



## Section 16

# Ball Valves

A ball valve is a valve with a spherical ball with an orifice straight through mounted between teflon seats in either a screwed or flanged body in various materials. When the orifice is in line with both ends of the valve flow will occur. When the valve is closed the orifice is perpendicular to the ends of the valve. The lever/handle will be in line with the orifice position, an indication of the valve position.



## DR Brass Ball Valves - Maxiflo

Due to the serious threat that dezincification exposes to our water industry it is essential today that DEZINCIFICATION RESISTANT (DR) valves are used in the appropriate applications. This include DR valves on all potable water services including water tanks.

AAP in keeping with the demand, offer many configurations of DR maxiflo ball valves, including male/female threaded valves with optional T/Handle and extension spindle. We can also supply Lilac painted handles for recycled water use.

Materials	
PART	MATERIAL
Body	DR Brass
Seat Retainer	DR Brass
Seat	P.T.F.E.
Ball	DR Brass (Chromium Plated)
Stem	DR Brass
Gland	DR Brass
Packing	Viton (Double O-Ring)
Lever	Stainless Steel (Plastic Coated)
Lever Retaining Nut	Brass
T'Handle (Optional)	DR Brass

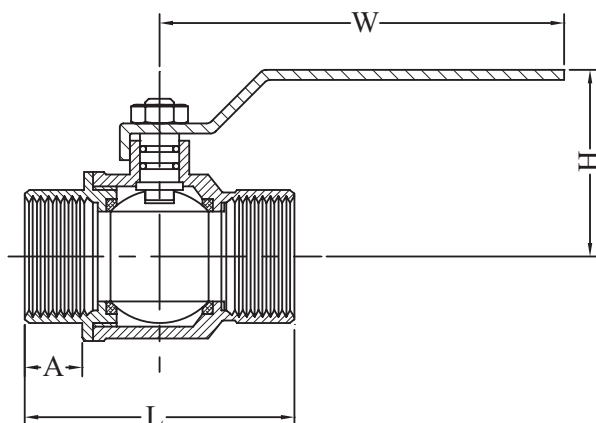
Specifications	
Thread	AS1722.1
Max Working Temperature	150°C (Gas = 60°C)
Cold Working Pressure	2500kPa (Gas = 1050kPa)

Applications - Apart from potable water, it is also approved for the use on low pressure gas services. It can also be used on oils, chemicals and hydrocarbons.



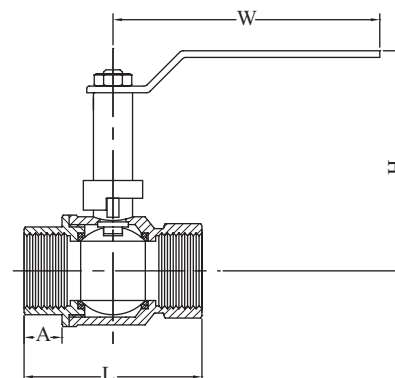
## DR Brass Ball Valve

DR Brass Ball Valve							
AAP CODE		IMPERIAL SIZE	L	H	W	A	APPROX. KG/PC
LEVER	LOCKABLE LEVER						
VBBD08		1/4	49.5	35	85	12	0.16
VBBD10		3/8	49.5	35	85	16	0.14
VBBD15	VBBD15L	1/2	60	39	95	16.5	0.2
VBBD20	VBBD20L	3/4	66.5	43	115	18	0.3
VBBD25	VBBD25L	1	76	59.5	115	19.5	0.43
VBBD32	VBBD32L	1 1/4	92.8	63	125	23	0.73
VBBD40	VBBD40L	1 1/2	100.5	77	180	23	1.12
VBBD50	VBBD50L	2	122	89	180	27	1.72
VBBD65		2 1/2	151	112	257	30	3.84
VBBD80		3	174	120	301	37	5.39



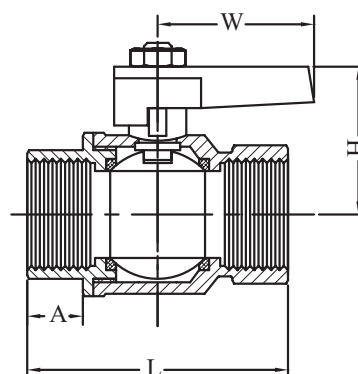
### DR Brass Ball Valve Extended Spindle Type

DR Brass Ball Valve Extended Spindle Type						
AAP CODE	IMPERIAL SIZE	L	H	W	A	APPROX. KG/PC
VBBD15EL	1/2	60	89	95	16.5	0.32
VBBD20EL	3/4	66.5	92	115	18	0.45
VBBD25EL	1	76	95	115	19.5	0.6
VBBD32EL	1 1/4	92.8	128	125	23	1.1
VBBD40EL	1 1/2	100.5	132	180	23	1.37
VBBD50EL	2	122	146	180	27	2.06



### DR Brass Ball Valve C/W T Handle

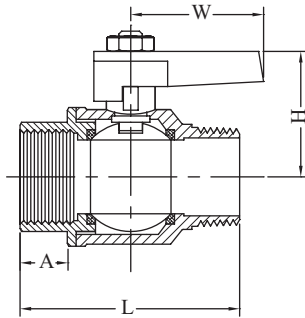
DR Brass Ball Valve C/W T Handle						
AAP CODE	IMPERIAL SIZE	L	H	W	A	APPROX. KG/PC
VBBD15TH	1/2	60	56	47	16.5	0.21
VBBD20TH	3/4	66.5	64	59	18	0.32
VBBD25TH	1	76	73	59	19.5	0.45



DR M/F Brass Ball Valve C/W T Handle



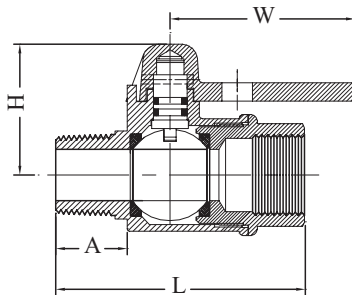
DR M/F Brass Ball Valve C/W T Handle						
AAP CODE	IMPERIAL SIZE	L	H	W	A	APPROX. KG/PC
VBDDMF15TH	1/2	60	56	47	16.5	0.21
VBDDMF20TH	3/4	66.5	64	59	18	0.32
VBDDMF25TH	1	76	73	59	19.5	0.45



DR M/F Brass Ball Valve C/W Locking T Handle



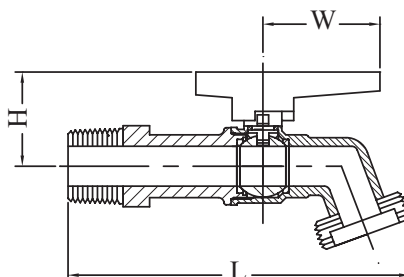
DR M/F Brass Ball Valve C/W Locking T Handle						
AAP CODE	IMPERIAL SIZE	L	H	W	A	APPROX. KG/PC
VBDDMF20LTH	3/4	66.5	64	58	18	0.5



DR Brass Ball Cock C/W Brass T Lever

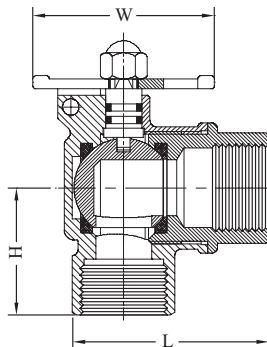


DR Brass Ball Cock C/W Brass T Lever						
AAP CODE		IMPERIAL SIZE	L	H	W	APPROX. KG/PC
T - LEVER	VANDLE					
VBCD15	VBCD15VP	1/2	97	60	32	0.23
VBCD20	VBCD20VP	3/4	105	60	33	0.31
VBCDK	KEY					0.07



