°C with FKM Oring (on request)
- Working pressure: DN6, DN8, DN10, DN15 PN500/7000 psi - DN20 e DN25 PN400/6000 psi
- Fluid type: self-lubricating fluids (liquid and gaseous) compatible with the construction materials. For non self-lubricating fluids (e.g. water) or other applications, contact our sales department.
- Antistatic device.
- Fire safe design.

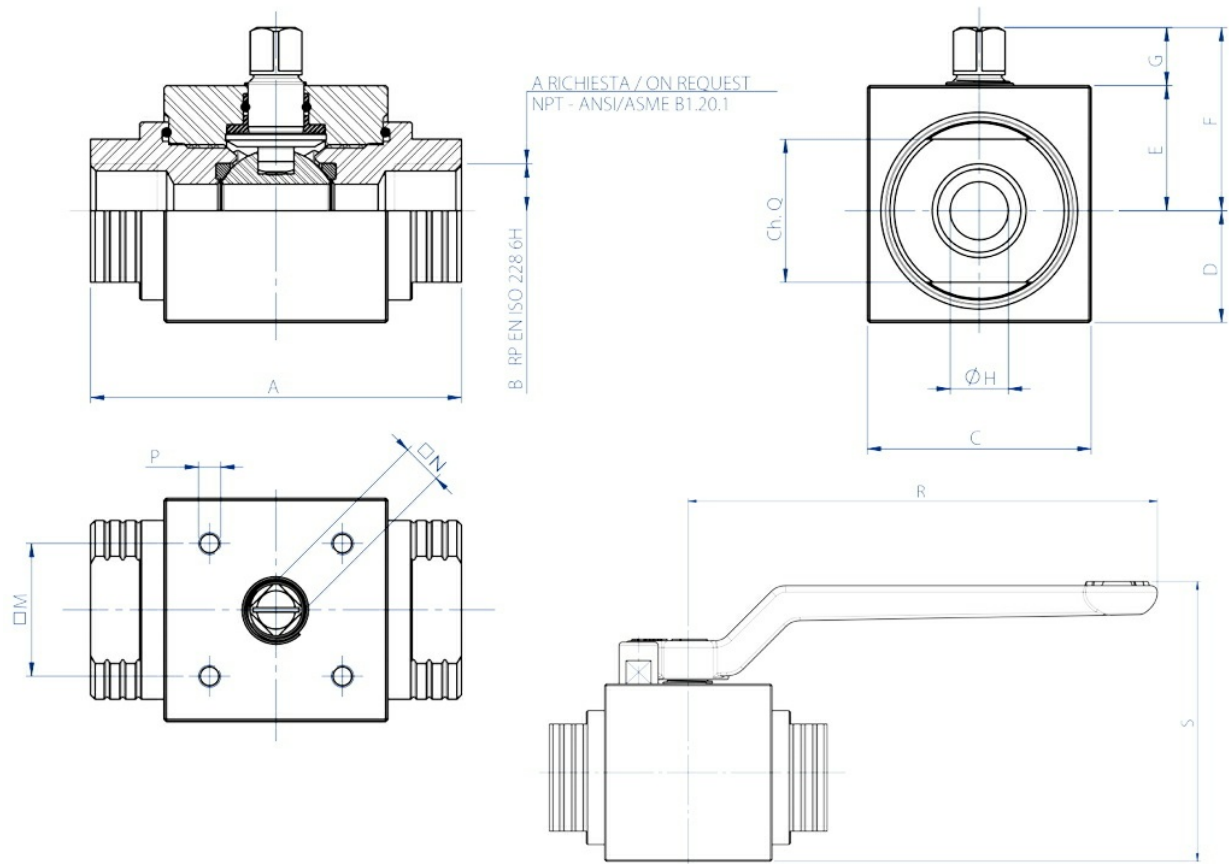
### SPECIAL EXECUTION ON REQUEST:

