



SERIES

S600/S604/S701
S704/S900/S904

Semiconductor Spec Valve



介紹

緯凡的高純度球閥 (HP Ball Valves) 專為半導體產業及資料中心的關鍵應用而設計，適用於對系統潔淨度、安全性及可靠性有高度要求的環境。

這些高純度 / 半導體用球閥適用於廣泛的高純度氣體及公用氣體系統，包括：

- 惰性氣體及大宗氣體供應系統
- 氧氣系統 (經氧氣等級清洗)
- 氮氣系統 (GN_2 / UN_2 應用)
- 化學品供應系統
- 真空製程管路
- CDA (Clean-Dry Air, 潔淨乾燥空氣) 系統
- OFA (Oil-Free Air, 無油空氣) 系統

針對氧氣潔淨應用所設計，這些閥門可確保在嚴格潔淨度要求的環境下維持無污染的運作性能，同時為製程關鍵應用及公用系統應用提供具成本效益的解決方案。

半導體規格閥門

衛生級球閥：Series S604-20 / Series S704-20 / Series S904-20

球閥：Series S600-70 / Series S701-70 / Series S900-70

- ISO 15848-1
- 低逸散

規格

尺寸範圍	Series S600-70 / Series S701-70 / Series S900-70 : 1/4"~4" Series S604-20 (Sanitary) / Series S704-20 (Sanitary) / Series S904-20 (Sanitary) : 1/2"~4"
壓力等級：	800, 1000, 1500, 2000 psi
閥體材質：	CF8, CF8M, CF3, CF3M (304 / 304L/ 316/ 316L) Request available on other alloys
溫度範圍：	-20°C ~ 180 °C (-4°F ~ 356°F)
側蓋種類：	SCH 5S 自動對接焊蓋 / SCH 10S 手動對接焊蓋 / Tube OD / Pipe ID / Pipe
密封等級：	氬氣洩漏率 $2.67 \times 10^{-5} \text{ mbar} \cdot \text{l} / (\text{s} \cdot \text{mm})$
清洗孔配置：	NPP, OPP, IOPP
鑄件規範：	符合 MSS-SP-55
內部表面粗糙度：	AP $R_a \leq 1.0 \mu\text{m}$ MP $R_a \leq 0.5 \mu\text{m}$ 機械拋光 EP $R_a \leq 0.2 \mu\text{m}$ 電解拋光
把手型式：	手柄及氣缸
防靜電裝置：	可選配

