OMAL S.p.A. Società Benefit
Siège social: Via Ponte Nuovo 11, Rodengo Saiano (Brescia) Italie
Site de production: Via Brognolo 12, Passirano (Brescia) Italie
Tél. +39 0308900145 Fax: +39 0308900423

H2 Invictus - High pressure hydrogen ball valve

Macro Vannes à boisseau sphérique

Catégorie H2 INVICTUS

avantages

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H2 INVICTUS PN 550 H35

Pressure class
PN 550 H35

Body and ends
Made of ASTM A479 TP.316.

Ball and stem
Made of XM-19 (NITRONIC 50).
They combine high mechanical strength with a structure that minimises hydrogen embrittlement.

Sealing
Guaranteed by lip seals insensitive to rapid decompression phenomena.
Longer life due to its elastic module.

H2 Ready
All selected materials are suitable for 100% H2 service and verified by Material Assessment validated by TÜV SÜD.

ISO 19880-3 certification
Shut-off service - class “A”.
Allows installation inside hydrogen fuelling stations with a designation up to H35.

In compliance with ATEX 2014/34/UE european directive
Installation is possible in a potential explosive environment.

H2 INVICTUS PN 700 H50

Pressure class
PN 700 H50

Body and ends
Made of ASTM A479 TP.316 with additional requirements for hydrogen service.

Ball and stem
Made of XM-19 (NITRONIC 50).
They combine high mechanical strength with a structure that minimises hydrogen embrittlement.

Sealing
Guaranteed by lip seals insensitive to rapid decompression phenomena.
Longer life due to its elastic module.

H2 Ready
All selected materials are suitable for 100% H2 service and verified by Material Assessment validated by TÜV SÜD.

ISO 19880-3 certification
Shut-off service - class “A”.
Allows installation inside hydrogen fuelling stations with a designation up to H50.

In compliance with ATEX 2014/34/UE european directive
Installation is possible in a potential explosive environment.

caractéristiques

MAIN FEATURES:
- Floating ball;
- 2-pieces body;
- PN550 / H35;
- PN700 / H50;
- Soft-seat seal PEEK;
- Operating temperature: -40°C/+ 85°C;
- NPT-F (ANSI B1.20.1) and Cone & Thread connections (on request);
- Size range:
  - from 1/8" to 1/2" with 8 mm passage diameter
  - from 3/4" to 1" with 12 mm passage diameter
- Antistatic device EN12266-2;
- Anti Blow-out stem;
- Actuator connection as per standard ISO 5211;
- Intercepted fluid: hydrogen;

CERTIFICATIONS:
- ISO 19880-3 certificate on request;
- H2 materials compatibility assessment on request;
- Safety integrity level up to SIL 3 according to IEC 61508;
- Ex CE/UKCA;

ENGINEERING STANDARDS:
- ISO 19880-1;
- ASME B16.34, ASME VIII div.1, EN 12516;

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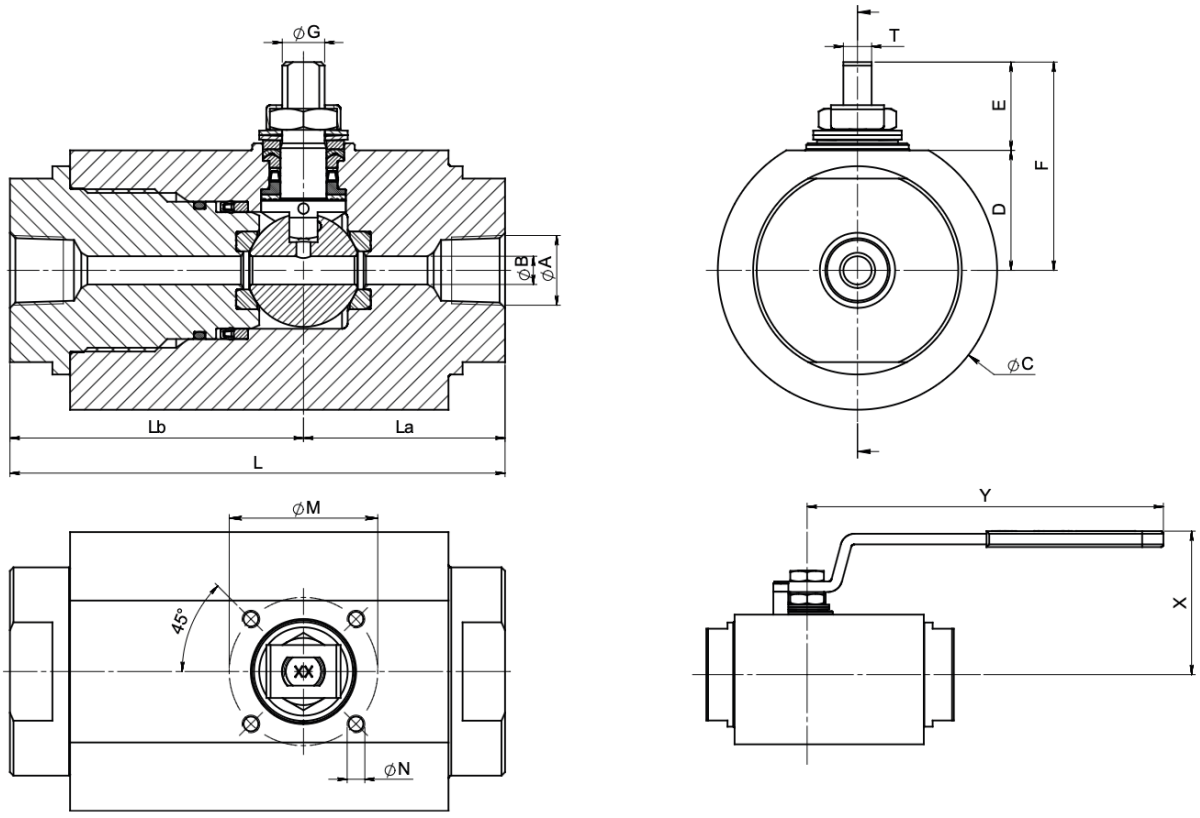
NPT DIMENSIONS