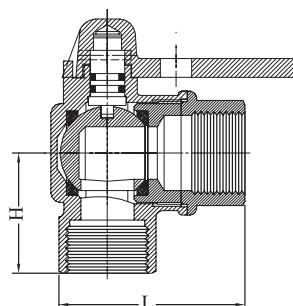
DR Brass Right Angle Ball Valve C/W Round Handle  
(Stainless Steel Ball)

DR Right Angle Ball Valve with Round Handle					
AAP CODE	IMPERIAL SIZE	L	H	W	APPROX. KG/PC
VBBDA20	3/4	62	40	56	0.54



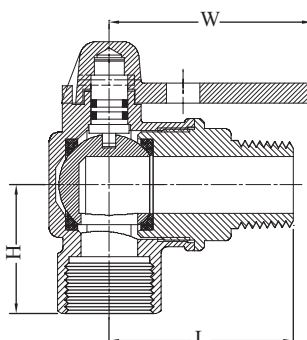
DR Brass Right Angle Ball Valve C/W T-Lever  
(Stainless Steel Ball)

DR Right Angle Ball Valve with T-Lever					
AAP CODE	IMPERIAL SIZE	L	H	W	APPROX. KG/PC
VBBDA20T	3/4	62	40	58	0.46



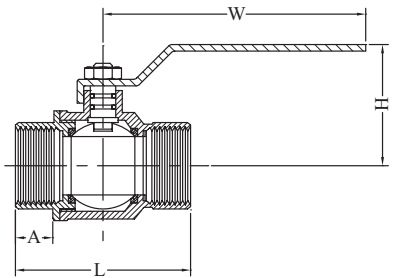
DR Brass Right Angle Ball Valve M/F C/W T-Lever  
(Stainless Steel Ball)

DR Right Angle Ball Valve M/F with T-Lever					
AAP CODE	IMPERIAL SIZE	L	H	W	APPROX. KG/PC
VBBDAM20T	3/4	62	40	58	0.46



## AGA Approved Gas Ball Valve - Maxiflo

LICENCE - Australian Gas Association AGA 6017



MATERIALS	
PART	MATERIAL
Body	Brass (Nickel Plated)
Seat Retainer	Brass (Nickel Plated)
Seat	P.T.F.E.
Ball	Brass (Chromium plated)
Stem	Brass
Gland	Brass
Packing	Viton (Double O-Ring)
Lever	Stainless Steel (Plastic Coated)
Lever Retaining Nut	Brass (Nickel Plated)

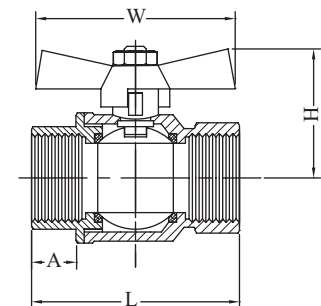
SPECIFICATIONS	
Thread	AS1722.1
Max Working Temperature	60°C
Cold Working Pressure	2500kPa

Application - For low to medium gas applications. Can also be used for certain chemicals and oils



Gas Brass Ball Valve							
AAP CODE		IMPERIAL SIZE	L	H	W	A	APPROX. KG/PC
LEVER	LOCKABLE LEVER						
VGAS08		1/4	49.5	35	85	12	0.16
VGAS10		3/8	49.5	35	85	16	0.14
VGAS15	VGAS15L	1/2	60	39	95	16.5	0.2
VGAS20	VGAS20L	3/4	66.5	43	115	18	0.3
VGAS25	VGAS25L	1	76	59.5	115	19.5	0.43
VGAS32	VGAS32L	1 1/4	92.8	63	125	23	0.74
VGAS40	VGAS40L	1 1/2	100.5	77	180	23	1.12
VGAS50	VGAS50L	2	122	89	180	27	1.72
VGAS65		2 1/2	151	112	257	30	3.48
VGAS80		3	174	120	301	37	5.02
VGAS94		4	212	144	340	40	8.4

## Gas Brass Ball Valve with T Handle



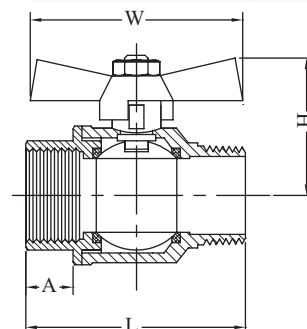
Gas Brass Ball Valve with T Handle						
AAP CODE	IMPERIAL SIZE	L	H	W	A	APPROX. KG/PC
VGAS08TH	1/4	49.5	35	48	12	0.16
VGAS10TH	3/8	49.5	35	48	16	0.14
VGAS15TH	1/2	60	35	55	16.5	0.2
VGAS20TH	3/4	66.5	40	55	18	0.3
VGAS25TH	1	76	43	72	19.5	0.43





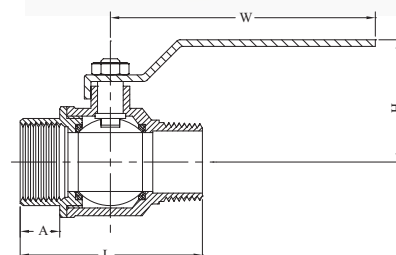
Gas Brass Ball Valve M/F C/W T Handle

Gas Brass Ball Valve M/F with T Handle						
AAP CODE	IMPERIAL SIZE	L	H	W	A	APPROX. KG/PC
VGASMF08TH	1/4	49.5	35	48	12	0.16
VGASMF10TH	3/8	49.5	35	48	16	0.14
VGASMF15TH	1/2	60	35	55	16.5	0.2
VGASMF20TH	3/4	66.5	40	55	18	0.3
VGASMF25TH	1	76	43	72	19.5	0.43



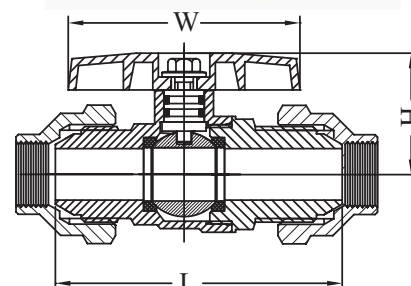
Gas Brass Lockable Ball Valve M/F

Gas Brass Lockable Ball Valve M/F						
AAP CODE	IMPERIAL SIZE	L	H	W	A	APPROX. KG/PC
VGASMF50L	2	122	89	180	27	1.72

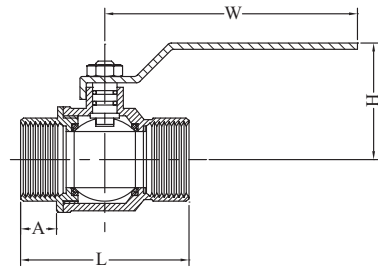


Flared Gas Brass Ball Valve

Flared Gas Ball Valve					
AAP CODE	IMPERIAL SIZE	L	H	W	APPROX. KG/PC
VF10	3/8	77	32	62	0.23
VF15	1/2	83	32	62	0.24
VF20	3/4	85	34	62	0.35



General Purpose Brass Ball Valve - Maxiflo



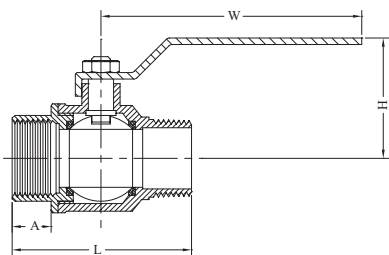
Material List	
PART	MATERIAL
Body	Brass (Nickel Plated)
Seat Retainer	Brass (Nickel Plated)
Seat	P.T.F.E.
Ball	Brass (Chromium plated)
Stem	Brass
Gland	Brass
Packing	Viton (Double O-Ring)
Lever	Stainless Steel (Plastic Coated)
Lever Retaining Nut	Brass (Nickel Plated)

Specifications	
Thread	AS1722.2
Max Working Temperature	150°C
Cold Working Pressure	2500kPa

