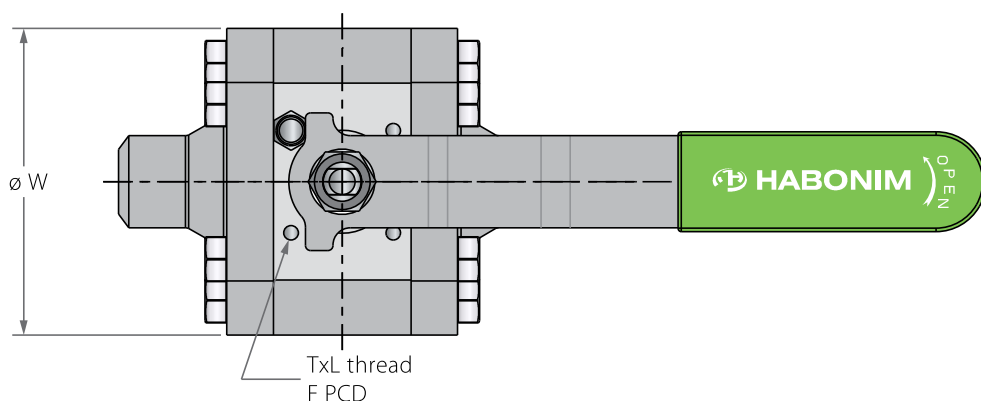
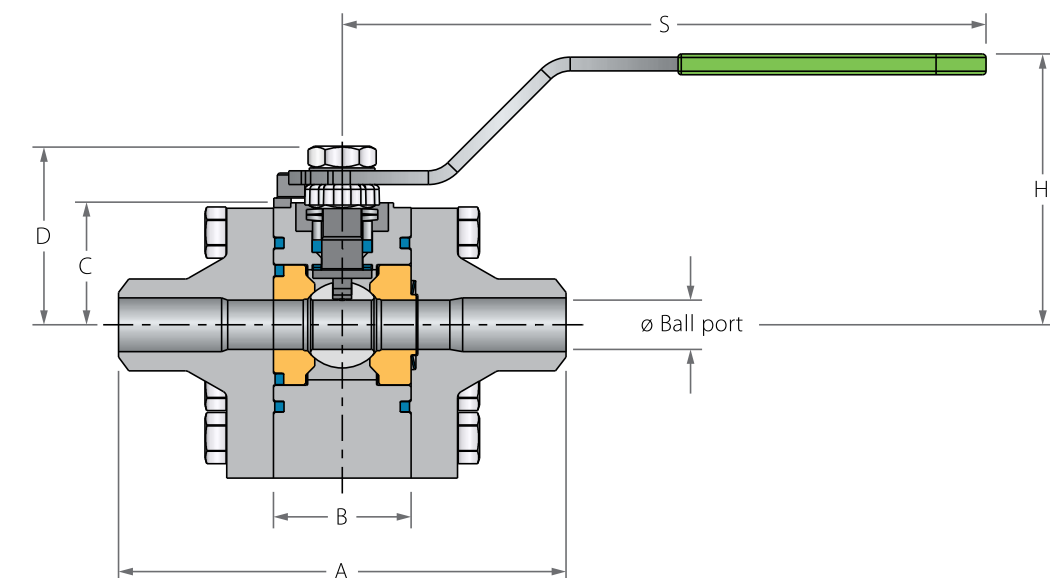
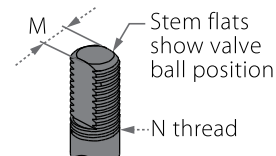
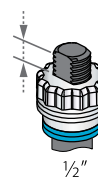


Z28W**Z28P****1/4"-1 1/4" | DN8-DN32 | CLASS 2500**HP Floating Ball 3 Piece Up to **W** 260°C (500°F) | **P** 400°C (750°F)

