

### 3-PC Casting Ball Valve Full Port, Direct Mount, 1000 WOG, High Performance

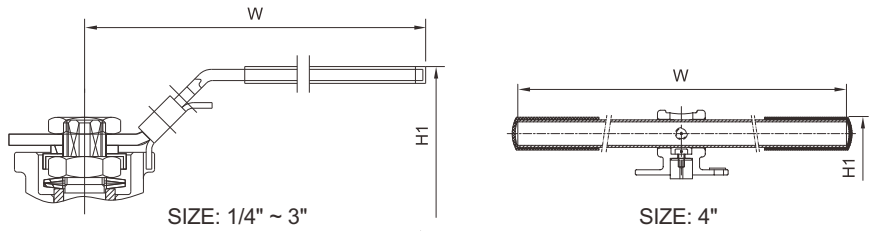
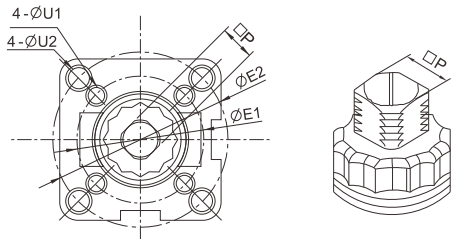
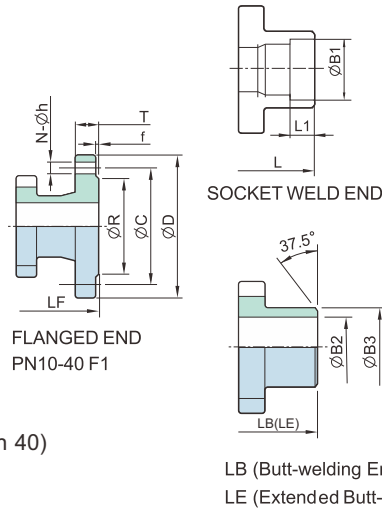
KV-L30, KV-L31, KV-L31-L, KV-L32, KV-L3F (Direct Mount Type)

#### FEATURES:

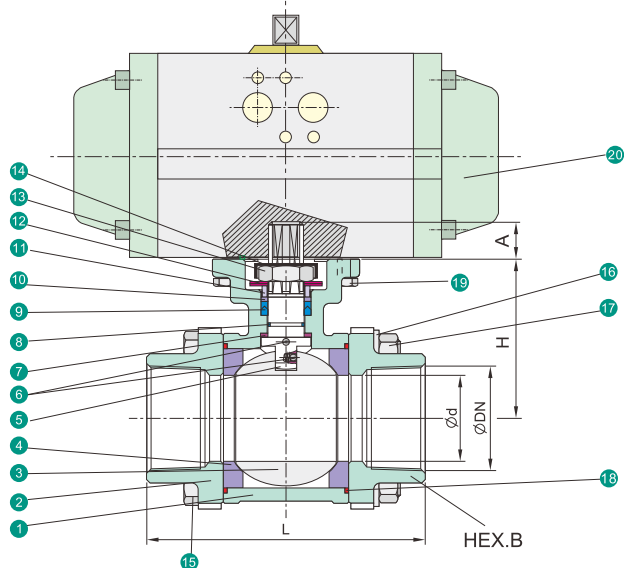
- Built-in ISO 5211 Direct Mounting Pad and Square Stem for Easy Automation
- Anti-Static Devices for Ball-Stem-Body
- Blow-out Proof Stem
- Pressure Balance Hole in Ball Slot
- Pre-Load 2 Belleville Washers to Self-adjust Packing
- **TA-LUFT** Design Approved
- Options: 1. Actuator 2. Limit Switch 3. Positioner

#### STANDARDS:

- Design: MSS SP-110
- Wall Thickness: EN 12516-3
- Pipe Thread **KV-L30**: ASME B1.20.1  
DIN 2999 / 259, ISO 228 / 1  
JIS B 0203, ISO 7 / 1
- Butt Weld **KV-L31**: ASME B16.25 (ØB2 Sch 40)
- Extended Butt Weld **KV-L31-L**: ASME B16.25 (ØB2 Sch 40)
- Socket Weld **KV-L32**: ASME B16.11
- Flanged Ends **KV-L3F** :  
KV-L3F(1) : ASME CLASS 150, KV-L3F(2) : ASME CLASS 300  
KV-L3F(J) : PN10, KV-L3F(K) : PN16, KV-L3F(M) : PN25, KV-L3F(N) : PN40 EN 1092-1  
KV-L3F(A) : JIS 10K, KV-L3F(C) : JIS 20K B 2220
- Inspection & Testing: MSS SP-110