Applications - Ideal for hot and cold water (Non-Potable), various oils, chemicals and compressed air

General Purpose Ball Valve						
AAP CODE	IMPERIAL SIZE	L	H	W	A	APPROX. KG/PC
VBB08	1/4	49.5	35	85	12	0.16
VBB10	3/8	49.5	35	85	16	0.14
VBB15	1/2	60	39	95	16.5	0.2
VBB20	3/4	66.5	43	115	18	0.3
VBB25	1	76	59.5	115	19.5	0.43
VBB32	1 1/4	92.8	63	125	23	0.74
VBB40	1 1/2	100.5	77	180	23	1.1
VBB50	2	122	89	180	27	1.72
VBB65	2 1/2	151	112	257	30	3.48
VBB80	3	174	120	301	37	5.02
VBB94	4	212	144	340	40	8.4

General Purpose M/F Brass Ball Valve

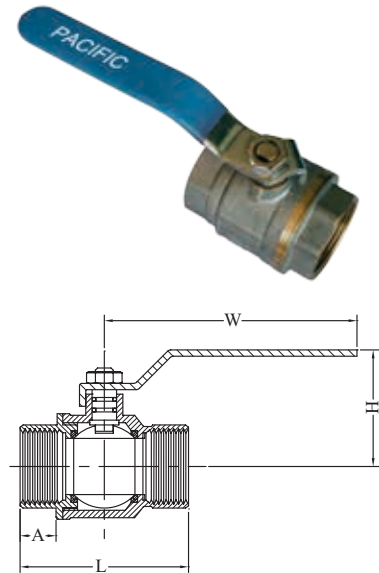


General Purpose M/F Ball Valve						
AAP CODE	IMPERIAL SIZE	L	H	W	A	APPROX. KG/PC
VBBMF08	1/4	49.5	35	85	12	0.16
VBBMF10	3/8	49.5	35	85	16	0.14
VBBMF15	1/2	60	39	95	16.5	0.2
VBBMF20	3/4	66.5	43	115	18	0.3
VBBMF25	1	76	59.5	115	19.5	0.43
VBBMF32	1 1/4	92.8	63	125	23	0.74
VBBMF40	1 1/2	100.5	77	180	23	1.1
VBBMF50	2	122	89	180	27	1.72



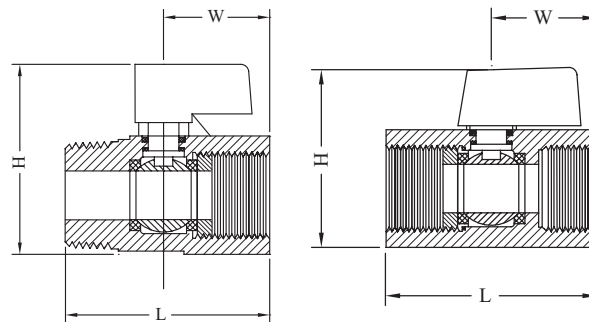
### Short General Purpose Brass Ball Valves - Pacific

Short General Purpose Brass Ball Valves - Pacific						
AAP CODE	IMPERIAL SIZE	L	H	W	A	APPROX. KG/PC
VB15	1/2	47	40.5	86	11.5	0.16
VB20	3/4	52.5	48.5	94	12	0.22
VB25	1	62.5	49.5	104	13.5	0.36
VB32	1 1/4	73	58.5	122	15	0.47
VB40	1 1/2	83	68	152	15.5	0.83
VB50	2	93	83.5	152	16.5	1.21



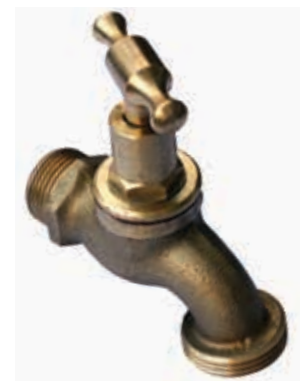
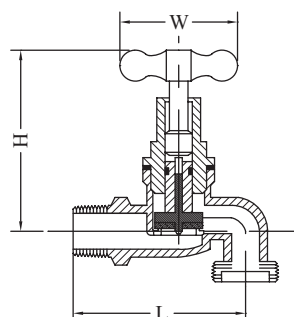
### Mini Brass Ball Valve

Mini Brass Ball Valve						
AAP CODE		IMPERIAL SIZE	L	H	W	APPROX. KG/PC
F/F	M/F					
VBBM06	VBBMMF06	1/8	42	35	21	0.08
VBBM08	VBBMMF08	1/4	40	35	20	0.08
VBBM10	VBBMMF10	3/8	41	36	20	0.08
VBBM15	VBBMMF15	1/2	45	41	22	0.11
VBBM20	VBBMMF20	3/4	53	46	26	0.21



### Brass Hose Cock

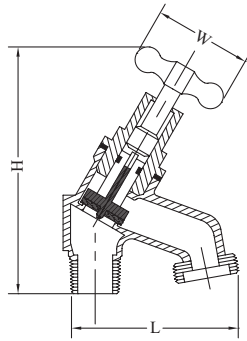
Brass Hose Cock					
AAP CODE	IMPERIAL SIZE	L	H	W	APPROX KG/PC
VBHC15	1/2	97	77	50	0.31
VBHC20	3/4	94.5	77	50	0.35



Brass Hose Cock Wall Mount



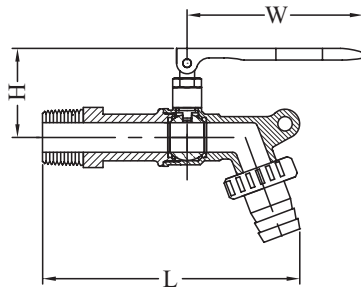
Brass Hose Cock Wall Mount					
AAP CODE	IMPERIAL SIZE	L	H	W	APPROX. KG/PC
VBHC15WM	1/2	82	108	51	0.37
VBHC20WM	3/4	82	118	51	0.4



Brass Lock Lever BIB Cock



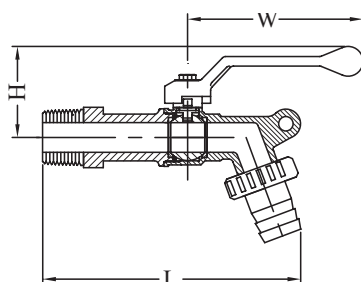
Brass Lock Lever BIB Cock				
AAP CODE	IMPERIAL SIZE	L	H	APPROX. KG/PC
VBC20L	3/4 X 1	105	40	0.22
VBC2020L	3/4 x 3/4	105	40	0.25



Brass BIB Cock C/W SS Lever

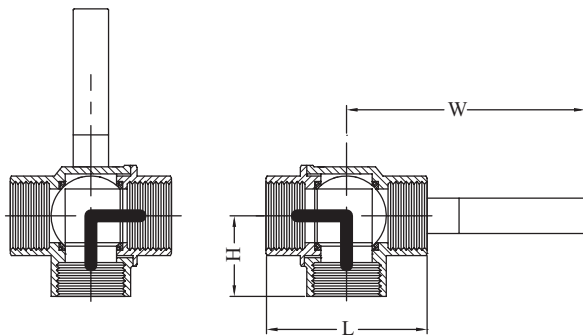


Brass BIB Cock C/W SS Lever					
AAP CODE	IMPERIAL SIZE	L	H	W	APPROX. KG/PC
VBC15	1/2	135	40	85	0.16
VBC20	3/4	135	40	85	0.23
VBC25	1	160	40	85	0.34



