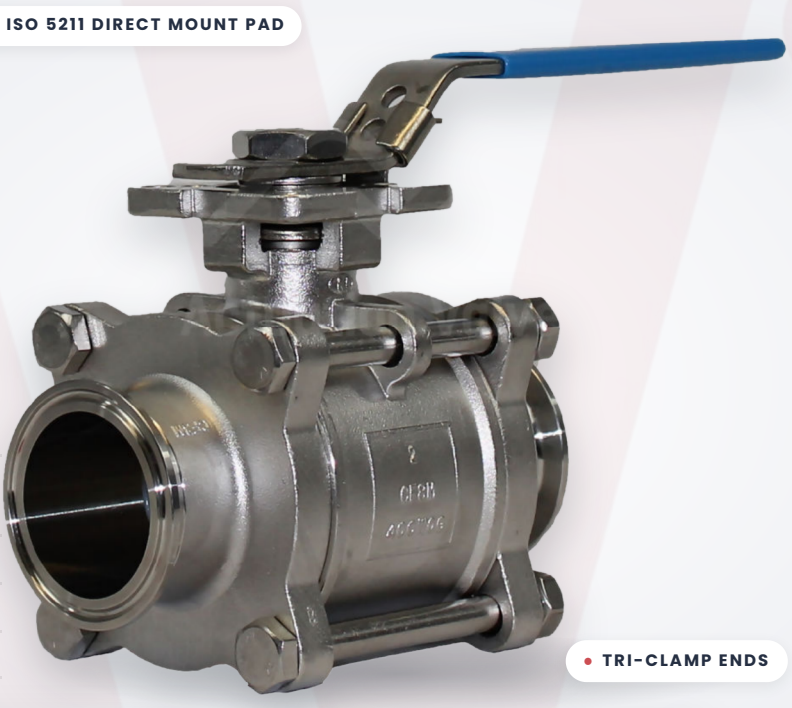
MANUAL & ACTUATED SANITARY BALL VALVE

KV-L9C
KV-L91

400 WOG · 3-piece · tri-clamp / weld OD ends

3-piece sanitary ball valve with tri-clamp (KV-L9C) or weld OD butt weld (KV-L91) end caps and a built-in ISO 5211 direct mounting pad for manual or actuated service. NPS ½ to 4 (DN15 – DN100).

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



400 WOG	½–4 in	BS 4825	F03–F10
PRESSURE CLASS	DN15 – DN100	CLAMP & WELD ENDS	ISO 5211 PAD

Standards & torque.

MANUAL OR ACTUATED

Applicable standards

Design	MSS SP-110
Clamp ends	BS 4825 (KV-L9C)
Butt weld ends	BS 4825 & BPE (KV-L91)
Inspection	MSS SP-110

Options

1. Actuator
2. Limit switch
3. Positioner

Trim

Ball	CF3M · CF8M · CF8
Stem	316L · 316 · 304
Seats	PTFE / TFM1600

Torque values.

CLOSE TO OPEN · STANDARD SEATS (TFM1600 & PTFE)

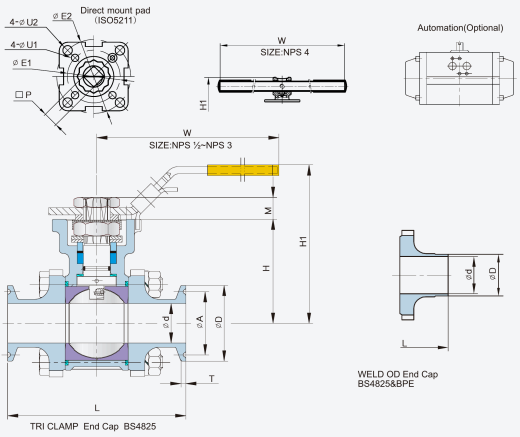
ΔP		75 psig · 5 bar		150 psig · 10 bar		300 psig · 20 bar		400 psig · 25 bar	
DN	NPS	N·m	in·lb	N·m	in·lb	N·m	in·lb	N·m	in·lb
15	1/2	5	44	5	44	5	44	5	44
20	3/4	6	53	6	53	6	53	6	53
25	1	10	88	10	88	11	97	11	97
32	1-1/4	13	115	13	115	15	133	17	150
40	1-1/2	19	168	19	168	22	195	24	212
50	2	25	221	29	257	32	283	34	301
65	2-1/2	40	354	45	398	49	434	52	460
80	3	65	575	72	637	81	717	88	779
100	4	100	885	110	973	122	1080	132	1168

