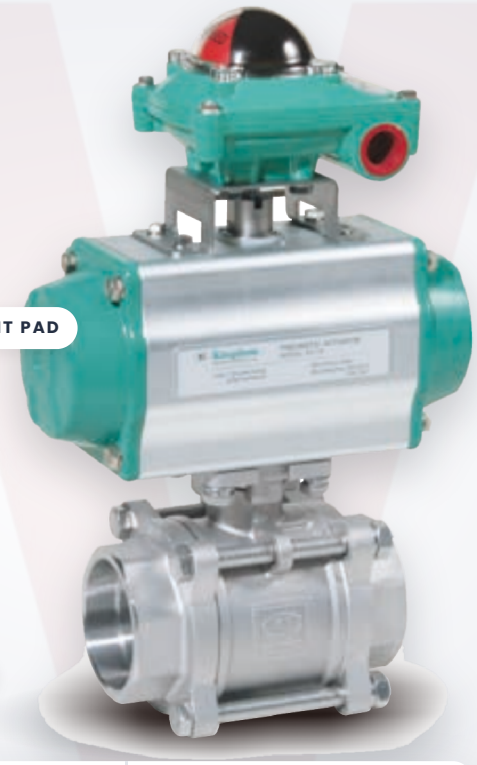
HIGH PERFORMANCE 3-PIECE BALL VALVE

KV-L30 · L31 L32 · L3F

1000 WOG · full port · thread / BW / SW / flange

3-piece body, full port ball valve with a built-in ISO 5211 direct mounting pad. Threaded, butt weld, extended butt weld, socket weld or ASME / EN flanged ends, NPS ¼ to 4 (DN8 – DN100).

- Built-in ISO 5211 direct mounting pad for easy automation
- Anti-static devices for ball-stem-body · blow-out proof stem
- Pressure balance hole in ball slot
- TA-Luft / ISO 15848-1 design approved
- Casting approved by TÜV AD 2000-Merkblatt W0
- NACE MR-0175 (optional)



1000 WOG	**¼–4 in**	**1360**	**150/300**
THREAD / BW / SW	DN8 – DN100	MAX. CV · DN100	ASME CLASS · EN PN10–40

End connections.

DESIGN & TESTING MSS SP-110 · WALL THICKNESS EN 12516-3

KV-L30
Threaded ends
ASME B1.20.1, BS 21, DIN 2999/259, ISO 228/1, JIS B0203, ISO 7/1

KV-L31 / L31-L
Butt weld / extended BW
ASME B16.25 (B2 Sch40), EN 12627

KV-L32
Socket weld ends
ASME B16.11

KV-L3F(1) / (2)
ASME flanged ends
ASME B16.5 Class 150 – L3F(1); Class 300 – L3F(2)

KV-L3F(K) / (N)
EN flanged ends
EN 1092-1 PN10–40; L3F(K) PN16, L3F(N) PN40

Torque values.

CLOSE TO OPEN · STANDARD SEATS (TFM1600 & PTFE)

ΔP		75 psig · 5 bar		150 psig · 10 bar		300 psig · 20 bar		700 psig · 50 bar		1000 psig · 63 bar	
DN	NPS	N·m	in·lb	N·m	in·lb	N·m	in·lb	N·m	in·lb	N·m	in·lb
8	1/4	4.5	40	4.5	40	4.5	40	4.5	40	4.5	40
10	3/8	4.5	40	4.5	40	4.5	40	4.5	40	4.5	40
15	1/2	5	44	5	44	5	44	5	44	5	44
20	3/4	6	53	6	53	6	53	6	53	6	53
25	1	10	88	10	89	11	97	11	97	11	97
32	1-1/4	13	115	13	115	15	133	17	150	19	168
40	1-1/2	19	168	19	168	22	195	24	212	26	230
50	2	25	221	29	257	32	283	35	310	38	336
65	2-1/2	40	354	45	398	49	434	54	478	59	522
80	3	65	575	72	637	81	717	90	796	101	894
100	4	100	885	110	973	122	1080	135	1195	148	1310