For other applications, please contact our technical department

### CERTIFICATIONS:

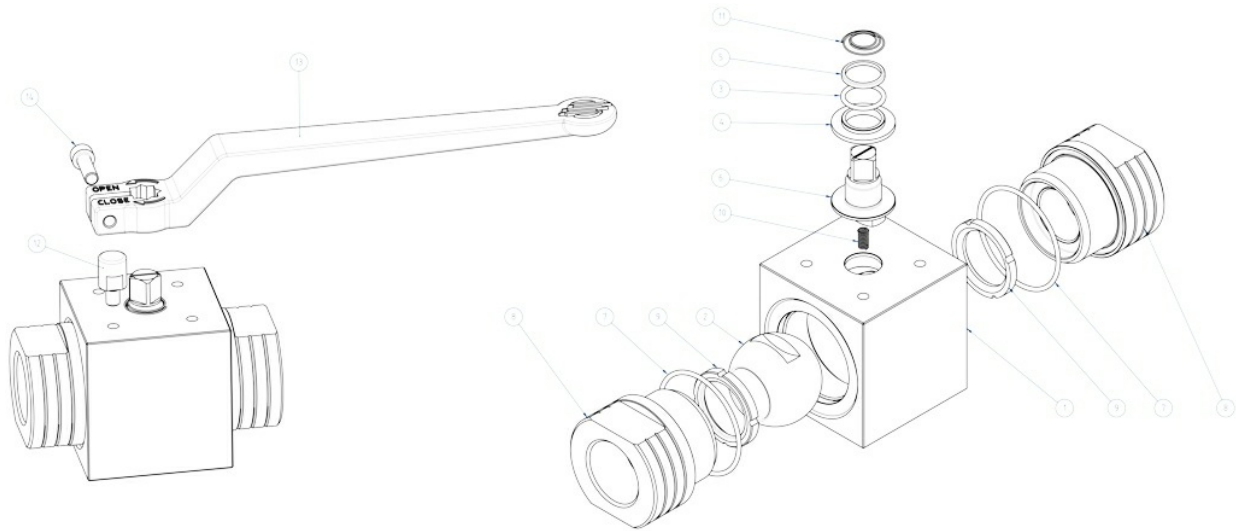
- ATEX version in conformity with European Directive 2014/34/EU.
- ATEX certificate on request.
- Safety integrity level up to SIL 3 according to the IEC 61508.
- In compliance with European Directive 2014/68/EU PED.