NO.	PART NAME	MATERIALS		
1	Body	CF8M	CF8	WCB
2	Cap (Thread)	CF8M	CF8	WCB
	Cap (Welding)	CF3M	CF3	
3	Ball	CF8M	CF8	
4	Ball Seat	TFM 1600 / PTFE / RTFE		
5	Stem	316	304	
6	Anti-Static Device	316	304	
7	Thrust Washer		PTFE	
8	O-Ring		FKM	
9	Stem Packing		PTFE	
10	Bushing	50%SS+50%PTFE		
11	Gland	316		
12	Belleville Washer		301	
13	Stem Nut		A194-8	
14	Stop-Lock-Cap		304	
15	Bolting	A193-B8/A2-70		
16	Bolt Washer		304	
17	Bolt Nut	A194-8/A2-70		
18	Body Gasket		PTFE	
19	Hex Bolting	A2-70		
20	Actuator	Pneumatic KP / Electric KQ		



Unit: mm

SIZE	d	L	LB	LE	LF	H	H1	W	E1	E2	P	U1	U2	A	D	C	R	T	f	N	h	L1	B1	B2	B3	ISO 5211
1/4"	10.6	75	70	225	—	42.0	72	147	36	42	9	6	6	9	—	—	—	—	—	—	—	10	14.2	9.3	18	F03-F04
3/8"	12.7	75	70	225	—	42.0	72	147	36	42	9	6	6	9	—	—	—	—	—	—	—	10	17.8	12.5	18	F03-F04
1/2"	15.0	75	75	225	130	42.0	72	147	36	42	9	6	6	9	95	65	45	16	2	4	14	10	21.8	15.8	22	F03-F04
3/4"	20.0	80	90	225	150	48.5	79	147	36	50	9	6	7	9	105	75	58	18	2	4	14	13	27.3	20.9	28	F03-F05
1"	25.0	90	100	245	160	58.5	89	177	42	50	11	6	7	11	115	85	68	18	2	4	14	13	34.0	26.7	34	F04-F05
1-1/4"	32.0	110	110	255	180	63.0	93	177	42	70	11	6	9	11	140	100	78	18	2	4	18	16	42.8	35.1	43	F04-F07
1-1/2"	38.0	120	125	260	200	71.3	103	197	50	70	14	7	9	14	150	110	88	18	3	4	18	16	48.9	40.9	50	F05-F07
2"	50.0	140	150	275	230	78.2	110	197	50	70	14	7	9	14	165	125	102	20	3	4	18	17	61.4	52.5	61	F05-F07
2-1/2"	63.5	185	190	330	290	100.0	150	267	70	102	17	9	11	17	185	145	122	22	3	8	18	17	74.0	62.7	76	F07-F10
3"	76.0	205	220	356	310	108.5	159	267	70	102	17	9	11	17	200	160	138	24	3	8	18	17	90.0	78.0	92	F07-F10
4"	100.0	240	270	432	350	140.0	212	400	—	102	22	—	11	22	235	190	162	24	3	8	22	20	115.1	102.4	115	F10

