

A large, stylized 'K' graphic is the central focus of the page. It is composed of two overlapping shapes: a yellow 'K' in the background and a red 'K' in the foreground. The red 'K' is slightly offset to the right and down, creating a 3D effect. The background of the page is white with a faint, light yellow line drawing of a manual ball valve assembly on the right side.

MANUAL BALL VALVES



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KTC-M/B 2009031C)
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Manual Ball Valve

Fig.NO.	Pressure Rating	Port	End Connection	Actuator Mounting Pad	Fire Safe	Size Range	Page
KZV-041	ASME Class 150	Full	Flange	o	N/A	1/2" - 4"	4
KZV-081	ASME Class 150	Full	Flange	o	o	1/2" - 4"	4
KZV-042	ASME Class 300	Full	Flange	o	N/A	1/2" - 4"	4
KZV-062	ASME Class 300	Full	Flange	o	o	1/2" - 4"	4
KZV-043	ASME Class 600	Full	Flange	o	N/A	1/2" - 4"	5
KZV-063	ASME Class 600	Full	Flange	o	o	1/2" - 4"	5
KZV-04J	DIN PN 10	Full	Flange	o	N/A	1/2" - 4"	6
KZV-06J	DIN PN 10	Full	Flange	o	o	1/2" - 4"	6
KZV-04K	DIN PN 16	Full	Flange	o	N/A	1/2" - 4"	6
KZV-06K	DIN PN 16	Full	Flange	o	o	1/2" - 4"	6
KZV-04M	DIN PN 25	Full	Flange	o	N/A	1/2" - 4"	6
KZV-06M	DIN PN 25	Full	Flange	o	o	1/2" - 4"	6
KZV-04N	DIN PN 40	Full	Flange	o	N/A	1/2" - 4"	6
KZV-06N	DIN PN 40	Full	Flange	o	o	1/2" - 4"	6
KZV-04A	JIS 10K	Full	Flange	o	N/A	1/2" - 4"	7
KZV-06A	JIS 10K	Full	Flange	o	o	1/2" - 4"	7
KZV-04C	JIS 20K	Full	Flange	o	N/A	1/2" - 4"	7
KZV-06C	JIS 20K	Full	Flange	o	o	1/2" - 4"	7
KZV-G4A	JIS 10K	Full	Flange	o	N/A	1/2" - 8"	8
KZV-G6A	JIS 10K	Full	Flange	o	o	1/2" - 8"	8
KZV-071	ASME Class 150	Full	Flange	o	N/A	1/2" - 6"	9
KZV-071F	ASME Class 150	Full	Flange	o	o	1/2" - 6"	9
KZVM1F	ASME Class 150	Full	Flange	o	N/A	1/2" - 4"	10
KZV-JT41	ASME Class 150	Full	Flange	o	N/A	1/2" - 8"	11
KZV-JT42	ASME Class 300	Full	Flange	o	N/A	1/2" - 8"	11
KZV-JT61	ASME Class 150	Full	Flange	o	o	1/2" - 8"	11
KZV-JT62	ASME Class 300	Full	Flange	o	o	1/2" - 8"	11
KZV-T41	ASME Class 150	Full	Flange	o	o	1/2" - 4"	14
KZV-T11	ASME Class 150	Full	BW	o	o	1/2" - 4"	14
KZV-T42	ASME Class 300	Full	Flange	o	o	1/2" - 4"	14
KZV-T12	ASME Class 300	Full	BW	o	o	1/2" - 4"	14
KZV-T01	ASME Class 150	Full	Thread	o	o	1/2" - 4"	15
KZV-T21	ASME Class 150	Full	SW	o	o	1/2" - 4"	15
KZV-T02	ASME Class 300	Full	Thread	o	o	1/2" - 4"	15
KZV-T22	ASME Class 300	Full	SW	o	o	1/2" - 4"	15
KZV-T03	ASME Class 600	Full	Thread	o	o	1/2" - 4"	15
KZV-T23	ASME Class 600	Full	SW	o	o	1/2" - 4"	15
KZV-L5K/L	DIN PN 16	Full(L-Port)	Flange	o	N/A	1/2" - 4"	17
KZV-L5K/T	DIN PN 16	Full(T-Port)	Flange	o	N/A	1/2" - 4"	17
KZV-L5N/L	DIN PN 40	Full(L-Port)	Flange	o	N/A	1/2" - 4"	17
KZV-L5N/T	DIN PN 40	Full(T-Port)	Flange	o	N/A	1/2" - 4"	17
KZV-L5U/L	ASME Class 150	Full(L-Port)	Flange	o	N/A	1/2" - 4"	18
KZV-L5U/T	ASME Class 150	Full(T-Port)	Flange	o	N/A	1/2" - 4"	18
KZV-L5S/L	ASME Class 300	Full(L-Port)	Flange	o	N/A	1/2" - 4"	18
KZV-L5S/T	ASME Class 300	Full(T-Port)	Flange	o	N/A	1/2" - 4"	18
KZV-L5A/L	JIS 10K	Full(L-Port)	Flange	o	N/A	1/2" - 4"	19
KZV-L5A/T	JIS 10K	Full(T-Port)	Flange	o	N/A	1/2" - 4"	19
KZV-L5C/L	JIS 20K	Full(T-Port)	Flange	o	N/A	1/2" - 4"	19
KZV-L5C/T	JIS 20K	Full(T-Port)	Flange	o	N/A	1/2" - 4"	19
KZV-L50	1000 WOG	Reduced(L-Port)	Thread	o	N/A	1/2" - 2"	20
KZV-L51	1000 WOG	Reduced(T-Port)	Thread	o	N/A	1/2" - 2"	20
KZV-L52	DIN PN 16	FULL	Clamp Ends	o	N/A	1/2" - 2"	21
KZV-L53	1000 WOG	Full(L-Port)	Thread	o	N/A	1/2" - 1-1/2"	22
KZV-L54	1000 WOG	Full(T-Port)	Thread	o	N/A	1/2" - 1-1/2"	22
KZV-080	2000-1500 WOG	FULL	Thread	o	o	1/4" - 2"	24
KZV-081	2000-1500 WOG	FULL	BW	o	o	1/4" - 2"	24
KZV-082	2000-1500 WOG	FULL	SW	o	o	1/4" - 2"	24
KZV-08F	Class 600	FULL	Flange	o	o	1/2" - 2"	24
KZV-M30	1000 WOG	FULL	Thread	o	N/A	1/4" - 3"	25
KZV-M31	1000 WOG	FULL	BW	o	N/A	1/4" - 3"	25
KZV-M32	1000 WOG	FULL	SW	o	N/A	1/4" - 3"	25
KZV-03C	DIN PN 16	FULL	Clamp Ends	N/A	N/A	1/2" - 3"	26
KZV-L3C	DIN PN 16	FULL	Clamp Ends	o	N/A	1/2" - 4"	27
KZVM3F	DIN PN 10-40	FULL	Flange	o	N/A	1/2" - 3"	28
KZV-030	1000 WOG	FULL	Thread	N/A	N/A	1/4" - 3"	28
KZV-031	1000 WOG	FULL	BW	N/A	N/A	1/4" - 3"	28
KZV-032	1000 WOG	FULL	SW	N/A	N/A	1/4" - 3"	28
KZV-020	1000 WOG	FULL	Thread	N/A	N/A	1/4" - 3"	29
KZV-010	1000 WOG	Reduced	Thread	N/A	N/A	1/4" - 2"	29



SPLIT BODY FLANGED BALL VALVES

SPECIFICATIONS

- Full Port, Floating Ball Type
- ASME, DIN BS & JIS Standards
- Size 1/2" - 4" (DN15 - DN100, 15A - 100A)
- Class 150, 300 / PN10 - PN40 / JIS 10K, 20K
- Blow-out Proof and Anti-static Stem
- Pre-load 2 Belleville Washers to Self-adjust Packing
- Double Stem Sealing Design Has Been Approved for TA-Luft
- Built-in ISO 5211 Mounting Pad for Easy Automation
- Castings Approved by TÜV AD 2000-Merkblatt W0



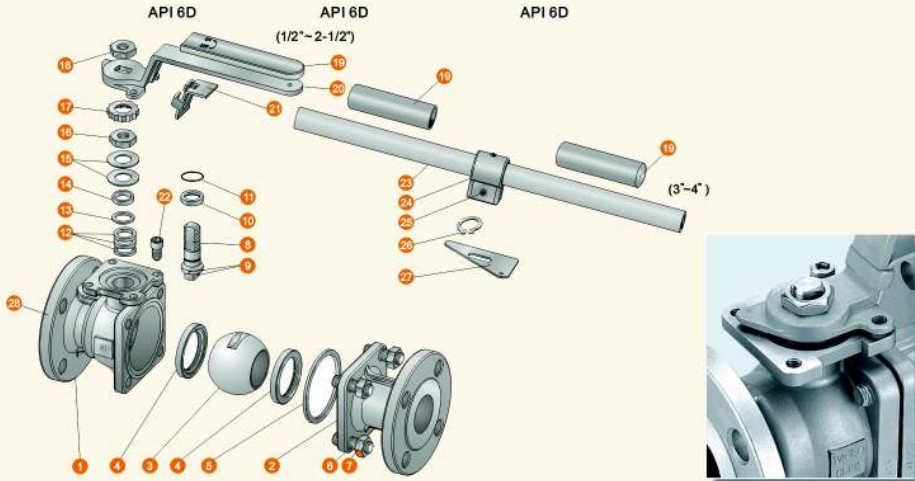
KZV - 040, STANDARD TYPE
KZV - 060, FIRE SAFE TYPE

KZV - 040 / KZV - 060 SERIES

Split Body Flange Ball Valves



KZV - 041, KZV - 042 (Standard Type)
 KZV - 061, KZV - 062 (Fire Safe Type)
 ASME CLASS 150 / 300 2-PC Body, Flanged Ends, Full Port



AVAILABLE OPTIONS

- Other Alloy are Available
- Casting per NACE/MR - 01-75 for Sour Gas Service.
- Castings Approved by TÜV AD 2000 - Merkblatt W0 /EN10204 3.2 Form.
- (EN10204 3.1 Form is free)

Standard	ANSI/ASME	DIN	JIS
Rating	B16.34 CLASS 150 (BS5351 CLASS 150) B16.34 CLASS 300 (BS5351 CLASS 300)	DIN 3357 PN10 - PN40 EN 12516-1	B2001 10K B2001 20K
Face to Face	B16.10	DIN 3202 F4/F18 DIN 3202 F1/F17	B2002 10K Form 6 B2002 20K Form 10
Connection Facing	B16.5RF serrated Finish (AARH200)	DIN 2501 PN10 - PN40 Facing DIN 2526 Form C	B2212 10K B2214 20K
Inspection & Testing	API 598, API 6D	DIN 3230/3, EN 12266	JIS B2003
Quality Assurance	ISO 9001, QS9000 AD 2000 - Merkblatt W0 PED 97/23/EC CE 0036	ISO 9001, QS9000 AD 2000 - Merkblatt W0 PED 97/23/EC CE 0036	ISO 9001, QS9000 AD 2000 - Merkblatt W0 PED 97/23/EC CE 0036

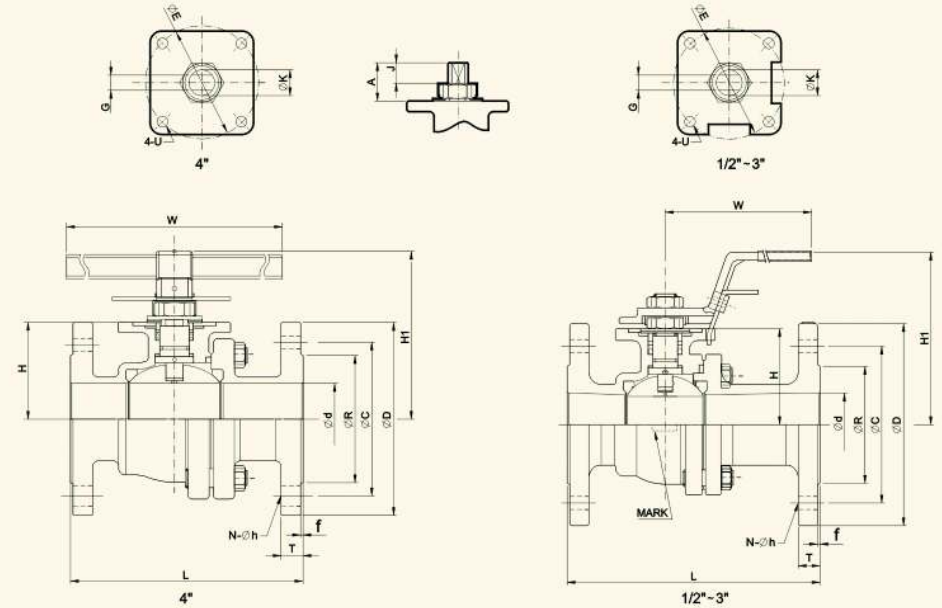
MATERIALS

NO.	PART NAME	MATERIALS		
		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	A216 - WCB / SCPH2 / 1.0619
4	Ball Seat	TFM1600 / PTFE / RTFE		
5	Body Gasket	TFM1600 / PTFE / 316 SPIRAL WOUND + GRAFOIL*		
6	Bolting	A193 - B8	A193 - B8	A193 - B7
7	Bolt Nut	A194 - 8	A194 - 8	A194 - 2H
8	Stem	SUS 316	SUS 304	SUS 304
9	Anti-Static Device	SUS 316	SUS 304	SUS 304
10	Thrust Washer	SUS 316	SUS 304	SUS 304
11	O-Ring	PTFE		
12	Stem Packing	FKM (VITON)		
13	Bushing	PTFE / GRAFOIL*		
14	Gland	50%SS+50%PTFE / SUS 304*		
15	Belleville Washer	SUS 316	SUS 301	SUS 304
16	Stem Nut	A194 - 8	A194 - 8	A194 - 2H
17	Stop-lock-cap	SUS 304	SUS 304	SUS 304
18	Handle Nut (1/2" - 2-1/2")	A194 - 8	A194 - 8	A194 - 2H
19	Handle Sleeve	SUS 304	VINYL PLASTIC	SUS 304
20	Handle (1/2" - 2-1/2")	SUS 304	VINYL PLASTIC	SUS 304
21	Lock Device (1/2" - 2-1/2")	SUS 304	SUS 304	SUS 304
22	Stop Bolt	A193 - B8	A193 - B8	A193 - B8
23	Pipe Handle (3"-4")	A53+PLATED Zn	A53+PLATED Zn	A53+PLATED Zn
24	Handle Adapter (3"-4")	A351 - CF8	A351 - CF8	A351 - CF8
25	Set Screw (3"-4")	A193 - B8	A193 - B8	A193 - B8
26	Snap Ring (3"-4")	SUS 304	SUS 304	SUS 304
27	Triangle Stopper (3"-4")	SUS 304	SUS 304	SUS 304
28	Nameplate	SUS 304	SUS 304	SUS 304

