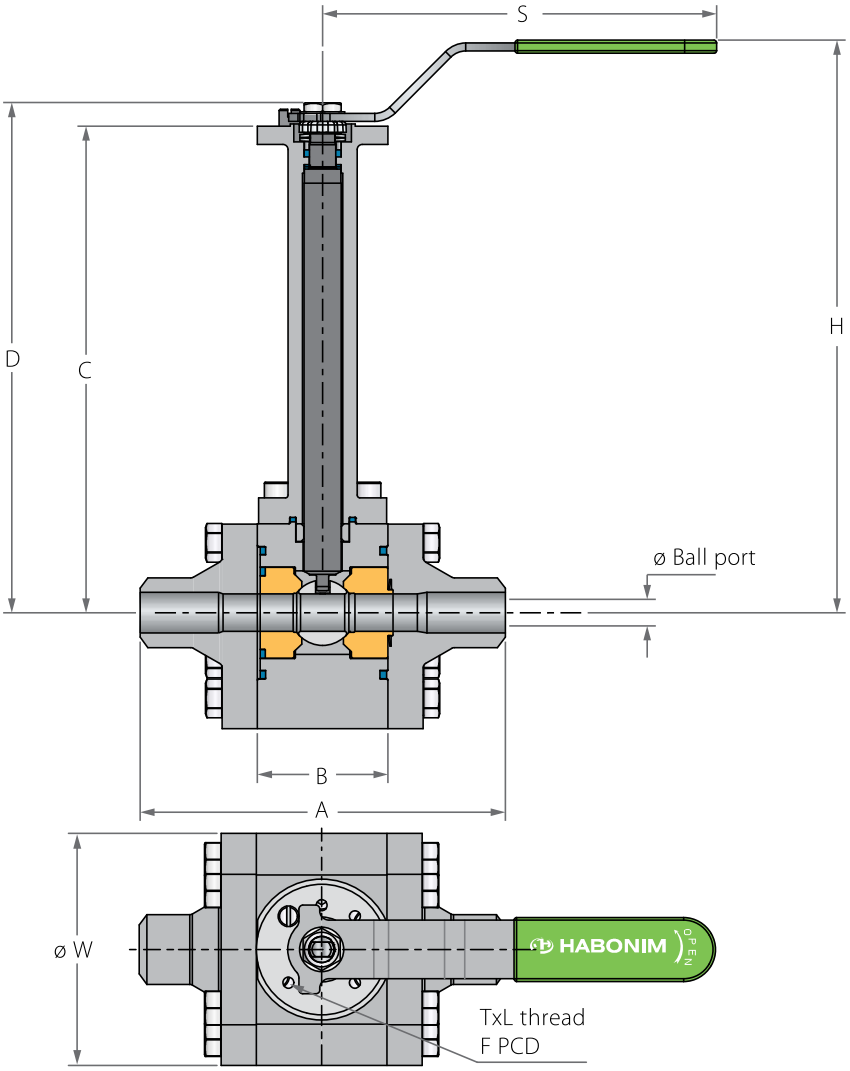
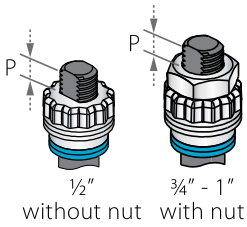
Z28M ¼"-1 ¼" | DN85-DN32 | CLASS 2500

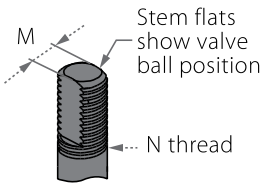
High Temperature HP Floating Ball 3 Piece Up to 650°C (1200°F)

