

Z93W

Z94W

Z93P

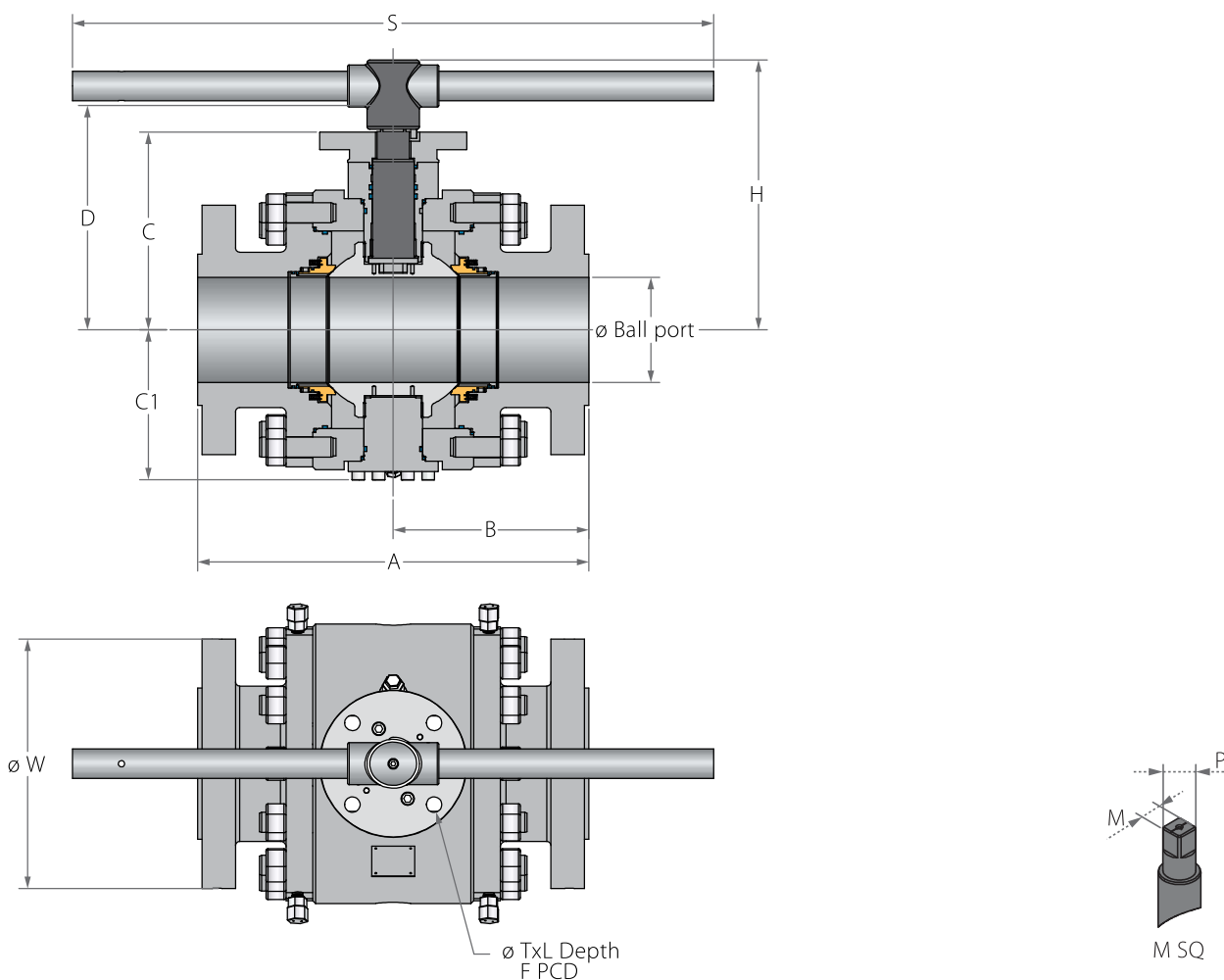
Z94P

2"-6" | DN50-DN150
CLASS 600/900

High Temperature Trunnion Ball 3 Piece Up to

W 200°C (400°F) | **P** 327°C (620°F)