*如有認證需求，請註明所需項目：CE、SIL 3、ATEX、API 607、ISO 10497、FDA。



核心能力-無塵室



潔淨室級別規範

PIC/S GMP = 歐盟 GMP 系統標準

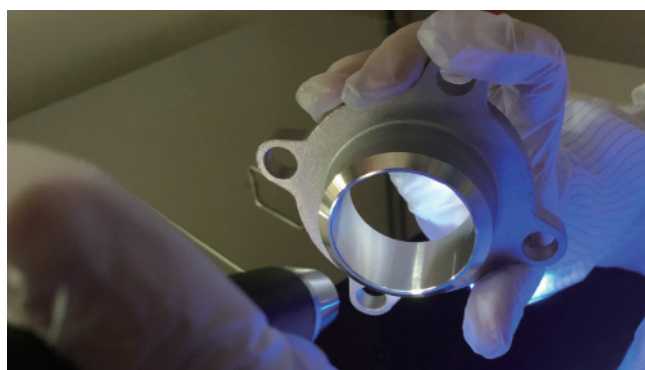
無塵室 : FED-STD-209E Class 10,000

真空包裝 : FED-STD-209E Class 100

ISO 14644-1 ISO 5級到 ISO 7級



無塵室包裝區



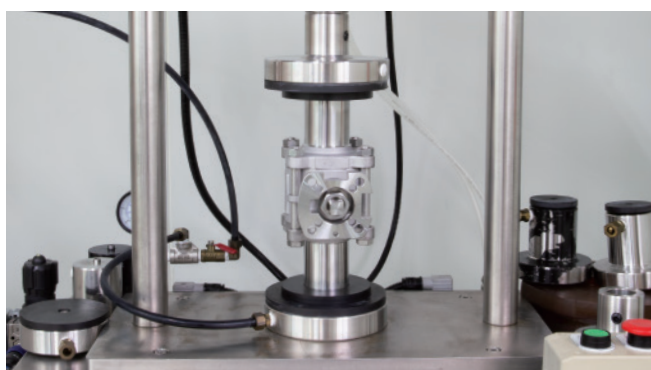
紫外線測試



真空包裝



無塵室生產線



ISO 15848-1 測試

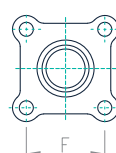
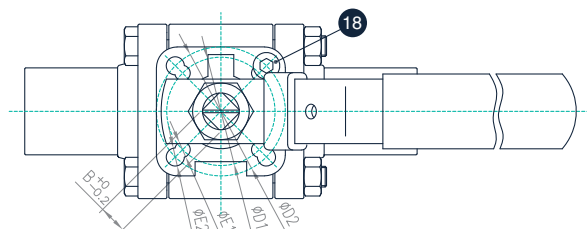
潔淨乾燥
空氣系統

超純水

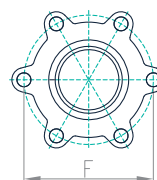
零組件清單 (BOM)

SERIES S600-70

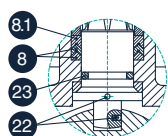
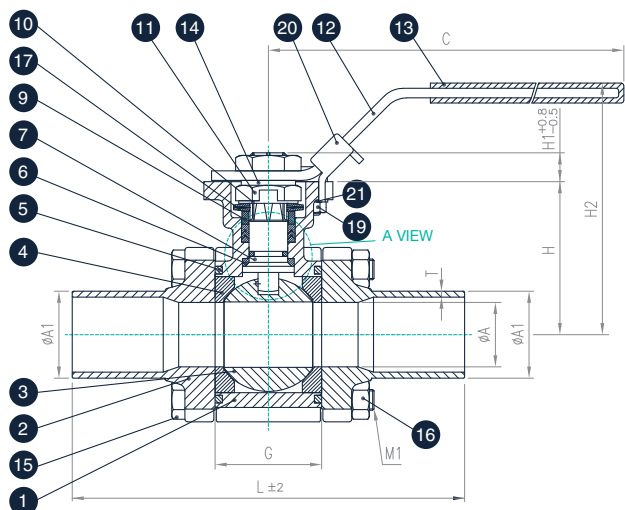
1/4"~ 2"



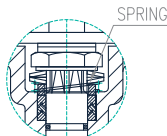
1/4"~ 1-1/2"



2"



A VIEW



PS : 1/4"~1/2" - Spring
1pcxAnti-static Device

NO.	Parts	Material	Qty
1	Body	CF8M	1
2	End Cap	CF3M	2
3	Ball	SS316 / CF8M	1
4	Seat	PTFE	2
5	Joint Gasket	PTFE	2
6	Stem seal	PTFE	1
7	Stem	SS316	1
8	Stem Packing	PTFE	1
8.1	Stem Packing	25% GLASS FIBER FIED + PTFE	1
9	Gland	SS304	1
10	Lock saddle	SS304	1
11	Stem Nut	SS304	2
12	Handle	SS304	1
13	Handle Sleeve	PLASTIC	1
14	Stem Washer	SS304	1
15	Bolt	SS304	*
16	Bolt Nut	SS304	*
17	Belleville Washer	SS301	2
18	Stop Pin	SS304	1
19	Pin Nut	SS304	1
20	Locking Device	SS304	1
21	Washer	SS304	1
22	Anti-static Device	SS316	@
23	O-RING	VITON	1

