

K-BALL SERIES 182

FLOATING BALL VALVE

A three piece, full and reduced bore heavy duty floating ball valve



FEATURES

- Double shaft seal design
- Heavy duty, three piece ball valve
- ISO 5211 top mounting plate
- Carbon steel or stainless steel bodies
- Seat material options available
- Fully enclosed bolting design
- Full and reduced bore designs
- Blow-out proof shaft and anti-static design
- Tightness to EN 12266-1, Rate A and API 598
- Firesafe configuration tested to API 607 7th edition / ISO 10497:2010

GENERAL APPLICATIONS

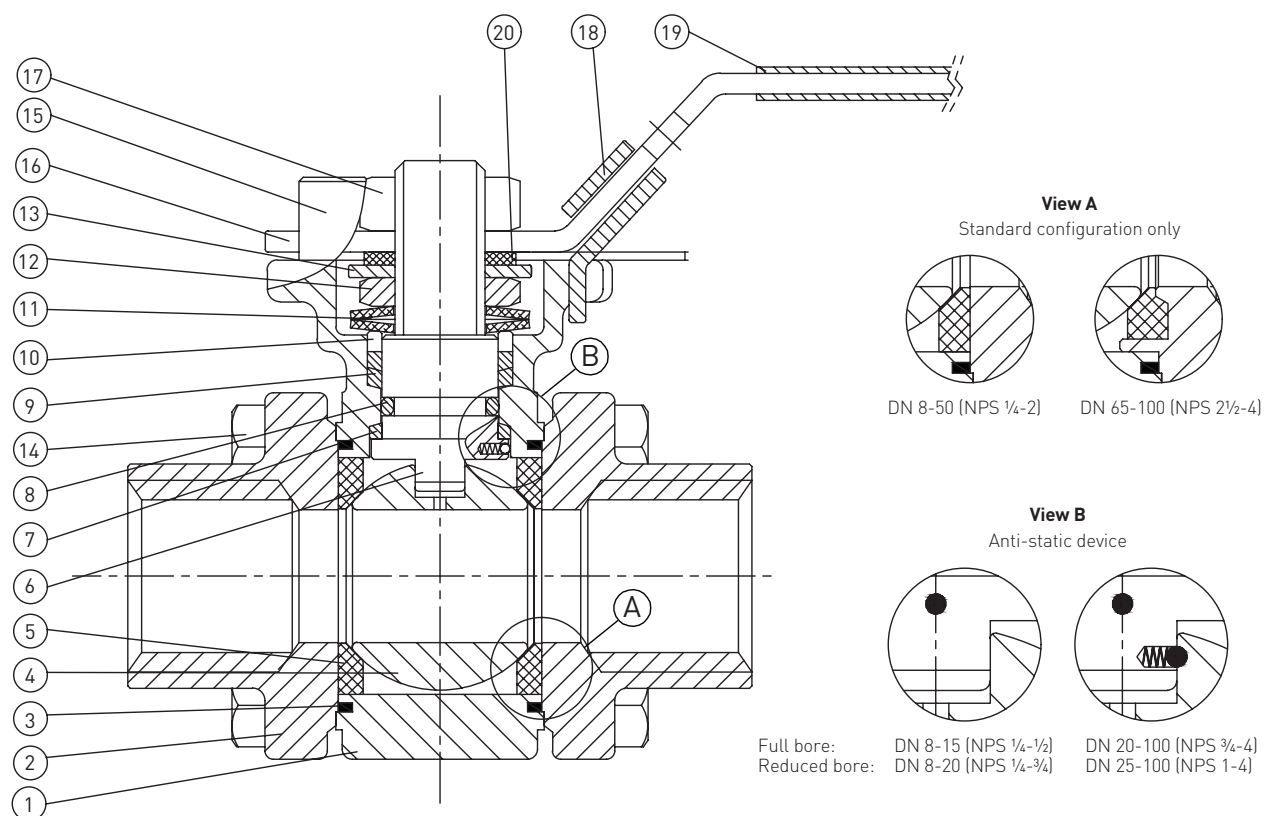
Ideal for general industrial and service applications including water, oil, gas and chemical processes.

TECHNICAL DATA

Size range:	DN 8 - 100 NPS ¼ - 4
End connections:	Threaded, butt weld, Socket weld
Pressure rating:	DN 8 - 50 (NPS ¼ - 2): ASME 600 DN 65 - 100 (NPS 2½ - 4) ASME 300
Temperature rating:	See chart on page 7

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FLOATING BALL VALVE



PARTS LIST

No.	Description	Material		Quantity
		SS	CS	
1	Body	CF8M	WCB	1
2	End cap	CF8M	WCB	2
3	Joint gasket	PTFE / Graphite**		2
4	Solid ball	CF8M / 316		1
5	Ball seat	TFM 1600 [std.]*		2
6	Stem	AISI 316		1
7	Thrust washer	25% carbon		1
8	O-ring	Viton		1
9	Stem packing	PTFE / Graphite**		2
10	Stem ring	AISI 304		1
11	Belleville washer	AISI 301		2
12	Stem nut	AISI 304		1
13	Lock washer	AISI 304		1
14	Hex bolt	AISI 304		DN 8-50 (NPS 1/4-2) 8 DN 65 (NPS 2 1/2) 12 DN 80-100 (NPS 3-4) 16
15	Stop pin	AISI 304		1
16	Handle	AISI 304		1
17	Handle nut	AISI 304		1
18	Locking device	AISI 304		1
19	Plastic cover	PVC		1
20	Square washer	AISI 304		1