Valve dimensions



Preparation for actuation

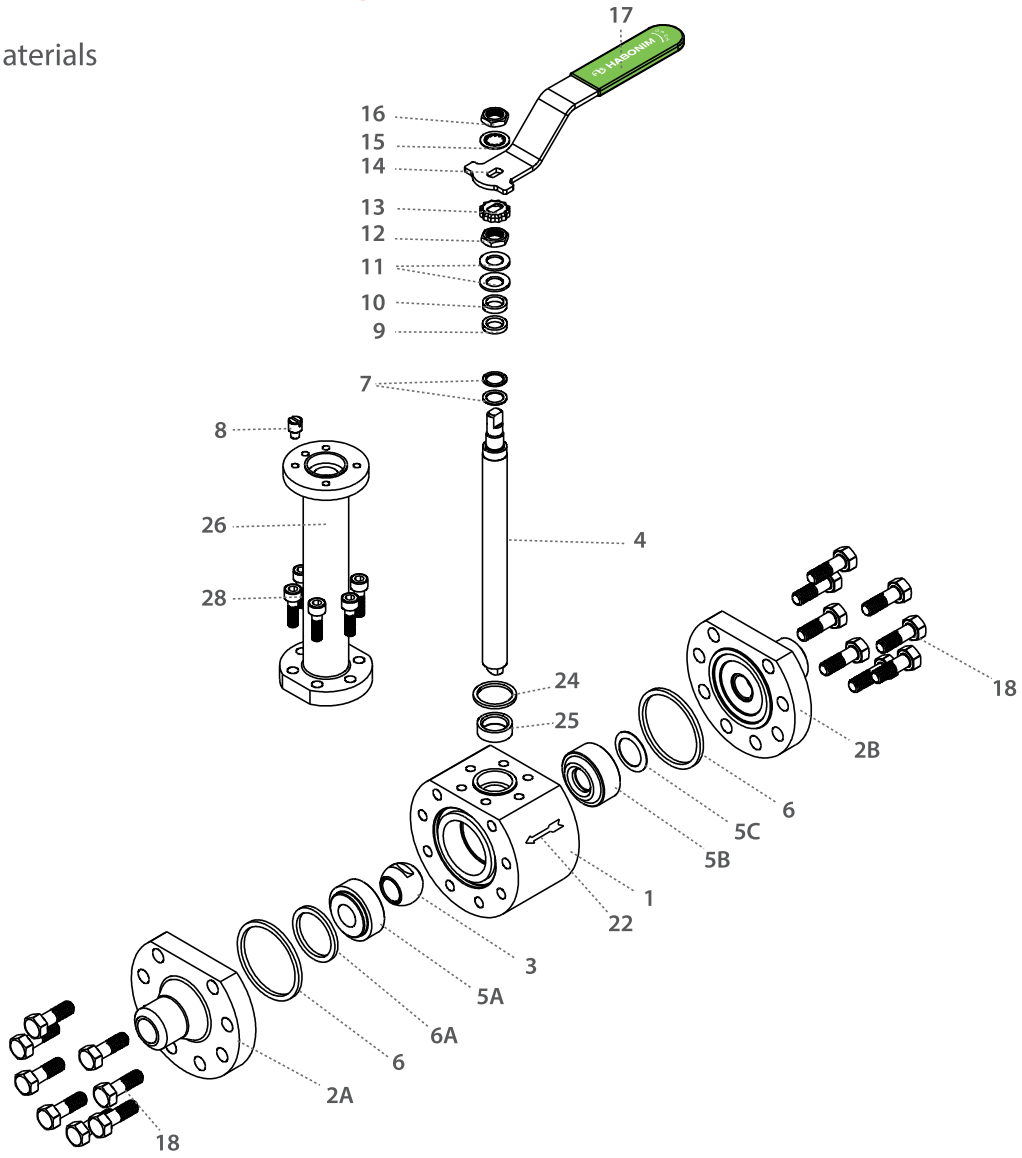




Std. port	Full port	Unit	Ball port	A		B	C	D	H	S	W	M	N	P	F	W	TxL	Weight kg/lb	Kv Cv
				Welded	Threaded														
DN15	DN8, DN10	mm	11.15	174.00	107.00	50.00	182.00	191.00	216.00	150.00	69.50	5.54	⅜" UNF	6.65	(F03)	36.00	M5X10	4.3	6.9
½"	¼", ⅜"	inch	0.44	6.85	4.21	1.97	7.17	7.52	8.50	5.91	2.74	0.22		0.26		1.42		9.5	8.0
DN20	DN15	mm	13.00	189.00	120.00	60.00	187.00	204.50	229.00	230.00	98.00	7.54	7/16" UNF	7.40	(F04)	42.00	M5X10	5.0	10
¾"	½"	inch	0.51	7.44	4.72	2.36	7.36	8.05	9.02	9.06	3.86	0.30		0.29		1.65		11.0	12
DN25	DN20	mm	20.65	209.00	144.00	68.00	196.50	226.00	252.00	237.00	109.00	7.54	7/16" UNF	7.40	(F04)	42.00	M5X10	10.5	28
1"	¾"	inch	0.81	8.23	5.67	2.68	7.74	8.90	9.92	9.33	4.29	0.30		0.29		1.65		23.1	32
DN32	DN25	mm	193.00	225.00	152.00	68.00	204.50	233.00	260.00	237.00	128.00	8.71	9/16" UNF	8.50	(F05)	50.00	M6X12	13.0	49
1¼"	1"	inch	7.60	8.86	5.98	2.68	8.05	9.17	10.24	9.33	5.04	0.34		0.33		1.97		28.6	57