Valve dimensions



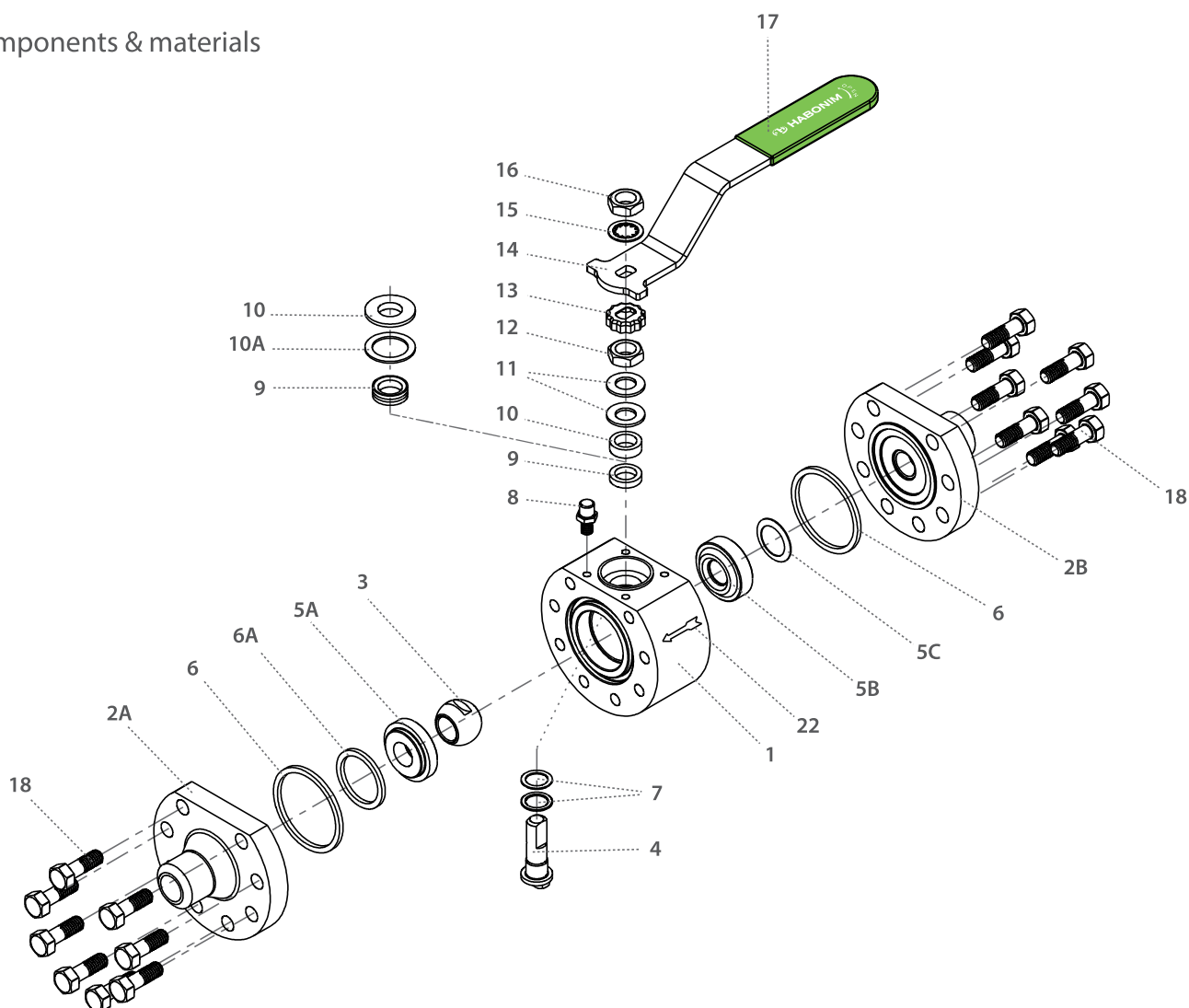
Preparation for actuation



Std. port	Full port	Unit	Ball port	A		B	C	D	H	S	W	M	N	P	F	W	TxL	Weight kg/lb	Kv Cv
				Welded	Threaded														
DN15	DN8, DN10	mm	11.15	159.00	92.00	35.00	29.00	38.00	63.00	150.00	69.00	5.54	3/8" UNF	6.70	(F03)	36.00	M5X10	2.75	6.9
1/2"	1/4", 3/8"	inch	0.44	6.26	3.62	1.38	1.14	1.50	2.48	5.91	2.72	0.22		0.26		1.42		6.1	8.0
DN20	DN15	mm	13.00	169.00	100.00	40.00	34.10	52.40	78.00	230.00	89.00	7.54	7/16" UNF	11.30	(F04)	42.00	M5X10	4.3	10
3/4"	1/2"	inch	0.51	6.65	3.94	1.57	1.34	2.06	3.07	9.06	3.50	0.30		0.44		1.65		9.5	12
DN25	DN20	mm	20.65	190.00	125.00	49.00	43.70	66.00	92.00	237.00	104.00	7.54	7/16" UNF	14.30	(F04)	42.00	M5X10	6.8	28
1"	3/4"	inch	0.81	7.48	4.92	1.93	1.72	2.60	3.62	9.33	4.09	0.30		0.56		1.65		15.0	32
DN32	DN25	mm	193.00	187.00	133.00	49.00	51.50	69.50	96.00	237.00	119.00	8.71	9/16" UNF	14.30	(F05)	50.00	M6X12	9.5	49
1 1/4"	1"	inch	7.60	7.36	5.24	1.93	2.03	2.74	3.78	9.33	4.69	0.34		0.56		1.97		20.9	57

