

600WOG / 150WSP Full Port Two-piece Brass Ball Valves

Super Z

Fig.

SZA (for BS21 threaded ends)

AKSZA [Code#58] (for NPT threaded ends - ASME B 1.20.1)



CSZA [Code#59] (for solder joint ends - ASME B 16.18)



Features

- All sizes rated 600 WOG / 150 WSP (400WOG for 4")
- Conforms to specification of MSS-SP-110 (AKSZA / CSZA)
- Maintenance Free, Double "O"-ring stem seal and PTFE seats
- Two-piece construction with a chrome plated brass ball
- Blowout - proof stem
- Quick quarter-turn for easy operation
- Three types of end connection design
 - BS21 threaded end connection
 - NPT threaded end connection
 - Solder joint end connection

Approvals

● AKSZA (1/4" through 2")



CSA : 1/2 psig at the appliance
CSA : 5 psig from the appliance to the meter
CSA : 125 psig from the meter to the street

● AKSZA / CSZA (1/4" through 2")



UL / FM : for fire protection

Note : CSA-Canadian Standards Association
 Consolidation of the American Gas Association (AGA) and the Canadian Gas Association (CGA)
 UL - Underwriters Laboratories
 FM - Factory Mutual

Application

Water, Oil, Gas, and Steam

Maximum Working Pressure

Unit	Working Pressure Non-Shock			Test Pressure		
	Saturated Steam	Cold Water, Oil, Gas		Shell (Hydrostatic)		Seat (Air)
		1/4"~3"	4"	1/4"~3"	4"	
psi	150	600	400	900	600	80
MPa	0.98	4.12	2.75	6.18	4.12	0.59
Bar	9.8	41.2	27.5	61.8	41.2	5.9
kgf/cm ²	10	42	28	63	42	6

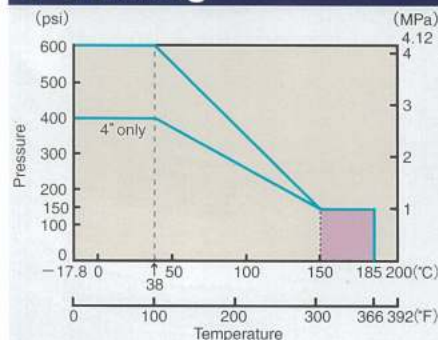
● Note : For more details, please refer to P-T rating chart.

Effective Length of Thread

Size	unit : mm (inch)						
	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"
Super Z	8.5 (0.335)	9 (0.354)	12 (0.472)	13 (0.512)	15.5 (0.610)	16.5 (0.650)	16.5 (0.650)
ZA/AKZA	7.5 (0.295)	8 (0.315)	10 (0.394)	11 (0.433)	12 (0.472)	13 (0.512)	14 (0.552)

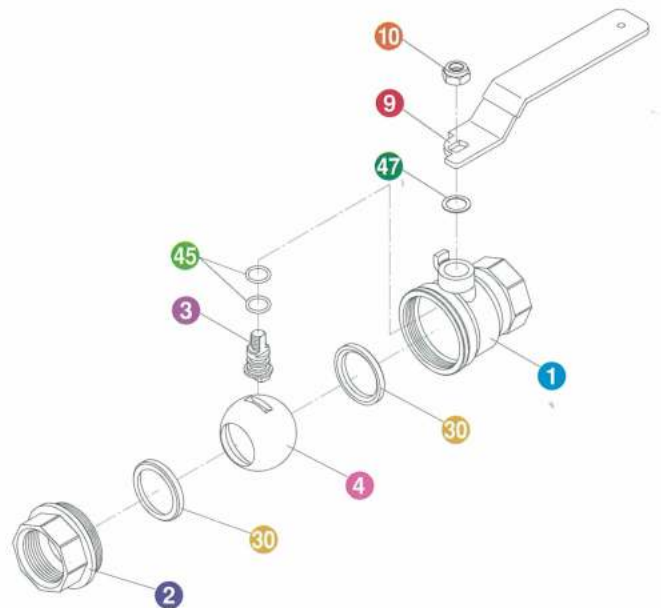
Size	unit : mm (inch)			
	2"	2 1/2"	3"	4"
Super Z	19.5 (0.768)	22.0 (0.866)	25.0 (0.984)	30.0 (1.181)
ZA/AKZA	16.5 (0.650)	—	—	—

P-T Rating



★ Advisory Note :
 • Please be advised that applications in the shaded zone will reduce the service life of the valve.
 • The maximum working pressure and temperature of solder jointed valves are limited by the properties of solder and tube materials. Information on typical solder materials are provided on the back cover of this catalog.