High Temperature HP Floating Ball 3 Piece Up to 650°C (1200°F)

Components & materials



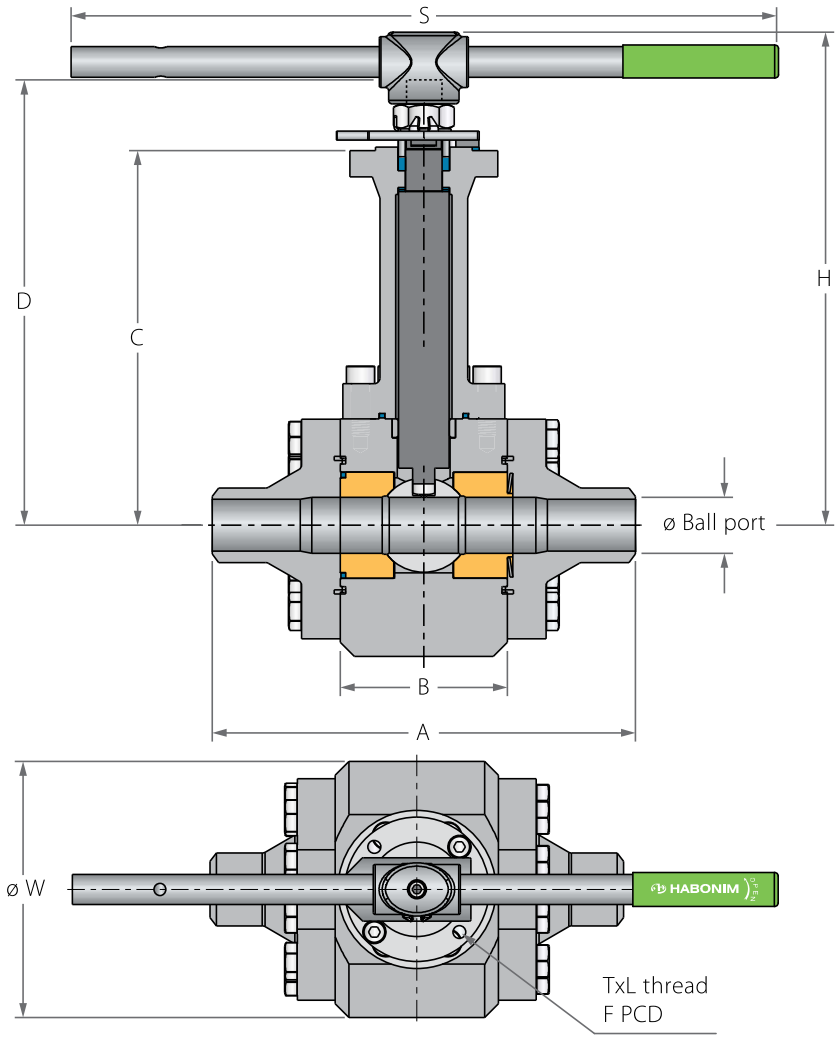
Item	Description	Material specification	Qty.
1	Body	Acc. Ordering Code	1
2A	Downstream end	Acc. Ordering Code	1
2B	Upstream end	Acc. Ordering Code	1
3	Ball	Acc. Ordering Code	1
4	Stem	Acc. Ordering Code	1
5A	Downstream seat	Acc. Ordering Code	1
5B	Upstream seat	Acc. Ordering Code	1
5C	Upstream seat spring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

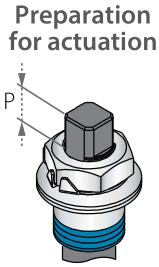
Item	Description	Material specification	Qty.
11	Disc spring	S. Steel	2
12	Stem nut	S. Steel	1
13	Locking clip	S. Steel	1
14	Handle	S. Steel	1
15	Serrated washer	S. Steel	1
16	Handle nut	S. Steel	1
17	Sleeve	PVC	1
18	Body bolts	S. Steel	12-16
22	Arrow flow	S. Steel	1
23	Tag (not shown)	S. Steel	1
24	Bonnet seal	Graphite	1
25	Stem Bearing	S. Steel	1
26	Bonnet	S. Steel	1
28	Bonnet bolts	S. Steel	6