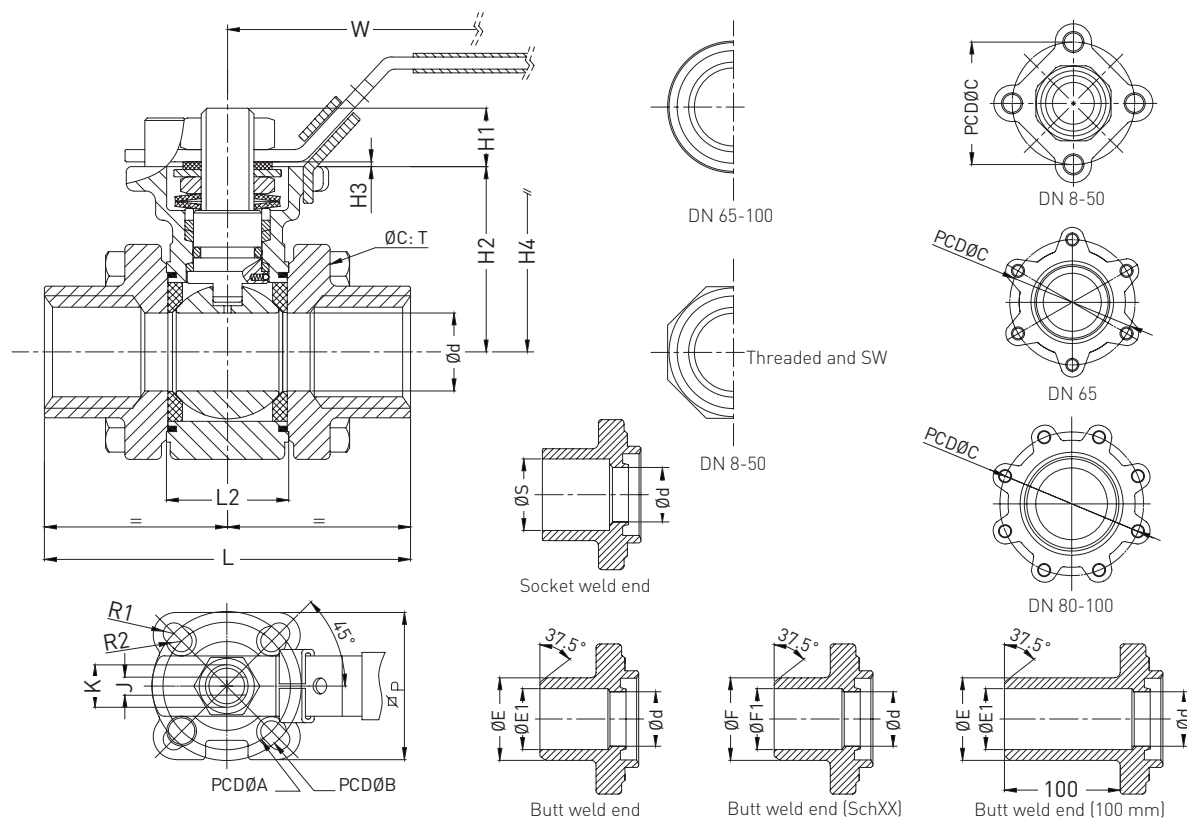
NOTE

* Refer to Pressure / Temperature chart on page 7 for other seat material options.

** Graphite material used for firesafe configuration.

K-BALL SERIES 182

FLOATING BALL VALVE – FULL BORE (METRIC)



DIMENSIONS (mm)