Valve dimensions



Full port	Unit	Ball port	A		B		C		C1		D		W		M SQ	P SQ	H	S	F		TxL	Weight kg/lb				Kv/Cv	
			600	900	600	900	600	900	600	900	600	900	600	900								600	900	600	900		
DN50	mm	49.00	292.00	368.00	131.00	184.00	144.00	148.50	119.00	263.00	168.50	182.50	165.00	215.00	22.00	28.00	219.50	401.00	(F12)	125.00	13X15	49	67	329	294		
2"	inch	1.93	11.50	14.49	5.16	7.24	5.67	5.85	4.69	10.35	6.63	7.19	6.50	8.46	0.87	1.10	8.64	15.79		4.92	(4 holes)	108	148	380	340		
DN80	mm	74.00	356.00	381.00	161.00	190.50	191.00	214.00	160.00	152.70	215.00	237.50	210.00	240.00	22.00	28.00	266.00	610.00	(F14)	140.00	18X24	103	114	874	822		
3"	inch	2.91	14.02	15.00	6.34	7.50	7.52	8.43	6.30	6.01	8.46	9.35	8.27	9.45	0.87	1.10	10.47	24.02		5.51	(4 holes)	227	251	1010	950		
DN100	mm	100.00	432.00	457.00	216.00	228.50	217.00	193.00	184.00	184.00	246.50	259.00	275.00	290.00	27.00	36.00	316.50	916.00	(F16)	165.00	22X25	166	186	1557	1471		
4"	inch	3.94	17.01	17.99	8.50	9.00	8.54	7.60	7.24	7.24	9.70	10.20	10.83	11.42	1.06	1.42	12.46	36.06		6.50	(4 holes)	366	410	1800	1700		
DN150	mm	150.00	559.00	610.00	278.00	305.00	282.50	368.00	214.50	224.00	320.50	463.00	355.00	380.00	36.00	48.20	385.00	916.00	(F16)	165.00	22X25	342	418	3893	3823		
6"	inch	5.91	22.01	24.02	10.94	12.01	11.12	14.49	8.44	8.82	12.62	18.23	13.98	14.96	1.42	1.90	15.16	36.06		6.50	(4 holes)	754	922	4500	4420		

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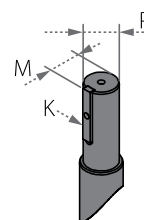
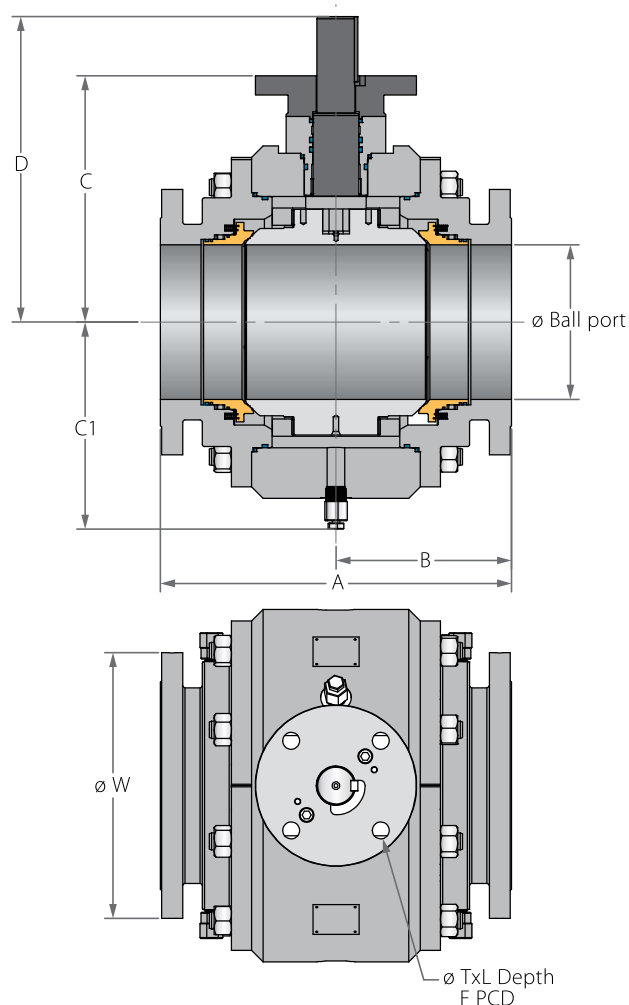
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8"-12" | DN200-DN300
CLASS 600/900

High Temperature Trunnion Ball 3 Piece Up to

W 200°C (400°F) | **P** 327°C (620°F)