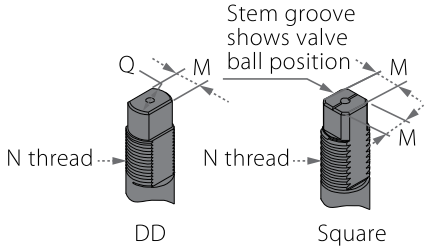
* Repair kit components

High Temperature HP Floating Ball 3 Piece Up to 650°C (1200°F)

Valve dimensions



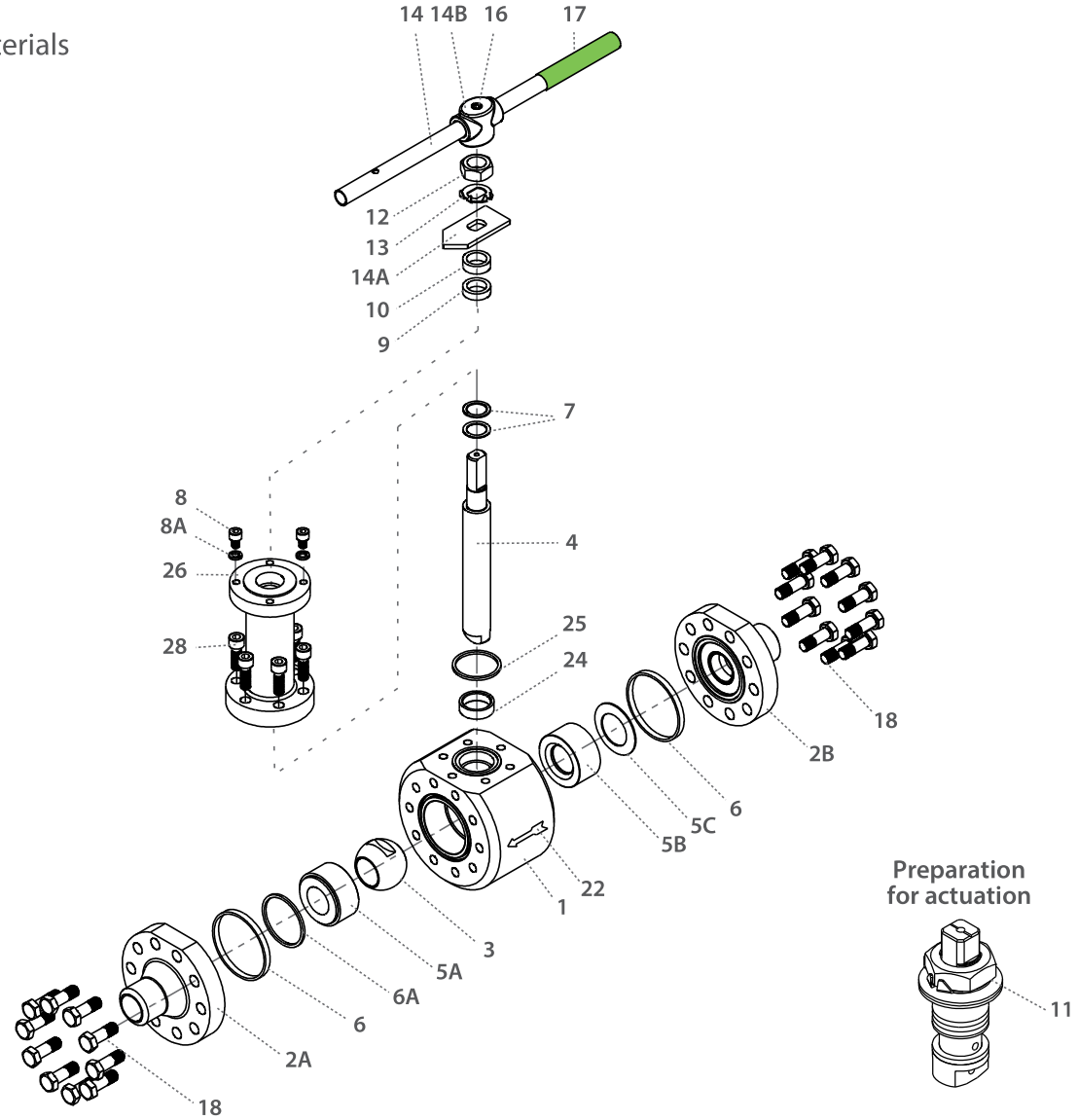




Std. port	Full port	Unit	Ball port	A		B	C	D	H	S	W	M	M DD	Q	N	P	F	W	TxL	Weight kg/lb	Kv
				Welded	Threaded																Cv
DN40	DN32	mm	31.80	237.00	154.00	95.00	205.80	247.40	283.00	401	145.00	-	13.90	20.00	M20x2.5	14.60	(F07)	70.00	M8x12	25	69
1½"	1¼"	inch	1.25	9.33	6.06	3.74	8.10	9.74	11.14	15.79	5.71	-	0.55	0.79		0.57		2.76		55.0	80
DN50	DN40	mm	38.10	241.00	157.00	105.00	257.80	299.40	335.00	600.00	215.00	-	13.90	20.00	M20x2.5	14.60	(F07)	70.00	M8x12	50	102
2"	1½"	inch	1.50	9.49	6.18	4.13	10.15	11.79	13.19	23.62	8.46	-	0.55	0.79		0.57		2.76		110.0	118
DN65	DN50	mm	51	302.00	194.00	125.00	275.00	344.50	384.50	401.00	240.00	18.90	15.90	22.70	1"-14 UNF-2A	16.70	(F10)	102.00	M10x20	80	208
2½"	2"	inch	2.01	11.89	7.64	4.92	10.83	13.56	15.14	15.79	9.45	0.74	0.63	0.89		0.66		4.02		176.0	241
DN80	DN65	mm	63.75	378.00	254.00	140.00	292.80	362.30	-	-	265.00	28.45	23.75	35.20	1½"-12 UNF-2A	26.20	(F12)	125.00	M12x20	125	300
3"	2½"	inch	2.51	14.88	10.00	5.51	11.53	14.26	-	-	10.43	1.12	0.94	1.39		1.03		4.92		275.0	348
DN100	DN80	mm	80	410.00	N/A	140.00	395.00	507.70	-	-	310.00	35.92	35.92	46.50	2"-8 UN-2A	40.00	(F14)	140.00	M16x20	175	615
4"	3"	inch	3.15	16.14	N/A	5.51	15.55	19.99	-	-	12.20	1.41	1.41	1.83		1.57		5.51		385.0	713