*Materials for KZV-060 Series (Fire-Safe Models)

APPLICABLE STANDARDS:

- Design : ASME B16.34, API 608
- Fire Safe : API 607 5th 2005, ISO 10497
- Face to Face : ASME B16.10
- Wall Thickness : ASME B16.34
- End Flange : ASME B16.5
- Inspection & Testing : API 598, API 6D



DESIGN FEATURES:

- Built-in ISO 5211 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

ASME CLASS 150

KZV - 041, KZV - 061

Unit: mm

SIZE	φd	L	φR	φD	φC	f	T	H	H1	N	φh	W	G	A	J	φK	U	φE	ISO 5211
1/2"	15	108	35.0	89.0	60.5	2	9.7	37.0	86	4	16	135	6.3	20.0	10	12	M5	42	F04
3/4"	20	117	43.0	98.6	70.0	2	10.5	40.0	99	4	16	135	6.3	20.0	10	12	M5	42	F04
1"	25	127	51.0	108.0	79.5	2	11.2	46.0	99	4	16	170	9.0	24.0	11	15	M6	50	F05
1-1/4"	32	140	63.5	117.0	88.9	2	12.7	50.0	101	4	16	170	9.0	24.0	11	15	M6	50	F05
1-1/2"	38	165	73.2	127.0	98.6	2	14.2	62.0	118	4	16	200	9.6	27.0	16	16	M8	70	F07
2"	50	178	82.0	152.5	120.7	2	15.9	71.0	127	4	19	200	9.6	27.0	16	16	M8	70	F07
2-1/2"	64	190	105.0	177.8	139.7	2	17.5	89.0	146	4	19	300	16.0	42.5	21	24	M10	102	F10
3"	76	203	127.0	190.5	152.4	2	19.1	100.0	155	4	19	300	16.0	42.5	21	24	M10	102	F10
4"	100	229	157.2	229.0	190.5	2	23.9	120.5	209	8	19	400	18.0	47.5	25	29	M10	102	F10

ASME CLASS 300

KZV - 042, KZV - 062

Unit: mm

SIZE	φd	L	φR	φD	φC	f	T	H	H1	N	φh	W	G	A	J	φK	U	φE	ISO 5211
1/2"	15	140	35.0	95.3	66.5	2	14.3	37.0	86	4	16.0	135	6.3	20.0	10	12	M5	42	F04
3/4"	20	152	43.0	117.4	82.6	2	15.9	40.5	90	4	19.0	135	6.3	20.0	10	12	M5	42	F04
1"	25	165	51.0	124.0	88.9	2	17.5	46.0	99	4	19.0	170	9.0	24.0	11	15	M6	50	F05
1-1/4"	32	178	63.5	133.4	98.6	2	19.1	50.0	102	4	19.0	170	9.0	24.0	11	15	M6	50	F05
1-1/2"	38	190	73.2	155.5	114.3	2	20.7	62.0	118	4	22.3	200	9.6	27.0	16	16	M8	70	F07
2"	50	216	82.0	165.0	127.0	2	22.3	70.5	127	8	19.0	200	9.6	27.0	16	16	M8	70	F07
2-1/2"	64	241	104.7	190.5	149.4	2	25.5	89.0	146	8	22.3	300	16.0	42.5	21	24	M10	102	F10
3"	76	282	127.0	210.0	168.0	2	28.6	100.0	155	8	22.3	300	16.0	42.5	21	24	M10	102	F10
4"	100	305	157.0	254.0	200.0	2	31.8	120.5	209	8	22.3	400	18.0	47.5	25	29	M10	102	F10

KZV - 04J (Standard Type)
KZV - 06J (Fire Safe Type)

ASME CLASS 600 2-PC Body, Flanged Ends, Full Port



KZV - 04J, KZV - 04K, KZV - 04M, KZV - 04N (Standard Type)
KZV - 06J, KZV - 06K, KZV - 06M, KZV - 06N (Fire Safe Type)
 DIN PN10-40 2-PC Body, Flanged Ends, Full Port

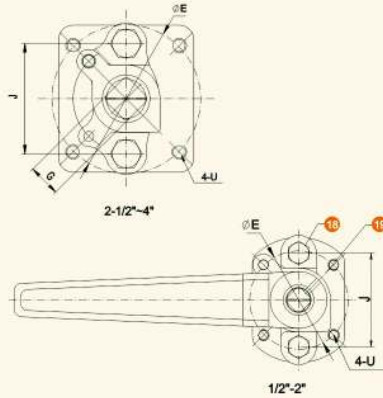


APPLICABLE STANDARDS:

- Design : ASME B16.34, API 608
- Fire Safe : API 607 5th 2005, ISO 10497
- Face to Face : ASME B16.10
- Wall Thickness : ASME B16.34
- End Flange : ASME B16.5
- Inspection & Testing : API 598, API 6D

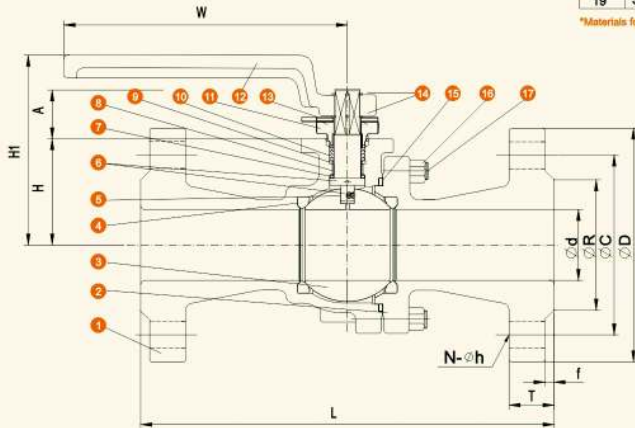
DESIGN FEATURES:

- Built-in ISO 5211 Mounting Pad for Easy Automation
- Fire Safe Design
- Anti-Static Devices for Ball-Stem-Body
- Blow-out Proof Stem
- Pressure Balance Hole in Ball Slot
- Casting Boss on Body for Draining



NO.	PART NAME	MATERIALES		
1	Body	CF8M	CF8	WCB
2	Cap	CF8M	CF8	WCB
3	Ball	CF8M	CF8	
4	Ball Seat	TFM1600+15%Carbon		
5	Stem	SUS 316	SUS 304	
6	Anti-Static	SUS 316	SUS 304	
7	Thrust Washer	PTFE		
8	Stem Jacket	PTFE		
9	Washer	SUS 316		
10	Stem Packing	PTFE/GRAFOIL		
11	Yoke	SUS 304		
12	Handle	A536 60 - 40 - 18		
13	Triangle Stopper	SUS 304		
14	Snap Ring	SUS 304		
15	Body Gasket	PTFE / 316 SPIRAL WOUND+GRAFOIL*		
16	Bolting	A193 - B8		
17	Bolt Nut	A194 - 8		
18	Bolting	A193 - B8		
19	Set Screwed	A193 - B8		

*Materials for KZV-06J (Fire-Safe Models)



ANSI CLASS 600

KZV - 04J, KZV - 06J

Unit: mm

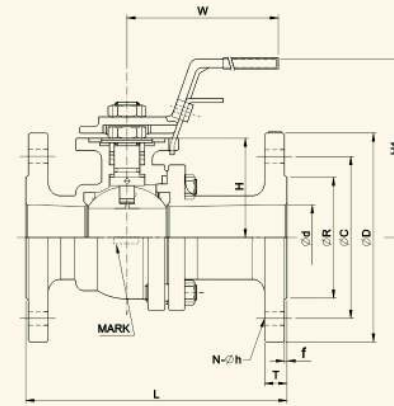
SIZE	ød	L	øR	øD	øC	f	T	H	H1	N	øh	W	G	A	J	U	E	ISO 5211
1/2"	15	165	35.0	95.2	66.6	6.4	20.6	39.0	86.8	4	15.8	130	9.0	23.2	40	M5	42	F04
3/4"	20	190	42.9	117.4	82.6	6.4	22.2	41.7	89.5	4	19.0	130	9.0	23.2	40	M5	42	F04
1"	25	216	50.8	133.9	88.9	6.4	23.9	49.5	102.0	4	19.0	160	11.0	27.0	50	M6	50	F05
1-1/4"	32	229	63.5	133.4	98.6	6.4	27.0	60.5	113.0	4	19.0	160	11.0	27.0	50	M6	50	F05
1-1/2"	38	241	73.2	155.5	114.3	6.4	28.8	66.0	125.0	4	22.2	200	14.0	34.5	66	M8	70	F07
2"	50	292	91.9	165.1	127.0	6.4	31.8	77.0	136.0	8	19.0	200	14.0	34.5	66	M8	70	F07
2-1/2"	65	330	104.6	190.5	149.4	6.4	35.0	98.5	166.0	8	22.2	265	17.0	50.3	75	M10	102	F10
3"	76	356	127.0	209.5	168.2	6.4	38.2	108.0	175.0	8	22.2	265	17.5	50.3	75	M10	102	F10
4"	100	432	157.2	273.1	215.9	6.4	44.5	136.0	208.0	8	25.4	325	22.0	55.4	75	M10	102	F10

DESIGN FEATURES:

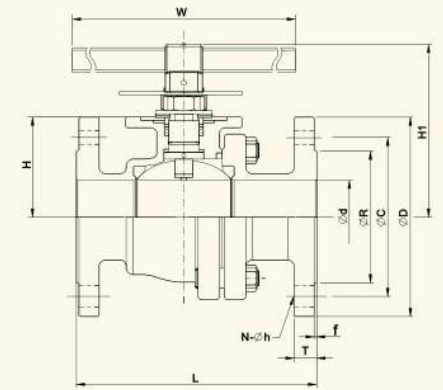
- Built-in ISO 5211 Mounting Pad for Easy Automation
- Fire Safe Design Approved
- Anti-Static Devices for Ball-Stem-Body
- Blow-out Proof Stem
- Pressure Balance Hole in Ball Slot
- TA-LUFT Design Approved
- Casting Boss on Body for Draining

APPLICABLE STANDARDS:

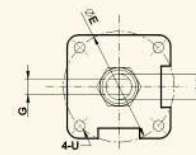
- Design : DIN 3357 / 1, 2, EN 12516-1
- Fire Design : API 607 5th 2005, ISO 10497
- Face to Face : DIN 3202 F1 (DN15-DN100), F4 (DN15-DN100)
- Wall Thickness : ASME B16.34, EN 12516-1
- End Flange : DIN 2501, PN10-PN40
- Inspection & Testing : DIN 3230/3, EN 12266



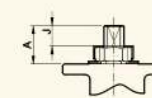
DN15~DN80



DN100



DN15-DN80



DN100

DIN PN 10/16/25/40 (F1, F4)

Unit: mm

SIZE	PN	ød	L	øR	øD	øC	f	T	H	H1	N	øh	W	G	A	J	øK	U	øE	ISO 5211		
DN15	1/2"	10-40	15	115	130	45	95	65	2	16	36.0	86	4	14	135	6.3	20.0	10	12	M5	42	F04
DN20	3/4"	10-40	20	120	150	58	105	75	2	18	40.0	90	4	14	135	6.3	20.0	10	12	M5	42	F04
DN25	1"	10-40	25	125	160	68	115	85	2	18	45.5	96	4	14	170	9.0	24.0	11	15	M6	50	F05
DN32	1-1/4"	10-40	32	130	180	78	140	100	2	18	50.0	102	4	18	170	9.0	24.0	11	15	M6	50	F05
DN40	1-1/2"	10-40	40	140	200	88	150	110	3	18	61.0	114	4	18	200	9.6	22.0	16	16	M8	70	F07
DN50	2"	10-40	50	150	230	102	165	125	3	20	70.5	127	4	18	200	9.6	27.0	16	16	M8	70	F07
DN65	2-1/2"	10/16/25/40	64	170	290	122	185	145	3	18	88.5	146	4	18	250	16.0	42.5	21	24	M10	102	F10
DN80	3"	10/16/25/40	76	180	310	138	200	160	3	20	100.0	155	8	18	250	16.0	42.5	21	24	M10	102	F10
DN100	4"	10/16/25/40	100	190	350	158	220	180	3	24	116.5	173	8	18	400	18.0	49.5	25	29	M10	102	F10
						162	235	190	3	24	134.0	222	8	22								

KZV - 04J, KZV - 06J - PN10

KZV - 04M, KZV - 06M - PN25

KZV - 04K, KZV - 06K - PN16

KZV - 04N, KZV - 06N - PN40

*"L" For Series F4
 *"L" For Series F1

KZV - 04A, KZV - 04C (Standard Type)
 KZV - 06A, KZV - 06C (Fire Safe Type)
 JIS 10K / 20K 2 - PC Body, Flanged Ends, Full Port



KZV - G4A (Standard Type)
 KZV - G6A (Fire Safe Type)
 JIS 10K 2 - PC Body, Flanged Ends, Full Port