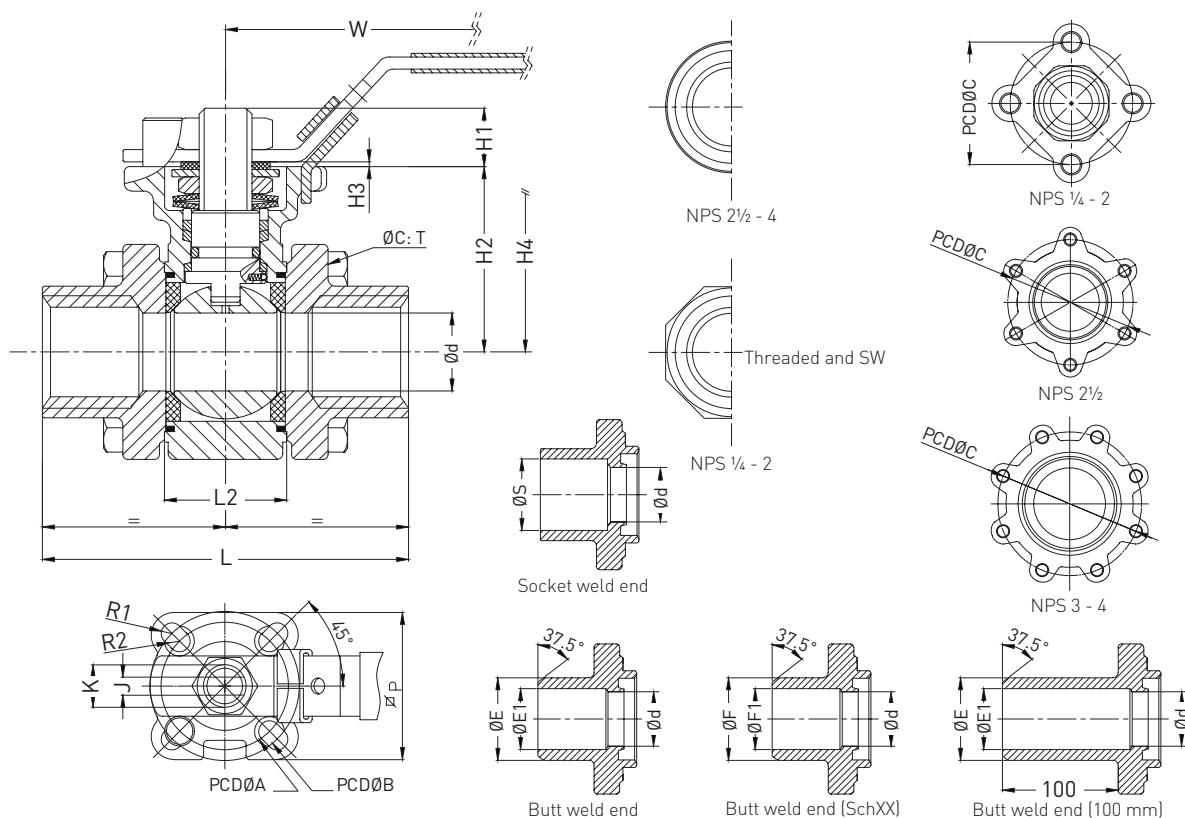
DIMENSIONS (mm)																					
Size		L					ISO 5211														
DN	Ød	SD	SW	BW	BW 100 mm	L2	H1	H2	H3	H4	PCDØA	PCDØB	R1	R2	J	K	ØE	ØE1	ØS	ØP	ØC
8	11.0	60	60	60	236.0	22.7	11	34	2	68	F03Ø36	-	Ø6	-	8.0	7/16-20	18.0	12.0	14.1	37.5	6.5
10	12.7	60	60	60	236.0	22.7	11	34	2	68	F03Ø36	-	Ø6	-	8.0	7/16-20	18.0	14.0	17.6	37.5	6.5
15	16.0	65	65	65	240.0	24.0	11	38	2	72	F03Ø36	F04Ø42	R3	R3	8.0	7/16-20	22.0	17.1	21.7	41.5	6.5
20	20.0	75	75	75	246.0	28.0	14	43	2	79	F03Ø36	F04Ø42	R3	R3	9.5	M14x1.5	27.5	22.5	27.1	41.5	8.4
25	25.0	85	85	85	254.0	34.0	12	50	2	85	F04Ø42	F05Ø50	R3.5	R3	9.8	M14x1.5	35.0	28.0	33.8	50.4	8.4
32	32.0	100	100	100	266.0	44.0	12	55	2	88	F04Ø42	F05Ø50	R3.5	R3	9.5	M14x1.5	44.0	33.5	44.0	50.4	10.6
40	38.0	110	110	110	275.0	53.0	16	65	2	105	F05Ø50	F07Ø70	R4.5	R3.5	14.0	M18x1.5	50.0	43.0	50.0	66.5	10.6
50	50.0	130	130	130	287.0	65.0	16	75	2	114	F05Ø50	F07Ø70	R4.5	R3.5	14.0	M18x1.5	61.5	53.0	61.5	66.5	10.6
65	65.0	170	170	170	303.0	74.6	25	103	2	153	F07Ø70	F10Ø102	R5.5	R4.5	17.0	7/8-14	76.0	65.0	76.9	90.0	12.6
80	80.0	190	190	190	315.0	87.0	25	113	2	165	F07Ø70	F10Ø102	R5.5	R4.5	17.0	7/8-14	92.0	80.0	89.8	90.0	12.6
100	100.0	220	220	220	345.0	112.5	40	150	2	205	F10Ø102	F12Ø125	R6.5	R5.5	19.0	M27x2.0	115.0	100.0	115.4	113.0	16.6

DIMENSIONS (mm) continued

Size						ØF1		
DN	T	PCDØC	W	Weight (kg)	ØF	Sch10	Sch40	Sch80
8	M6	40.0	117.0	0.51	13.7	10.4	9.2	7.7
10	M6	40.0	117.0	0.51	18.0	13.8	12.5	10.7
15	M6	44.0	117.0	0.63	22.0	17.1	15.8	13.8
20	M8	53.4	127.0	0.99	27.5	22.5	21.0	18.9
25	M8	65.0	170.0	1.32	35.0	27.9	26.6	24.3
32	M10	77.0	170.0	2.17	44.0	36.7	35.1	32.5
40	M10	93.0	182.0	3.53	50.0	42.8	40.9	38.1
50	M10	122.0	182.0	6.49	61.5	54.8	52.5	49.2
65	M12	140.0	333.0	10.45	73.0	66.9	62.7	59.0
80	M12	160.0	333.0	13.62	88.9	82.8	77.9	73.7
100	M16	210.0	333.0	27.28	115.0	108.2	102.8	98.1