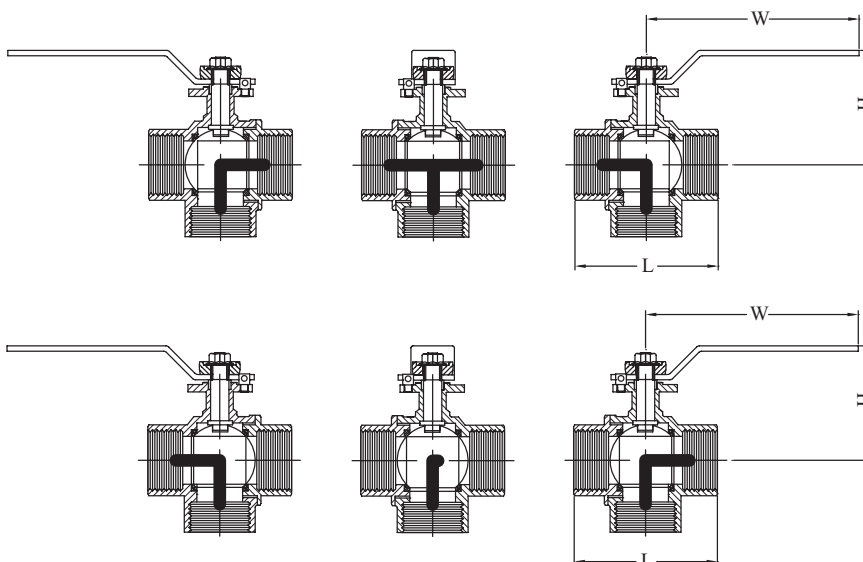
### 3 Way TN Brass Ball Valve (PN16)

3 Way TN Brass Ball Valve (Side-Entry, L Port)						
AAP CODE	IMPERIAL SIZE	L	H	W	APPROX. KG/PC	
VBBTN308	1/4	55	40	80	0.25	
VBBTN310	3/8	55	40	80	0.25	
VBBTN315	1/2	60	46	95	0.31	
VBBTN320	3/4	68	53	110	0.49	
VBBTN325	1	82	64	110	0.74	
VBBTN332	1 1/4	97	75	139	1.23	
VBBTN340	1 1/2	102	84	139	1.71	
VBBTN350	2	121	100	158	2.73	



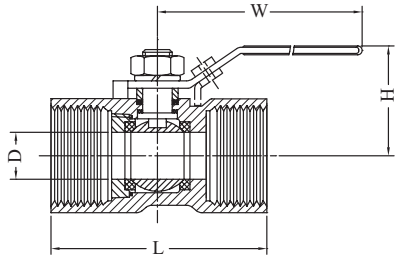
### Brass 3 Way Ball Valve (PN10) ISO 5211 Direct Mounting

Brass 3 Way Ball Valve						
AAP CODE		IMPERIAL SIZE	L	H	W	APPROX. KG/PC
L - PORT	T - PORT					
VBBTW08L	VBBTW08	1/4	52	42	98	0.25
VBBTW10L	VBBTW10	3/8	52	42	98	0.25
VBBTW15L	VBBTW15	1/2	64	45	98	0.34
VBBTW20L	VBBTW20	3/4	74	57	118	0.49
VBBTW25L	VBBTW25	1	89	60	118	0.77
VBBTW32L	VBBTW32	1 1/4	100	66	118	1.1
VBBTW40L	VBBTW40	1 1/2	110	81	153	1.64
VBBTW50L	VBBTW50	2	130	103	170	2.66
VBBTW80L		3	197	152	260	9.09





Stainless Steel Ball Valve (1 PCE) - Maxiflo



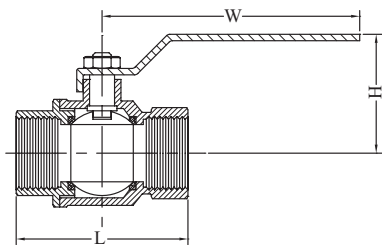
MATERIAL LIST	
PART	MATERIAL
Body	CF8M
Ball	316 Stainless Steel
Seat	Teflon (PTFE)
Stem	316 Stainless Steel
Lever	316 Stainless Steel with Locking Device

SPECIFICATIONS	
Thread	AS1722.1
Max Working Temperature	180°C
Cold Working Pressure	6895kPa

Applications - For air, water, Hot/Cold corrosive fluids in harsh environments

Stainless Steel Ball Valve (1 PCE Reducing Bore)							
AAP CODE	IMPERIAL SIZE	L	H	W	D	TORQUE INCH/LBS	APPROX. KG/PC
SS1BV08	1/4	40	33	67	5	12	0.06
SS1BV10	3/8	45	36	67	7	12	0.1
SS1BV15	1/2	58	37	93	9	12	0.16
SS1BV20	3/4	60	42	93	12.5	18	0.26
SS1BV25	1	71	52	103	16	36	0.38
SS1BV32	1 1/4	78	56	103	20	54	0.61
SS1BV40	1 1/2	82.5	65	125	25	72	0.85
SS1BV50	2	100	70	125	32	84	1.4

Stainless Steel Ball Valve (2 PCE) - Maxiflo



MATERIAL LIST	
PART	MATERIAL
Body	CF8M
Ball	316 Stainless Steel
Seat	Teflon (PTFE)
Stem	316 Stainless Steel
Lever	316 Stainless Steel with Locking Device

SPECIFICATIONS	
Thread	AS1722.1
Max Working Temperature	180°C
Cold Working Pressure	6895kPa

Applications - For air, water, Hot/Cold corrosive fluids in harsh environments

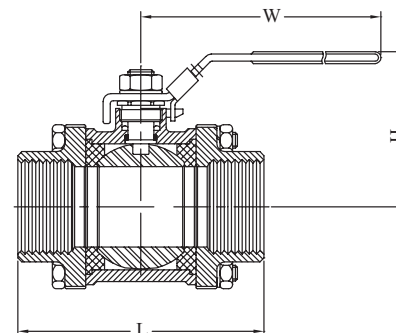
Stainless Steel Ball Valve (2 PCE Full Bore)							
AAP CODE	IMPERIAL SIZE	L	H	W	TORQUE INCH/LBS	APPROX. KG/PC	
SS2BV08	1/4	48	48	100	36	0.18	
SS2BV10	3/8	48	48	100	36	0.19	
SS2BV15	1/2	58	52	100	43	0.26	
SS2BV20	3/4	65.7	61	127	65	0.4	
SS2BV25	1	77	65	127	101	0.59	
SS2BV32	1 1/4	90	79	154	158	1	
SS2BV40	1 1/2	98	83	154	187	1.32	
SS2BV50	2	121	97	192	230	2.46	
SS2BV65	2 1/2	145	135	244	430	4.83	
SS2BV80	3	166	144	244	1380	7.45	

### Stainless Steel Ball Valve (3 PCE) - Maxiflo

MATERIAL LIST	
PART	MATERIAL
Body	CF8M
Ball	316 Stainless Steel
Seat	Teflon (PTFE)
Stem	316 Stainless Steel
Lever	316 Stainless Steel with Locking Device

SPECIFICATIONS	
Thread	AS1722.1
Max Working Temperature	180°C
Cold Working Pressure	6895kPa

Applications - For air, water, Hot/Cold corrosive fluids in harsh environments



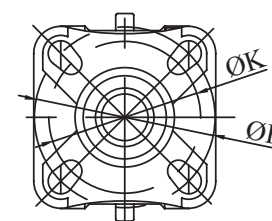
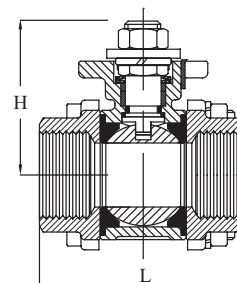
Stainless Steel Ball Valve (3 PCE FULL BORE)						
AAP CODE	IMPERIAL SIZE	L	H	W	TORQUE INCH/LBS	APPROX. KG/PC
SS3BV08	1/4	50	48	100	40	0.29
SS3BV10	3/8	50	48	100	40	0.29
SS3BV15	1/2	63.4	52	100	43	0.39
SS3BV20	3/4	71	61	127	65	0.61
SS3BV25	1	80.6	65	127	101	0.86
SS3BV32	1 1/4	94	79	154	158	1.37
SS3BV40	1 1/2	104	83	154	187	2.04
SS3BV50	2	126.4	97	192	230	3.74
SS3BV65	2 1/2	160	135	244	430	6.44
SS3BV80	3	179.5	144	244	1380	10.20
SS3BV100	4	220	157	280	2400	20.49