\*M3 Face to Face dimensions are available

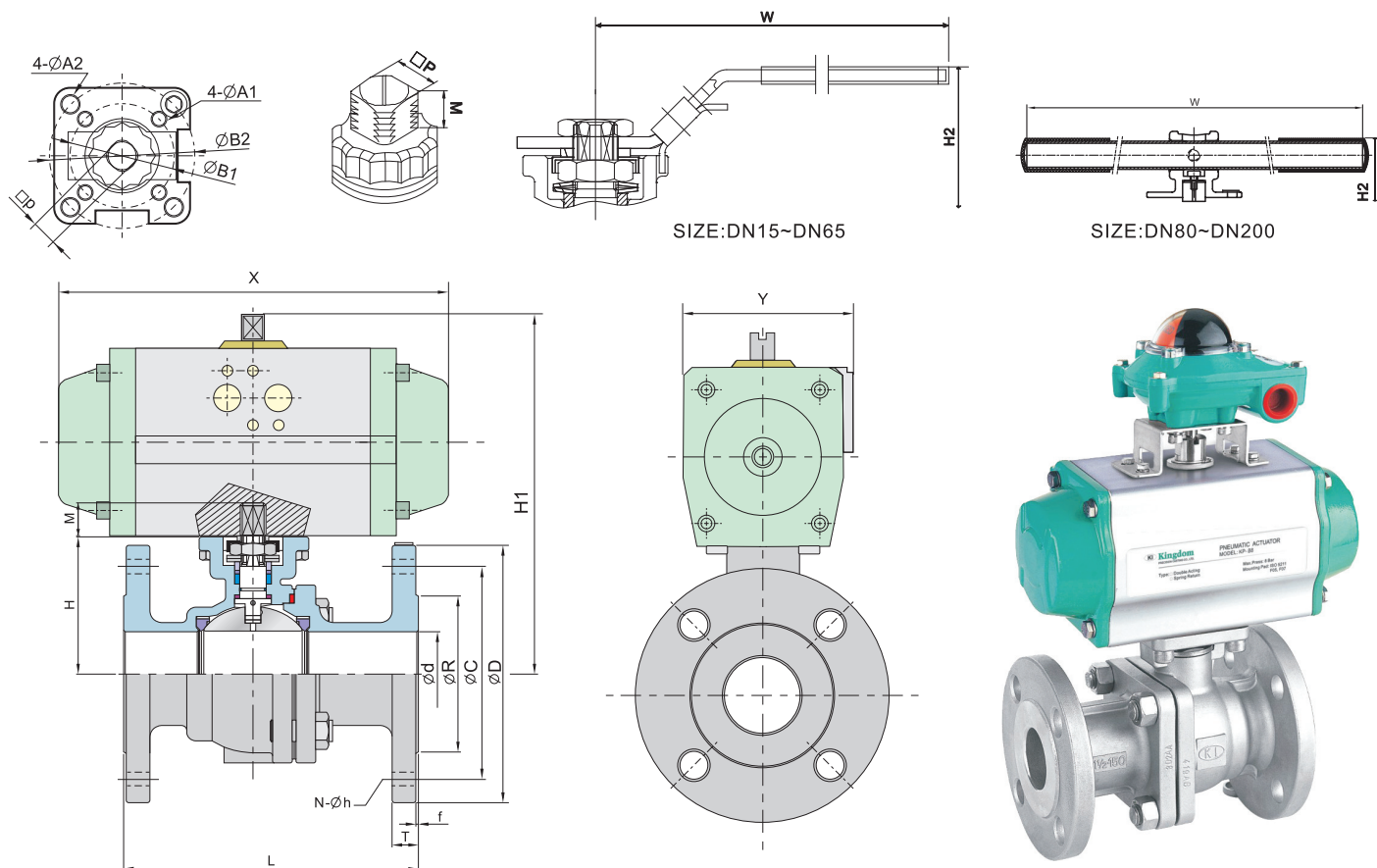
### Typ KH24FL

#### DESIGN FEATURES:

- Built-in ISO 5211 Direct Mounting Pad for Easy Automation
- **Fire Safe** Design Approved
- Anti-static Devices for Ball-Stem-Body
- Blow-out Proof Stem
- Pressure Balance Hole in Ball Slot
- **TA-LUFT** Design Approved
- Casting Boss on Body for Draining
- Options: 1. Actuator 2. Limit Switch 3. Positioner

#### APPLICABLE STANDARDS:

- Design Rating: DIN 3357 / 1,2, EN 12516-1
- Fire Design: API 607 5<sup>th</sup> 2005 , ISO 10497
- Face to Face:  
DIN 3202 F17(F1 DN15~DN100 / F7 DN125~DN200)  
F18(F4 DN15~DN100 / F5 DN125~DN200)  
EN 558-1 Series27 (DN15~DN200)  
Series 1 (DN15~DN125)
- Wall Thickness: ASME B16.34, EN12516-1
- Flanged Ends : DIN EN1092-1 PN10-PN40
- Inspection & Testing: DIN 3230/3, EN 12266

