

HERCULES high pressure - high cycle carbon steel ball valve

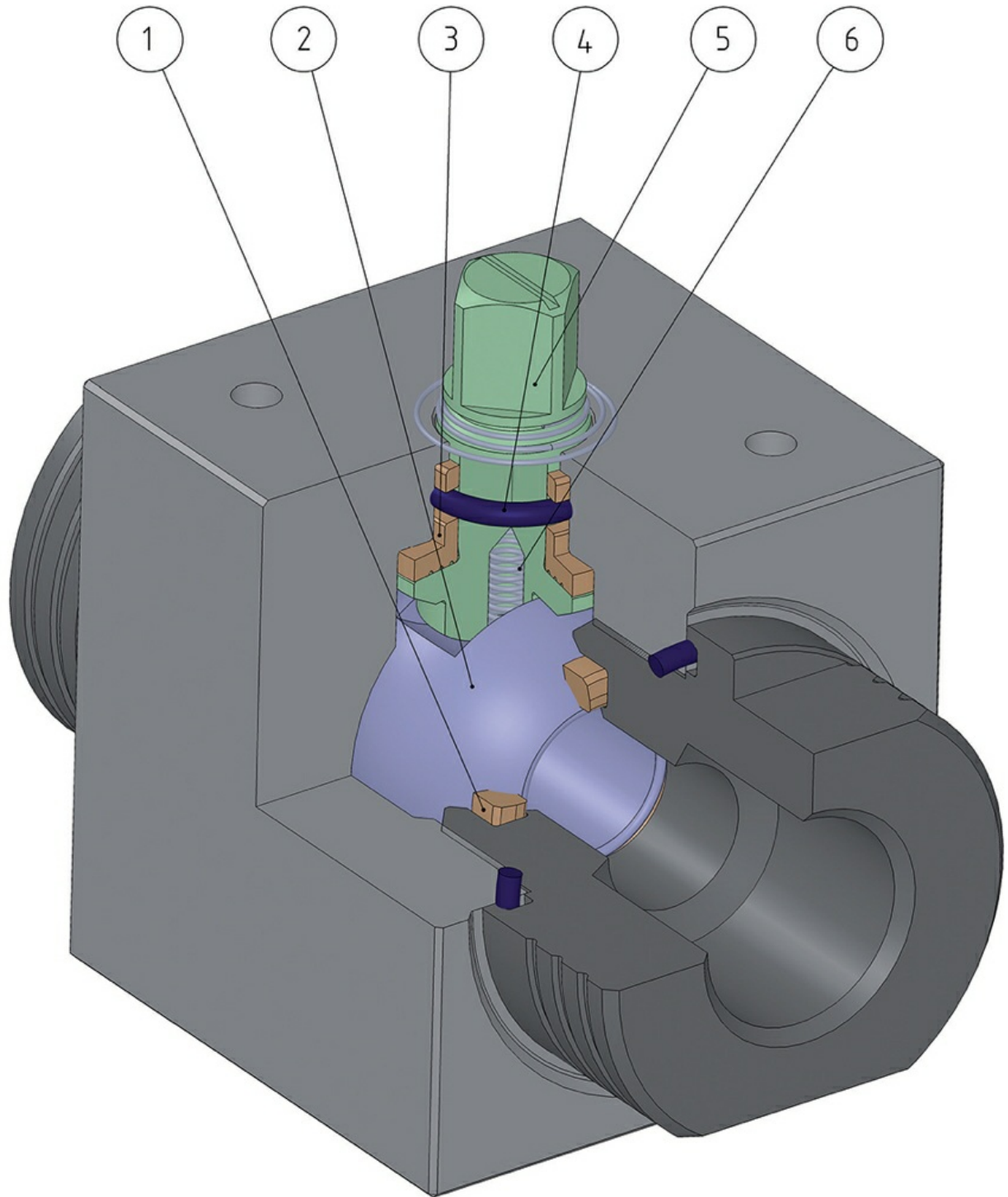


Macro Ball valves

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.