* 1/4"~ 1-1/2" 4pcs
* 2" 6pcs
@ 1/4"~ 1/2" 1pcs
@ 3/4"~ 2" 2pcs

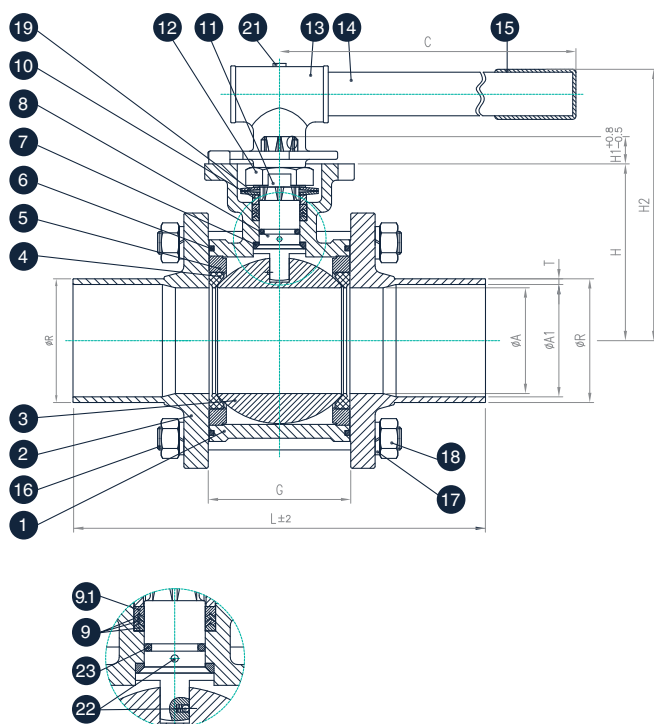
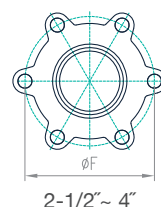
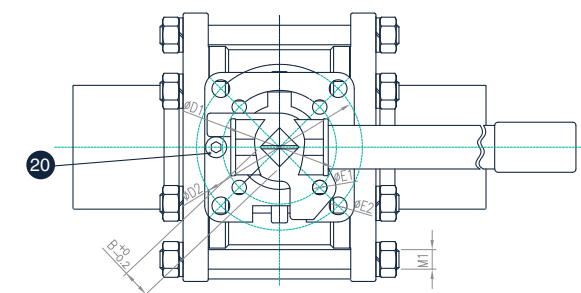
DIMENSIONS(mm)

SIZE	øA	øA1	B	C	øD1	øD2	øE1	øE2	F	G	H	H1	H2	T	L	M1	ISO5211
1/4"	10.3	13.5	9	139	36	42	6	6	38.2	24.5	42.6	7.6	77	1.6	120	M6	F03/F04
3/8"	12.6	17.2	9	139	36	42	6	6	38.2	24.5	42.6	7.6	77	1.6	120	M6	F03/F04
1/2"	15	21.3	9	139	36	42	6	6	38.2	24.5	42.6	7.6	77	1.6	140	M6	F03/F04
3/4"	20	26.9	9	139	36	42	6	6	44.3	31.4	46.85	8.6	82	1.6	140	M8	F03/F04
1"	25	33.7	11	165	42	50	6	7	50	41.3	59.3	10.4	98.5	2	152	M8	F04/F05
1-1/4"	32	42.4	11	165	42	50	6	7	57.2	48.4	62.6	10.4	102	2	165	M10	F04/F05
1-1/2"	38	48.3	14	215	50	70	7.5	9	66.6	56.3	79	13.4	128	2	190	M10	F05/F07
2"	50	60.3	14	215	50	70	7.5	9	114	71.4	87.7	13.4	137	2	203	M12	F05/F07

零組件清單 (BOM)

SERIES S600-70

2-1/2" ~ 4"