Z28W**Z28P****1/4"-1 1/4" | DN8-DN32 | CLASS 2500****HP Floating Ball 3 Piece Up to W 260°C (500°F) | P 400°C (750°F)**

Components & materials



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2A	Downstream end	Acc. Ordering Code	1
2B	Upstream end	Acc. Ordering Code	1
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5A	Downstream seat	Acc. Ordering Code	1
5B	Upstream seat	Acc. Ordering Code	1
6*	Body seal	Graphite	2
6A	Seat seal	Graphite	1
7*	Stem thrust seal	A479 316L Hardened with LTPN, B637 N07718 Inconel 718, Virgin peek, PCTFE	2
8	Stop pin	S. Steel	1
9*	Stem seal	Graphite, CF PTFE, TFM	1

Item	Description	Material specification	Qty.
10	Follower	S. Steel	1
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
15	Serrated washer	S. Steel	1
16	Handle nut	S. Steel	1
17	Sleeve	PVC	1
18	Body bolts	S. Steel	12-16
22	Arrow flow	S. Steel	1
23	Tag (not shown)	S. Steel	1

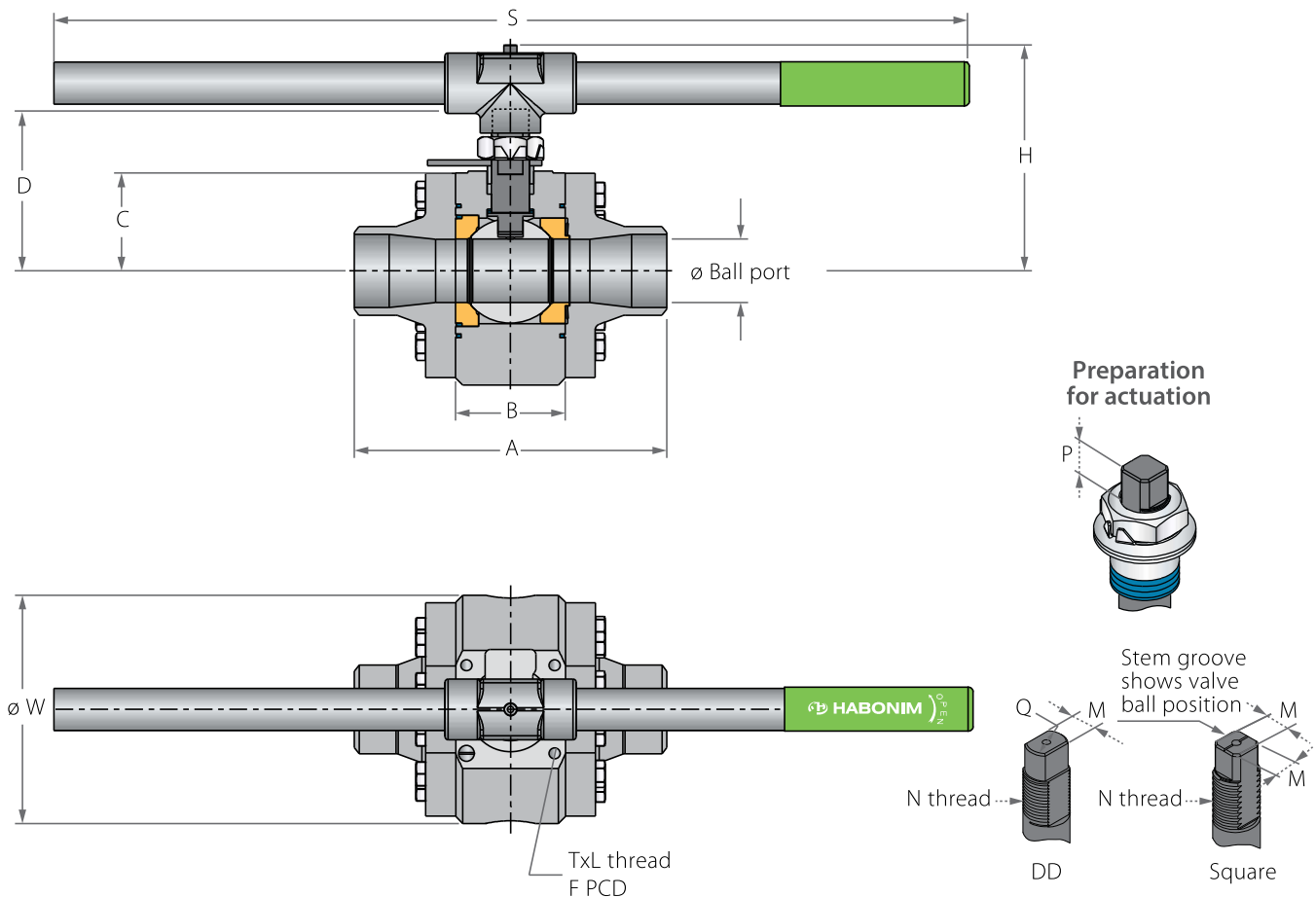
* Repair kit components

Z28W**Z28P**

1½"-6" | DN40-DN150 | CLASS 2500

HP Floating Ball 3 Piece Up to **W** 260°C (500°F) | **P** 400°C (750°F)