K-BALL SERIES 182

FLOATING BALL VALVE – FULL BORE (IMPERIAL)



DIMENSIONS (inch)

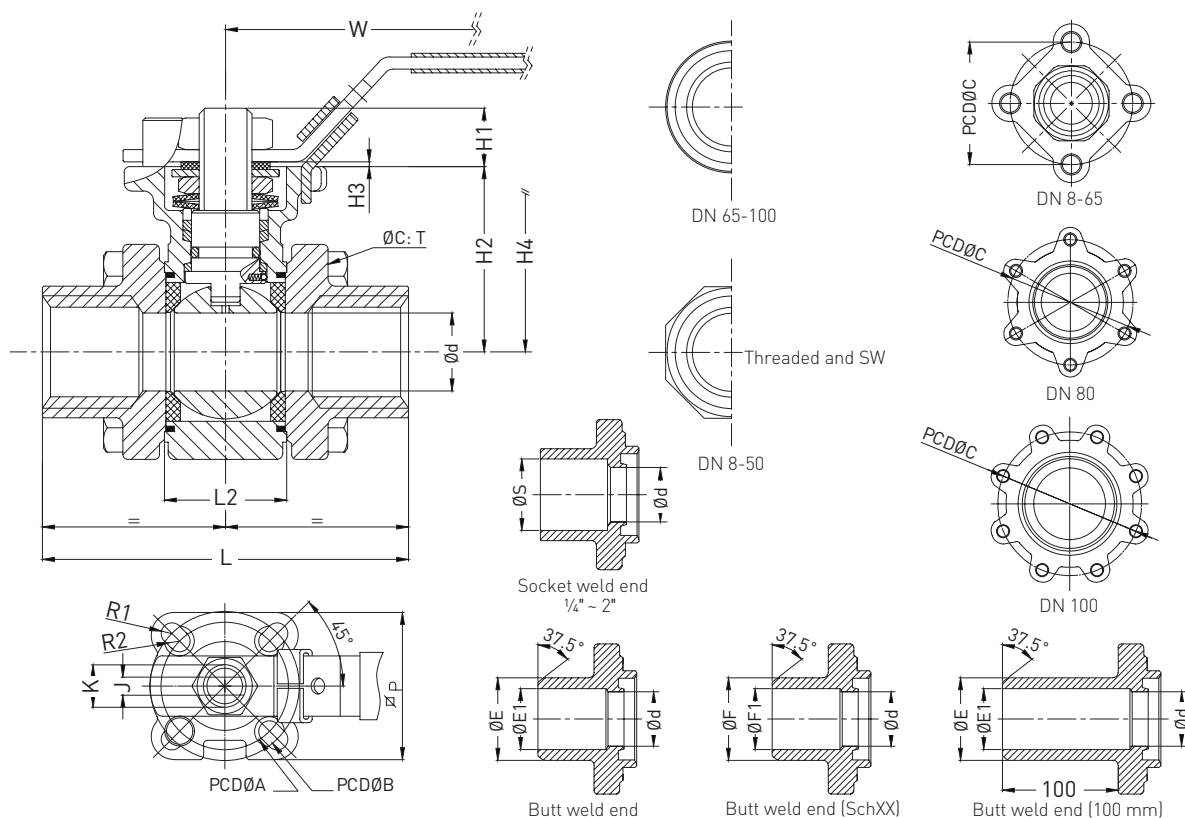
Size		L										ISO 5211													
NPS	Ød	SD	SW	BW	BW 100 mm	L2	H1	H2	H3	H4	PCDØA	PCDØB	R1	R2	J	K	ØE	ØE1	ØS	ØP	ØC				
¼"	0.43	2.36	2.36	2.36	9.29	0.89	0.43	1.34	0.08	2.68	F03Ø1.42	-	Ø0.2	-	0.31	7/16-20	0.71	0.47	0.56	1.48	0.26				
⅜"	0.50	2.36	2.36	2.36	9.29	0.89	0.43	1.34	0.08	2.68	F03Ø1.42	-	Ø0.2	-	0.31	7/16-20	0.71	0.55	0.69	1.48	0.26				
½"	0.63	2.56	2.56	2.56	9.45	0.94	0.43	1.50	0.08	2.83	F03Ø1.42	F04Ø1.65	R3	R3	0.31	7/16-20	0.87	0.67	0.85	1.63	0.26				
¾"	0.79	2.95	2.95	2.95	9.69	1.10	0.55	1.69	0.08	3.11	F03Ø1.42	F04Ø1.65	R3	R3	0.37	M14x1.5	1.08	0.89	1.07	1.63	0.33				
1"	0.98	3.35	3.35	3.35	10.00	1.34	0.47	1.97	0.08	3.35	F04Ø1.65	F05Ø1.97	R3.5	R3	0.39	M14x1.5	1.38	1.10	1.33	1.98	0.33				
1¼"	1.26	3.94	3.94	3.94	10.47	1.73	0.47	2.17	0.08	3.46	F04Ø1.65	F05Ø1.97	R3.5	R3	0.37	M14x1.5	1.73	1.32	1.73	1.98	0.42				
1½"	1.50	4.33	4.33	4.33	10.83	2.09	0.63	2.56	0.08	4.13	F05Ø1.97	F07Ø2.76	R4.5	R3.5	0.55	M18x1.5	1.97	1.69	1.97	2.62	0.42				
2"	1.97	5.12	5.12	5.12	11.30	2.56	0.63	2.95	0.08	4.49	F05Ø2.76	F07Ø2.76	R4.5	R3.5	0.55	M18x1.5	2.42	2.09	2.42	2.62	0.42				
2½"	2.56	6.69	6.69	6.69	11.93	2.94	0.98	4.06	0.08	6.02	F07Ø2.76	F10Ø4.02	R5.5	R4.5	0.67	7/8-14	2.99	2.56	3.03	3.54	0.50				
3"	3.15	7.48	7.48	7.48	12.40	3.43	0.98	4.45	0.08	6.50	F07Ø2.76	F10Ø4.02	R5.5	R4.5	0.67	7/8-14	3.62	3.15	3.54	3.54	0.50				
4"	3.94	8.66	8.66	8.66	13.58	4.43	1.57	5.91	0.08	8.07	F10Ø4.02	F12Ø4.92	R6.5	R5.5	0.75	M27x2.0	4.53	3.94	4.54	4.45	0.65				