### Stainless Steel Ball Valve (3 PCE) C/W Actuator Mounting Pad (ISO5211)

MATERIAL LIST	
PART	MATERIAL
Body	CF8M
Ball	316 Stainless Steel
Seat	Teflon (PTFE)
Stem	316 Stainless Steel

SPECIFICATIONS	
Thread	AS1722.1
Max Working Temperature	180°C
Cold Working Pressure	6895kPa

Applications - For air, water, Hot/Cold corrosive fluids in harsh environments



Stainless Steel Ball Valve (3 Piece) C/W Mounting Pad						
AAP CODE	IMPERIAL SIZE	L	H	ØK	ØF	APPROX. KG/PC
SS3BV15MP	1/2	55	58.8	42	42	0.44
SS3BV20MP	3/4	73.6	64.7	42	50	0.83
SS3BV25MP	1	81	67.4	42	50	1.04
SS3BV32MP	1 1/4	91	80	50	70	1.84
SS3BV40MP	1 1/2	103	95.5	50	70	2.48
SS3BV50MP	2	120	93	50	70	3.57
SS3BV65MP	2 1/2	155	140.4	70	102	8.67
SS3BV80MP	3	182	151.5	70	102	12.6
SS3BV100MP	4	218.4	165	70	102	19.65

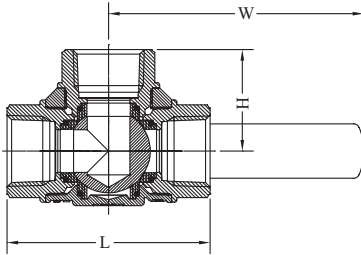
Stainless Steel 3 Way Ball Valve



MATERIAL LIST	
PART	MATERIAL
Body	CF8M
Ball	316 Stainless Steel
Seat	Teflon (PTFE)
Stem	316 Stainless Steel

SPECIFICATIONS	
Thread	AS1722.1
Max Working Temperature	180°C
Cold Working Pressure	6895kPa

Applications - For air, water, Hot/Cold corrosive fluids in harsh environments



Stainless Steel 3 Way Ball Valve (L Port)					
AAP CODE	IMPERIAL SIZE	L	H	W	APPROX. KG/PC
SS3WAY08L	1/4	71.5	53	125	0.67
SS3WAY10L	3/8	71.5	53	125	0.64
SS3WAY15L	1/2	71.5	53	125	0.59
SS3WAY20L	3/4	81	60	125	0.76
SS3WAY25L	1	91	68	153	1.11
SS3WAY32L	1 1/4	102	80	153	1.33
SS3WAY40L	1 1/2	112	95	195	2.02
SS3WAY50L	2	154	120	195	4.75

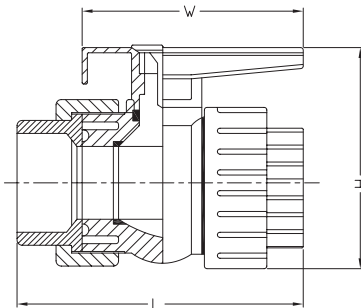
PVC Double Union Ball Valves



Material List	
PART	MATERIAL
Body	UPVC
Seal Seat	PTFE
Ball	UPVC
Handle	ABS
O' Ring	VITON

Specifications	
Thread	AS1722.1
Max Working Temperature	60°C
Cold Working Pressure	150psi

Applications - Water, Weak acids and alkaline solutions, some corrosive liquids.  
(Consult Chemical Chart for suitability)



PVC Double Union Ball Valves					
AAP CODE	IMPERIAL SIZE	L	H	W	APPROX. KG/PC
SCREWED (BSP)					
VPVCDU15	1/2	101.8	41.5	75	0.15
VPVCDU20	3/4	118.0	51.5	88	0.22
VPVCDU25	1	141.0	63.4	105	0.38
VPVCDU32	1 1/4	149.6	67.2	109	0.52
VPVCDU40	1 1/2	176.0	81.0	131	0.83
VPVCDU50	2	191.6	91.0	143	1.21



## PVC Ball Valves

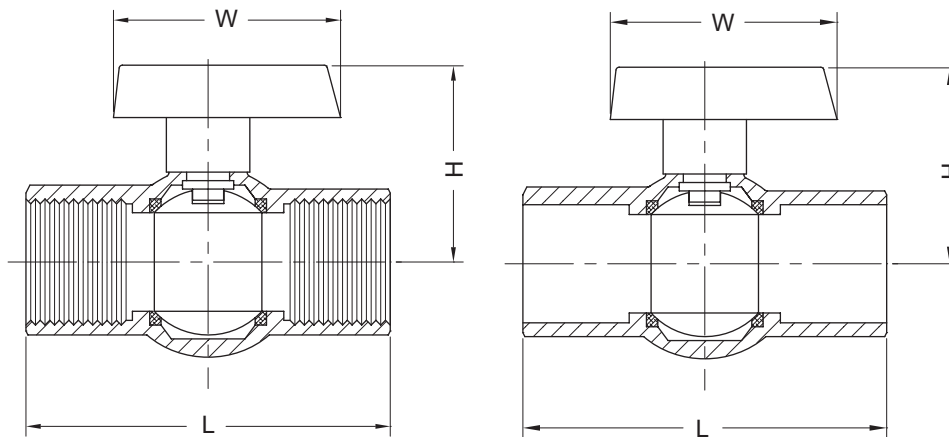
Material List	
PART	MATERIAL
Body	ABS
Seal Seat	ABS
Ball Stem	NBR
O' Ring	PVC, CPVP, ABS
Handle	EPDM
Cap	PVC, CPVC, ABS

Specifications	
Thread	AS1722.1
Max Working Temperature	120°C
Cold Working Pressure	800kPa

Applications - Agriculture, turf and home watering systems



PVC Ball Valves						
AAP CODE		IMPERIAL SIZE	L	H	W	APPROX. KG/PC
SCREWED	SOCKET					
VPVC15	VPVC15S	1/2	80	46.5	70	0.06
VPVC20	VPVC20S	3/4	92	52	77	0.09
VPVC25	VPVC25S	1	98	65	101	0.14
VPVC32	VPVC32S	1 1/4	113	72.5	110	0.27
VPVC40	VPVC40S	1 1/2	131	73.5	110	0.37
VPVC50	VPVC50S	2	149	89	141	0.59
VPVC80		3	229	124	224	1.97
VPVC94		4	300	148	276	3.84



3 PCE Class 800 Fire Safe Ball Valve - Stainless 316 & Carbon Steel

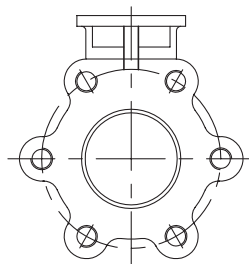


Specifications	
Thread (NPT)	ANSI B1.20.1
Cold Working Pressure	2000 PSI (13'789 kPa)
Max Working Temperature	200°C
Mounting Pad *	ISO 5211
Inspection and Testing	API 598
Face to Face/End to End	ASME B16.10