Valve dimensions



Full port	Unit	Ball port	A		B		C		C1		D		W		P	M	K	F		TxL	Weight kg/lb		Kv/Cv	
			600	900	600	900	600	900	600	900	600	900	600	900							600	900	600	900
DN200	mm	201.00	660.00	737.00	330.00	368.50	312.00	307.00	263.00	263.00	409.00	403.00	420.00	470.00	72.00	76.50	20.00	(F25)	254.00	18x25	577	836	7742	7344
8"	inch	7.91	25.98	29.02	12.99	14.51	12.28	12.09	10.35	10.35	16.10	15.87	16.54	18.50	2.83	3.01	0.79		10.00	(8 holes)	1272	1843	8950	8490
DN250	mm	252.00	787.00	838.00	400.00	419.00	374.00	393.00	310.00	347.00	471.00	490.00	510.00	545.00	72.00	76.50	20.00	(F25)	254.00	18x25	931	1301	12543	12110
10"	inch	9.92	30.98	32.99	15.75	16.50	14.72	15.47	12.20	13.66	18.54	19.29	20.08	21.46	2.83	3.01	0.79		10.00	(8 holes)	2052	2868	14500	14000
DN300	mm	303.00	838.00	965.00	419.00	482.50	402.00	419.00	344.00	361.00	499.00	544.00	560.00	610.00	72.00	76.50	20.00	(F25)	254.00	18x35	1126	1576	19809	18598
12"	inch	11.93	32.99	37.99	16.50	19.00	15.83	16.50	13.54	14.21	19.65	21.42	22.05	24.02	2.83	3.01	0.79		10.00	(8 holes)	2482	3474	22900	21500

Z91

Z92

Z93

Z94

Z95

Z96



High Temperature Trunnion Ball 3 Piece - 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	.	.	30
4	0			Z	B	9	4	P	-	6	M	6	D	I	V	G	/	9	0	0		0				
Size		Features				Series		Design		Body & ends material		Stem material	Ball material	Seat feature	Hardening	Inner Seal	Outer Seal		End Connection				Special features			

Size (1-2)		
Code	inch	mm
20*	2"	50
30	3"	80
40	4"	100
60	6"	150
80	8"	200
A0	10"	250
A2	12"	300

* Full port only

Features (3-6)	
Z	Metal seats
B	Full port

Series - 3 Piece (7-8)	
91	ASME B16.5 #150
92	ASME B16.5 #300
93	ASME B16.5 #600
94	ASME B16.5 #900
95	ASME B16.5 #1500
96	ASME B16.5 #2500

Design (9)	
W	-46°C to 200°C (-50°F to 400°F)
P	-46°C to 327°C (-40°F to 620°F)
T	-60°C to 538°C (-76°F to 1000°F)

Body & ends (11)	
4*	C. Steel A105
6	S. Steel A479 316
J**	F22

* -29°C to 425°C
(-20°F to 800°F)

** For T design only

Stem (12)	
M	High Strength S. Steel
Z	Inconel 718

Ball material(13)	
6	S. Steel A182 316
N*	ASTM A182 F6A (S.Steel 410)

* For O hardening only

Seat feature (14)	
D	Double Piston Effect (DPE) (API 6D DIB-1)
S	Single Piston Effect (SPE) (API 6D DBB)

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

Inner Seal material (16)	
V	Viton (-20°C to 200°C [-4°F to 400°F])
H	HNBR (-46°C to 150°C [-50°F to 300°F])
K	Kalrez (-20°C to 327°C [-4°F to 620°F])
G	Graphite

* Only with N ball material

Outer Seal material (17)	
G	Graphite

End connections (19-22)	
Flanged	
150	ASME B16.5 #150
300	ASME B16.5 #300
600	ASME B16.5 #600
900	ASME B16.5 #900
1500	ASME B16.5 #1500
2500	ASME B16.5 #2500
PN16	DIN EN 1092-1 PN16
PN40	DIN EN 1092-1 PN40
PN63	DIN EN 1092-1 PN63
PN100	DIN EN 1092-1 PN100
PN160	DIN EN 1092-1 PN160
PN250	DIN EN 1092-1 PN250
PN320	DIN EN 1092-1 PN320
PN400	DIN EN 1092-1 PN400

Flanged RTJ	
600RTJ	ASME B16.5 #600 RTJ
900RTJ	ASME B16.5 #900 RTJ
1500RTJ	ASME B16.5 #1500 RTJ
2500RTJ	ASME B16.5 #2500 RTJ

Welded	
XBW	Extended butt weld sch 40
XBW80	Extended butt weld sch 80
XBW160	Extended butt weld sch 160

Special features (23-30)	
L*	Seat greasing point
D**	Drain & Vent
Blank	Drain & vent is capped
H**	Drain ball valve & vent
PT***	Basic paint system
P1	Offshore, Temp Ambient up to 93°C (200°F)
P2	Offshore, up to 537°C (998°F)

* for 6" up not for -T design

** for 6" up

*** colors RAL 1018 or 7036
(other colors upon request)