

H25 | Special Use Hydrogen Service Ultra High Pressure Floating Ball Valve



HABONIM H25 SPECIAL USE HYDROGEN SERVICE ULTRA HIGH PRESSURE FLOATING BALL VALVE

Functionality

Habonim's Hydrogen Service ball valves are designed and tested to provide safe and durable use within diverse hydrogen application and address some leading industrial standards. With decades of proven safe and long-lasting use in hydrogen applications Habonim Hydrogen-service ball valves deliver reliability and integrity for industrial demanding applications

The forged, cast, or rolled bar 3-piece threaded-body design is comprised of a body (center section) and a variety of end connectors (thread, Coned & Threaded) to facilitate a wide range of construction configurations. The no-bolts design of the valve is suitable for high and very-high pressures.



Features and Benefits

- Testing & Certifications: * ISO 19880-3:2018 Gaseous hydrogen – fueling stations valve
- Testing & Certifications: * TPED / TPE (UK) – Transportable Pressure Equipment Directive, according to ISO 23826
- Total HermetiX Integrity Package: * HermetiX™ stem sealing design with zero fugitive emission sealing capability. * Double body sealing. * Fire-safe design, according to API 607 & ISO 10497.
- Double Stem Sealing
- Hydrogen-use material compatibility

Operating Conditions

Maximum Working Pressure

ORIFICE Port

- Size 1/4" (DN8) - 3/4" (DN20) : Class #PN550 / 8000psi / 550bar
- Size 3/4" (DN20) - 1 1/2" (DN40) : Class #PN550 / 8000psi / 550bar

Working Temperatures

- -40°F ÷ +185°F (-40°C ÷ +85°C)

Options

- Locking Device (LD)

Standards and Certifications

ISO 9001

SIL Combined

EAC - DOC&COC TR032

ISO 16232 standard

SIL - H25

AD2000 merkbblatt HP0

TAC TPE UK H25

TPE (UK)

ISO 19880-3 - H25

CRN - ALBERTA (H)

CRN - BC (H)

CRN - Manitoba (H)

CRN - PEI (H)

CRN - QUEBEC (H)

CRN-SASKATCHEWAN (H)

CRN - NF&L (H)

CRN - NT (H)

CRN - NS (H)

CRN - Nunavut (H)

CRN - Ontario (H)

CRN - Yukon (H)

ISO 15848-1 [3"-12"]

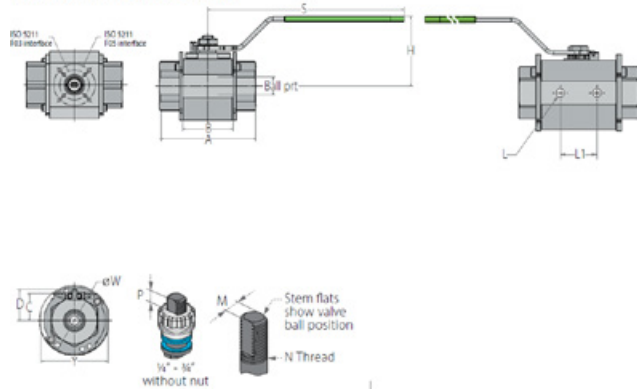
EAC - DOC&COC TR032

H25 SPECIAL USE HYDROGEN SERVICE ULTRA HIGH PRESSURE

Drawing Body Type A
Size ¼" (DN8) - ¾" (DN20)

Valve Dimensions

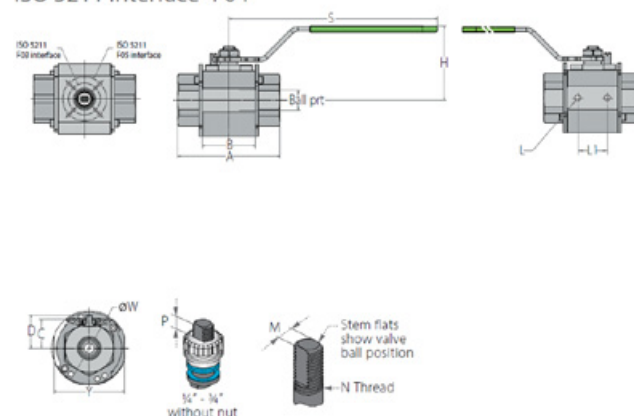
ISO 5211 Interface -F03



Drawing Body Type B
Size ¾" (DN20) - 1½" (DN40)