DN150	DN100	mm	100	510.00	N/A	195.00	480.00	281.00	-	-	395.00	45.90	45.90	55.00	2¾"-8 UN-2A	50.00	(F16)	165.00	M20x30	435	872
6"	4"	inch	3.94	20.08	N/A	7.68	18.90	11.06	-	-	15.55	1.81	1.81	2.17		1.97		6.50		957.0	1012

High Temperature HP Floating Ball 3 Piece Up to 650°C (1200°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
5C	Upstream seat spring	Inconel 718	1
6*	Body seal	Graphite	2
6B*	Seat seal	Graphite	1
7*	Stem thrust seal	A479 316L, Hardended with LTPN, B637 N07718 Inconel 718	2
8	Stop pin	S. Steel	1
9*	Stem seal	Graphite	1
10	Follower	S. Steel	1
11	Disc spring	S. Steel	2

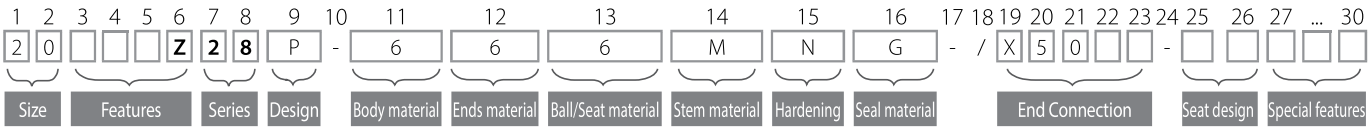
Item	Description	Material specification	Qty.
12	Stem nut	S. Steel	1
13	Tab lock washer	S. Steel	1
14**	Handle	S. Steel	1
14A	Stop plate	S. Steel	1
14B	Wrench head	S. Steel	1
16	Wrench bolt	S. Steel	1
17	Sleeve	PVC	1
18	Body bolts	S. Steel	16-52
22	Arrow flow	S. Steel	1
23	Tag (not shown)	S. Steel	1
24	Bonnet seal	Graphite	1
25	Stem Bearing	S. Steel	1
26	Bonnet	S. Steel	1
28	Bonnet bolts	S. Steel	6-12

* 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



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 buttweld ends (sch160)
XSW	Extended socket weld ends
SW	Socket weld ends
BW80	buttweld ends (sch80)
BW160*	buttweld ends (sch160)
XBW80	Extended buttweld ends (sch80)
XBWXS*	Extended buttweld 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