PED Certificate

Full compliance with European safety standards for pressure equipment (for DN ≥ 32).

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:

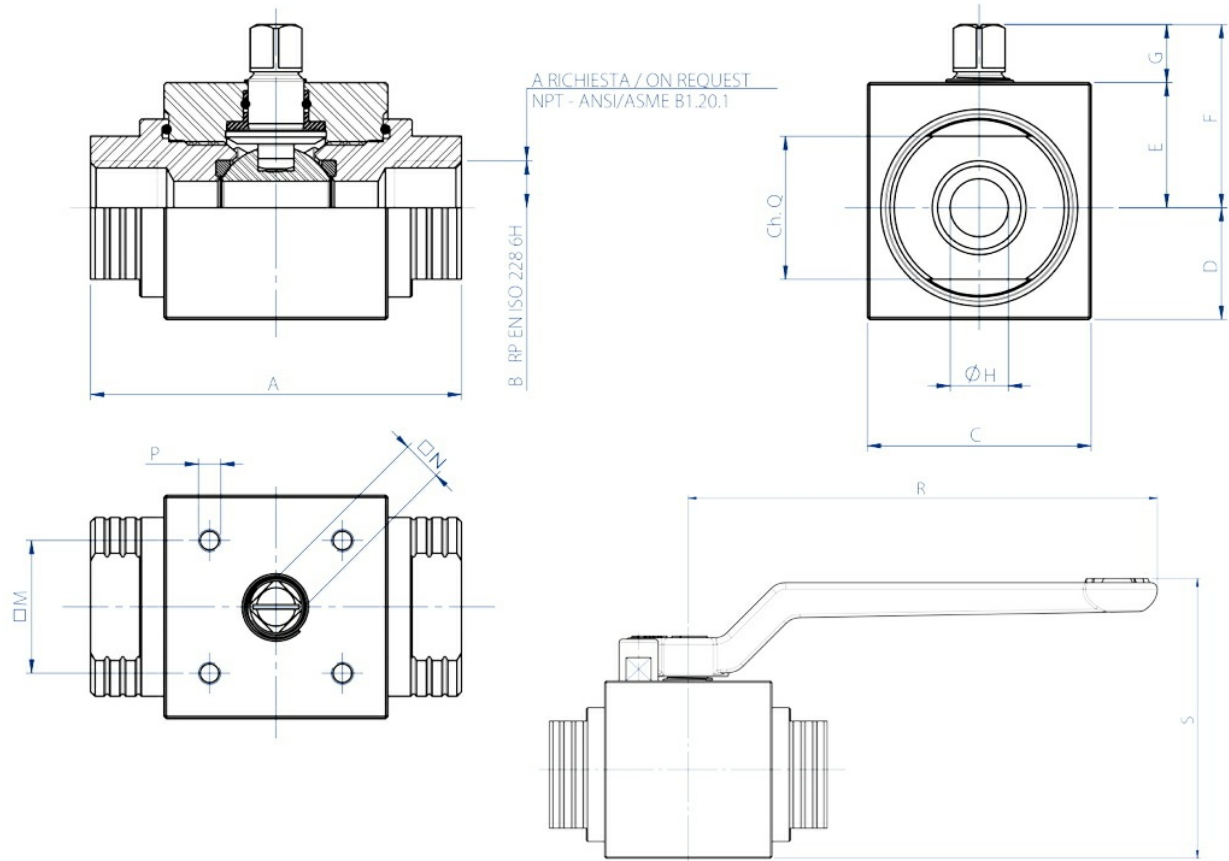
- Ends: Threaded ends EN ISO 228 o NPT
- Working temperature: from -20°C to +100° with NBR Oring, from -20°C to +160°C with FKM Oring (on request)
- Working pressure: DN6, DN8, DN10, DN15 PN500/7000 psi - DN20 e DN25 PN400/6000 psi - DN32, DN40, DN50 PN320/4500 psi
- Working media: Self-lubricating liquids and gaseous, compatible with the constructive materials.
- Antistatic device.
- Fire safe design.