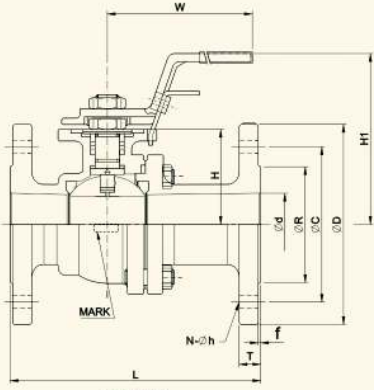


DESIGN FEATURES:

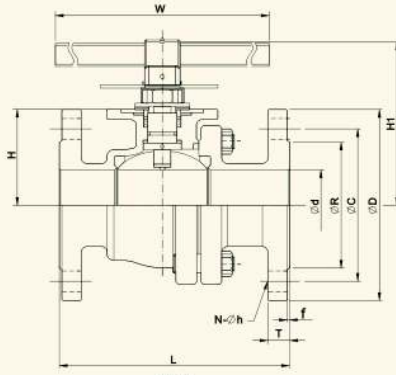
- Built-in ISO 5211 Mounting Pad for Easy Automation
- **Fire Safe** Design Approved
- Anti-Static Devices for Ball-Stem-Body
- Blow-out Proof Stem
- Pressure Balance Hole in Ball Slot
- **TALUF** Design Approved
- Casting Boss on Body for Draining

APPLICABLE STANDARDS:

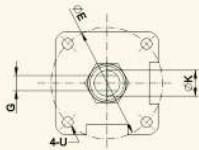
- Design : ASME B16.34, API 608
- Fire Safe : API 607 5th 2005, ISO 10497
- Face to Face : JIS B2002 (ASME B16.10)
- End Flange : JIS B2238
- Wall Thickness : ASME B16.34
- Inspection & Testing : JIS B2003, API 598



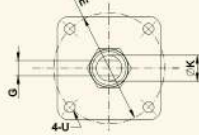
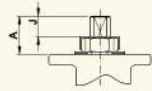
15A~80A



100A



15A~80A



100A

JIS 10K

KZV - 04A, KZV - 06A

Unit: mm

SIZE	φd	L	φR	φD	φC	f	T	H	H1	N	φh	W	G	A	J	φK	U	φE	ISO 5211
15A 1/2"	15	108	51	95	70	1	12	37.0	86	4	15	135	6.3	20.0	10	12	M5	42	F04
20A 3/4"	20	117	56	100	75	1	14	40.5	93	4	15	135	6.3	20.0	10	12	M5	42	F04
25A 1"	25	127	67	125	90	1	14	46.0	96	4	19	170	9.0	24.0	11	15	M6	50	F05
32A 1-1/4"	32	140	76	135	100	2	16	50.0	102	4	19	170	9.0	24.0	11	15	M6	50	F05
40A 1-1/2"	38	165	81	140	105	2	16	62.0	114	4	19	200	9.6	27.0	16	16	M8	70	F07
50A 2"	50	178	96	155	120	2	16	70.5	127	4	19	200	9.6	27.0	16	16	M8	70	F07
65A 2-1/2"	64	190	116	175	140	2	18	89.0	146	4	19	300	16.0	42.5	21	24	M10	102	F10
80A 3"	76	203	126	185	150	2	18	99.5	155	8	19	300	16.0	42.5	21	24	M10	102	F10
100A 4"	100	229	151	210	175	2	18	120.5	209	8	19	400	18.0	47.5	25	29	M10	102	F10

JIS 20K

KZV - 04C, KZV - 06C

Unit: mm

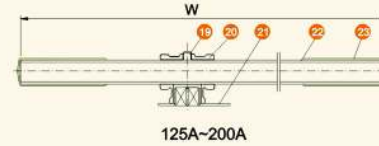
SIZE	φd	L	φR	φD	φC	f	T	H	H1	N	φh	W	G	A	J	φK	U	φE	ISO 5211
15A 1/2"	15	140	51	95	70	1	14	37.0	86	4	15	135	6.3	20.0	10	12	M5	42	F04
20A 3/4"	20	152	56	100	75	1	16	40.0	90	4	15	135	6.3	20.0	10	12	M5	42	F04
25A 1"	25	165	67	125	90	1	16	45.5	96	4	19	170	9.0	24.0	11	15	M6	50	F05
32A 1-1/4"	32	178	76	135	100	2	18	50.0	102	4	19	170	9.0	24.0	11	15	M6	50	F05
40A 1-1/2"	38	190	81	140	105	2	18	61.5	114	4	19	200	9.6	27.0	16	16	M8	70	F07
50A 2"	50	216	96	155	120	2	18	70.5	127	8	19	200	9.6	27.0	16	16	M8	70	F07
65A 2-1/2"	64	241	116	175	140	2	20	89.0	146	8	19	300	16.0	42.5	21	24	M10	102	F10
80A 3"	76	283	132	200	160	2	22	100.0	155	8	23	170	16.0	42.5	21	24	M10	102	F10
100A 4"	100	305	160	225	185	2	24	120.0	209	8	23	400	18.0	47.5	25	29	M10	102	F10

DESIGN FEATURES:

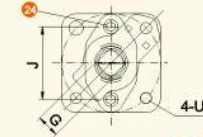
- Built-in ISO 5211 Mounting Pad for Easy Automation
- **Fire Safe** Design
- Anti-Static Devices for Ball-Stem-Body
- Blow-out Proof Stem
- Pressure Balance Hole in Ball Slot
- Casting Boss on Body for Draining

APPLICABLE STANDARDS:

- Design : ASME B16.34, API 608
- Fire Safe : API 607 5th 2005, ISO 10497
- Face to Face : JIS B2002 (ASME B16.10)
- End Flange : JIS B2238
- Wall Thickness : ASME B16.34
- Inspection & Testing : JIS B2003, API 598



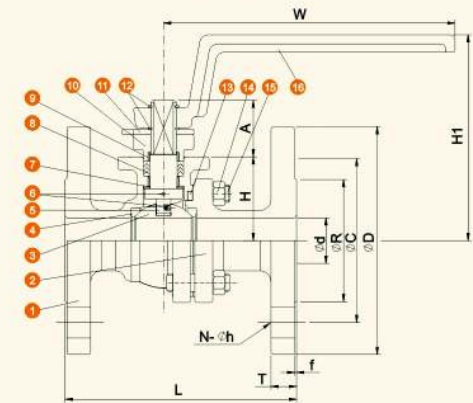
125A~200A



15A~100A

NO.	PART NAME	MATERIAL
1	Body	SCS 14A SCS 13A SCPH2
2	Cap	SCS 14A SCS 13A SCPH2
3	Ball	SCS 14A SCS 13A
4	Ball Seat	PTFE /TFM1600
5	Stem	SUS 136 SUS 304
6	Anti-Static	SUS 136 SUS 304
7	L-Stem Bearing	PTFE
8	V-Ring Packing	PTFE/GRAFOIL*
9	Stem Jacket	PTFE
10	Yoke	SUS 304
11	Triangle Stopper	SUS 304
12	Snap Ring	SUS 304
13	Body Gasket	PTFE/316 SPIRAL WOUND+GRAFOIL*
14	Nut	A194 - 8
15	Bolting	A193 - B8 A193-B7
16	Handle (1/2"-4")	A216 - WCB
17	Flange Bolting	A193 - B8 A193-B7
18	Set Screw	A193 - B8
19	Set Screw (5"-8")	A193 - B8
20	Handle Adapter (5"-8")	A351 - CF8
21	Triangle Stopper (5"-8")	SUS304
22	Handle (5"-8")	A53+Zn Plate
23	Handle Sleeve (5"-8")	VINYL PLASTIC
24	Stop Bolt (5"-8")	A193 - B8

*Materials for KZV-G6A (Fire-Safe Models)



JIS 10K

KZV - G4A, KZV - G6A

Unit: mm

SIZE	φd	L	φR	φD	φC	f	T	H	H1	N	φh	W	G	φK	A	J	U	E	ISO 5211
15A 1/2"	15.0	108	51	95	70	1	12	34.5	91	4	15	135	6.3	12	26	40	M5	42	F04
20A 3/4"	20.0	117	56	100	75	1	14	38.5	95	4	15	135	6.3	12	26	40	M5	42	F04
25A 1"	25.0	127	67	125	90	1	14	46.0	108	4	19	170	9.0	15	31	50	M6	50	F05
32A 1-1/4"	32.0	140	76	135	100	2	16	50.0	113	4	19	170	9.0	15	31	50	M6	50	F05
40A 1-1/2"	38.0	165	81	140	105	2	16	61.5	128	4	19	200	9.6	16	39	66	M8	70	F07
50A 2"	50.0	178	96	155	120	2	16	71.0	138	4	19	200	9.6	16	39	66	M8	70	F07
65A 2-1/2"	63.5	190	116	175	140	2	18	89.0	160	4	19	250	16.0	24	49	75	M10	102	F10
80A 3"	76.0	203	126	185	150	2	18	100.0	172	4	19	250	16.0	24	49	75	M10	102	F10
100A 4"	100.0	229	151	210	175	2	18	121.0	194	8	19	280	18.0	29	53	75	M10	102	F10
125A 5"	125.0	356	182	250	210	2	20	183.0	285	8	23	600	23.0	36	57	92	φ14	125	F12
150A 6"	150.0	394	212	280	240	2	22	203.0	304	8	23	800	23.0	36	57	92	φ14	125	F12
200A 8"	200.0	457	262	330	290	2	22	252.0	375	12	23	800	26.0	42	62	92	φ14	125	F12

KZV - 071 (Standard Type)
KZV - 071F (Fire Safe Type)
 ASME CLASS 150 1- PC Body, Flanged Ends, Full Port, Wafer Type



KZV - M1F
 ASME CLASS 150 1- PC Body, Flanged Ends, Reduced Port



DESIGN FEATURES:

- **Fire Safe** Design and Construction
- Built-in ISO 5211 Mounting Pad For Easy Automation
- Anti-static Devices for Ball-Stem-Body
- Blow-out Proof Stem
- Pressure Balance Hole in Ball Slot
- **TA-LUFT** Design Approved
- Casting Approved by TÜV AD 2000-Merkblatt W0

APPLICABLE STANDARDS:

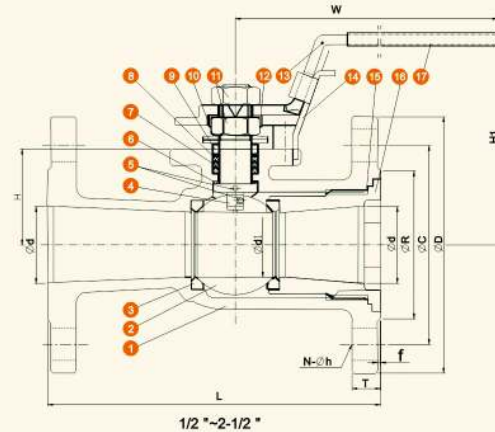
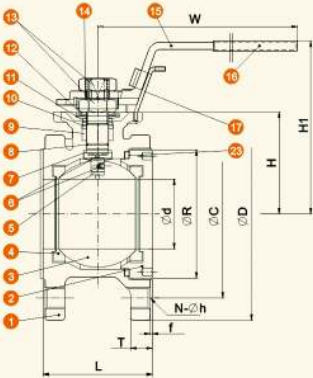
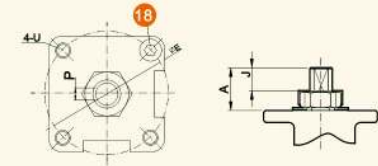
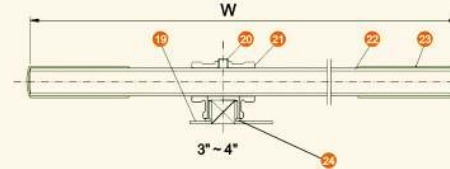
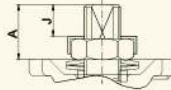
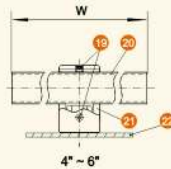
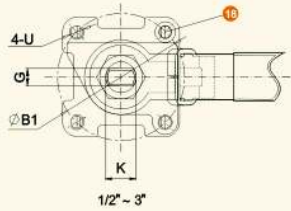
- Design : ASME B16.34, API 608
- Fire Safe : API 607 5th 2005, ISO 10497
- Wall Thickness : ASME B16.34
- End Flange : ASME B16.5
- Inspection & Testing : API 598, API 6D

DESIGN FEATURES:

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

APPLICABLE STANDARDS:

- Design : ASME B16.34, API 608
- Wall Thickness : ASME B16.34
- End Flange : ASME B 16.5
- Inspection & Testing : API 598, API 6D



NO.	PART NAME	CF8M	CF8	WCB
1	Body	CF8M	CF8	WCB
2	End Cap	CF8M	CF8	WCB
3	Ball	CF8M	CF8	WCB
4	Ball Seat	TFM1600	PTFE / RTFE	
5	Stem	SUS 316	SUS 304	
6	Anti-Static Device	SUS 316	SUS 304	
7	Thrust Washer	PTFE		
8	O-Ring	FKM(VITON)		
9	Stem Packing	PTFE / GRAFOIL*		
10	Bushing	50%SS+ 50%PTFE / SUS 304*		
11	Gland	SUS 316		
12	Bellville Washer	SUS 301		
13	Stem Nut	A194 - 8		
14	Stop-Lock-Cap	SUS 304		
15	Handle (1/2"-3")	SUS 304		
16	Handle Sleeve (1/2"-3")	VINYL PLASTIC		
17	Lock Device (1/2"-3")	SUS 304		
18	Stop Bolt	A193 - B8		
19	Set Screw (4"-6")	A53 - PLATED Zn		
20	Handle (4"-6")	A351 - CF8		
21	Handle Adapter (4"-6")	SUS 304		
22	Triangle Stopper (4"-6")	SUS 304		
23	Body Gasket	PTFE / 316 SPIRAL WOUND +GRAFOIL*		