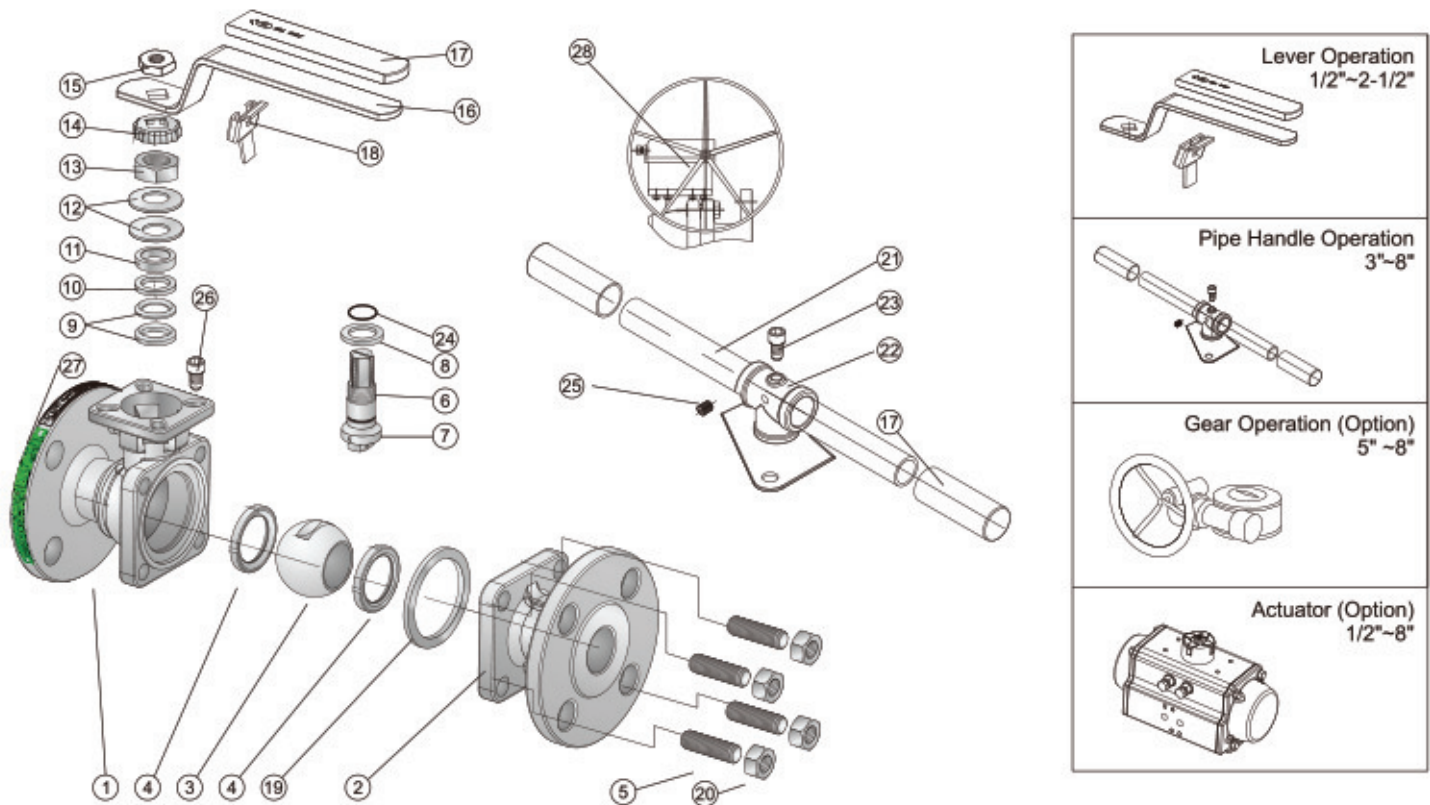


#### ■ DIN PN10/16/25/40 (F1/F7, F4/F5)

Unit: mm

SIZE	PN	Ød	L	*L	ØR	ØD	ØC	f	T	N	Øh	H	H1	M	P	A1	A2	B1	B2	X	Y	ISO 5211	P-Actuator	E-Actuator	Pressure	
DN15	1/2"	10-40	15.0	115	130	45	95	65	2	16	4	14	48.0	145.0	9	9	6	6	36	42	144	72	F03-F04	KP50	KQ006	80PSI
DN20	3/4"	10-40	20.0	120	150	58	105	75	2	18	4	14	53.0	150.0	9	9	6	6	36	42	144	72	F03-F04	KP50	KQ006	80PSI
DN25	1"	10-40	25.0	125	160	68	115	85	2	18	4	14	58.5	168.5	11	11	6	7	42	50	164	84	F04-F05	KP63	KQ006	80PSI
DN32	1-1/4"	10-40	32.0	130	180	78	140	100	2	18	4	18	71.0	181.0	11	11	6	7	42	50	164	84	F04-F05	KP63	KQ006	80PSI
DN40	1-1/2"	10-40	38.0	140	200	88	150	110	3	18	4	18	76.0	204.0	14	14	7	9	50	70	208	96	F05-F07	KP75	KQ008	80PSI
DN50	2"	10-40	50.0	150	230	102	165	125	3	20	4	18	85.0	209.0	14	14	7	9	50	70	208	96	F05-F07	KP75	KQ008	80PSI
DN65	2-1/2"	10/16 25/40	63.5	170	290	122	185	145	3	18 22	4 8	18	101.5 107.0	243.5	17	17	9	11	70	102	247	108	F07-F10	KP88	KQ015	80PSI
DN80	3"	10/16 25/40	76.0	180	310	138	200	160	3	20 24	8	18	111.5 117.0	265.5	17	17	9	11	70	102	268	123	F07-F10	KP100	KQ015	80PSI
DN100	4"	10/16 25/40	100.0	190	350	158 162	220 235	180 190	3	20 24	8	18 22	140.0 335.0	335.0	22	22	N/A	11	N/A	102	345	151	F10	KP125	KQ020	80PSI
DN125	5"	10/16 25/40	125.0	325	400	188	250 270	210 220	3	22 26	8 26	18	183.0 414.0	414.0	27	27	14	N/A	125	N/A	450	202	F12	KP160	KQ030	80PSI
DN150	6"	10/16 25/40	150.0	350	450	212 218	285 300	240 250	3	22 28	8 26	18	204.0 435.0	435.0	27	27	14	N/A	125	N/A	450	202	F12	KP160	KQ030	80PSI