Torques increase about 30% with reinforced fibre-glass PTFE seats. 5 bar figures are maximum values tested after valves are placed for 24 hours. Actuator sizing: min. 30% safety factor.

Material of construction.

No.	Part	Materials (three options per source)		
1	**Body**	CF3M (1.4409)	*see note †*	
2	**End cap (clamp)**	CF3M (1.4409)	*see note †*	
2	**End cap (BW)**	CF3M (1.4409)	*see note †*	
3	**Ball**	CF3M	CF8M	CF8
4	**Ball seat**	PTFE / TFM1600		
5	**Stem**	316L	316	304
6	**Anti-static**	316L	316	304
7	**Body gasket**	PTFE		
8	**Thrust washer**	PTFE		
9	**O-ring**	FKM		
10	**Packing**	PTFE		
11	**Bushing**	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 ½–3)**	A194-8		
18	**Handle (NPS ½–3)**	304		
19	**Handle sleeve (NPS ½–3)**	Vinyl plastic		
20	**Lock device (NPS ½–3)**	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		

TRI-CLAMP END BS 4825 · WELD OD END BS 4825 & BPE



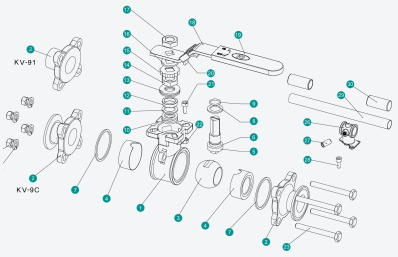
† Source material grades for the body and end caps are inconsistent (e.g. "CF8 (1.4408)", "WCB (1.4308)", "CF3 (1.4409)", "WCB (1.4309)"). The second and third body / end-cap options are therefore not shown – please confirm with Actuation Valve & Control before ordering.

ANSI 400 WOG dimensions.

MM

Size		Tri-clamp end				Weld OD	Valve & ISO 5211 pad										
NPS	DN	d	A	D	T	D	L	H	H1	W	P	M	E1	E2	U1	U2	ISO 5211
1/2	15	9.5	20.3	25.4	3.7	12.7	90	42	72	147	9	9	36	42	6	6	F03~F04
3/4	20	15.9	20.3	25.4	3.7	19.05	90	49	79	147	9	9	36	50	6	7	F03~F05
1	25	22.2	43.5	50.5	2.85	25.4	100	58	90	177	11	11	42	50	6	7	F04~F05
1-1/2	40	34.9	43.5	50.5	2.85	38.1	125	71	103	197	14	14	50	70	7	9	F05~F07
2	50	47.6	56.5	64	2.85	50.8	150	78	110	197	14	14	50	70	7	9	F05~F07
2-1/2	65	60.3	70.5	77.5	2.85	63.5	190	100	150	267	17	17	70	102	9	11	F07~F10
3	80	73.0	83.5	91	2.85	76.2	220	109	159	267	17	17	70	102	9	11	F07~F10
4	100	97.6	110	119	2.85	101.6	270	140	212	400	22	22	–	102	–	11	F10

EXPLODED VIEW · KV-L9C / KV-L91



Pressure-temperature curves (400 psi floating ball valves, CF8M/CF3M body, PTFE and TFM1600 seats) 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.

Need a hygienic ball valve, manual or actuated?

Talk to our UK team about end connections, materials and complete actuated packages.

actuation.co.uk