Valve dimensions



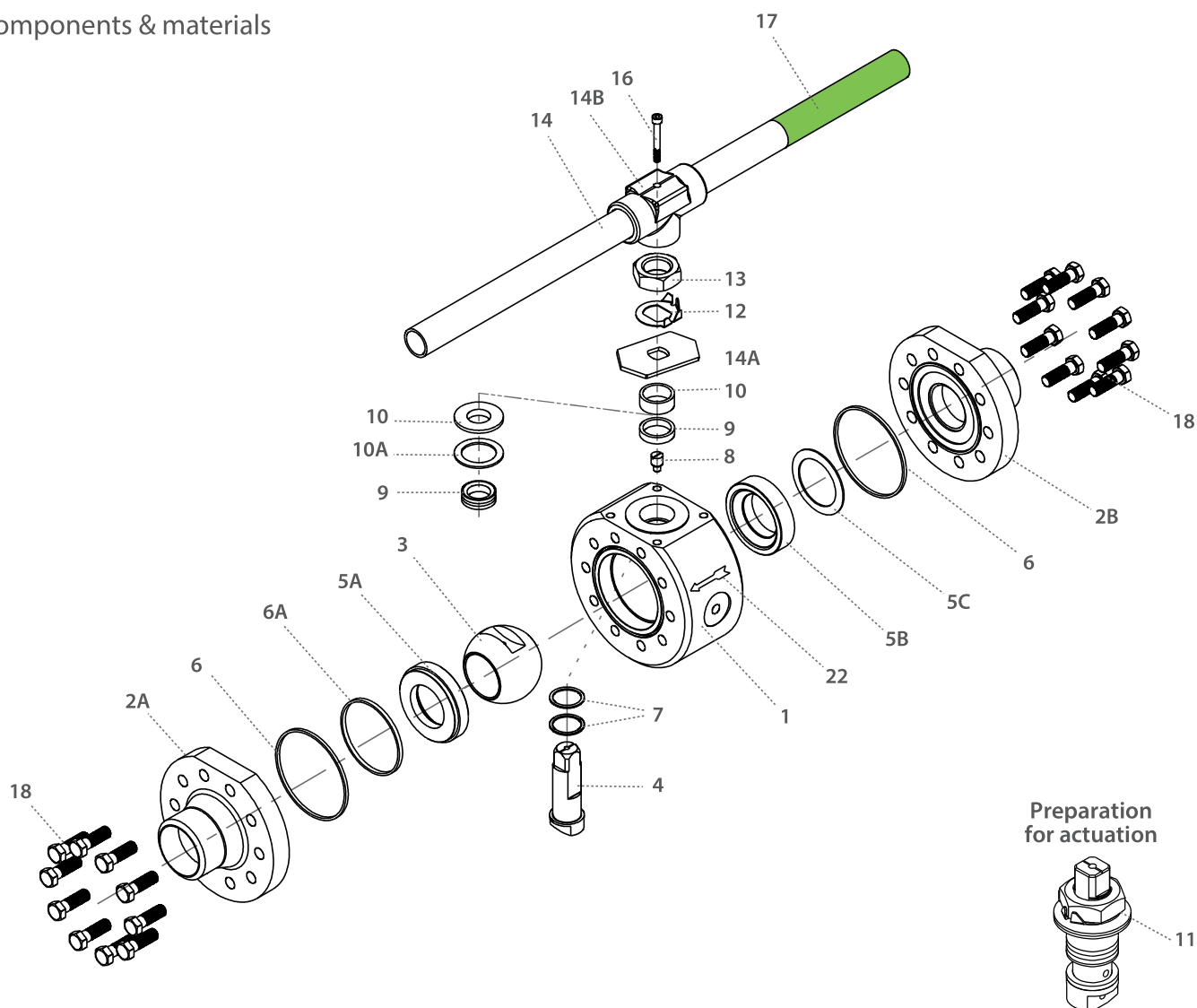
Std. port	Full port	Unit	Ball port	A		B	C	D	H	S	W	M	M (DD)	Q	N	P	F	TxL	Weight kg/lb	Kv Cv
				Welded	Threaded															
DN40	DN32	mm	31.80	237.00	154.00	70.00	53.00	94.60	123.20	401	134.00	-	13.90	20.00	M20x2.5	14.25 (F07)	70.00	M8x12	14.5	69
1½"	1¼"	inch	1.25	9.33	6.06	2.76	2.09	3.72	4.85	15.79	5.28	-	0.55	0.79	M20x2.5	0.56	2.76	M8x12	31.9	80
DN50	DN32	mm	38.10	241.00	157.00	70.00	64.10	101.60	130.00	600.00	169.00	-	13.90	20.00	M20x2.5	13.80 (F07)	70.00	M8x12	22.0	102
2"	1¼"	inch	1.50	9.49	6.18	2.76	2.52	4.00	5.12	23.62	6.65	-	0.55	0.79	M20x2.5	0.54	2.76	M8x12	48.4	118
DN65	DN50	mm	51	302.00	194.00	94.00	87.50	134.00	174.50	401	197.00	18.90	15.90	22.70	1"-14 UNF-2A	20.00 (F10)	102.00	M10x20	36.0	208
2½"	2"	inch	2.01	11.89	7.64	3.70	3.44	5.28	6.87	15.79	7.76	0.74	0.63	0.89	1"-14 UNF-2A	0.79	4.02	M10x20	79.2	241