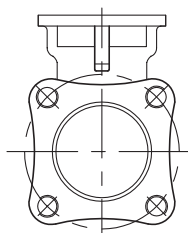
\* 1/4" - 1/2" Not Direct Mounting

Applications - W.O.G

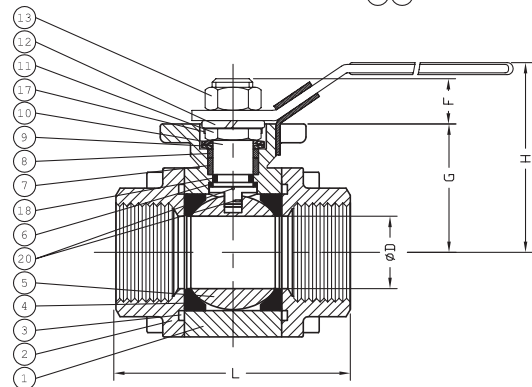
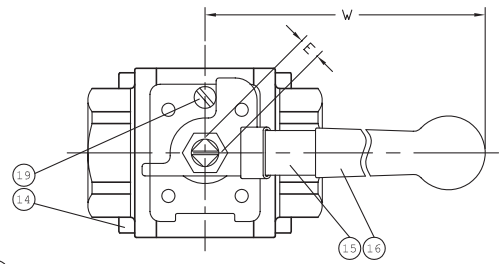
Material List			
NO.	PART	STAINLESS STEEL	CARBON STEEL
1	Body	ASTM A351 CF8M	ASTM A216 WCB
2	End Cap	ASTM A351 CF8M	ASTM A216 WCB
3	Ball	ASTM A351 CF8M/316	ASTM A351 CF8M/316
4	Seat	PTFE	PTFE
5	Gasket	PTFE	PTFE
6	Thrust Washer	PTFE	PTFE
7	Stem Packing	Graphite	Graphite
8	Gland	AISI 304	AISI 304
9	Belleville Washer	AISI 304	AISI 304
10	Stem	ASTM A276 316	ASTM A276 316
11	Packing Nut	AISI 304	AISI 304
12	Spring Washer	AISI 304	AISI 304
13	Handle Nut	AISI 304	AISI 304
14	Bolt	ASTM A193 B8	ASTM A193 B7
15	Handle	AISI 304	Zinc Plated Steel
16	Handle Grip	Vinil Plastisol	Vinil Plastisol
17	Lock Saddle	AISI 304	AISI 304
18	O-Ring	Viton	Viton
19	Stopper Nut	AISI 304	Carbon Steel
20	Anti-Static Device	AISI 304	AISI 304



Full Port 2"



Full Port 1/4"-1 1/2"



### 3 PCE Class 800 Fire Safe Ball Valve - Stainless 316 & Carbon Steel (cont)

Stainless 316 and Carbon Steel 3 PCE Class 800 Fire Safe Ball Valve											
AAP CODE		IMPERIAL SIZE	D	L	E	F	G	H	W	ISO 5211	APPROX KG/PC
STAINLESS STEEL	CARBON STEEL										
VBSS800FS08		1/4	11.0	65	9.0	8.0	37.5	70	140	F04	1.1
VBSS800FS10		3/8	11.0	65	9.0	8.0	37.5	70	140	F04	1.1
VBSS800FS15	VBSFS15	1/2	14.0	75	9.0	8.0	37.5	70	140	F04	1.1
VBSS800FS20	VBSFS20	3/4	20.5	80	11.0	11.0	52.0	90	180	F04-F05	1.6
VBSS800FS25	VBSFS25	1	25.0	90	11.0	11.0	60.0	100	180	F04-F05	2.2
VBSS800FS32	VBSFS32	1 1/4	31.5	110	14.0	17.0	72.0	112	215	F07	3.3
VBSS800FS40	VBSFS40	1 1/2	37.0	120	14.0	17.0	76.0	115	215	F07	4.6
VBSS800FS50	VBSFS50	2	50.0	140	14.0	17.0	93.0	133	215	F07	7.3

### Carbon Steel Flanged Firesafe Ball Valve ANSI 150

Material List		
NO.	PART	MATERIAL
1	Body	ASTM A216 WCB
2	Ball	ASTM A351 CF8M(316)
3	Stem	SS316
4	End Cap	ASTM A216 WCB
5	Body Seal	Graphite
6	Seat	RTFE
7	Thrust Washer	PTFE
8	Stem Packing	Graphite
9	Thrust Washer	RTFE
10	Gland	SS304
11	Handle	SS304
12	Handle Cover	Plastic
13	Stem Nut	SS304
14	Handle Washer	SS304
15*	Handle Nut	SS304
16*	Locking Pad	SS304
17	Belleville Washer	SS304
18	Stop Washer	SS304
19	Stem O-Ring	VITON
20	Stop	SS304
21	Stud	ASTM A193 Gr. B8
22	Nut	ASTM A194 Gr. 8
23	Thrust Washer	Graphite
24**	Triangle Stopper	SS304
25**	Bolt	SS304
26**	Handle Adapter	SS304

Specifications	
Flange Dimensions	ASME B16.5
Face to Face Dimensions	ASME B16.10
MAX Working Temperature	200°C
Cold Working Pressure	1960KPa

Applications - Refinery, Chemical, Petrochemical, Pharmaceutical Power

Operating Torque		
SIZE (in)	N.m	Ft/Lbs
1/2	12	8.9
3/4	15	11.1
1	20	14.8
1 1/2	30	22.1
2	50	36.9
2 1/2	65	47.9
3	95	70.1
4	125	92.2
6	235	173.3

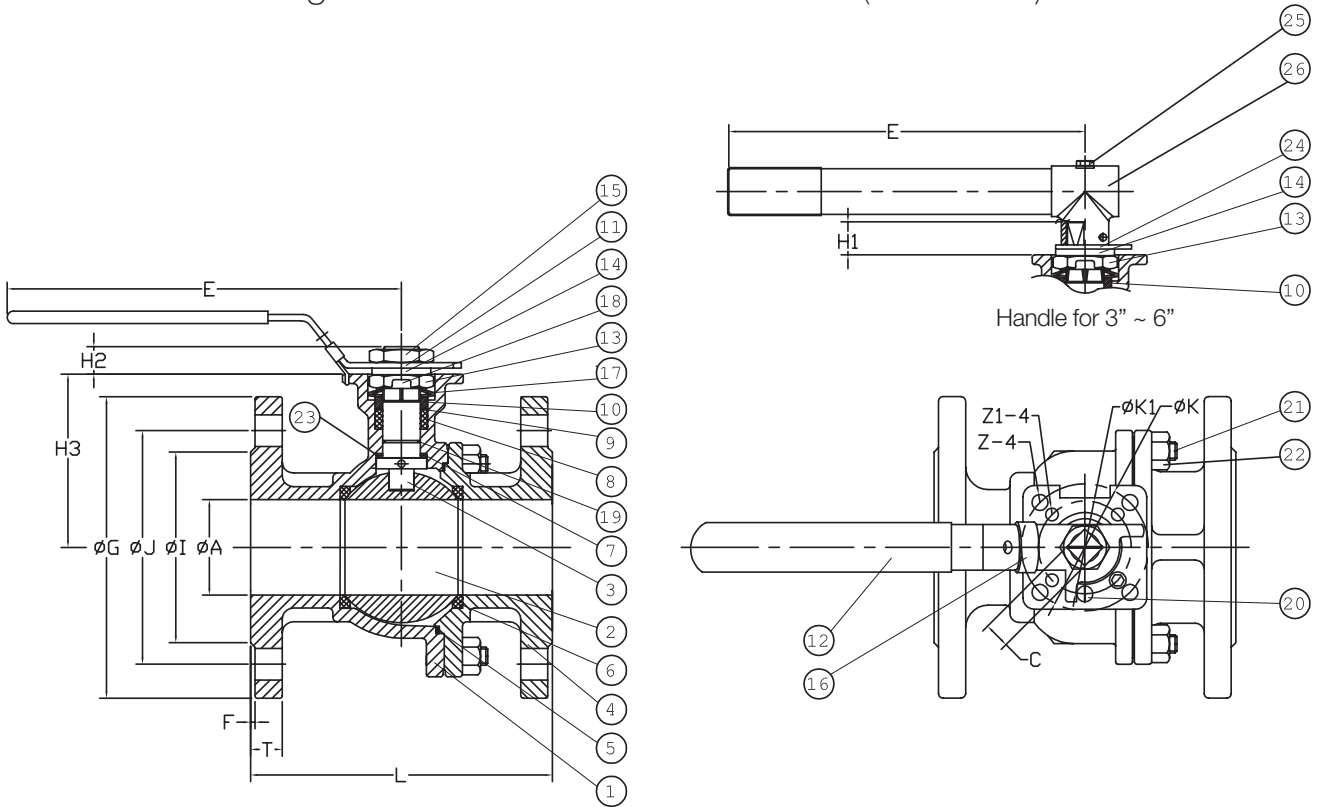
\* Torque Figures are net without safety factors