Valve Dimensions

ISO 5211 Interface -F04



Dimensions

Minimal valve orifice Port

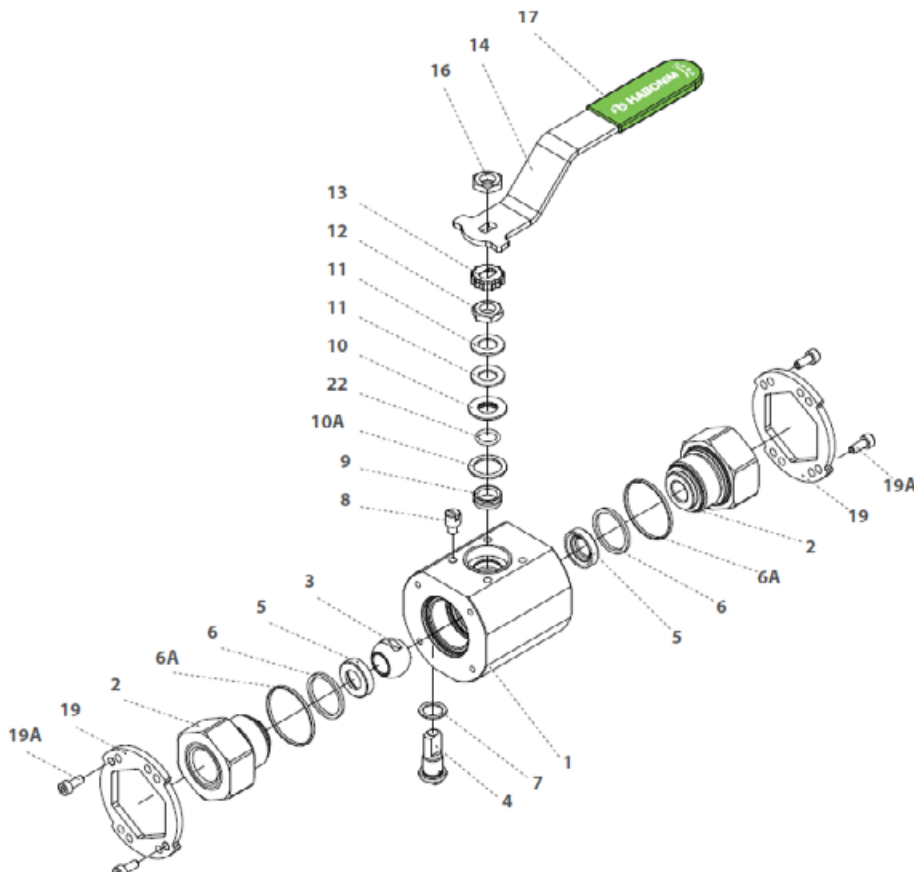
ORIFICE Port	Unit	Ball Port	A	B	C	D	H	M	N	P	W	S	Y	Weight Kg/l	Cv	Cv	Cv
DN8	mm	11.15	98	62	26.7	37.9	62.45	5.5	3/8" UNF	6.6	63	150	60	1.8	2.32	2.32	2.32
¼"	inch	0.44	3.86	2.44	1.05	1.49	2.46	0.22		0.26	2.48	5.91	2.36	3.96	2.62	2.62	2.62
DN10	mm	11.15	98	62	26.7	37.9	62.45	5.5	3/8" UNF	6.6	63	150	60	1.8	11.07	11.07	11.07
¾"	inch	0.44	3.86	2.44	1.05	1.49	2.46	0.22		0.26	2.48	5.91	2.36	3.96	12.51	12.51	12.51
DN15	mm	11.15	98	62	26.7	37.9	62.45	5.5	3/8" UNF	6.6	63	150	60	1.8	11.24	11.24	11.24
½"	inch	0.44	3.86	2.44	1.05	1.49	2.46	0.22		0.26	2.48	5.91	2.36	3.96	12.7	12.7	12.7
DN16	mm	11.15	98	62	26.7	37.9	62.45	5.5	3/8" UNF	6.6	63	150	60	1.8	2.25	2.25	2.25
9/16"	inch	0.44	3.86	2.44	1.05	1.49	2.46	0.22		0.26	2.48	5.91	2.36	3.96	2.54	2.54	2.54
DN20	mm	11.15	118	62	26.7	37.9	62.45	5.5	3/8" UNF	6.6	63	150	60	1.8	19.71	19.71	19.71
¾"	inch	0.44	4.65	2.44	1.05	1.49	2.46	0.22		0.26	2.48	5.91	2.36	3.96	22.27	22.27	22.27
DN20	mm	20.65	168.6	88.6	39.6	55.6	81.5	7.5	7/16" UNF	11.74	96	187.13	92	5.9	26.7	26.7	26.7
¾"	inch	0.81	6.64	3.49	1.56	2.19	3.21	0.3		0.46	3.78	7.37	3.62	12.98	30.17	30.17	30.17
DN25	mm	20.65	168.6	88.6	39.6	55.6	81.5	7.5	7/16" UNF	11.74	96	187.13	92	5.9	63.15	63.15	63.15
1"	inch	0.81	6.64	3.49	1.56	2.19	3.21	0.3		0.46	3.78	7.37	3.62	12.98	71.36	71.36	71.36
DN40	mm	20.65	188.6	88.6	39.6	55.6	81.5	7.5	7/16" UNF	11.74	96	187.13	92	6.5	18.15	18.15	18.15
1½"	inch	0.81	7.43	3.49	1.56	2.19	3.21	0.3		0.46	3.78	7.37	3.62	14.3	20.51	20.51	20.51