Construction and Materials



* Illustration shows threaded ends design up to 2".



No.	Parts	Q' TY	Materials (ASTM)
1	Body	1	Forged Brass (B263 No. C37700)/Cast Bronze (B584 No. C84400) ★1
2	Body Cap	1	Forged Brass (B263 No. C37700)/Cast Bronze (B584 No. C84400) ★1
3	Stem	1	Brass Rod (B16) ★2
4	Ball	1	Forged Brass (B263 No. C37700) ★3 / Cast Brass ★3 ★4
9	Handle	1	Carbon Steel ★4 / Ductile Iron ★5
10	Handle Nut	1	Carbon Steel
30	Ball Seat	2	PTFE
45	O-ring	2	FPM ★6
47	Thrust Washer	1	PBT ★7 / PTFE ★8

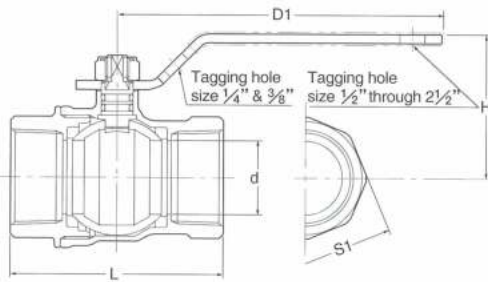
Note:
 ★1 2 1/2" through 4" ★5 3" and 4"
 ★2 Ni plating ★6 Fluorocarbon Elastomer
 ★3 Cr plating ★7 Polybutylene Terephthalate
 ★4 Plastic covering ★8 2 1/2" and up





Dimensions and Cv Value

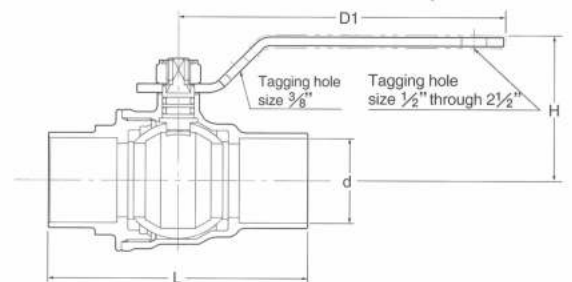
Threaded Ends Design

Fig. **SZA** : BS21 thread
AKSZA : NPT thread  
 [Code#58]



Solder Joint Ends Design

Fig. **CSZA** : Solder joint  
 [Code#59]



Nominal size	d		H		D1		L		S1		Cv Value
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	
1/4	10	0.39	37	1.46	70	2.76	42	1.65	20	0.79	4.2
3/8	10	0.39	37	1.46	70	2.76	42	1.65	22	0.87	7.6
1/2	15	0.59	40	1.57	80	3.15	53	2.08	26	1.02	20.0
3/4	20	0.79	43	1.69	80	3.15	60	2.36	32	1.26	29.0
1	25	0.98	49	1.97	110	4.33	72	2.83	39	1.54	40.0
1 1/4	32	1.26	55	2.16	110	4.33	84	3.31	48	1.89	85.0
1 1/2	40	1.57	64	2.52	150	5.90	92	3.62	55	2.17	145.0
2	50	1.97	72	2.83	150	5.90	110	4.33	68	2.68	210.0
2 1/2	65	2.56	101	3.98	200	7.87	138	5.43	84	3.31	405.0
3	76	2.99	112	4.42	300	11.81	167	6.57	99	3.90	615.0
4	100	3.94	131	5.15	300	11.81	193	7.60	125	4.92	1150.0

Nominal size	d		H		D1		L		Cv Value
	mm	inch	mm	inch	mm	inch	mm	inch	
3/8	10	0.39	37	1.46	70	2.76	42	1.65	7.6
1/2	15	0.59	40	1.57	80	3.15	53	2.08	20.0
3/4	20	0.79	43	1.69	80	3.15	60	2.36	29.0
1	25	0.98	50	1.97	110	4.33	72	2.83	40.0
1 1/4	32	1.26	55	2.16	110	4.33	84	3.31	85.0
1 1/2	40	1.57	64	2.52	150	5.90	92	3.62	145.0
2	50	1.97	72	2.83	150	5.90	110	4.33	210.0
2 1/2	65	2.56	101	3.98	200	7.87	164	6.45	405.0
3	76	2.99	112	4.42	300	11.81	187	7.38	615.0