



# SERIES S900

Three-Piece Ball Valve



### INTRODUCTION

The Series S900 is a direct-mount, three-piece, full-bore ball valve designed to provide a reliable and cost-effective solution for flow shut-off in industrial applications. Ideal for use with liquids, gases, vapors, and oils, it features a swing-out design that simplifies in-line maintenance, allowing efficient replacement of body seals without full disassembly. Additionally, live-loaded stem packing enhances durability and ensures consistent performance by compensating for wear and pressure fluctuations.

### TECHNICAL SUMMARY

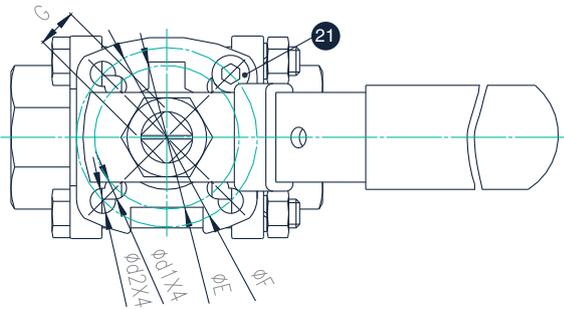
SIZE RANGE	Full Port 1/4" ~ 4" ( DN 8 TO 100 )
PRESSURE RATING	1/4" ~ 2" 1000 WOG 2-1/2" ~ 4" 800 WOG
END CONNECTIONS	Threaded, Butt Weld, Socket Weld, Flanged, Tube Butt Weld
VALVE TYPE	Full Bore
BODY & END CAP MATERIAL ( ASTM )	CF8M, CF3M, CF8, CF3, WCB
BODY & END CAP MATERIAL ( EN )	1.4408, 1.4409, 1.4308, 1.4309, 1.0619
SEAT MATERIAL	PTFE, RTFE, CTFE, TFM1600, MG1241, STFE
HANDLE TYPE	Flat ( with / without SR Lock ), Oval, Cast, T-Bar, Spring Return Safety (SRS) Handle, Economical Stem Extension
HANDLE MATERIAL	Flat, Oval, T-Bar - 304, 316, Cast - CF8, CF8M
V-PORT OPTION	Yes
WITH ANTI-STATIC DEVICE OPTION	Yes

### STANDARD OF COMPLIANCE

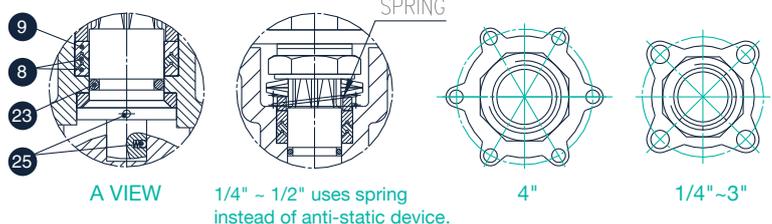
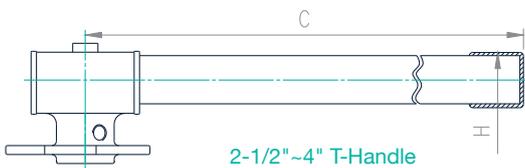
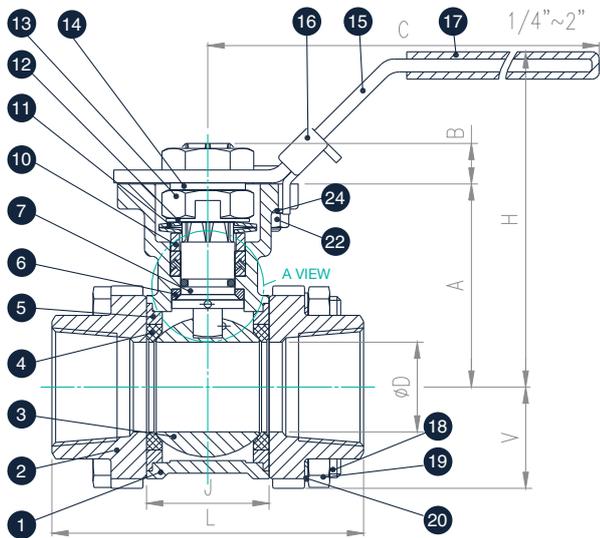
MATERIAL CERTIFICATION	EN 10204-3.1
THREADED END CONNECTIONS	NPT ASME B1.20.1 BSPP ISO 228-1 BSPT ISO 7-1 DIN 2999
SOCKET WELD END CONNECTIONS	ASME B16.11
BUTT WELD END CONNECTIONS	ASME B16.25
FLANGED END CONNECTIONS	EN 1092-1 PN 16 / PN 40 ASME B16.5 CLASS 150
PRESSURE TESTING	API 598
MOUNTING PAD	ISO 5211
MARKING	ISO 5209
CE APPROVAL	2014 / 68 / EU Module H
QUALITY ASSURANCE	ISO 9001:2015