\* Up to 65 mm valves \*\* From 80 mm valves



Carbon Steel Flanged Firesafe Ball Valve ANSI 150 (continued)



Carbon Steel Full Bore Fire Safe Ball Valve Class 150

AAP CODE	IMPERIAL SIZE	L	A	E	H1	H2	H3	C	G	J
VBS150FS25	1	127	25	136	-	11.4	64.0	11.0	108.0	79.2
VBS150FS40	1 1/2	165	38	198	-	14.0	76.0	14.0	127.0	98.6
VBS150FS50	2	178	50	198	-	14.0	84.5	14.0	152.5	120.7
VBS150FS65	2 1/2	190	63	265	-	18.0	106.8	17.0	177.8	139.7
VBS150FS80	3	203	80	265	-	18.0	116.0	17.0	190.5	152.4
VBS150FS94	4	229	98	325	-	18.0	154.5	17.0	228.6	190.5
VBS150FS96	6	394	150	800	30.0	-	213.0	27.0	279.4	241.3

Carbon Steel Full Bore Fire Safe Ball Valve Class 150

AAP CODE	I	T	F	K	K1	Z-4	Z1-4	NUMBER HOLES	HOLE DIAMETER	APPROX KG/PC
VBS150FS25	51.0	14.3	1.6	50.0	36.0	7.0	6.0	4	16	3.8
VBS150FS40	73.2	17.5	1.6	70.0	50.0	9.0	7.0	4	16	6.3
VBS150FS50	92.0	19.1	1.6	70.0	50.0	9.0	7.0	4	19	8.6
VBS150FS65	104.7	23.3	1.6	102.0	70.0	11.0	9.0	4	19	14.5
VBS150FS80	127.0	23.9	1.6	102.0	70.0	11.0	9.0	4	19	17.2
VBS150FS94	157.2	23.9	1.6	102.0	70.0	11.0	9.0	8	19	27.3
VBS150FS96	216.0	25.4	1.6	125.0	-	14.0	-	8	22	77.0

### 316 Stainless Steel Flanged Firesafe Ball Valve ANSI 150

Material List		
NO.	PART	MATERIAL
1	Body	ASTM A351 CF8M
2	Ball	ASTM A351 CF8M (SS316)
3	Stem	SS316
4	End Cap	ASTM A351 CF8M
5	Body Seal	Graphite
6	Seat	RTFE
7	Thrust Washer	PTFE
8	Stem Packing	Graphite
9	Thrust Washer	RTFE
10	Gland	SS304
11	Handle	SS304
12	Handle Cover	Plastic
13	Stem Nut	SS304
14	Handle Washer	SS304
15*	Handle Nut	SS304
16*	Locking Pad	SS304
17	Belleville Washer	SS304
18	Stop Washer	SS304
19	Stem O-Ring	VITON
20	Stop	SS304
21	Stud	ASTM A193 Gr. B8
22	Nut	ASTM A194 Gr. 8
23	Thrust Washer	Graphite
24**	Triangle Stopper	SS304
25**	Bolt	SS304
26**	Handle Adapter	SS304

Specifications	
Flange Dimensions	ASME B16.5
Face to Face Dimensions	ASME B16.10
MAX Working Temperature	200°C
Cold Working Pressure	1960KPa

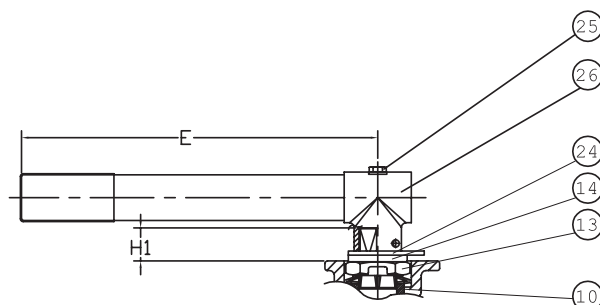
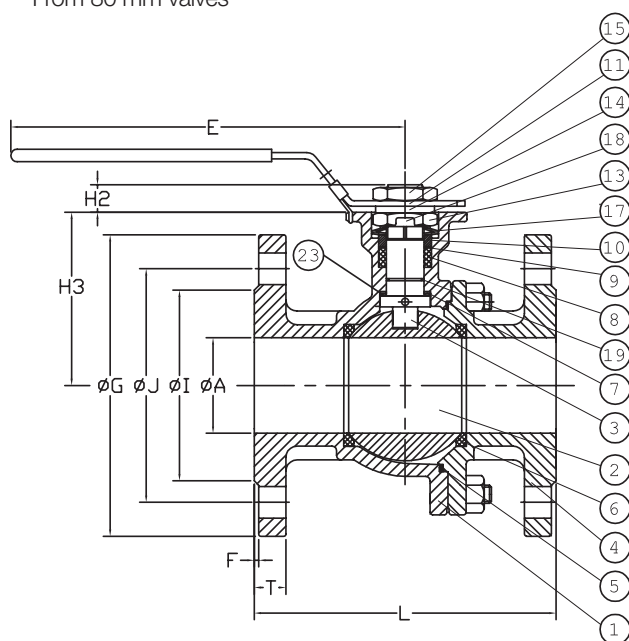
Applications - Refinery, Chemical, Petrochemical, Pharmaceutical Power

Operating Torque		
SIZE (in)	N.m	Ft/Lbs
1/2	12	8.9
3/4	15	11.1
1	20	14.8
1 1/2	30	22.1
2	50	36.9
2 1/2	65	47.9
3	95	70.1
4	125	92.2
6	235	173.3

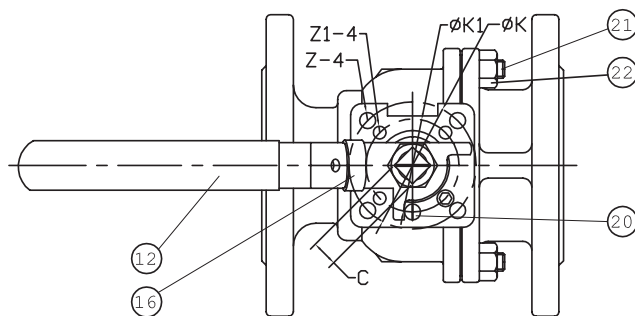
\*Torque Figures are net without safety factors



\* Up to 65 mm valves  
 \*\* From 80 mm valves



Handle for 3" ~ 6"



316 Stainless Steel Flanged Firesafe Ball Valve ANSI 150 (continued)

316 Stainless Steel Full Bore Fire Safe Ball Valve Class 150										
AAP CODE	IMPERIAL SIZE	L	A	E	H1	H2	H3	C	G	J
VBSS150FS25	1	127	25	136	-	11.4	64.0	11.0	108.0	79.2
VBSS150FS40	1 1/2	165	38	198	-	14.0	76.0	14.0	127.0	98.6
VBSS150FS50	2	178	50	198	-	14.0	84.5	14.0	152.5	120.7
VBSS150FS65	2 1/2	190	63	265	-	18.0	106.8	17.0	177.8	139.7
VBSS150FS80	3	203	80	265	-	18.0	116.0	17.0	190.5	152.4
VBSS150FS94	4	229	98	325	-	18.0	154.5	17.0	228.6	190.5
VBSS150FS96	6	394	150	800	30.0	-	213.0	27.0	279.4	241.3