DIMENSIONS (inch) continued

Size						ØF1		
NPS	T	PCDØC	W	Weight (kg)	ØF	Sch10	Sch40	Sch80
1/4"	M6	1.57	4.61	1.12	0.54	0.41	0.36	0.30
3/8"	M6	1.57	4.61	1.12	0.71	0.54	0.49	0.42
1/2"	M6	1.73	4.61	1.39	0.87	0.67	0.62	0.54
3/4"	M8	2.10	5.00	2.18	1.08	0.89	0.83	0.74
1"	M8	2.56	6.69	2.91	1.38	1.10	1.05	0.96
1 1/4"	M10	3.03	6.69	4.78	1.73	1.44	1.38	1.28
1 1/2"	M10	3.66	7.17	7.78	1.97	1.68	1.61	1.50
2"	M10	4.80	7.17	14.31	2.42	2.16	2.07	1.94
2 1/2"	M12	5.51	13.11	23.04	2.87	2.63	2.47	2.32
3"	M12	6.30	13.11	30.03	3.50	3.26	3.07	2.90
4"	M16	8.27	13.11	60.14	4.53	4.26	4.05	3.86

K-BALL SERIES 182

FLOATING BALL VALVE – REDUCED BORE (METRIC)



DIMENSIONS (mm)