CONSTRUCTION-BILL OF MATERIAL

SERIES S900  
1/4" ~ 4"



NO.	Parts	Material	Qty
1	Body	CF8M / WCB	1
2	End Cap	CF8M / WCB	2
3	Ball	SS316 / CF8M	1
4	Seat	RTFE	2
5	Joint Gasket	PTFE	2
6	Thrust Washer	RTFE	1
7	Stem	SS316	1
8	Gland Packing	PTFE	#
9	Gland Packing	25% GLASS FIBER FILED+PTFE	1
10	Gland Bush	SS304	1
11	Belleville Washer	SS301	2
12	Stop Washer	SS304	1
13	Stem Nut	SS304	2
14	Stem Washer	SS304	1
15	Handle	SS304	1
16	Locking Device	SS304	1
17	Handle Cover	VINYL	1
18	Bolt	SS304 / B7	*
19	Bolt Nut	SS304 / 2H	&
20	Blot Washer	SS304	&
21	Stop Pin	SS304	1
22	Pin Nut	SS304	1
23	O-Ring	VITON	1
24	Washer	SS304	1
25	Anti-static Device	SS316	@



# For 1/4"-2" 2pcs, 2-1/2"-4" 3pcs  
 \* For 1/4"-2"- 4pcs of bolts (single ended external thread)  
 \* For 2-1/2"-3"- 6pcs of bolts (double ended external thread)  
 \* For 4"- 6pcs of bolts (double ended external thread)  
 & For 1/4"-1-1/2"- 4pcs  
 & For 2"- When body and end cap were CF8M, 4pcs @For 3/4"-4"- 2pcs  
 & For 2"- When body and end cap were WCB, 8pcs @For 3/4"-4"- 2pcs  
 & For 2-1/2"-3"- 8pcs  
 & For 4"- 12pcs  
 \* & For 2"-4" - When body and end cap were CF8M, Bolts and Bolt Nuts are SS304.  
 \* & For 2"-4" - When body and end cap were WCB, Bolts are B7, Bolt Nuts are 2H.

DIMENSIONS(mm)