Components List

Item	Description	Material Specifications	Qty.
1	Body	Acc. Ordering Code	1
2	Ends	Acc. Ordering Code	2
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5	Seat	Acc. Ordering Code	1
6	Inner Seal	Acc. Ordering Code	2
6A	Outer Seal	Acc. Ordering Code	2
7	Stem Thrust Seal	PEEK, CF PEEK, PCTFE	1
8	Stop Pin	S. Steel	1
9	Stem Seal	CF PTFE, TFM	1
10	Follower	S. Steel	1

Item	Description	Material Specifications	Qty.
10A	Slide Bearing	S. Steel	1
11	Disc Spring	S. Steel	2
12	Stem Nut	S. Steel	1
13	Locking Clip	S. Steel	1
14	Handle	S. Steel	1
16	Handle Nut	S. Steel	1
17	Sleeve	PVC	1
19	Locking Plate	S. Steel	2
19A	Locking Bolt	S. Steel	4
22	O-Ring	Acc. to 6	1

COMPONENTS DRAWING BODY A



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Ordering Code

"Mandatory option" options are marked with **green background** | "Standard offer" options are marked with **light green background**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
0	3			F	H	2	5	W	-	6	6	M	M	L	H	G	/	C	T	M		-							
Size		Features				Series		Design	Body/Ends material		Ball material	Stem material	Seat material	Inner Seal	Outer Seal	End Connection		Special features											

Size (1-2)		
Code	inch	mm
02	¼"	8
03	⅜"	10
05*	½"	13
06	⅝"	15
07	¾"	20
10	1"	25
15	1½"	40

* Not applicable for CTM/CTH

Features (3-6)	
H	Hydrogen use
F	Fire safe
	Body size A
B	Body size B
Series (7-8)	
25	HP Float 3 piece
Design (9)	
W	Total HermetiX Integrity package
Body/Ends material (11-12)	
6	S. Steel 316L

Ball material (13)	
M	High Strength S. Steel
Stem material (14)	
M	High Strength S. Steel
Seat material (15)	
L	Virgin PEEK
Inner Seal Material (16)	
H	HNBR
V	Viton
A	TFM

Outer Seal Material (17)	
G	Expanded graphite
A	TFM
End connections (19-22)	
CTM	Coned & Threaded Medium pressure
CTH	Coned & Threaded High pressure
NPT	ASME B1.20.1 - National Pipe Taper thread
BSPP	ISO228-1 - Pipe Parallel thread
DIN3852	DIN3852 - Pipe Parallel thread
BSPT	EN 10226 - Pipe Taper thread
Special Features (24-30)	
TPED	TPED / TPE
TH	T Handle
LDN	LDN-Lockable handle



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