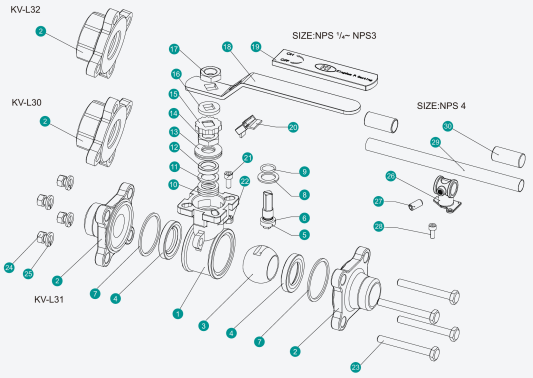
+30% torque with reinforced fibre-glass PTFE, carbon-filled PTFE, EK+PTFE or TFM4215 seats. 5 bar figures are maximum values tested after valves are placed for 24 hours. Actuator sizing: min. 30% safety factor. Options: actuator, limit switch, positioner.

CV & weight.

BY END TYPE

Size / flow			KV-L30		KV-L31		KV-L32	
DN	NPS	CV	kg	lb	kg	lb	kg	lb
8	1/4	10	0.64	1.41	0.64	1.41	0.65	1.43
10	3/8	13	0.65	1.43	0.61	1.34	0.61	1.34
15	1/2	18	0.68	1.50	0.63	1.39	0.67	1.48
20	3/4	36	0.95	2.09	0.91	2.01	0.95	2.09
25	1	48	1.40	3.09	1.35	2.98	1.33	2.93
32	1-1/4	93	2.21	4.87	2.08	4.59	2.04	4.50
40	1-1/2	165	2.99	6.59	2.97	6.55	2.80	6.17
50	2	207	4.50	9.92	4.30	9.48	4.30	9.48
65	2-1/2	450	8.40	18.5	8.50	18.8	8.30	18.2
80	3	780	12.3	27.1	12.3	27.1	12.3	27.1
100	4	1360	23.7	52.3	23.4	51.6	23.0	50.7

EXPLODED VIEW · NPS ¼–3 AND NPS 4

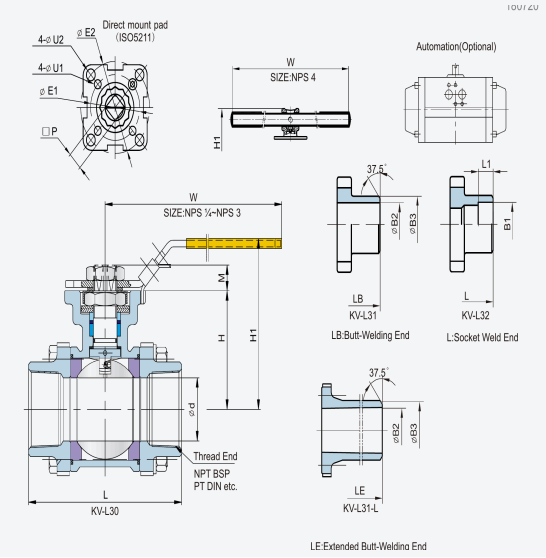


Material of construction.