*Materials for KZV-071F (Fire-Safe Models)

NO	PART NAME	MATERIALS
1	Body	A351-CF8M/A351-CF8/A216-WCB
2	Ball	A351-CF8M A351-CF8
3	Ball Seat	TFM1600 / PTFE / RTFE
4	Stem	SUS 316 SUS 304
5	Anti-Static	SUS 316 SUS 304
6	Thrust Washer	PTFE
7	V-Ring Packing	PTFE/GRAFOIL*
8	Bushing	50%SS+50%PTFE
9	Gland	SUS 316L
10	Bellville Washer	SUS 301
11	Screw Nut	A194 - 8
12	Stop-Lock-Cap	SUS 304
13	Handle(1/2" ~ 2-1/2")	A351 - CF8
14	Lock Device(1/2" ~ 2-1/2")	SUS 304
15	Body Gasket	PTFE/GRAFOIL*
16	End Cap	A351 - CF8M/A351 - CF8/A216 - WCB
17	Handle Sleeve(1/2" ~ 2-1/2")	VINYL PLASTIC
18	Stop Bolt	A193 - B8
19	Triangle Stopper(3" ~ 4")	SUS 304
20	Set Screw(3" ~ 4")	A193 - B8
21	Handle Adapter(3" ~ 4")	A351 - CF8
22	Handle(3" ~ 4")	SUS 304
23	Handle Sleeve(1/2" ~ 2-1/2")	VINYL PLASTIC
24	Snap Ring(3" ~ 4")	SUS304

*Material for KZV - M1F (Fire-Safe Models)

ASME CLASS 150

KZV - 071, KZV - 071F

Unit: mm

SIZE	φd	L	φR	φD	φC	T	f	H	H1	N	h	W	G	A	J	U	φB1	K	ISO 5211
1/2"	15.0	42	35.0	89.0	60.5	9.7	2	41.0	90.5	4	1/2"	135	6.3	17.0	8.1	M5	42	3/8-24UNF	F04
3/4"	20.0	44	43.0	98.6	70.0	10.5	2	44.0	94.0	4	1/2"	135	6.3	17.0	8.1	M5	42	3/8-24UNF	F04
1"	25.0	50	50.8	108.0	79.3	11.2	2	46.5	99.0	4	1/2"	170	9.0	22.7	10.2	M6	50	9/16-18UNF	F05
1-1/4"	32.0	60	63.5	117.4	88.9	12.7	2	55.0	99.0	4	1/2"	170	9.0	24.0	11.0	M6	50	9/16-18UNF	F05
1-1/2"	38.0	65	73.5	127.0	98.6	14.3	2	64.0	117.0	4	1/2"	200	9.6	25.8	13.9	M8	70	5/8-18UNF	F07
2"	50.0	80	92.0	152.4	120.6	15.8	2	73.1	124.0	4	5/8"	200	9.6	23.9	13.9	M8	70	5/8-18UNF	F07
2-1/2"	63.5	110	105.0	177.8	139.7	17.5	2	88.0	148.0	4	5/8"	250	16.0	42.5	24.0	M10	102	7/8-14UNF	F10
3"	76.0	120	127.0	190.5	152.4	19.0	2	97.0	157.0	4	5/8"	250	16.0	42.6	22.5	M10	102	7/8-14UNF	F10
4"	100.0	150	157.3	228.6	190.5	23.9	2	117.0	200.0	8	5/8"	280	18.0	51.4	24.5	M10	102	1 1/8-12UNF	F10
5"	125.0	185	186.0	254.0	215.9	25.2	2	155.0	270.0	8	3/4"	600	23.0	76.5	36.0	M12	125	1 3/4-12UNF	F12
6"	150.0	225	215.9	279.4	241.3	25.4	2	194.0	310.5	8	3/4"	800	23.0	76.5	36.0	M12	125	1 3/4-12UNF	F12

ASME CLASS150

KZV - M1F

Unit: mm

SIZE	φd	φd1	L	φR	φD	φC	F	T	H	H1	N	φh	W	P	A	J	U	φB1
1/2"	12.5	10.0	108.0	35.0	89.0	60.5	2	9.7	23.0	74.0	4	16	136	6.3	21.0	9.5	M5	42
3/4"	19.0	12.5	117.0	43.0	98.6	70.0	2	10.5	23.0	74.0	4	16	136	6.3	21.0	9.5	M5	42
1"	25.0	17.5	127.0	51.0	108.0	79.2	2	11.2	33.5	87.5	4	16	170	9.0	21.5	10.2	M6	50
1-1/4"	32.0	25.0	140.0	63.5	117.0	88.9	2	12.7	41.5	95.5	4	16	170	9.0	21.5	10.2	M6	50
1-1/2"	38.0	32.0	165.0	73.2	127.0	98.6	2	14.2	47.5	105.0	4	16	200	9.6	32.0	15.0	M8	70
2"	50.0	38.0	178.0	92.0	152.5	120.7	2	15.9	56.5	114.0	4	19	200	9.6	32.0	15.0	M8	70
2-1/2"	62.0	50.0	190.0	104.7	177.8	139.7	2	17.5	66.5	132.5	4	19	250	16.0	42.5	18.5	M10	102
3"	76.0	60.3	203.0	127.0	190.5	152.4	2	19.1	75.5	142.0	4	19	300	16.0	42.5	18.5	M10	102
4"	98.0	76.0	229.0	157.2	228.6	190.5	2	23.9	96.0	194.5	8	19	400	18.0	55.0	25.0	M10	102

KZV - JT41, KZV - JT42 (Standard Type)
 KZV - JT61, KZV - JT62 (Fire Safe Type)
 ASME CLASS 150/300 1-PC Body, Steam Jacket, Flanged Ends, Full port



Design Features:

- Jacket Design Makes that Steam or Water Flow over Valve Ball & Body Parts Keep the Media Liquid
- Allowable Maximum Pressure of Steam or Warm Water up to 1MPa
- Double Stem Sealing
- Blow-Out Proof and Anti-Static Stem

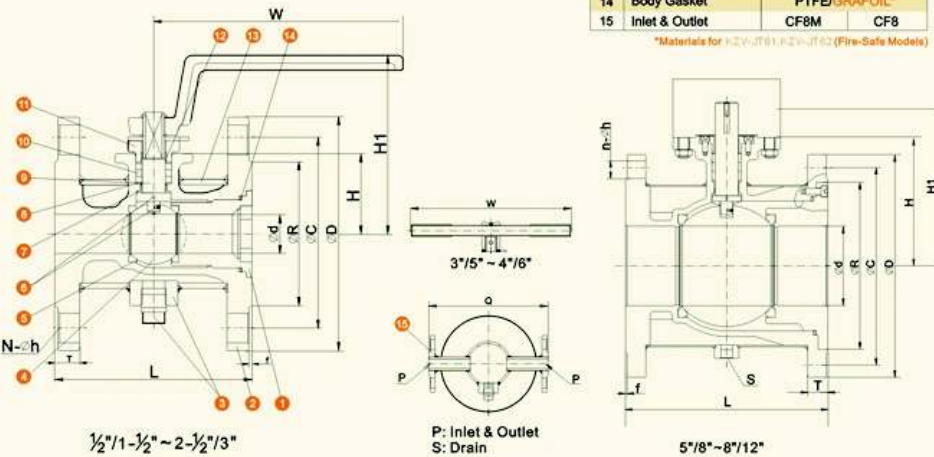


APPLICABLE STANDARDS:

- Design : ASME 16.34 , API 6D
- Face to Face : ASME B16.10
- End Flange : ASME B16.5
- Inspection & Testing : API 598

NO.	PART NAME	MATERIALS	
1	Cap	CF8M	CF8
2	Body	CF8M	CF8
3	Drain	SUS 316	SUS 304
4	Ball	CF8M	CF8
5	Ball Seat	TFM1600EK+PTFE/RTFE	
6	Anti-static Device	SUS 316	SUS 304
7	Thrust Washer	PTFE	
8	Bushing	SUS 304	
9	Stem	SUS 316	SUS 304
10	Stem Packing	PTFE/GRAFOIL*	
11	Yoke	SUS 304	
12	Stem Jacket	PTFE	
13	Jacket	SUS 316	SUS 304
14	Body Gasket	PTFE/GRAFOIL*	
15	Inlet & Outlet	CF8M	CF8

*Materials for KZV-JT61, KZV-JT62 (Fire-Safe Models)



ASME CLASS 150 **KZV - JT41, KZV - JT61** Unit: mm

Nominal Diameter	Flange	d	L	R	D	C	f	T	H	H1	N	h	W	Q	S	ISO 5211	P
1/2"	1-1/2"	15	108	73.2	127.0	98.6	2	14.2	43.0	100	4	16	135	150	RC3/8"	F04	NPT3/8
3/4"	1-1/2"	20	117	73.2	127.0	98.6	2	14.2	46.0	110	4	16	135	150	RC3/8"	F04	NPT3/8
1"	2"	25	127	92.0	152.5	120.7	2	15.9	51.5	115	4	18	160	187	RC3/8"	F05	1/2"
1-1/4"	2"	32	140	92.0	152.5	120.7	2	15.9	58.0	122	4	18	160	187	RC3/8"	F05	1/2"
1-1/2"	2-1/2"	38	165	104.7	177.8	139.7	2	17.5	69.0	128	4	18	200	200	RC3/8"	F07	1/2"
2"	3"	50	178	127.0	190.5	152.4	2	19.1	77.3	136	4	18	230	232	RC3/8"	F10	1/2"
2-1/2"	4"	64	190	157.2	228.6	190.5	2	23.9	98.0	150	8	18	300	250	RC3/8"	F10	1"
3"	5"	76	229	186.0	254.0	215.9	2	25.2	113.0	177	8	22	300	284	RC3/8"	F10	1"
4"	6"	100	254	216.0	279.4	241.3	2	25.4	150.0	222	8	22	400	332	RC3/8"	F10	1"
5"	8"	125	267	270.0	342.9	298.5	2	28.5	204.0	251	8	22	-	380	RC1/2"	F14	1"
6"	10"	150	292	324.0	406.0	362.0	2	30.5	223.0	267.5	12	26	-	445	RC1/2"	F14	1"
8"	12"	200	330	381.0	485.0	431.8	2	32.0	257.0	295	12	26	-	520	RC1/2"	F16	1"

ASME CLASS 300 **KZV - JT42, KZV - JT62** Unit: mm

Nominal Diameter	Flange	d	L	R	D	C	f	T	H	H1	N	h	W	Q	S	ISO 5211	P
1/2"	1-1/2"	15	108	73.2	155.5	114.3	2	20.7	43.0	100.0	4	22	135	150	RC3/8"	F04	NPT3/8
3/4"	1-1/2"	20	117	73.2	155.5	114.3	2	20.7	46.0	110.0	4	22	135	150	RC3/8"	F04	NPT3/8
1"	2"	25	127	92.0	165.1	127.0	2	22.3	51.5	115.0	8	18	160	187	RC3/8"	F05	1/2"
1-1/4"	2"	32	140	92.0	165.1	127.0	2	22.3	58.0	122.0	8	18	160	187	RC3/8"	F05	1/2"
1-1/2"	2-1/2"	38	165	104.7	190.5	149.4	2	25.4	69.0	128.0	8	22	200	200	RC3/8"	F07	1/2"
2"	3"	50	178	127.0	209.6	168.1	2	28.6	77.3	136.0	8	22	230	232	RC3/8"	F10	1/2"
2-1/2"	4"	64	190	157.2	254.0	200.2	2	31.8	98.0	150.0	8	22	300	250	RC3/8"	F10	1"
3"	5"	76	229	186.0	279.4	235.0	2	35.0	113.0	177.0	8	22	300	284	RC3/8"	F10	1"
4"	6"	100	254	216.0	320.0	269.8	2	36.6	150.0	222.0	12	22	400	332	RC3/8"	F10	1"
5"	8"	125	267	270.0	381.0	330.2	2	41.2	204.0	251.0	12	26	-	380	RC1/2"	F14	1"
6"	10"	150	292	324.0	445.0	387.5	2	48.0	223.0	267.5	16	29	-	445	RC1/2"	F14	1"
8"	12"	200	330	381.0	520.0	451.0	2	51.0	257.0	295.0	16	32	-	520	RC1/2"	F16	1"



API 607-Fire Safe Approved

Kingdom soft-seated ball valves (2-PC Body, Flange Ends, Series KV-060 and Series KV-L60) conform to Fire Safe Tests of API 607 Fifth Edition and ISO 10497. Our products can seal properly during the fire and after the accident, reduce inside and outside leakage of pipeline fluids, and prevent environmental pollution (even on fire) resulted from flammable or other fluids in the pipeline.

Design features:

- Secondary Metal Seat to Ball Contact:** During the fire, soft seats (such as TFM1600, PTFE, RTFE...) will burn up and lose supporting and sealing functions. Then, the Ball moves free downstream due to pressure from upstream, and contacts secondary metal seats of Body or End Cap, which comes to a leakage prevention (see figures #1 & #2).
- Grafoil Body Gaskets** can endure high temperature and remain unaffected during the fire, and eventually prevent fluid leakage to the exterior. Moreover, the connection of Body and End Cap Flange maintains metal to metal contact by Stud Bolts screwed into Body (see Figures #3 & #4).
- Grafoil Packing** can endure high temperature and remain unaffected during the fire and prevent fluid leakage to the exterior (see Figures # 5 & # 6).