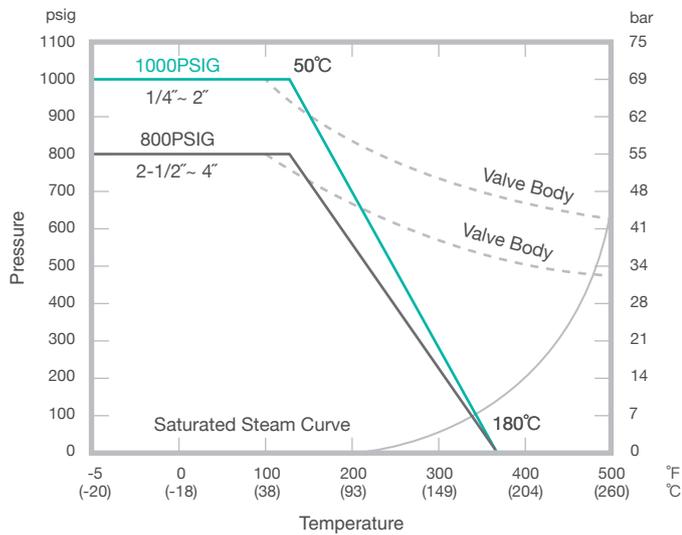
SIZE	øD	A	B	C	øE	øF	G	L	H	J	V	ød1	ød2	ISO5211
1/4"	11.6	42.1	6.1	139	36	42	9	63.7	77	23.6	23.6	6	6	FOR F03 / F04
3/8"	12.7	42.1	6.1	139	36	42	9	63.7	77	23.6	23.6	6	6	FOR F03 / F04
1/2"	15	42.1	6.1	139	36	42	9	65.7	77	23.6	23.6	6	6	FOR F03 / F04
3/4"	20	48	6.6	139	36	42	9	76.2	83	28	28	6	6	FOR F03 / F04
1"	25	56.6	10.9	165	42	50	11	86.2	96	33.9	33.9	6	7	FOR F04 / F05
1-1/4"	32	60.9	10.9	165	42	50	11	102.8	100	42.5	42.5	6	7	FOR F04 / F05
1-1/2"	38	77.5	13.9	215	50	70	14	119.4	127	53.2	53.2	7.5	9	FOR F05 / F07
2"	50	85.2	13.9	215	50	70	14	131.4	134	64.6	64.6	7.5	9	FOR F05 / F07
2-1/2"	65	108.7	16.8	300	70	102	17	164	167	87	87	10	12	FOR F07 / F10
3"	80	117.1	17.8	370	70	102	17	182.7	176	99	99	10	12	FOR F07 / F10
4"	100	132.55	17.8	370	70	102	17	235.6	192	127	127	10	12	FOR F07 / F10

**TECHNICAL DATA | Breakaway torque / Cv and Kv values / Weight**

Size	Torque		Cv values	Kv values (M <sup>3</sup> /h)	Weight (Kg)
	N.m	lbs.in			
1/4"	7	62	7	6	0.63
3/8"	7	62	8	7	0.63
1/2"	7	62	15	13	0.67
3/4"	8	71	40	34	0.82
1"	14	124	70	60	1.29
1-1/4"	17	151	110	94	1.94
1-1/2"	27	239	250	213	3.19
2"	33	292	430	366	4.64
2-1/2"	56	496	700	595	9.51
3"	85	753	1100	935	12.80
4"	114	1010	2000	1700	21.84

**TECHNICAL DATA | Pressure - Temperature diagram | 1/4" ~ 4"**

Full port  
 Seat material : PTFE / RTFE



**OPTIONAL ACCESSORIES**

**| Handle Options**



Oval Handle



Flat ( with / without Spring Return Lock )



Economical Stem Extension



Spring Return Safety (SRS) Handle  
Option : Fail Open / Fail Close assembly

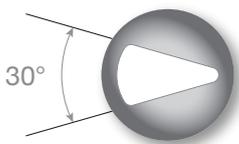


T-Bar Handle

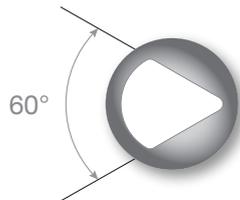


S.S Investment Casting Handle

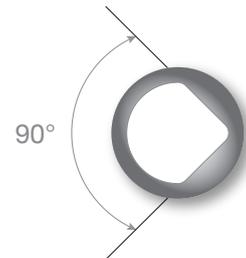
**| V-Port Ball**



30°



60°



90°

**| Accessories**



Actuator



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Established in 1992  
TAWD has dedicated over 30 years to  
manufacturing premium ball valves

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