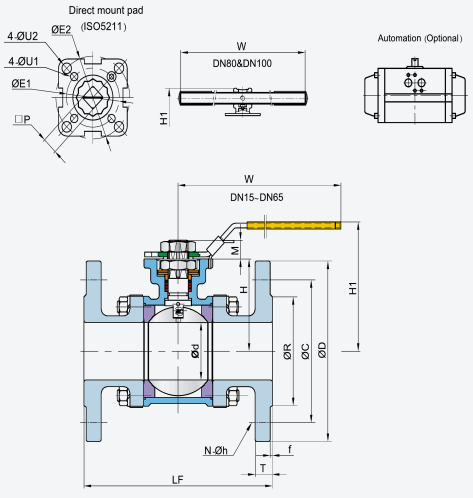
No.	Part	CF8M	CF8	WCB
1	Body	CF8M (1.4408)	CF8 (1.4308)	WCB (1.0619)
2	End cap (thread)	CF8M (1.4408)	CF8 (1.4308)	WCB (1.0619)
2	End cap (BW/SW)	CF3M (1.4409)	CF8 (1.4308)	WCB (1.0619)
3	Ball	CF8M	CF8	
4	Ball seat	TFM1600 / PTFE / TFM4215		
5	Stem	316	304	
6	Anti-static	316	304	
7	Body gasket	PTFE / TFM1600		
8	Thrust washer	PTFE / TFM1600 / RTFE		
9	O-ring	FKM		
10	Packing	PTFE / graphite*		
11	Bushing	50% SS + 50% PTFE / 304		
12	Gland	316		
13	Belleville washer	301		
14	Stem nut	A194-8		
15	Stop-lock-cap	304		
16	Handle gland	304		
17	Handle nut (NPS ¼–3)	A194-8		
18	Handle (NPS ¼–3)	304		
19	Handle sleeve (NPS ¼–3)	Vinyl plastic		
20	Lock device (NPS ¼–3)	304		
21	Stop bolt	A2-70		
22	Stop nut	A2-70		
23	Bolting	A193-B8 / A2-70		
24	Bolt nut	A194-8 / A2-70		
25	Bolt washer	304		
26	Handle adapter (NPS 4)	A351-CF8		
27	Set screw (NPS 4)	A2-70		
28	Bolting (NPS 4)	A2-70		
29	Pipe handle (NPS 4)	A53 + plated Zn		
30	Handle sleeve (NPS 4)	Vinyl plastic		

* Highlighted alternative in the source; no footnote is given by Kingdom – please confirm on order.

THREAD · BUTT WELD · SOCKET WELD ENDS



FLANGED ENDS · KV-L3F



ANSI 1000 WOG · thread / BW / SW.

KV-L30 · L31 · L31-L · L32 · MM

DN	NPS	d	L	LB	LE	H	H1	W	B1	B2	B3	L1	P	M	E1	E2	U1	U2	Hex B	ISO 5211
8	1/4	10.6	75	70	225	42	72	147	14.2	9.3	18	10.0	9	9	36	42	6	6	28	F03~F04
10	3/8	12.7	75	70	225	42	72	147	17.8	12.5	18	10.0	9	9	36	42	6	6	28	F03~F04
15	1/2	15	75	75	225	42	72	147	21.8	15.8	22	10.0	9	9	36	42	6	6	28	F03~F04
20	3/4	20	80	90	225	48.5	79	147	27.3	20.9	28	13.0	9	9	36	50	6	7	34.5	F03~F05
25	1	25	90	100	245	58.5	89	177	34.0	26.7	34	13.0	11	11	42	50	6	7	42	F04~F05
32	1-1/4	32	110	110	255	63	93	177	42.8	35.1	43	16.0	11	11	42	70	6	9	52	F04~F07
40	1-1/2	38	120	125	260	71.3	103	197	48.9	40.9	50	16.0	14	14	50	70	7	9	58.5	F05~F07
50	2	50	140	150	275	78.2	110	197	61.4	52.5	61	17.0	14	14	50	70	7	9	71.5	F05~F07
65	2-1/2	63.5	185	190	330	100	150	267	74.0	62.7	76	17.0	17	17	70	102	9	11	86.5	F07~F10
80	3	76	205	220	356	108.5	159	267	90.0	78.0	92	17.0	17	17	70	102	9	11	101	F07~F10
100	4	100	240	270	432	140	212	400	115.5	102.4	115	20.0	22	22	–	102	–	11	132	F10

L = KV-L30 thread end / KV-L32 socket weld end · LB = KV-L31 butt weld end · LE = KV-L31-L extended butt weld end. M3 face-to-face dimensions are available. For valves with butt weld ends per DIN 11850 series 2 or ISO 1127, the pressure rating is 400 WOG.

EN PN10/16/25/40 · flanged.