Fig: # 5 BEFORE FIRE

Fig: # 6 AFTER FIRE

Fig: # 3 BEFORE FIRE

Fig: # 4 AFTER FIRE

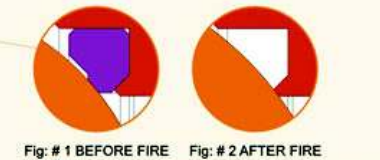
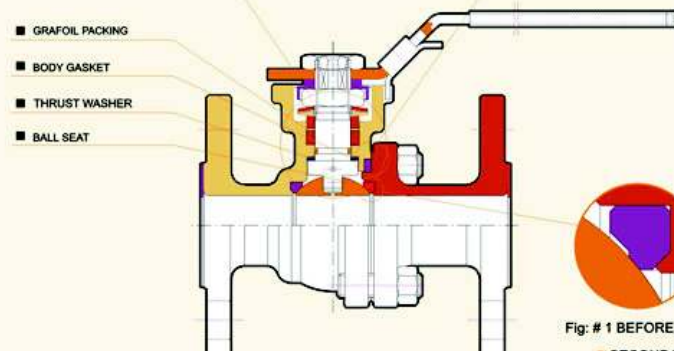


Fig: # 1 BEFORE FIRE

Fig: # 2 AFTER FIRE

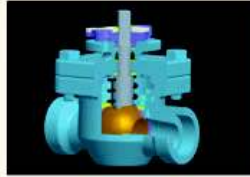
■ SECONDARY METAL SEAT TO BALL CONTACT



TOP ENTRY FULL PORT BALL VALVES

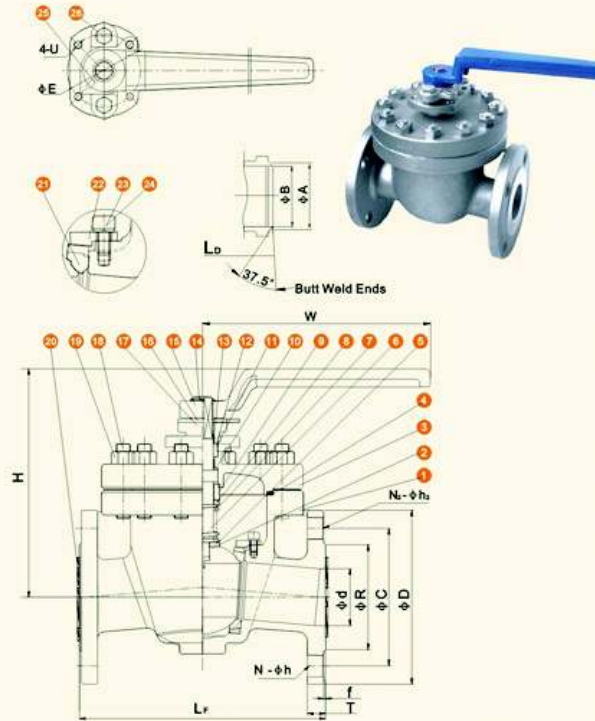
DESIGN FEATURE

- Top Entry, Floating Ball
- Body-cover Bolted Joint Not Affected by Pipe Stressed
- Blow-out Proof and Anti-static Stem
- Tight Shut-off and Long Cycle Life
- Permits In-line Access for Seat Replacement
- Welding into Line Possible Without Disassembly



SERIES KZV - T21 KZV - T42

KZV - T41, KZV - T11 (Standard Type)
 KZV - T42, KZV - T12 (Fire Safe Type)
 ASME CLASS 150 / 300 Top Entry, Full Port



APPLICABLE STANDARDS:

- Design : ASME B16.34, API 608
- Fire Safe : API 607 5th, ISO 10497
- Wall Thickness : ASME B16.34
- End Flange : ASME B16.5
- Butt Weld : ASME B16.25
- Inspection & Testing : API 598, API 6D
- KZV - T41, KZV - T42: Flanged Class 150/300
- KZV - T11, KZV - T12: Butt Welded, Class 150/300

NO.	PART NAME	MATERIALS	
1	Body	CF8M	CF8
2	Handle Gland	SUS 316	SUS 304
3	Cap	CF8M	CF8
4	Body Gasket	RTFE	
5	Ball	CF8M	CF8
6	Stem	F 316	F 304
7	Spring	SUS 316	SUS 304
8	Adjusting Gasket	SUS 316	SUS 304
9	Guiding Bushing	SUS 316	SUS 304
10	Thrust Washer	PTFE	
11	Stem Packing	PTFE	
12	Stem Gasket	SUS 316	SUS 304
13	Stem Bushing	RTFE	
14	Snap Ring	SUS 304	
15	Handle	QT400 - 18	
16	Stop-Lock-Plate	SUS 304	
17	Gland Packing	SUS 304	
18	Bolting	A193 - B8	
19	Nut	A193 - 8	
20	Protection Cover	PVC	
21	Ball Seat	TFM 1600+316 Outer Ring	
22	Gland	SUS 316	SUS 304
23	Hex. Bolting	A193 - B8M	A193 - B8
24	Spring Washer	SUS 316	SUS 304
25	Screw	A193 - B8	
26	Bolt	A193 - B8	

ASME CLASS 150

SIZE	W	L _r	L _p	φ _d	φ _R	φ _D	φ _C	f	T	H	N	φ _h	N _h	h _h	φ _E	U	φ _B	φ _A
DN15 1/2"	130	108	140	15	35.0	89.0	60.5	2	9.7	120	2	16.0	2	1/2-13UNC	42	M5	-	-
DN20 3/4"	130	117	152	20	43.0	98.6	70.0	2	10.5	120	2	16.0	2	1/2-13UNC	42	M5	-	-
DN25 1"	160	127	165	25	51.0	108.0	79.2	2	11.2	130	2	16.0	2	1/2-13UNC	50	M6	-	-
DN32 1-1/4"	160	140	178	32	63.5	117.0	89.0	2	12.7	134	2	16.0	2	1/2-13UNC	50	M6	-	-
DN40 1-1/2"	200	190	190	38	73.2	127.0	98.6	2	14.2	175	2	16.0	2	1/2-13UNC	70	M8	-	-
DN50 2"	200	216	216	50	92.0	152.5	120.7	2	15.9	200	2	19.0	2	5/8-11UNC	70	M8	-	-
DN80 3"	265	282	282	76	127.0	190.5	152.4	2	19.1	214	2	19.0	2	5/8-11UNC	102	M10	78	91
DN100 4"	325	432	432	100	157.2	229.0	190.5	2	23.9	250	8	19.0	-	-	102	M10	102	117
DN150 6"	800	457	457	150	216.0	280.0	241.3	2	25.4	350	8	22.3	-	-	125	M12	154	172

ASME CLASS 300

SIZE	W	L _r	L _p	φ _d	φ _R	φ _D	φ _C	f	T	H	N	φ _h	φ _E	U	φ _B	φ _A
DN15 1/2"	130	140	140	15	35.0	95.3	66.5	2	14.3	120	4	16.0	42	M5	-	-
DN20 3/4"	130	152	152	20	43.0	117.4	82.6	2	15.9	120	4	19.0	42	M5	-	-
DN25 1"	160	165	165	25	51.0	124.0	88.9	2	17.5	130	4	19.0	50	M6	-	-
DN40 1-1/2"	200	190	190	38	73.2	155.5	114.3	2	20.7	175	4	22.3	70	M8	-	-
DN50 2"	200	216	216	50	92.0	165.1	127.0	2	22.3	200	8	19.0	70	M8	-	-
DN80 3"	265	282	282	76	127.0	209.6	168.1	2	28.6	214	8	22.3	102	M10	78	91
DN100 4"	325	432	432	100	157.2	254.0	200.2	2	31.8	250	8	22.3	102	M10	102	117
DN150 6"	800	457	457	150	216.0	320.0	269.8	2	36.6	350	12	22.3	125	M12	154	172

KZV - T01, KZV - T21
 KZV - T02, KZV - T22
 KZV - T03, KZV - T23
 ASME CLASS 150 / 300 / 600 Top Entry, Full Port



BALL VALVES MULTI-WAY BALL VALVES



APPLICABLE STANDARDS:

- Design : ASME B16.34, API 608
- Fire Safe : API 607 5th, ISO 10497
- Wall Thickness : ASME B16.34
- Socket Welded End : ASME B16.5
- Pipe Thread : ASME B1.20.1
- Inspection & Testing : API 598, API 6D
- KZV - T01, KZV - T02, KZV - 03: Threaded Class 150/300/600
- KZV - T21, KZV - T22, KZV -T23: Butt Welded, Class 150/300/600



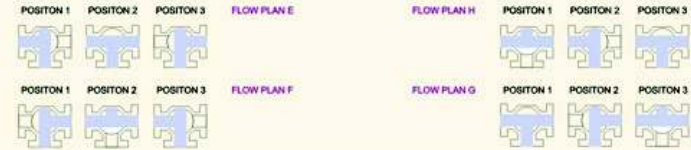
- Blow-out Proof and Anti-static Stem
- Pre-load 2 Belleville Washers to Self-adjust Packing
- Double Stem Sealing Design Has Been Approved for TA-Luft
- Casting Approved by TÜV AD - 2000 Merkblatt W0

FLOW PATTERNS FOR 3 & 4 - WAY VALVE

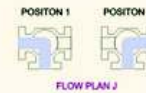
T-PORT 90° TURN



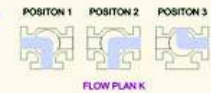
T-PORT 180° TURN



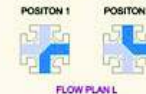
L-PORT 90° TURN



L-PORT 180° TURN



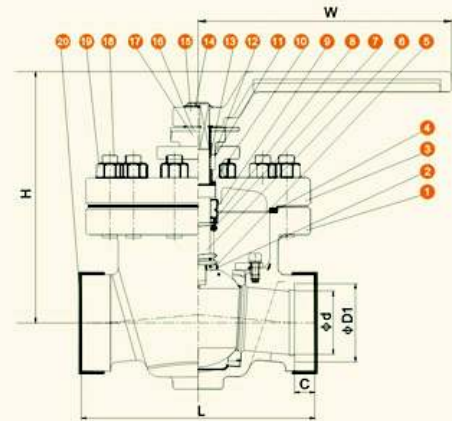
LL-PORT 90° TURN



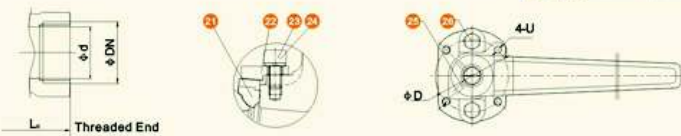
L-PORT 180° TURN 4-WAY VALVES



Optional Plans Available
 Using T, Land Standard Ball
 Consult Factory



NO.	PART NAME	MATERIALS	
1	Body	CF8M	CF8
2	Handle Gland	SUS 316	SUS 304
3	Cap	CF8M	CF8
4	Body Gasket	RTFE	
5	Ball	CF8M	CF8
6	Stem	F316	F304
7	Spring	SUS 316	SUS 304
8	Adjusting Gasket	SUS 316	SUS 304
9	Guiding Bushing	SUS 316	SUS 304
10	Thrust Washer	PTFE	
11	Stem Packing	PTFE	
12	Stem Gasket	SUS 316	SUS 304
13	Stem Bushing	RTFE	
14	Snap Ring	SUS 304	
15	Handle	QT400 - 18	
16	Stop-Lock-Plate	SUS 304	
17	Gland Packing	SUS 304	
18	Bolting	A193 - B8	
19	Nut	A193 - 8	
20	Protection Cover	PVC	
21	Ball Seat	TFM 1600+316 Outer Ring	
22	Gland	SUS 316	SUS 304
23	Hex. Bolting	A193 - B8M	A193 - B8
24	Spring Washer	SUS 316	SUS 304
25	Screw	A193 - B8	
26	Bolt	A193 - B8	



■ ASME CLASS 150/300/600

SIZE	d	W	L	L _e	H	D	U	D1	C	Unit: mm	
DN15	1/2"	15	130	85	97	120	φ42	M5	21.8	10	φDN
DN20	3/4"	20	130	95	105	120	φ42	M5	27.3	13	NPT
DN25	1"	25	160	124	146	130	φ50	M6	34.5	13	BSP
DN40	1-1/2"	38	200	152	172	175	φ70	M8	49.2	14	PT
DN50	2"	50	200	184	195	200	φ70	M8	61.6	16	DIN
DN80	3"	76	285	205	205	214	φ102	M10	90.0	16	DIN
DN100	4"	100	325	240	240	250	φ102	M10	115.5	19	ETC

SERIES KZV - L50, KZV - L5N



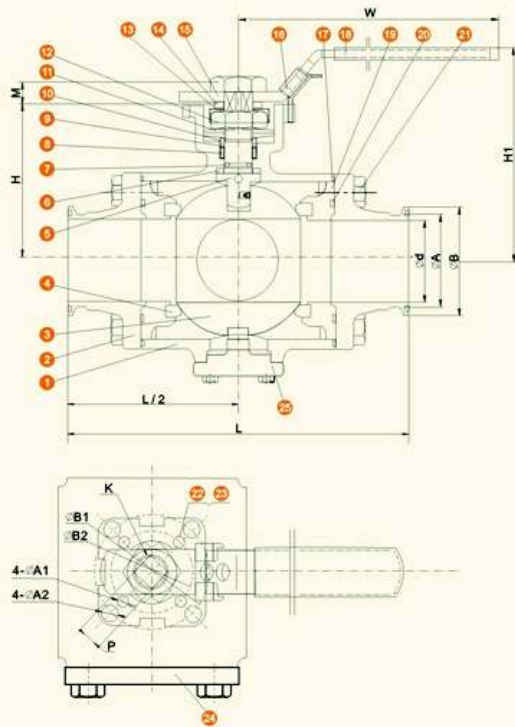


FEATURES:

- 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** Design Approved
- Positive Position Location at 90° Increments
- Locking in Every 90° Increments
- KZV - L52 / L: L - Port
KZV - L52 / T: T - Port
KZV - L52 / X: LL - Port

APPLICABLE STANDARDS:

- Design : ASME B16.34, API 608
- Clamp Ends : ISO 2852
- Wall Thickness : ASME B16.34
- Inspection & Testing : API 598, EN 12266