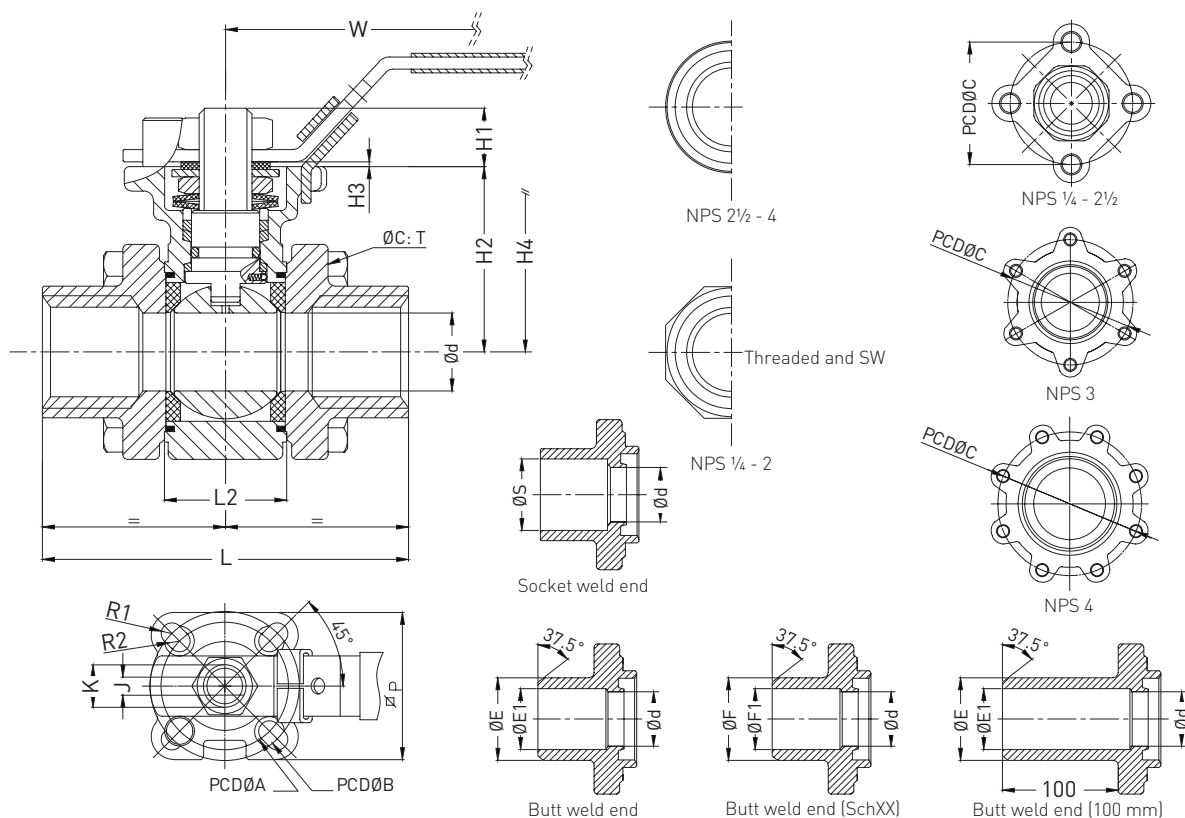
Size		L					ISO 5211																			
DN	Ød	SD	SW	BW	BW 100 mm	L2	H1	H2	H3	H4	PCDØA	PCDØB	R1	R2	J	K	ØE	ØE1	ØS	ØP	ØC					
8	8.0	60	60	60	236	22.7	11	34	2	68	F03Ø36	-	Ø6	-	8.0	7/16-20	18.0	12.0	14.1	37.5	6.5					
10	11.0	60	60	60	236	22.7	11	34	2	68	F03Ø36	-	Ø6	-	8.0	7/16-20	18.0	14.0	17.6	37.5	6.5					
15	12.7	60	60	60	236	22.7	11	34	2	68	F03Ø36	-	Ø6	-	8.0	7/16-20	22.0	17.1	21.7	37.5	6.5					
20	16.0	65	65	65	240	24.0	11	38	2	72	F03Ø36	F04Ø42	R3	R3	8.0	7/16-20	27.5	22.5	27.1	41.5	6.5					
25	20.0	75	75	75	246	28.0	14	43	2	79	F03Ø36	F04Ø42	R3	R3	9.5	M14x1.5	35.0	28.0	33.8	41.5	8.4					
32	25.0	85	85	85	254	34.0	12	50	2	85	F04Ø42	F05Ø50	R3.5	R3	9.5	M14x1.5	44.0	33.5	44.0	50.4	8.4					
40	32.0	100	100	100	266	44.0	12	55	2	88	F04Ø42	F05Ø50	R3.5	R3	9.5	M14x1.5	50.0	43.0	50.0	50.4	10.6					
50	38.0	110	110	110	275	53.0	16	65	2	105	F05Ø50	F07Ø70	R4.5	R3.5	14.0	M18x1.5	61.5	53.0	61.5	66.5	10.6					
65	50.0	130	130	130	287	65.0	16	75	2	114	F05Ø50	F07Ø70	R4.5	R3.5	14.0	M18x1.5	76.0	65.0	76.9	66.5	14.6					
80	65.0	170	170	170	303	74.6	25	103	2	153	F07Ø70	F10Ø102	R5.5	R4.5	17.0	7/8-14	92.0	80.0	89.8	90.0	12.6					
100	80.0	190	190	190	315	87.0	25	112	2	165	F07Ø70	F10Ø102	R5.5	R4.5	17.0	7/8-14	115.0	100.0	115.4	90.0	12.6					

DIMENSIONS (mm) continued

Size						ØF1		
DN	T	PCDØC	W	Weight (kg)	ØF	Sch10	Sch40	Sch80
8	M6	40.0	117	0.50	13.7	10.4	9.2	7.7
10	M6	40.0	117	0.50	18.0	13.8	12.5	10.7
15	M6	40.0	117	0.51	22.0	17.1	15.8	13.8
20	M6	44.0	117	0.59	27.5	22.5	21.0	18.9
25	M8	53.4	127	0.96	35.0	27.9	26.6	24.3
32	M8	65.0	170	1.37	44.0	36.7	35.1	32.5
40	M10	77.0	170	2.13	50.0	42.8	40.9	38.1
50	M10	93.0	182	3.42	61.5	54.8	52.5	49.2
65	M10	118.0	182	4.99	73.0	66.9	62.7	59.0
80	M12	140.0	333	9.83	88.9	82.8	77.9	73.7
100	M12	160.0	333	12.42	115.0	108.2	102.8	98.1

K-BALL SERIES 182

FLOATING BALL VALVE – REDUCED BORE (IMPERIAL)



DIMENSIONS (inch)