KV-L3F(K) PN16 · KV-L3F(N) PN40 · MM

DN	PN	d	LF	R	D	C	f	T	N	h	H	H1	W	P	M	E1	E2	U1	U2	ISO 5211
15	**10 / 16 / 25 / 40**	15	130	45	95	65	2	16	4	14	42	72	147	9	9	36	42	6	6	F03~F04
20		20	150	58	105	75	2	18	4	14	48.5	79	147	9	9	36	50	6	7	F03~F05
25		25	160	68	115	85	2	18	4	14	58.5	89	177	11	11	42	50	6	7	F04~F05
32		32	180	78	140	100	2	18	4	18	63	94	177	11	11	42	70	6	9	F04~F07
40		38	200	88	150	110	3	18	4	18	71.3	103	197	14	14	50	70	7	9	F05~F07
50		50	230	102	165	125	3	20	4	18	78.2	110	197	14	14	50	70	7	9	F05~F07
65	**10/16**	63.5	290	122	185	145	3	18	4(a)	18	100	150	267	17	17	70	102	9	11	F07~F10
	25/40							22	8											
80	**10/16**	76	310	138	200	160	3	20	8	18	109	174	300	17	17	70	102	9	11	F07~F10
	25/40							24												
100	**10/16**	100	350	158	220	180	3	20	8	18	140	212	400	22	22	–	102	–	11	F10
	25/40			162	235	190		24		22										

(a) 4 holes is factory standard for DN65 PN16 valves; 8 holes is optional.

ASME Class 150 · flanged.

KV-L3F(1) · MM

NPS	d	LF	R	D	C	f	T	N	h	H	H1	W	P	M	E1	E2	U1	U2	ISO 5211
1/2	15	130	35.0	90	60.3	2	8.0	4	16.0	42	72	147	9	9	36	42	6	6	F03~F04
3/4	20	150	43.0	100	69.9	2	8.9	4	16.0	48.5	79	147	9	9	36	50	6	7	F03~F05
1	25	160	51.0	110	79.4	2	9.6	4	16.0	58.5	89	177	11	11	42	50	6	7	F04~F05
1-1/4	32	180	63.5	115	88.9	2	11.2	4	16.0	63	94	177	11	11	42	70	6	9	F04~F07
1-1/2	38	200	73.2	125	98.4	2	12.7	4	16.0	71.3	103	197	14	14	50	70	7	9	F05~F07
2	50	230	92.0	150	120.7	2	14.3	4	19.0	78.2	110	197	14	14	50	70	7	9	F05~F07
2-1/2	63.5	290	104.7	180	139.7	2	15.9	4	19.0	100	150	267	17	17	70	102	9	11	F07~F10
3	76	310	127.0	190	152.4	2	17.5	4	19.0	109	174	300	17	17	70	102	9	11	F07~F10
4	100	350	157.0	230	190.5	2	22.3	8	19.0	140	212	400	22	22	–	102	–	11	F10

ASME Class 300 · flanged.

KV-L3F(2) · MM

NPS	d	LF	R	D	C	f	T	N	h	H	H1	W	P	M	E1	E2	U1	U2	ISO 5211
1/2	15	130	35.0	95	66.7	2	12.7	4	16.0	42	72	147	9	9	36	42	6	6	F03~F04
3/4	20	150	43.0	115	82.6	2	14.3	4	19.0	48.5	79	147	9	9	36	50	6	7	F03~F05
1	25	160	51.0	125	88.9	2	15.9	4	19.0	58.5	89	177	11	11	42	50	6	7	F04~F05
1-1/4	32	180	63.5	135	98.4	2	17.5	4	19.0	63	94	177	11	11	42	70	6	9	F04~F07
1-1/2	38	200	73.2	155	114.3	2	19.1	4	22.3	71.3	103	197	14	14	50	70	7	9	F05~F07
2	50	230	92.0	165	127.0	2	20.7	8	19.0	78.2	110	197	14	14	50	70	7	9	F05~F07
2-1/2	63.5	290	104.7	190	149.2	2	23.9	8	22.3	100	150	267	17	17	70	102	9	11	F07~F10
3	76	310	127.0	210	168.3	2	27.0	8	22.3	109	174	300	17	17	70	102	9	11	F07~F10
4	100	350	157.0	255	200.0	2	30.2	8	22.3	140	212	400	22	22	–	102	–	11	F10

Inch tables and pressure-temperature curves (PTFE, TFM1600, TFM4215 seats; CF8M / WCB bodies) are published by Kingdom – available on request.

Data supplied by Kingdom Flow Control and provided for reference only. Specifications may change without notice – please confirm details with Actuation Valve & Control before ordering.

AV®

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