DN80	DN65	mm	63.75	378.00	254.00	115.00	110.00	167.60	-	-	249.00	28.45	23.75	35.20	1½"-12 UNF-2A	22.25 (F12)	125.00	M12x20	76.0	300
3"	2½"	inch	2.51	14.88	10.00	4.53	4.33	6.60	-	-	9.80	1.12	0.94	1.39	1½"-12 UNF-2A	0.88	4.92	M12x20	167.2	348
DN100	DN80	mm	80	410.00	-	130.00	136.00	203.00	-	-	298.00	35.92	35.92	46.50	2"-8 UN-2A	30.00 (F14)	140.00	M16x20	110.0	615
4"	3"	inch	3.15	16.14	-	5.12	5.35	7.99	-	-	11.73	1.41	1.41	1.83	2"-8 UN-2A	1.18	5.51	M16x20	242.0	713
DN150	DN100	mm	100	510.00	-	175.00	177.00	281.00	-	-	389.00	45.90	45.90	55.00	2¾"-8 UN-2A	40.00 (F16)	165.00	M20x30	235.0	872
6"	4"	inch	3.94	20.08	-	6.89	6.97	11.06	-	-	15.31	1.81	1.81	2.17	2¾"-8 UN-2A	1.57	6.50	M20x30	517.0	1012

Z28W**Z28P**

1½"-6" | DN40-DN150 | CLASS 2500

HP Floating Ball 3 Piece Up to **W** 260°C (500°F) | **P** 400°C (750°F)