Size		L					ISO 5211																	
NPS	Ød	SD	SW	BW	BW 100 mm	L2	H1	H2	H3	H4	PCDØA	PCDØB	R1	R2	J	K	ØE	ØE1	ØS	ØP	ØC			
¼"	0.31	2.36	2.36	2.36	9.29	0.89	0.43	1.34	0.08	2.68	F03Ø1.42	-	Ø0.24	-	0.31	7/16-20	0.71	0.47	0.56	1.48	0.26			
⅜"	0.43	2.36	2.36	2.36	9.29	0.89	0.43	1.34	0.08	2.68	F03Ø1.42	-	Ø0.24	-	0.31	7/16-20	0.71	0.55	0.69	1.48	0.26			
½"	0.50	2.36	2.36	2.36	9.29	0.89	0.43	1.34	0.08	2.68	F03Ø1.42	-	Ø0.24	-	0.31	7/16-20	0.87	0.67	0.85	1.48	0.26			
¾"	0.63	2.56	2.56	2.56	9.45	0.94	0.43	1.50	0.08	2.83	F03Ø1.42	F04Ø1.65	R3	R3	0.31	7/16-20	1.08	0.89	1.07	1.63	0.26			
1"	0.79	2.95	2.95	2.95	9.69	1.10	0.55	1.69	0.08	3.11	F03Ø1.42	F04Ø1.65	R3	R3	0.37	M14x1.5	1.38	1.10	1.33	1.63	0.33			
1¼"	0.98	3.35	3.35	3.35	10.00	1.34	0.47	1.97	0.08	3.35	F04Ø1.65	F05Ø1.97	R3.5	R3	0.37	M14x1.5	1.73	1.32	1.73	1.98	0.33			
1½"	1.26	3.94	3.94	3.94	10.47	1.73	0.47	2.17	0.08	3.46	F04Ø1.65	F05Ø1.97	R3.5	R3	0.37	M14x1.5	1.97	1.69	1.97	1.98	0.42			
2"	1.50	4.33	4.33	4.33	10.83	2.09	0.63	2.56	0.08	4.13	F05Ø1.97	F07Ø2.76	R4.5	R3.5	0.55	M18x1.5	2.42	2.09	2.42	2.62	0.42			
2½"	1.97	5.12	5.12	5.12	11.30	2.56	0.63	2.95	0.08	4.49	F05Ø2.76	F07Ø2.76	R4.5	R3.5	0.55	M18x1.5	2.99	2.56	3.03	2.62	0.57			
3"	2.56	6.69	6.69	6.69	11.93	2.94	0.98	4.06	0.08	6.02	F07Ø2.76	F10Ø4.02	R5.5	R4.5	0.67	7/8-14	3.62	3.15	3.54	3.54	0.50			
4"	3.15	7.48	7.48	7.48	12.40	3.43	0.98	4.41	0.08	6.50	F07Ø2.76	F10Ø4.02	R5.5	R4.5	0.67	7/8-14	4.53	3.94	4.54	3.54	0.50			

DIMENSIONS (inch) continued

Size						ØF1		
NPS	T	PCDØC	W	Weight (lb)	ØF	Sch10	Sch40	Sch80
¼"	M6	1.57	4.61	1.10	0.54	0.41	0.36	0.30
⅜"	M6	1.57	4.61	1.10	0.71	0.54	0.49	0.42
½"	M6	1.57	4.61	1.12	0.87	0.67	0.62	0.54
¾"	M6	1.73	4.61	1.30	1.08	0.59	0.83	0.59
1"	M8	53.40	5.00	2.12	1.38	0.59	1.05	0.59
1¼"	M8	65.00	6.69	3.02	1.73	0.59	1.38	0.59
1½"	M10	77.00	6.69	4.70	1.97	0.59	1.61	0.59
2"	M10	93.00	7.17	7.54	2.42	0.59	2.07	0.59
2½"	M10	118.00	7.17	11.00	2.87	0.59	2.47	0.59
3"	M12	140.00	13.11	21.67	3.50	0.59	3.07	0.59
4"	M12	160.00	13.11	27.38	4.53	0.59	4.05	0.59

K-BALL SERIES 182

FLOATING BALL VALVE

TORQUE TABLE

Differential pressure torque values in Nm (ft-lb)								
Size		Pressure in bar (psi)						MAST
DN	NPS	0 (0)	6.9 (100)	20.7 (300)	48.3 (700)	69 (1000)	103.4 (1500)	A276-316 SS
8 - 15	¼ - ½	5.1 (3.8)	5.2 (3.8)	5.2 (3.8)	5.2 (3.8)	5.4 (4.0)	5.4 (4.0)	35.0 (25.8)
20	¾	8.4 (6.2)	8.4 (6.2)	8.4 (6.2)	8.4 (6.2)	9.1 (6.7)	9.1 (6.7)	64.0 (47.2)
25	1	9.6 (7.1)	9.8 (7.2)	10.0 (7.4)	10.0 (7.4)	10.2 (7.5)	10.2 (7.5)	64.0 (47.2)
32	1¼	12.5 (9.2)	12.5 (9.2)	13.0 (9.6)	16.5 (12.2)	21.0 (15.5)	28.5 (21.0)	64.0 (47.2)
40	1½	19.5 (14.4)	20.0 (14.8)	21.0 (15.5)	25.5 (18.8)	36.0 (26.6)	54.0 (39.8)	167.0 (123.2)
50	2	25.5 (18.8)	27.5 (20.3)	31.0 (22.9)	41.0 (30.2)	57.0 (42.0)	70.0 (51.6)	167.0 (123.2)
65	2½	48.0 (35.4)	53.0 (39.1)	65.0 (47.9)	125.0 (92.2)	-	-	307.0 (226.4)
80	3	59.0 (43.5)	63.0 (46.5)	85.0 (62.7)	180.0 (132.8)	-	-	307.0 (226.4)
100	4	100.0 (73.8)	113.0 (83.3)	147.0 (108.4)	293.0 (216.1)	-	-	486.0 (358.5)