NPT DIMENSIONS																	
NPS	**DN**	**ØA**	**L**	**La**	**Lb**	**ØB**	**ØC**	**D**	**E**	**F**	**ØG**	**T**	**ISO 5211**	**ØM**	**ØN**	**Y**	**X**	**Weight Kg**
1/8"	06	1/8" NPT	140	57	83	8	79	34	25	59	12	8	F04	42	M5	201,5	81	4,8
1/4"	08	1/4" NPT																4,8
3/8"	10	3/8" NPT																4,7
1/2"	15	1/2" NPT																4,6
3/4"	20	3/4" NPT	160	67	93	12	98	41	31	72	16	10	F05	50	M6	276,5	93	8,2
1"	25	1" NPT																8,1

Dimensions valid for both PN550 and PN700.

C & T DIMENSIONS

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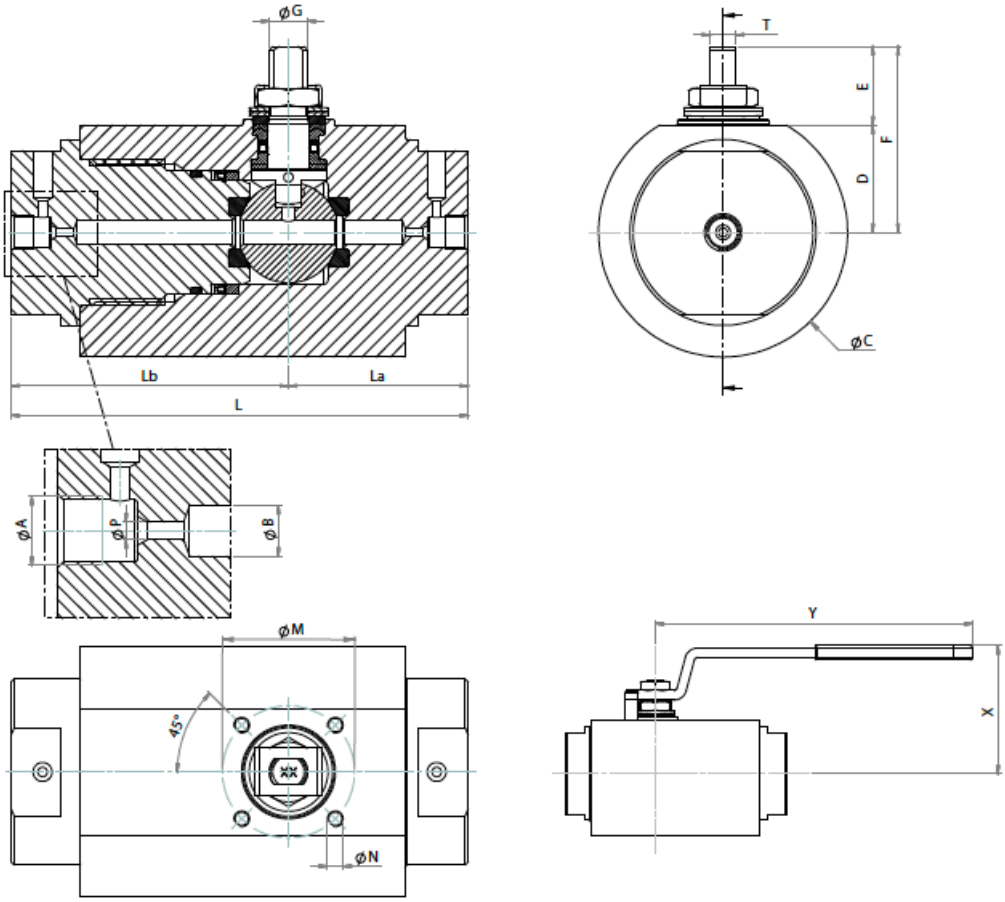