Components & materials



Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2A	Downstream end	Acc. Ordering Code	1
2B	Upstream end	Acc. Ordering Code	1
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5A	Dwonstream seat	Acc. Ordering Code	1
5B	Upstream end	Acc. Ordering Code	1
5C	Upstream seat spring	Acc. Ordering Code	1
6*	Body seal	Graphite	2
6A	Seat seal	Graphite	1
7*	Stem thrust seal	A479 316L Hardended with LTPN, B637 N07718 Inconel 718, Virgin peek,PCTFE	2
8	Stop pin	S. Steel	1
9*	Stem seal	Graphite, CF PTFE, TFM	1
10A*	Slide Bearing	S. Steel	1

Item	Description	Material specification	Qty.
10	Follower	S. Steel	1
11	Disc spring	S. Steel	2
12	Stem nut	S. Steel	1
13	Tab lock washer	S. Steel	1
14**	Handle	S. Steel	1
14A	Stop plate	S. Steel	1
14B	Wrench head	S. Steel	1
16	Wrench bolt	S. Steel	1
17	Sleeve	PVC	1
18	Body bolts	S. Steel	16-52
22	Arrow flow	S. Steel	1
23	Tag (not shown)	S. Steel	1

* Repair kit components

** Gear operator should be used for size 3" DN80 and above (handle components are not included)



High Temperature - Ordering Code System

"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	...	30	
2	0					Z	2	8	P	-	6	6	6	M	N	G	-	/	X	5	0			-					
Size		Features				Series		Design		Body material		Ends material	Ball/Seat material	Stem material	Hardening	Seal material	End Connection						Seat design		Special features				

Size (1-2)		
Code	inch	mm
02	¼"	8
03	⅜"	10
05	½"	15
07	¾"	20
10	1"	25
12	1¼"	32
15	1½"	40
20	2"	50
25	2½"	65
30	3"	80
40	4"	100
60	6"	150
80*	8"	200

* std. port only

Features (3-6)	
Z	Metal seats
B	Full Port
N	Control service

Series (7-8)	
28	HP Floating ball 3 piece
Design (9)	
P	-60°C to 400°C (-76°F to 752°F)
W	-60°C to 260°C (-76°F to 500°F) HermetiX stem seal
M	-60°C to 650°C (-76°F to 1200°F) - available with H/J valve materials only

Body & ends material (11-12)	
6	CF8M
F	LF2
H*	321H
J*	F22

* For M design only

Ball/Seat material (13)	
6	St. Steel
7*	Monel
D**	Duplex
K**	Super duplex
N***	St. Steel 410

* Up to 475°C (887°F)

** Up to 315°C (600°F)

*** For O hardening only

Stem material (14)	
M	High Strength S. Steel
Z	Inconel 718

Hardening (15)	
I	Cr3C2- Chromium Carbide with Nickel Chrome binder- HVOF technique
O*	WC-Co- Tungsten Carbide with Coblat binder- HVOF technique

* Only with N ball material

Seal Material (16)	
G	Expanded graphite
B	NBR sh. 90
V	Viton Sh. 70
K	FFKM

End connections (19-23)	
Welded Ends	
XBW160*	Extended butt weld ends (sch160)
XSW	Extended socket weld ends
SW	Socket weld ends
BW80	butt weld ends (sch80)
BW160*	butt weld ends (sch160)
XBW80	Extended butt weld ends (sch80)
XBWXS*	Extended butt weld ends (sch XXS)
Threaded Ends	
NPT	ASME B1.20.1 - National Pipe Taper thread
BSPT	EN 10226 - Pipe Taper thread
BSPP	ISO228-1, DIN3852 - Pipe Parallel thread
DIN3852	DIN3852 - Pipe Parallel thread
AS5202	AS 5202 on-face gasket sealing threaded connection
Flanged	
1500	ANSI B16.5 #1500 RF
2500	ANSI B16.5 #2500 RF
PN160-F3	EN1092 PN160, FTF F3
PN250-F3	EN1092 PN250, FTF F3
PN320-F3	EN1092 PN320, FTF F3
PN400-F3	EN1092 PN400, FTF F3
Flanged RTJ	
1500RTJ	ANSI B16.5 #1500 RTJ
2500RTJ	ANSI B16.5 #2500 RTJ
Flanged SAE J518 / ISO 6162 Threaded	
SAE3000	Code 61/ISO 6162-1 Flat face
SAE6000	Code 62/ISO 6162-2 Flat face

* Std. port only

Seat design (25-26)	
Blank	Type A seat design
TB	Type B seat design
TC	Type C seat design
TD	Type D seat design
Special Features (27-30)	
RTJ	Ring Type Joint
Vxx	Characterized control ball xx = angle