DN200	8"	10 16 25 40	200.0	400	550	268 278 285	340 360 375	295 310 320	3	24 30 34	8 12	18	252.5	555.5	27	27	14	N/A	125	N/A	545	224	F12	KP200	KQ050	80PSI

"L" for Series F4/F5  
"\*L" for Series F1/F7



### MATERIAL OF CONSTRUCTION

NO.	PART	MATERIAL		
		ANSI/JIS/DIN	ANSI/JIS/DIN	ANSI/JIS/DIN
1	Body	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
2	End Cap	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	A216-WCB/SCPH2/1.0619
3	Ball	A351-CF8M/SCS14A/1.4408	A351-CF8/SCS13A/1.4308	
4	Ball Seat	TFM1600/PTFE/RTFE		
5	Bolting	A193-B8 (For ANSI ball valves) / A2-70 (for DIN ball Valves)		A193-B7 (For ANSI ball valves) / 8.8 (For DIN/JIS ball valves)
6	Stem	SUS316	SUS304	
7	Anti-Static	SUS316	SUS304	
8	Thrust washer	PTFE		
9	Stem Packing	PTFE/GRAFOIL*		
10	Bushing	50%SS+50%PTFE/SUS304*		
11	Gland	SUS316		
12	Belleville Washer	SUS301		
13	Stem Nut	A194-8		
14	Stop-Lock-Cap	SUS304		
15	Handle Nut	A194-8		
16	Lever	SUS304		
17	Handle Sleeve	VINYL PLASTIC		
18	Lock Device	SUS304		
19	Body Gasket	PTFE/316 SPIRAL WOUND+GRAFOIL*		
20	Nut	A194-8 (For ANSI ball valves) / A2-70(For DIN/JIS ball valves)	194-2H (For ANSI ball valves) / 8.8(For DIN/JIS ball valves)	
21	Pipe Handle(3"-8")	A53+Zn PLATED		
22	Handle Adapter(3"-8")	CF8		
23	Bolting (3"-8")	A2-70		
24	O-Ring	FKM		
25	Set Screwed(3"-8")	SUS304		
26	Stop Bolt	A193-B8		
27	Nameplate	SUS304		
28	Worm Gear	WCB		

\*Materials for KV-L60 (Fire-Safe Type)