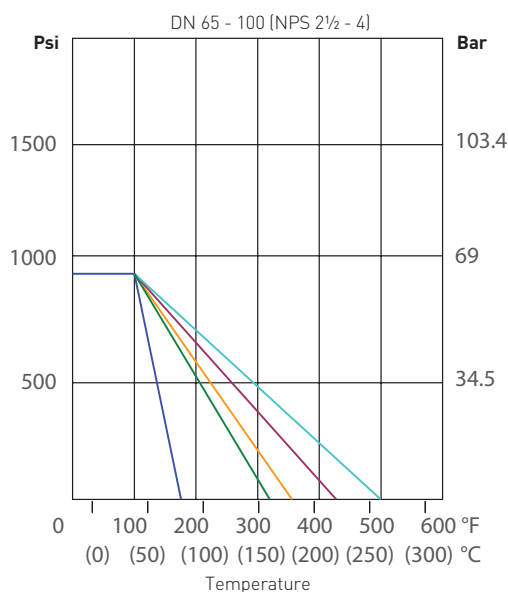
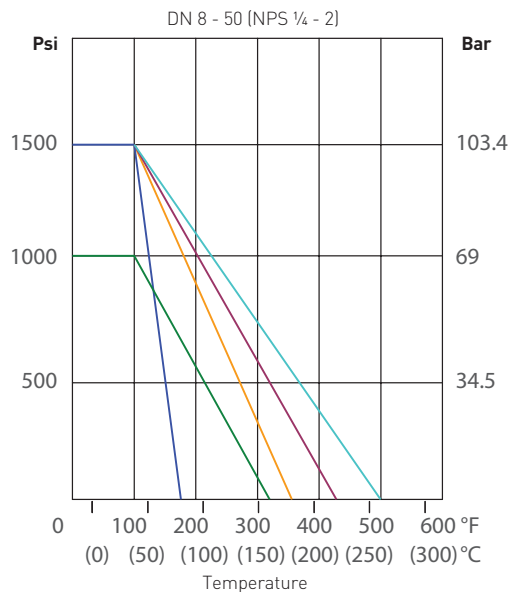
NOTES

Seat: TFM 1600 / PTFE
Stem: A276-316 SS

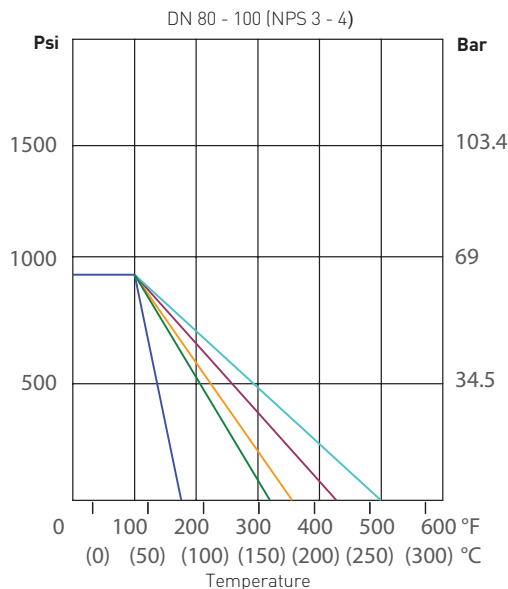
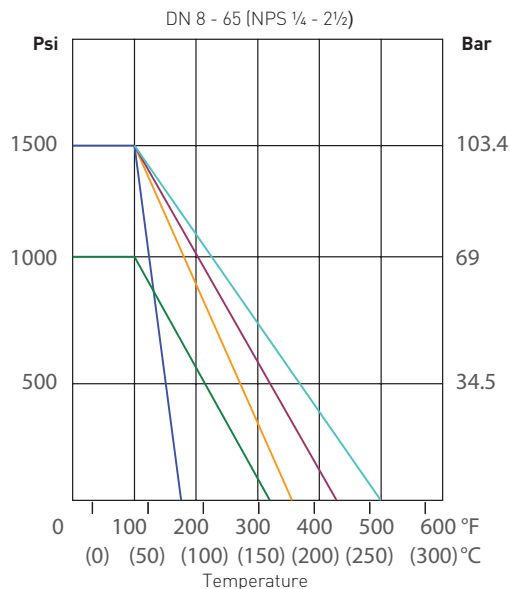
K-BALL SERIES 182

FLOATING BALL VALVE

PRESSURE / TEMPERATURE RATING - FULL BORE, STANDARD AND FIRESAFE CONFIGURATIONS



PRESSURE / TEMPERATURE RATING - REDUCED BORE, STANDARD CONFIGURATION



- A = UHMWPE
- B = PTFE
- C = TFM 1600 / 25% Carbon filled PTFE / Glass reinforced PTFE / MG1241
- D = 50% SS filled PTFE
- E = PEEK

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