## dimensions



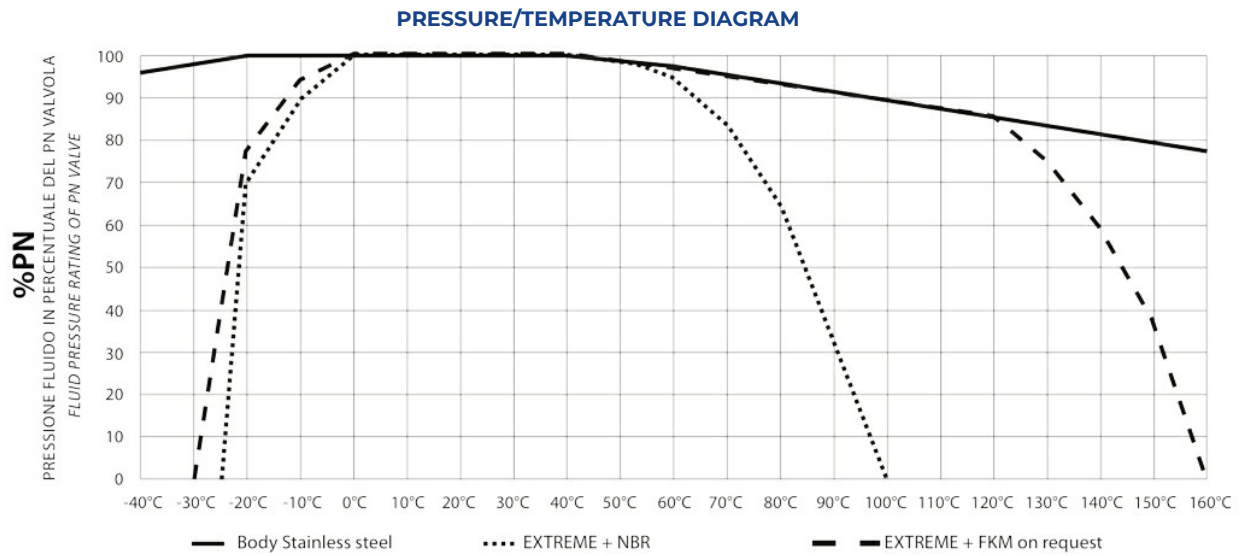
SIZE		DIMENSIONS													
DN [mm]	[inch]	A	B	C	D	E	F	G	ØH	Ch.Q	□M	□N	P	R	S
DN 6	1/8"	69	1/8"	30	13	17	27	10	6	19	21x30	6	M5	103,5	56,1
DN 8	1/4"	69	1/4"	30	13	17	27	10	6	19	21x30	6	M5	103,5	56,1
DN 10	3/8"	72	3/8"	45	19,7	25,3	38,3	13	9	24	29,7 (F04)	9	M5	140	75,5
DN 15	1/2"	83	1/2"	50	25	28	41	13	13	32	29,7 (F04)	9	M5	140	83,6
DN 20	3/4"	95	3/4"	55	27,5	31	46	15	19	37	35,36 (F05)	11	M6	212	94,8
DN 25	1"	113	1"	65	32,5	35	50	15	25	45	35,36 (F05)	11	M6	212	103,8

## materials



<b>MATERIALS</b>		
1	Body	Inox 1.4401 / X5CrNiMo17-12-2 / A182 F316 / A479 tp. 316
2	Ball	A217 CA15 / A479 tp. 410 / A182 F6A + Hard chromium plated
3*	O-ring	NBR (FKM on request)
4*	Lower bush	Modified nylon PA66
5*	Upper bush	Modified nylon PA66
6	Stem	A564 Tp 630 (17-4 PH)
7*	O-ring	NBR (FKM on request)
8	Ends	Inox 1.4401 / X5CrNiMo17-12-2 / A182 F316 / A479 tp. 316
9*	Seats	DEVLON
10	Antistatic device spring	1.4310 - X12CrNi17-7
11	Upper antistatic device spring	1.4310 - X12CrNi17-7
12**	Holder screw	X5CrNiMo1713 - 316 S.S.
13**	Lever	EN AB 46100 - AL SI 11 CU (FE) Nichel coated
14**	Screw	A2 - 70
* Seals kit components		
** Lever kit components		

## diagrams and breakaway torque



DN6, DN8, DN10, DN15	PN500/7000 psi
DN20 e DN25	PN400/6000 psi

**BREAKAWAY TORQUES Nm**

PN	DN 6 1/8"	DN 8 1/4"	DN 10 3/8"	DN 15 1/2"	DN 20 3/4"	DN 25 1"
PN 500 bar	10		18	20		
PN 400 bar					31	40

Torque can vary depending on temperature and type of fluid, a safety factor 1.4 must be applied.

**FLOW RATE KV m<sup>3</sup>/h**

KV m <sup>3</sup> /h	2	5	11	24	44
Kv is the coefficient, expressed in m <sup>3</sup> /h (with water at 15°C) causing a pressure loss of 1 bar.					

## documents

### Certificati

SIL IEC 61508 - HERCULES  
ATEX - Ball Valves

### Istruzioni

ISTRUZIONI ATEX 8\_0486  
ISTRUZIONI USO 8\_1095

### Manuali

MANUALE UMAH1000