NO.	PART NAME	MATERIALS		
1	Body	1.4408	1.4308	1.0619
2	Cap(Clamp)	1.4408	1.4308	1.0619
3	Ball(T/L/X)	1.4408	1.4308	
4	Ball Seat	PTFE/TFM1600		
5	Stem (Anti-Static Devices)	SUS 316	SUS 304	
6	Thrust Washer	PTFE		
7	O-Ring	FKM(VITON)		
8	Stem Packing	PTFE		
9	Bushing	50%SS+50%PTFE		
10	Gland	SUS 316		
11	Belleville Washer	SUS 301		
12	Stem Nut	A194 - 8		
13	Stop-Lock-Cap	SUS 304		
14	Handle Gland	SUS 304		
15	Handle(Mark T/L/X)	SUS 304		
16	Lock Device	SUS 304		
17	Body Gasket	PTFE		
18	Handle Sleeve	VINYL PLASTIC		
19	Seat Retainer	1.4408	1.4308	1.0619
20	Cap Gasket	PTFE		
21	Bolt	A193 - B8	A193 - B7	
22	Stop Bolt	A193 - B8		
23	Nut	A194 - 8		
24	End Cap	1.4408	1.4308	1.0619
25	Bottom Cap	1.4408	1.4308	1.0619

DIN PN16-16 DIMENSIONS		ISO2852										Unit:mm				
DN	PN	L	φd	φA	φB	H	H1	W	P	M	K	φA1	φA2	φB1	φB2	ISO 5211
DN15	10	120	12.7	27.5	34.0	52.5	83.0	145	9	9	7/16 - 20UNF	6	6	36	42	F03 - F04
DN20	10	130	17.2	27.5	34.0	57.0	88.5	145	9	9	7/16 - 20UNF	6	7	36	50	F03 - F05
DN25	10	152	25.0	43.5	50.5	70.0	104.0	175	11	11	9/16 - 18UNF	6	7	42	50	F04 - F05
DN32	16	164	31.8	43.5	50.5	72.0	111.5	175	11	11	9/16 - 18UNF	6	9	42	70	F04 - F07
DN40	16	180	35.8	43.5	50.5	85.0	120.5	200	14	14	3/4 - 18UNF	7	9	50	70	F05 - F07
DN50	16	200	48.6	56.5	64.0	92.0	120.6	200	14	14	3/4 - 18UNF	7	9	50	70	F05 - F07

FEATURES:

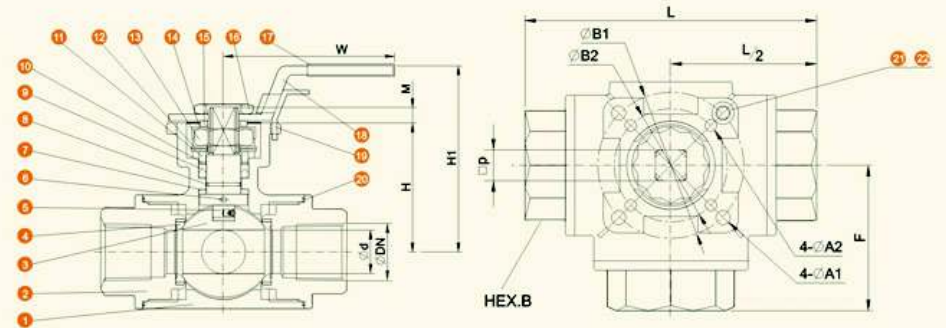
- Investment Castings for Body and End caps
- Various Thread Standards are Available
- Built-in ISO 5211 Direct Mounting Pad for Easy Automation
- Anti-static Devices for Ball-Stem-Body
- Blow-out Proof Stem
- **TA-LUFT** Design Approved
- Positive Position Location at 90° Increments
- Locking in Every 90° Increment
- KZV - L53: L - Port; KZV - L54 : T - Port

APPLICABLE STANDARDS:

- Design : ASME B16.34, API 608
- Wall Thickness : ASME B16.34 Class 400
- Pipe Thread : ASME B1.20.1, BS21
DIN 2999/259, ISO 228/1
JIS B 0203
- Inspection & Testing : API 598, EN 12266



NO.	PART NAME	MATERIALS		
1	Body	CF8M	CF8	WCB
2	End Cap	CF8M	CF8	WCB
3	Ball	CF8M	CF8	
4	Ball Seat	TFM1600 / PTFE / RTFE		
5	Stem	SUS 316	SUS 304	
6	Anti-Static Device	SUS 316	SUS 304	
7	Thrust Washer	PTFE		
8	O-Ring	FKM (VITON)		
9	V-Ring Packing	PTFE		
10	Bushing	50%SS+50%SS PTFE		
11	Gland	SUS 316		
12	Belleville Washer	SUS 301		
13	Stem Nut	A194 - 8		
14	Stop-Lock-Cap	SUS 304		
15	Handle Gland	SUS 304		
16	Handle Nut	SUS 304		
17	Handle Sleeve	VINYL PLASTIC		
18	Handle	SUS 304		
19	Lock Device	SUS 304		
20	Body Gasket	PTFE		
21	Stop Bolt	A194 - B8		
22	Nut	A194 - 8		



SIZE	φd	L	H	H1	W	M	F	φB1	φB2	φA1	φA2	P	HEX.B	ISO 5211
1/4"	11	79	42.0	70	147	9	39.5	42	36	6	6	9	22.0	F03 - F04
3/8"	11	79	42.0	70	147	9	39.5	42	36	6	6	9	23.5	F03 - F04
1/2"	15	88	49.0	77	147	9	44.0	50	36	7	6	9	27.0	F03 - F05
3/4"	20	108	59.5	87	175	11	54.0	50	42	7	6	11	34.0	F04 - F05
1"	25	124	63.0	93	175	11	62.0	70	42	9	6	11	41.0	F04 - F07
1-1/4"	32	135	73.5	103	215	14	67.5	70	50	9	7	14	50.0	F05 - F07
1-1/2"	40	164	82.8	113	215	14	82.0	70	50	9	7	14	56.0	F05 - F07

BALL VALVES

1000 & 2000 WOG, Threaded, Socket Weld, Butt Weld & Flanged Ends



KZV - 080, KZV - 081
KZV - 082, KZV - 08F

3-PC Stainless Steel Casting Ball Valve Full Port, Mounting Pad, 2000 WOG, High Performance



FEATURES

- Built-in ISO 5211 Mounting Pad for Easy Automation
- TÜV TA-LUFT Design Approved
- Pre-load 2 Belleville Washers to Self-adjust Packing

SPECIFICATIONS

- Full Port, Floating Ball Type
- ASME, DIN, BS & JIS Standards
- Size 1/2" - 3" (DN15 - DN 80, 15A - 80A)
- Pressure Rating: 1000 WOG (Class 400), PN63
2000 WOG (Class 800), PN130



ISO 5211 Mounting Pad, High Performance

SPECIFICATIONS

- Full Port, Reduced Port, Floating Ball Type
- ASME, DIN, BS & JIS Standards
- Size 1/4" - 3" (DN8 - DN80, 8A - 80A)
- Pressure Rating: 1000WOG (Class 400), PN63
- Screwed Gland for Stem Sealing



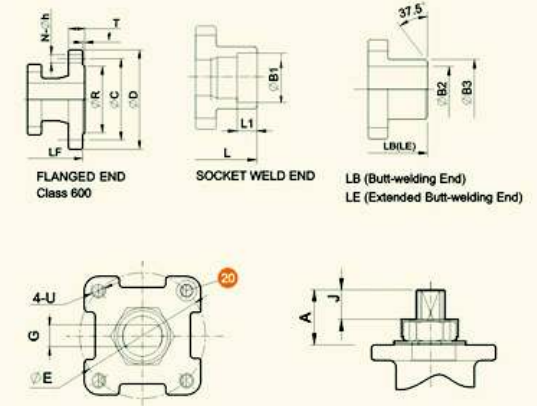
Economical Type

FEATURES:

- **Fire Safe** design and Construction
- Built-in ISO 5211 Mounting Pad 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
- Casting Approved by TÜV AD 2000 - Merkblatt W0

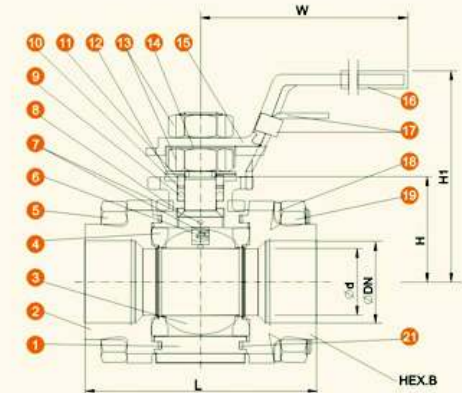
APPLICABLE STANDARDS:

- Design: ASME B16.34, API 608
- Fire Safe: API 607 5th 2005, ISO 10497
- Wall Thickness: ASME B16.34 Class 800
- Pipe Thread: **KZV - 080**: ASME B1.20.1, BS21
DIN 2999 / 259, ISO 228 / 1
JIS B 0203, ISO 7 / 1
- Butt Weld **KZV - 081**: ASME B16.25 (φB2 Sch 40)
φB2 Available in Sch 80
- Socket Weld **KZV - 082**: ASME B16.11
- Flange End **KZV - 08F**: ASME B16.5 CLASS 600
EN 1092 - 1PN100
JIS B2238 40K
- Inspection & Testing: API 598, EN 12266



NO.	PART NAME	MATERIALS		
1	Body	CF8M	CF8	WCB
2	Cap (Thread)	CF8M		
3	Cap (Welding)	CF3M		WCB
4	Ball	CF8M		CF8
5	Ball Seat	TFM1600+15% Carbon		
6	Bolt	A193 - B8		
7	Stem	SUS 316	SUS304	
8	Anti-Static Device	SUS 316	SUS304	
9	Stem Seal-Ring	PTFE / GRAFOIL*		
10	V-Ring Packing	PTFE / GRAFOIL*		
11	Bushing	50%SS + 50%PTFE/SUS304*		
12	Gland	SUS 316		
13	Belleville Washer	SUS 301		
14	Bolt Nut	A194 - 8		
15	Stop-Lock-Cap	SUS 304		
16	Handle (1/4"-2")	SUS 304		
17	Handle Sleeve (1/4"-2")	Vinyl Plastic		
18	Locking Device (1/4"-2")	SUS 304		
19	Bolt Washer	SUS 304		
20	Bolt Nut	A194 - 8		
21	Stop Bolt	A193 - B8		
22	Body Gasket	PTFE / GRAFOIL*		

*Materials for Fire-Safe Models



SIZE	φd	L	LB	LE	LF	H	H1	W	φE	φD	φC	φR	T	f	N	h	U	A	J	L1	φB1	φB2	φB3	HEX.B	DN	
1/4"	10.6	70	70	165	-	30.0	76	135	42	6.3	-	-	-	-	-	-	M5	17.3	10.4	11	14.0	7.6	18	23.5	NPT	
3/8"	12.7	70	70	165	-	30.0	76	135	42	6.3	-	-	-	-	-	-	M5	17.3	10.4	11	18.0	10.7	18	23.5	NPT	
1/2"	15.0	75	75	165	130	36.0	83	135	42	6.3	95.3	66.6	35.0	20.7	6.35	4	15.8	M5	20.3	11.8	11	22.0	13.9	22	28.0	BSP
3/4"	20.0	80	80	190	150	39.5	83	135	42	6.3	117.4	82.6	43.0	22.2	6.35	4	19.1	M5	20.3	11.8	13	27.5	18.8	28	34.0	PT
1"	25.0	90	100	216	160	45.5	98	170	50	9.0	124.0	88.9	51.0	23.9	6.35	4	19.1	M6	23.3	12.5	13	34.5	24.3	34	46.0	PT
1-1/4"	31.8	110	110	229	180	50.0	103	170	50	9.0	133.4	98.6	63.5	27.0	6.35	4	19.1	M6	23.3	12.5	13	43.0	32.5	43	55.0	DIN
1-1/2"	38.1	120	125	241	200	60.0	110	200	70	9.6	155.5	114.3	73.2	28.8	6.35	4	22.4	M8	23.8	15.1	13	48.6	38.1	50	57.0	etc...
2"	50.0	140	150	292	230	68.0	119	200	70	9.6	165.1	127.0	92.0	31.8	6.35	8	19.1	M8	23.8	15.1	16	61.2	49.2	61	73.0	etc...