SPECIAL EXECUTION ON REQUEST:

For other applications, please contact our technical department.

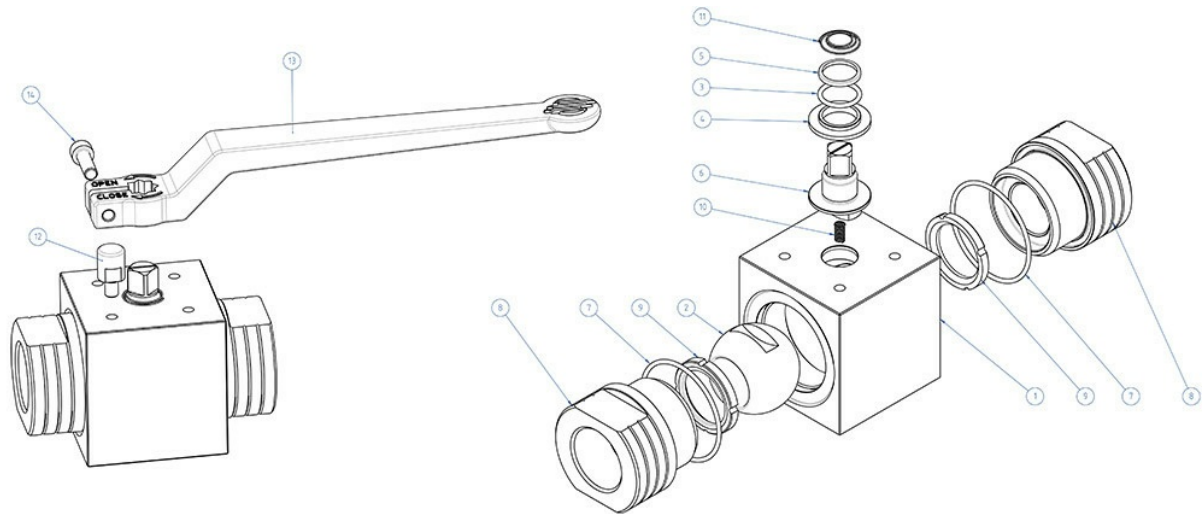
CERTIFICATIONS:

- 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


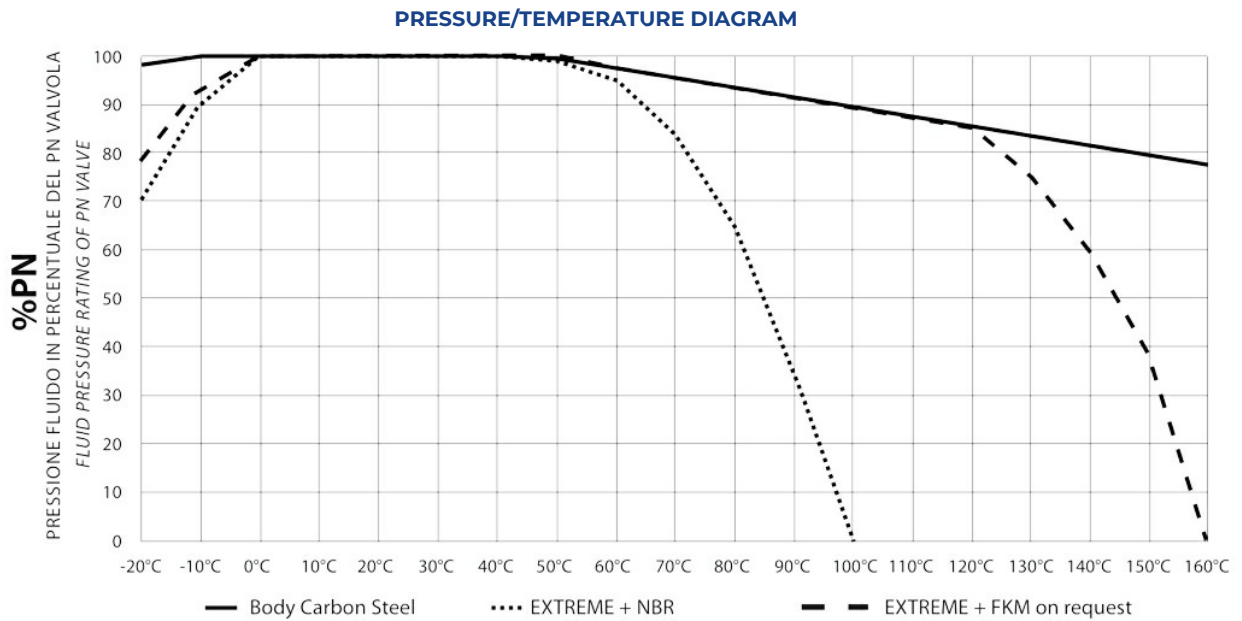
SIZE		DIMENSIONS													
DN [mm]	[inch]	A	B	C	D	E	F	G	ØH	Ch.Q.	□M	□N	P	R	S
DN 6	1/8"	69	1/8"	30	13	17	27	10	6	19	21x30	6	M5	103,5	56,1
DN 8	1/4"	69	1/4"	30	13	17	27	10	6	19	21x30	6	M5	103,5	56,1
DN 10	3/8"	72	3/8"	45	19,7	25,3	38,3	13	9	24	29,7 (F04)	9	M5	140	75,5
DN 15	1/2"	83	1/2"	50	25	28	41	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
DN 32	1"1/4"	111	1"1/4"	80	38	42	62	20	32	55	49,5 (F07)	14	M8	315	121,6
DN 40	1"1/2"	130	1"1/2"	90	44	46	66	20	38	65	49,5 (F07)	14	M8	315	131,6
DN 50	2"	140	2"	120	59	61	81	20	51	80	49,5 (F07)	17	M8	315	161,7

materials



MATERIALS		
1	Body	≤DN25: 1.0737 (11SMnPb37); ≥DN32: 1.0577 (S355J2) Zinc coated
2	Ball	A217 CA15 / A479 tp. 410 / A182 F6A + Hard chromium plated
3*	O-ring	NBR (FKM on request)
4*	wer bush	Blend of polymers and aramid filler
5*	Upper bush	Blend of polymers and aramid filler
6	Stem	A564 Tp 630 (17-4 PH)
7*	O-ring	NBR (FKM on request)
8	Ends	≤DN25: 1.0737 (11SMnPb37) / ASTM A350 LF2; ≥DN32: 1.0577 (S355J2) / ASTM A350 LF2 - Zinc coated
9*	Seats	Aromatic polyamide long chemical structure
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) - Painted
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
DN32, DN40, DN50	PN320/4500 psi

BREAKAWAY TORQUES Nm

PN	DN 6 1/8"	DN8 1/4"	DN 10 3/8"	DN 15 1/2"	DN 20 3/4"	DN 25 1"	DN 32 1"1/4	DN 40 1"1/2	DN 50 2"
PN 500 bar	10		18	20					
PN 400 bar					31	40			
PN 320 bar							61	83	125

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

FLOW RATE KV m³/h

KV m ³ /h	5,2	11	20	60	100	130	170	280
Kv is the coefficient, expressed in m ³ /h (with water at 15°C) causing a pressure loss of 1 bar.								

documents

Certificates

EAC TR CU 010/2011 - Ball Valves
SIL IEC 61508 - HERCULES
ATEX - Ball Valves
EAC TR CU 012/2011 - EX
EAC TR CU 032/2013 - Ball Valves / Pneumatic Valves
PED

Instructions

ISTRUZIONI ATEX 8_0486
ISTRUZIONI USO 8_1095

Manuals

MANUALE UMAH1000