C & T DIMENSIONS																		
C & T	**ØA**	**ØP**	**ØB**	**L**	**La**	**Lb**	**ØB**	**ØC**	**D**	**E**	**F**	**ØG**	**T**	**ISO 5211**	**ØM**	**ØN**	**Y**	**X**	**Weight Kg**
4M	7/16-20 UNF 2B	2,7	8	145	57	88	8	79	34	25	59	12	8	F04	42	M5	201,5	81	4,6
6M	9/16-18 UNF 2B	5,1																	4,6
9M	13/16-16 UNF 2B	7,8		155	62	93													4,8
12M	3/4-14 NPSM 2B	-	12	177	72	105	12	98	41	31	72	16	10	F05	50	M6	276,5	93	8,5

Dimensions valid for both PN550 and PN700.

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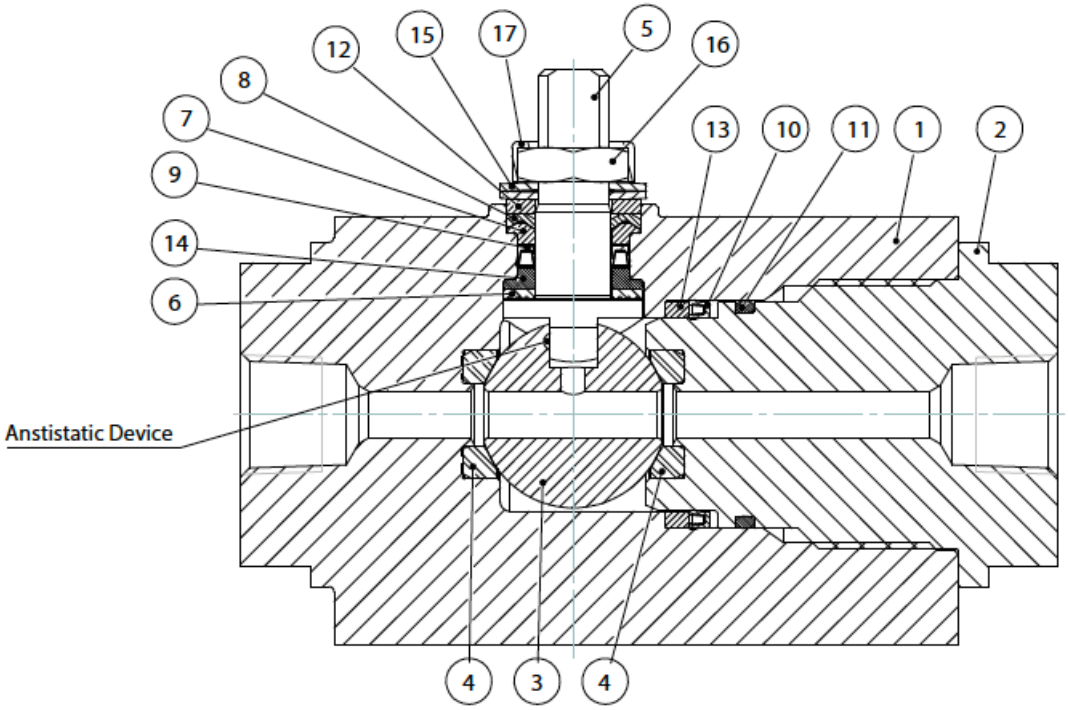
matériaux



MATERIALS		
1	Body	A479 tp.316 / 1.4401
2	Ends	A479 tp.316 / 1.4401
3	Ball	A479 tp.XM19 (Nitronic 50) Hard Chromium plated
4	Seats	Filled PEEK
5	Stem	A479 tp.XM19 (Nitronic 50)
6	Bottom sealing	DEVLON
7	Lower Chevron ring	Filled PEEK
8	Upper Chevron ring	DEVLON
9	Primary stem seal	PEEK
10	Primary body seal	PEEK
11	Secondary body seal	FKM 90
12	Gland nut ring	A479 tp.316 / 1.4401
13	Body ring	A479 tp.316 / 1.4401
14	Stem ring	A479 tp.XM19 (Nitronic 50)
15	Spring washer	301 SS
16	Stem nut	A4-70
17	Stem nut plate	304 SS

documents

Certificati

ATEX - Ball Valves
SIL H2 Invictus series