Unit: mm

KZV - 030, KZV - 031

KZV - 032

3 - PC Stainless Steel Casting Ball Valve Full Port, 1000 WOG, Economical Type



KZV - 03C

PN16 3 - PC Economy Ball Valve, Full Port, Clamp End

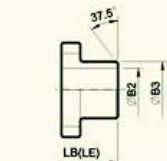
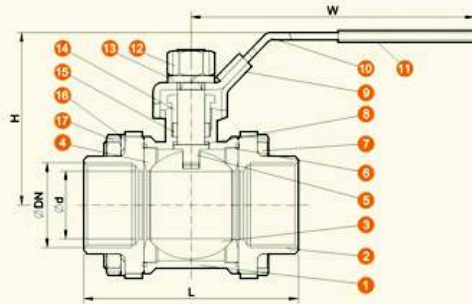


FEATURES:

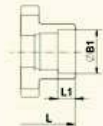
- Blow-out Proof Stem
- Pressure Balance Hole in Ball Slot
- Full Port
- Various Thread Standards Available
- Casting Approved by TÜV AD 2000 - Merkblatt W0

APPLICABLE STANDARDS:

- Design : ASME B16.34, API 608
- Wall Thickness : EN 12516 - 3
- Pipe Thread **KZV - 030** : ASME B1.20.1, BS21
DIN 2999/259, ISO 228/1
JIS B 0203
- Butt Weld **KZV - 031** : ASME B16.25 (φ B2 Sch 40)
φ B2 Available in Sch 10, 20
- Socket Weld **KZV - 032** : ASME B16.11
- Inspection & Testing : API 598, EN 12266



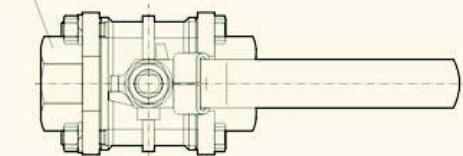
LB (Butt-welding End)



LE (Extended Butt-welding End)

SOCKET WELD END

HEX.B



NO.	PART NAME	MATERIALS		
1	Body	CF8M	CF8	WCB
2	Cap (Thread)	CF8M	CF8	WCB
	Cap (Welding)	CF3M	CF8	WCB
3	Ball	CF8M	CF8	
4	Ball Seat	PTFE		
5	Stem	SUS 316	SUS 304	
6	Body Gasket	PTFE		
7	Bolt	A193 - B8		
8	Thrust Washer	PTFE		
9	Locking Device	SUS 304		
10	Handle	SUS 304		
11	Handle Sleeve	Vinyl Plastic		
12	Stem Nut	A194 - 8		
13	Stem Washer	SUS 304		
14	Gland Nut	SUS 304		
15	V-Ring Packing	PTFE		
16	Bolt Washer	SUS 304		
17	Bolt Nut	A194 - 8		

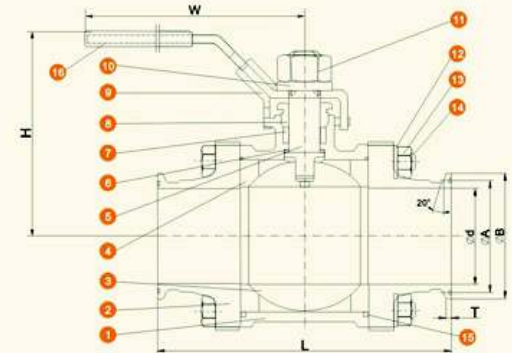
SIZE	φd	L	LB	LE	H	W	L1	φ B1	φ B2	φ B3	HEX.B	Unit: mm
1/4"	10.6	65.2	65.2	165	57.5	100.0	10	14.2	9.3	18	23.5	φDN
3/8"	12.7	65.2	65.2	165	57.5	100.0	10	17.0	12.5	18	23.5	NPT
1/2"	15.0	69.5	75.0	165	57.5	100.0	10	21.8	15.8	22	28.0	BSP
3/4"	20.0	80.0	90.0	190	63.0	129.0	13	27.3	20.9	28	34.5	
1"	25.0	90.0	100.0	216	75.5	156.0	13	34.0	26.7	34	42.0	PT
1-1/4"	32.0	110.0	110.0	229	81.0	156.0	16	42.8	35.1	43	52.0	
1-1/2"	38.0	120.0	125.0	241	94.0	182.5	16	49.0	40.9	50	58.5	DIN
2"	50.0	140.0	150.0	292	104.5	182.5	17	61.4	52.5	61	71.5	
2-1/2"	63.5	185.0	190.0	330	131.0	252.0	17	74.0	62.7	76	86.5	etc....
3"	76.0	205.0	220.0	356	139.0	252.0	17	90.0	78.0	92	101.0	

FEATURES:

- Anti-static Devices for Ball-stem-body
- Blow-out Proof Stem
- Pressure Balance Hole in Ball Slot
- Casting Approved by TÜV AD 2000 - Merkblatt W0

APPLICABLE STANDARDS:

- Design : ASME B16.34, API 608
- Clamp Ends : ISO 2852-1993
- Face to Face : DIN 3202, Part2, S13
- Inspection & Testing : API 598, EN 12266



NO.	PART NAME	MATERIALS		
1	Body	CF8M	CF8	WCB
2	Cap	CF8M	CF8	WCB
3	Ball	CF8M	CF8	
4	Ball Seat	PTFE		
5	Stem	SUS 316	SUS 304	
6	Thrust Washer	PTFE		
7	V-Ring Stem Packing	PTFE		
8	Gland	SUS 304		
9	Handle+Lock Device	SUS 304		
10	Washer	SUS 301		
11	Stem Nut	A194 - 8		
12	Bolt Washer	SUS 301		
13	Bolt Nut	A194 - 8		
14	Bolt	A194 - 8	A193 - B7	
15	Body Gasket	PTFE		
16	Handle Sleeve	Vinyl Plastic		

SIZE	φd	φA	φB	L	T	W	H	Unit: mm
1/2"	12.7	27.5	34.0	90	2.85	100.0	58.9	
3/4"	17.2	27.5	34.0	90	2.85	129.0	64.0	
1"	25.0	43.5	50.5	100	2.85	156.0	77.0	
1-1/4"	31.8	43.5	50.5	110	2.85	156.0	81.0	
1-1/2"	35.6	43.5	50.5	125	2.85	182.5	94.0	
2"	48.6	56.5	64.0	150	2.85	182.5	104.5	
2-1/2"	60.3	70.5	77.5	190	2.85	252.0	131.0	
3"	72.9	83.5	91.0	220	2.85	252.0	139.0	

KZV - L3C

PN16 3 - PC Direct Mount Ball Valve, Full Port, Clamp Ends



KZV - M30, KZV - M31
KZV - M32, KZV - M3F

3 - PC Stainless Steel Casting Ball Valve Full Port, Mounting Pad, 1000 WOG, High Performance

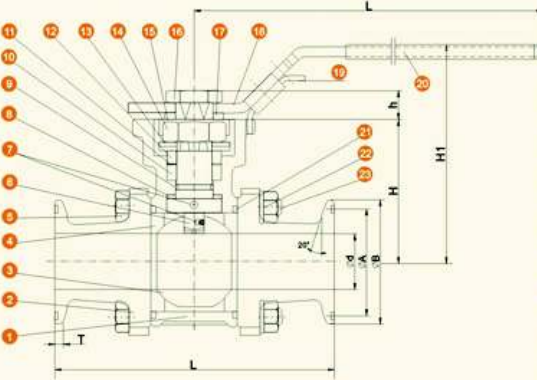
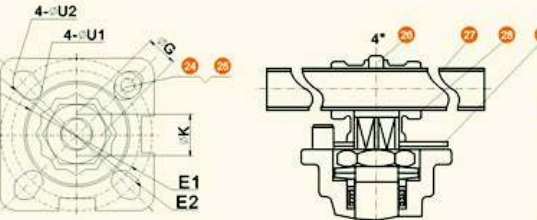


FEATURES:

- Anti-static Devices for Ball-stem-body
- Blow-out Proof Stem
- Pre-load 2 Belleville Washers to Self-adjust Packing
- TA-LUFT** Design Approved

APPLICABLE STANDARDS:

- Design : ASME B16.34, API 608
- Clamp Ends: ISO 2852-1993
- Face to Face: DIN 3202, Part2
- Inspection & Testing: API 598, EN 12266



NO.	PART NAME	MATERIALS		
1	Body	CF8M	CF8	WCB
2	Cap	CF8M	CF8	WCB
3	Ball	CF8M	CF8	
4	Ball Seat	PTFE		
5	Bolt	A193 - B8		
6	Stem	SUS 316	SUS 304	
7	Anti-Static	SUS 316	SUS 304	
8	Thrust Washer	PTFE		
9	O-RING	FKM		
10	V-Ring Stem Packing	PTFE		
11	Bushing	50%SS+50%PTFE		
12	Gland	SUS 304		
13	Belleville Washer	SUS 301		
14	Stem Nut	A194 - 8		
15	Stop-Lock-Cap	SUS 304		
16	Handle Nut	A194 - 8		
17	Square Washer	SUS 304		
18	Handle	SUS 304		
19	Lock device	SUS 304		
20	Handle Sleeve	Vinyl Plastic		
21	Body Gasket	PTFE		
22	Bolt Washer	SUS 301		
23	Bolt Nut	A194 - 8	A193 - B7	
24	Stop Bolt	A193 - B8	A194 - 2H	
25	Nut	A194 - 8		
26	Set Screwed (4*)	A193 - 8B		
27	Handle(4*)	SUS 304		
28	Handle Adapter(4*)	CF8		
29	Triangle Stopper(4*)	SUS 410		

SIZE	φd	φA	φB	L	T	W	H	H1	h	φK	φE1	φE2	G	U1	U2
1/2"	12.7	27.5	34.0	90	2.85	145	42.0	69.0	9	7/16-24UNF	36	42	9	6.0	6.0
3/4"	17.2	27.5	34.0	90	2.85	145	48.5	76.0	9	7/16-24UNF	36	42	9	6.0	7.0
1"	25.0	43.5	50.5	100	2.85	175	58.5	89.0	11	9/16-18UNF	42	50	11	6.0	7.0
1-1/4"	31.8	43.5	50.5	110	2.85	175	63.0	93.5	11	9/16-18UNF	42	70	11	6.0	9.0
1-1/2"	35.6	43.5	50.5	125	2.85	190	71.3	103.0	14	3/4-18UNF	50	70	14	7.0	9.0
2"	48.6	56.5	64.0	150	2.85	190	78.0	109.0	14	3/4-18UNF	50	70	14	7.0	9.0
2-1/2"	60.3	70.5	77.5	190	2.85	260	100.0	147.0	17	7/8-14UNF	70	102	17	8.5	10.5
3"	72.9	83.5	91.0	220	2.85	260	108.5	154.0	17	7/8-14UNF	70	102	17	8.5	10.5
4"	97.6	110.0	119.0	270	2.85	400	140.0	205.0	22	1-1/8-12UNF	-	102	22	-	10.5

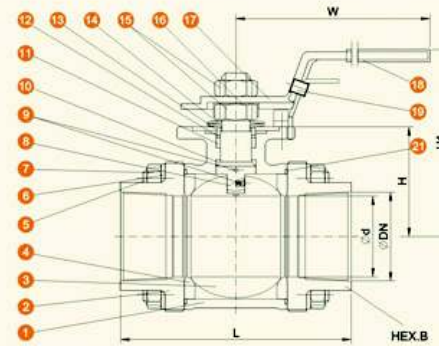
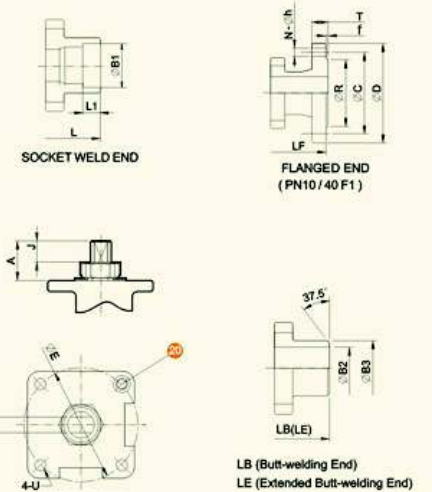
Unit:mm

FEATURES:

- Built-in ISO 5211 Mounting Pad 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
- Casting Approved by TÜV AD 2000-Merkblatt W0

APPLICABLE STANDARDS:

- Design : ASME B16.34, API 608
- Wall Thickness : EN 12516 - 3
- Pipe Thread **KZV - M30** : ASME B1.20.1, BS21
DIN 2999 / 259, ISO 228 / 1
JIS B 0203, ISO 7/1
- Butt Weld **KZV - M31** : ASME B16.25 (φB2 Sch 40)
φB2 Available in Sch 80
- Socket Weld **KZV - M32** : ASME B16.11
- Flange End **KZV - M3F** : ASME B16.5 CLASS 150 / 300
EN 1092 - 1 PN 10 - 40
JIS B2238 10K / 20K
- Inspection & Testing : API 598, EN 12266



NO.	PART NAME	MATERIALS		
1	Body	CF8M	CF8	WCB
2	Cap (Thread)	CF8M	CF8	WCB
2	Cap (Welding)	CF3M	CF8	WCB
3	Ball	CF8M	CF8	
4	Ball Seat	TFM1600 / PTFE / RTFE		
5	Bolting	A193 - B8		
6	Bolt Washer	SUS 304		
7	Bolt Nut	A194 - 8		
8	Stem	SUS 316	SUS 304	
9	Anti-Static Device	SUS 316	SUS 304	
10	Stem Seal-Ring	PTFE		
11	V-Ring Stem Packing	PTFE		
12	Bushing	50%SS + 50%PTFE		
13	Gland	SUS 316		
14	Belleville Washer	SUS 301		
15	Stem Nut	A194 - 8		
16	Stop-Lock-Cap	SUS 304		
17	Handle (1/4"-3")	SUS 304		
18	Handle Sleeve (1/4"-3")	Vinyl Plastic		
19	Locking Device (1/4"-3")	SUS 304		
20	Stop Bolt	A193 - B8		
21	Body Gasket	PTFE		

SIZE	φd	L	LB	LE	LF	H	H1	W	φE	G	U	A	J	φD	φC	φR	T	f	N	φh	L1	φB1	φB2	φB3	HEX.B	φDN
1/4"	10.6	68	70	165	N/A	29.5	76	135	42	6.3	M5	17.3	10.4	-	-	-	-	-	-	10	14.2	9.3	18	23.5		
3/8"	12.7	68	70	165	N/A	29.5	76	135	42	6.3	M5	17.3	10.4	-	-	-	-	-	-	10	17.8	12.5	18	23.5	NPT	
1/2"	15.0	73	73	165	130	35.5	83	135	42	6.3	M5	20.3	11.8	95	65	45	16	2	4	14	10	21.8	15.8	22	28.0	
3/4"	20.0	80	90	190	150	38.5	88	135	42	6.3	M5	20.3	11.8	105	75	58	18	2	4	14	13	27.3	20.9	28	34.5	BSP
1"	25.0	90	100	216	160	45.5	98	170	50	9.0	M6	23.3	12.5	115	85	68	18	2	4	14	13	30.4	26.7	34	42.0	
1-1/4"	32.0	110	110	229	180	51.0	103	170	50	9.0	M6	23.3	12.5	140	100	78	18	2	4	14	16	42.8	35.1	43	52.0	PT
1-1/2"	38.0	120	125	241	200	60.5	110	200	70	9.6	M8	23.8	15.1	150	110	88	18	3	4	18	17	49.0	40.9	50	58.5	
2"	50.0	140	150	292	230	68.5	119	200	70	9.6	M8	23.8	15.1	165	125	102	20	3	4	18	17	61.4	52.5	61	71.5	DIN
2-1/2"	63.5	185	190	330	290	86.5	147	250	102	16.0	M10	42.5	23.5	185	145	122	22	3	8	18	17	74.0	62.7	76	86.5	
3"	76.0	205	220	356	310	94.5	155	250	102	16.0	M10	42.5	23.5	200	160	138	24	3	8	18	17	90.0	78.0	92	101.0	etc.