316 Stainless Steel Full Bore Fire Safe Ball Valve Class 150										
AAP CODE	I	T	F	K	K1	Z-4	Z1-4	NUMBER HOLES	HOLE DIAMETER	APPROX KG/PC
VBSS150FS25	51.0	14.3	1.6	50.0	36.0	7.0	6.0	4	16	3.8
VBSS150FS40	73.2	17.5	1.6	70.0	50.0	9.0	7.0	4	16	6.3
VBSS150FS50	92.0	19.1	1.6	70.0	50.0	9.0	7.0	4	19	8.6
VBSS150FS65	104.7	23.3	1.6	102.0	70.0	11.0	9.0	4	19	14.5
VBSS150FS80	127.0	23.9	1.6	102.0	70.0	11.0	9.0	4	19	17.2
VBSS150FS94	157.2	23.9	1.6	102.0	70.0	11.0	9.0	8	19	27.3
VBSS150FS96	216.0	25.4	1.6	125.0	-	14.0	-	8	22	77.0

Carbon Steel Flanged Firesafe Ball Valve ANSI 300



Material List		
NO.	PART	MATERIAL
1	Body	ASTM A216 WCB
2	Ball	ASTM A351 CF8M (SS316)
3	Stem	SS316
4	End Cap	ASTM A216 WCB
5	Body Seal	Graphite + 50% 316
6	Seat	RTFE
7	Thrust Washer	Graphite
8	Stem Packing	Graphite
9	Stem Packing	PTFE
10	Gland	SS304
11	Handle (C150)	SS304
12	Handle Cover	Plastic
13	Stem Nut	SS304
14	Handle Washer	SS304
15	Handle Nut	SS304
16	Locking Pad	SS304
17	Belleville Washer	SS304
18	Stop Washer	SS304
19	Stem O-Ring	VITON
20	Stop	SS304
21	Stud	ASTM A193 Gr. B8
22	Nut	ASTM A194 Gr. 8
23	Thrust Washer	PTFE

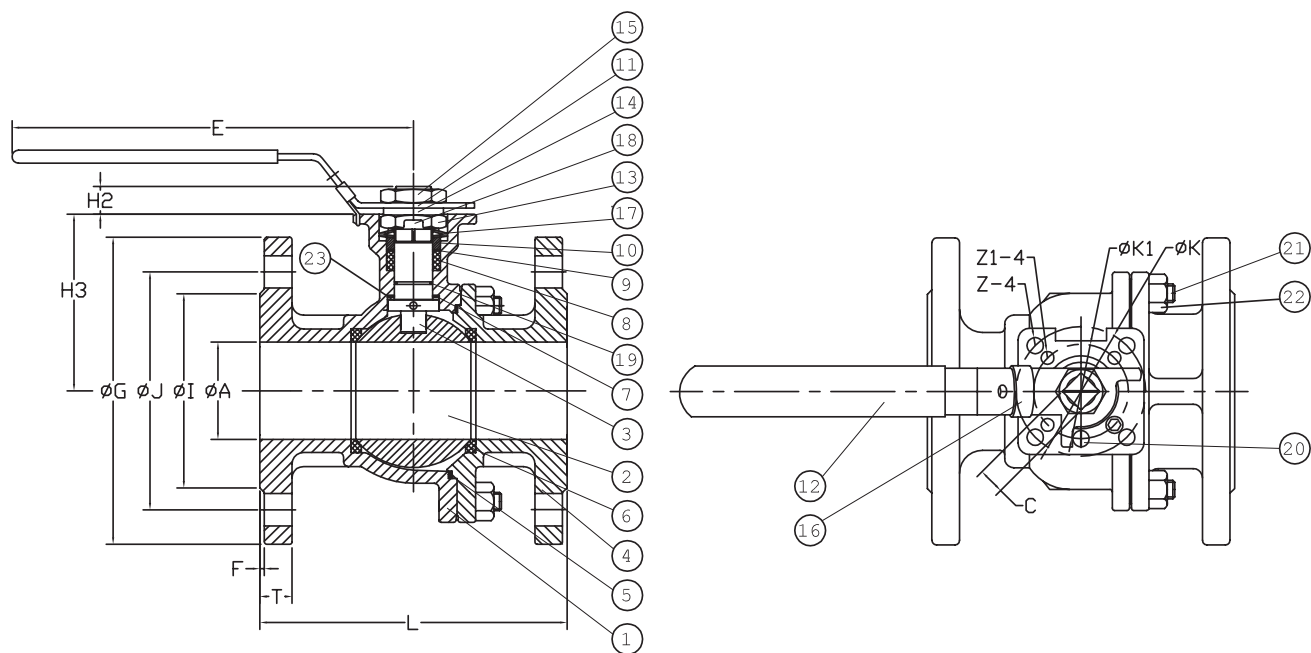
Specifications	
Flange Dimensions	ASME B16.5
Face to Face Dimensions	ASME B16.10
MAX Working Temperature	200°C
Cold Working Pressure	5100KPa

Applications - Refinery, Chemical, Petrochemical, Pharmaceutical Power

Operating Torque		
SIZE (in)	N.m	Ft/Lbs
1/2	12	8.9
3/4	15	11.1
1	22	16.2
1 1/2	35	25.8
2	57	42.0
2 1/2	72	53.1
3	105	77.4
4	135	99.6
6	250	184.4

Torque Figures are net without safety factors

Carbon Steel Flanged Firesafe Ball Valve ANSI 300 (continued)



Carbon Steel Full Bore Fire Safe Ball Valve Class 300											
AAP CODE	IMPERIAL SIZE	L	A	E	H2	H3	C	G	J	I	T
VBS300FS15	1/2	140	15	112	8.5	48.0	9	95.3	66.5	35.0	14.3
VBS300FS20	3/4	152	20	112	8.5	62.0	9	117.4	82.6	43.0	15.9
VBS300FS25	1	165	25	136	11.4	64.0	11	124.0	88.9	51.0	17.5
VBS300FS40	1 1/2	190	38	198	14.0	76.0	14	155.5	114.3	73.2	20.6
VBS300FS50	2	216	50	198	13.7	84.5	14	165.1	127.0	92.0	22.4
VBS300FS65	2 1/2	241	64	265	18.0	106.8	17	190.5	149.4	104.7	25.4
VBS300FS80	3	283	76	265	18.0	116.0	17	209.6	168.1	127.0	28.6
VBS300FS94	4	305	100	325	18.0	154.5	17	254.0	200.2	157.2	31.8

Cast Steel Full Bore Fire Safe Ball Valve Class 300										
AAP CODE	F	K		K1		Z-4	Z1-4	NUMBER HOLES	HOLE DIAMETER	APPROX KG/PC
VBS300FS15	1.6	50	F05	36	F03	7.0	6.0	4	16	2.5
VBS300FS20	1.6	50	F05	36	F03	7.0	6.0	4	19	3.9
VBS300FS25	1.6	50	F05	36	F03	7.0	6.0	4	19	4.8
VBS300FS40	1.6	70	F07	50	F05	9.0	7.0	4	22	9.7
VBS300FS50	1.6	70	F07	50	F05	9.0	7.0	8	22	12
VBS300FS65	1.6	102	F10	70	F07	11.0	9.0	8	22	18
VBS300FS80	1.6	102	F10	70	F07	11.0	9.0	8	22	25
VBS300FS94	1.6	102	F10	70	F07	11.0	9.0	8	22	38