Unit: mm

KZV - 020

2 - PC Stainless Steel Casting Ball Valve Full Port, 1000 WOG, Economical Type



KZV - 010

1 - PC Stainless Steel Casting Ball Valve Reduced Port, 1000 WOG, Economical Type

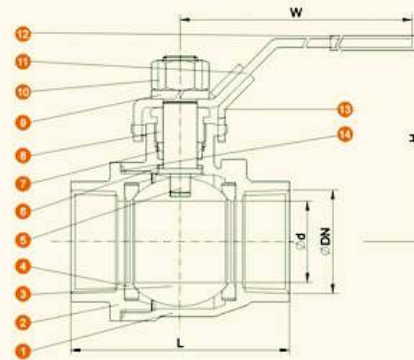
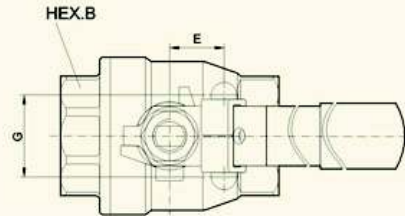


FEATURES:

- Blow-out Proof Stem
- Pressure Balance Hole in Ball Slot
- Full Port
- Various Thread Standards Available
- Casting Approved by TÜV AD 2000-Merkblatt W0

STANDARDS:

- Design : ASME B16.34, API 608
- Wall Thickness : EN 12516-3
- Pipe Thread : ASME B1.20.1, BS21
DIN 2999 / 259, ISO 228 / 1
JIS B 0203
- Inspection & Testing : API 598, EN 12266



NO.	PART NAME	MATERIALS
1	Body	CF8M CF8 WCB
2	Cap	CF8M CF8 WCB
3	Ball	CF8M CF8
4	Ball Seat	PTFE
5	Stem	SUS 316 SUS 304
6	Thrust Washer	PTFE
7	V-Ring Packing	PTFE
8	Gland Nut	SUS 304
9	Stem Washer	SUS 304
10	Stem Nut	A194 - 8
11	Handle	SUS 304
12	Handle Sleeve	Vinyl plastic
13	Locking Device	SUS 304
14	Body Gasket	PTFE

SIZE	ϕd	L	H	W	E	G	HEX.B	ϕDN
1/4"	10.6	58.0	58.0	100.0	12.7	28.5	23.5	NPT
3/8"	12.0	58.0	58.0	100.0	12.7	28.5	23.5	NPT
1/2"	15.0	62.0	58.0	100.0	12.7	28.5	25.0	BSP
3/4"	20.0	72.4	64.0	129.0	22.0	34.8	32.0	BSP
1"	25.0	85.0	77.0	156.0	22.0	34.8	41.0	PT
1-1/4"	32.0	94.0	83.0	156.0	23.6	38.1	50.0	PT
1-1/2"	38.0	105.0	96.0	182.5	23.6	38.1	56.0	DIN
2"	50.0	125.0	102.0	182.5	23.6	38.1	70.0	DIN
2-1/2"	63.5	155.0	129.0	252.0	35.0	65.0	83.0	etc...
3"	76.0	173.0	138.5	252.0	35.0	65.0	102.0	etc...

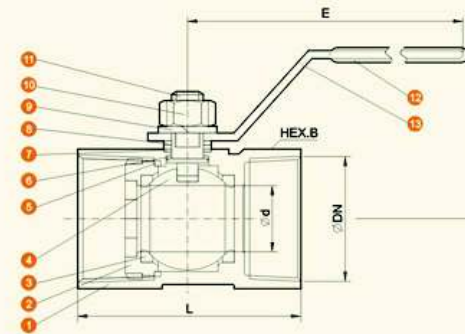
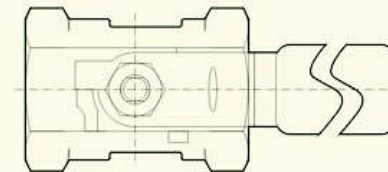
Unit: mm

FEATURES:

- Blow-out Proof Stem
- Pressure Balance Hole in Ball Slot
- Double Reduced Port
- Various Thread Standards Available
- Locking Device is Available Upon Request
- Casting Approved by TÜV AD 2000 - Merkblatt W0

STANDARDS:

- Design : ASME B16.34, API 608
- Wall Thickness : EN 12516-3
- Pipe Thread : ASME B1.20.1, BS21
DIN 2999 / 259, ISO 228 / 1
JIS B 0203, ISO 7 / 1
- Inspection & Testing : API 598, EN 12266



NO.	PART NAME	MATERIALS
1	Body	CF8M CF8 WCB
2	End Plug	CF8M CF8 WCB
3	Ball Seat	PTFE
4	Ball	CF8M CF8
5	Body Gasket	PTFE
6	Thrust Washer	PTFE
7	Stem Packing	PTFE
8	Gland Nut	SUS 304
9	Stem Washer	SUS 304
10	Stem Nut	A194 - 8
11	Stem	SUS 316 SUS 304
12	Handle Sleeve	Vinyl Plastic
13	Handle	SUS 304

SIZE	ϕd	L	H	E	HEX.B	ϕDN
1/4"	5.0	41.5	34	70	17	NPT
3/8"	7.0	46.0	35	80	21	NPT
1/2"	9.1	58.0	44	92	25	BSP
3/4"	12.5	61.0	46	92	32	BSP
1"	15.0	73.5	51	115	38	PT
1-1/4"	20.0	78.0	58	115	48	PT
1-1/2"	25.0	85.0	66	127	53	DIN
2"	32.0	102.0	72	127	66	etc...

Unit: mm

Manual Ball Valve

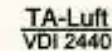
Fig. NO.	Pressure Rating	Port	End Connection	Actuator Mounting Pad	Fire Safe	Size Range	Page
KZV-041	ASME Class 150	Full	Flange	0	N/A	1/2" - 4"	4
KZV-042	ASME Class 150	Full	Flange	0	0	1/2" - 4"	4
KZV-043	ASME Class 300	Full	Flange	0	N/A	1/2" - 4"	4
KZV-044	ASME Class 300	Full	Flange	0	0	1/2" - 4"	4
KZV-045	ASME Class 600	Full	Flange	0	N/A	1/2" - 4"	5
KZV-046	ASME Class 600	Full	Flange	0	0	1/2" - 4"	5
KZV-047	DN PN 10	Full	Flange	0	N/A	1/2" - 4"	5
KZV-048	DN PN 10	Full	Flange	0	0	1/2" - 4"	5
KZV-049	DN PN 16	Full	Flange	0	N/A	1/2" - 4"	5
KZV-050	DN PN 16	Full	Flange	0	0	1/2" - 4"	5
KZV-051	DN PN 25	Full	Flange	0	N/A	1/2" - 4"	5
KZV-052	DN PN 25	Full	Flange	0	0	1/2" - 4"	5
KZV-053	DN PN 40	Full	Flange	0	N/A	1/2" - 4"	5
KZV-054	DN PN 40	Full	Flange	0	0	1/2" - 4"	5
KZV-055	JIS 10K	Full	Flange	0	N/A	1/2" - 4"	7
KZV-056	JIS 10K	Full	Flange	0	0	1/2" - 4"	7
KZV-057	JIS 20K	Full	Flange	0	N/A	1/2" - 4"	7
KZV-058	JIS 20K	Full	Flange	0	0	1/2" - 4"	7
KZV-059	JIS 10K	Full	Flange	0	N/A	1/2" - 4"	9
KZV-060	JIS 10K	Full	Flange	0	0	1/2" - 4"	9
KZV-061	ASME Class 150	Full	Flange	0	N/A	1/2" - 3"	9
KZV-062	ASME Class 150	Full	Flange	0	0	1/2" - 3"	9
KZV-063	ASME Class 300	Full	Flange	0	N/A	1/2" - 4"	10
KZV-064	ASME Class 150	Full	Flange	0	N/A	1/2" - 3"	11
KZV-065	ASME Class 150	Full	Flange	0	0	1/2" - 3"	11
KZV-066	ASME Class 300	Full	Flange	0	N/A	1/2" - 3"	11
KZV-067	ASME Class 150	Full	Flange	0	0	1/2" - 3"	11
KZV-068	ASME Class 150	Full	Flange	0	0	1/2" - 3"	11
KZV-069	ASME Class 300	Full	Flange	0	0	1/2" - 4"	14
KZV-070	ASME Class 300	Full	Flange	0	0	1/2" - 4"	14
KZV-071	ASME Class 150	Full	Thread	0	0	1/2" - 4"	15
KZV-072	ASME Class 150	Full	SW	0	0	1/2" - 4"	15
KZV-073	ASME Class 300	Full	Thread	0	0	1/2" - 4"	16
KZV-074	ASME Class 300	Full	SW	0	0	1/2" - 4"	16
KZV-075	ASME Class 600	Full	Thread	0	0	1/2" - 4"	16
KZV-076	ASME Class 600	Full	SW	0	0	1/2" - 4"	16
KZV-077	ASME Class 600	Full	Thread	0	0	1/2" - 4"	16
KZV-078	ASME Class 600	Full	SW	0	0	1/2" - 4"	16
KZV-079	DN PN 16	Full/L-Port	Flange	0	N/A	1/2" - 4"	17
KZV-080	DN PN 16	Full/L-Port	Flange	0	N/A	1/2" - 4"	17
KZV-081	DN PN 40	Full/L-Port	Flange	0	N/A	1/2" - 4"	17
KZV-082	DN PN 40	Full/L-Port	Flange	0	N/A	1/2" - 4"	17
KZV-083	DN PN 40	Full/L-Port	Flange	0	N/A	1/2" - 4"	17
KZV-084	DN PN 40	Full/L-Port	Flange	0	N/A	1/2" - 4"	17
KZV-085	ASME Class 150	Full/L-Port	Flange	0	N/A	1/2" - 4"	18
KZV-086	ASME Class 150	Full/L-Port	Flange	0	N/A	1/2" - 4"	18
KZV-087	ASME Class 300	Full/L-Port	Flange	0	N/A	1/2" - 4"	18
KZV-088	ASME Class 300	Full/L-Port	Flange	0	N/A	1/2" - 4"	18
KZV-089	JIS 10K	Full/L-Port	Flange	0	N/A	1/2" - 4"	18
KZV-090	JIS 10K	Full/L-Port	Flange	0	N/A	1/2" - 4"	18
KZV-091	JIS 20K	Full/L-Port	Flange	0	N/A	1/2" - 4"	18
KZV-092	JIS 20K	Full/L-Port	Flange	0	N/A	1/2" - 4"	18
KZV-093	1000 WOG	Reduced/L-Port	Thread	0	N/A	1/2" - 2"	20
KZV-094	1000 WOG	Reduced/T-Port	Thread	0	N/A	1/2" - 2"	20
KZV-095	DN PN 16	FULL	Clamp Ends	0	N/A	1/2" - 2"	21
KZV-096	1000 WOG	Full/L-Port	Thread	0	N/A	1/2" - 1.1/2"	22
KZV-097	1000 WOG	Full/L-Port	Thread	0	N/A	1/2" - 1.1/2"	22
KZV-098	2800 - 1800 WOG	FULL	Thread	0	0	1/4" - 2"	24
KZV-099	2800 - 1800 WOG	FULL	SW	0	0	1/4" - 2"	24
KZV-100	2800 - 1800 WOG	FULL	SW	0	0	1/4" - 2"	24
KZV-101	Class 150	FULL	Flange	0	0	1/2" - 2"	24
KZV-102	1000 WOG	FULL	Thread	0	N/A	1/4" - 3"	25
KZV-103	1000 WOG	FULL	SW	0	N/A	1/4" - 3"	25
KZV-104	1000 WOG	FULL	SW	0	N/A	1/4" - 3"	25
KZV-105	DN PN 16	FULL	Clamp Ends	N/A	N/A	1/2" - 2"	26
KZV-106	DN PN 16	FULL	Clamp Ends	0	N/A	1/2" - 4"	27
KZV-107	DN PN 15-40	FULL	Flange	0	N/A	1/2" - 3"	28
KZV-108	1000 WOG	FULL	Thread	N/A	N/A	1/4" - 3"	28
KZV-109	1000 WOG	FULL	SW	N/A	N/A	1/4" - 3"	28
KZV-110	1000 WOG	FULL	SW	N/A	N/A	1/4" - 3"	28
KZV-111	1000 WOG	FULL	Thread	N/A	N/A	1/4" - 3"	28
KZV-112	1000 WOG	Reduced	Thread	N/A	N/A	1/4" - 2"	28



SPLIT BODY FLANGED BALL VALVES

SPECIFICATIONS

- Full Port, Floating Ball Type
- ASME, DIN BS & JIS Standards
- Size 1/2" - 4" (DN15 - DN100, 15A - 100A)
- Class 150, 300 / PN10 - PN40 / JIS 10K, 20K
- Blow-out Proof and Anti-static Stem
- Pre-load 2 Belleville Washers to Self-adjust Packing
- Double Stem Sealing Design Has Been Approved for TA-Luft
- Built-In ISO 5211 Mounting Pad for Easy Automation
- Castings Approved by TÜV AD 2000-Merkblatt W0



KZV - 040, STANDARD TYPE
KZV - 060, FIRE SAFE TYPE