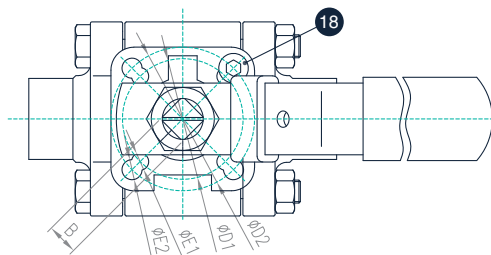
NO.	Parts	Material	Qty
1	Body	CF8M	1
2	End Cap	CF3M	2
3	Ball	CF8M	1
4	Seat	PTFE	2
5	Seat Ring	CF8M	2
6	Joint Gasket	PTFE	2
7	Stem seal	RTFE	1
8	Stem	SS316	1
9	Stem Packing	PTFE	3
9.1	Stem Packing	25% GLASS FIBER FILED + PTFE	1
10	Gland	SS304	1
11	Lock saddle	SS304	1
12	Stem Nut	SS304	1
13	Handle-A	SS304	1
14	Handle-B	SS304	1
15	Handle Sleeve	VINYL	1
16	Bolt	SS304	6
17	Bolt Washer	SS304	12
18	Bolt Nut	SS304	12
19	Belleville Washer	SS301	2
20	Stop Pin	SS304	1
21	Handle Screw	SS304	2
22	Anti-static Device	SS316	2
23	O-RING	VITON	1

DIMENSIONS(mm)

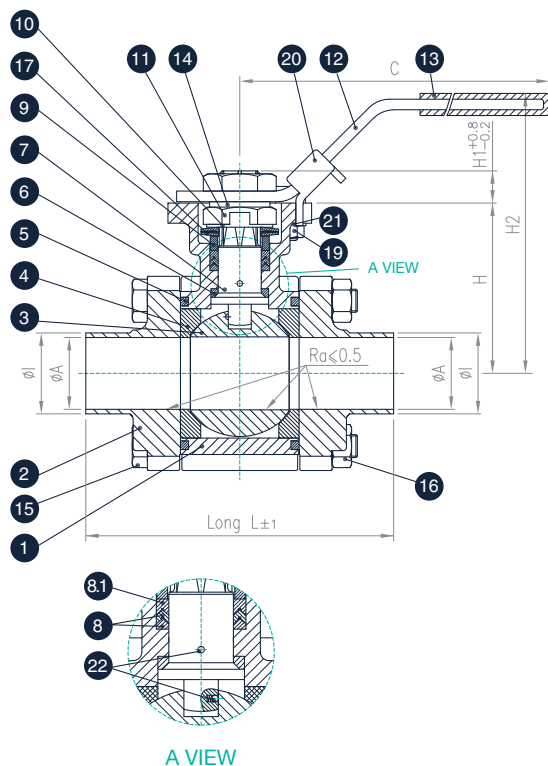
SIZE	øA	øA1	øR	B	C	øD1	øD2	øE1	øE2	øF	G	T	H	H1	H2	L	M1	ISO5211
2-1/2"	65	72.1	76.1	17/19	300	70	102	10	12	139	86.6	2	108.7	16.8	167	254	M14	F07/F10
3"	80	84.3	88.9	17/19	370	70	102	10	12	160	99	2.3	117.7	17.8	176	280	M16	F07/F10
4"	100	109.1	114.3	17/19	370	70	102	10	12	193	127	2.6	133.7	16.8	192	317	M16	F07/F10

零組件清單 (BOM)

SERIES S604-20 3/8" ~ 2"



3/8" ~ 2"



NO.	Parts	Material	Qty
1	Body	CF3M	1
2	End Cap	CF3M	2
3	Ball	SS316 / CF3M	1
4	Seat	PTFE	2
5	Joint Gasket	PTFE	2
6	Thrust Washer	PTFE	1
7	Stem	SS316L	1
8	Gland Packing	PTFE	2
8.1	Gland Packing	25% GLASS FIBER FILED + PTFE	1
9	Gland Bush	SS304	1
10	Stop Washer	SS304	1
11	Stem Nut	SS304	2
12	Handle	SS304	1
13	Handle cover	VINYL	1
14	Stem Washer	SS304	1
15	Bolt	SS304	4
16	Bolt Nut	SS304	4
17	Belleville Washer	SS304	2
18	Stop Pin	SS301	1
19	Pin Nut	SS304	1
20	Locking Device	SS304	1
21	Washer	SS304	1
22	Anti-static Device	SS316	2

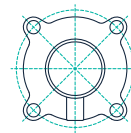
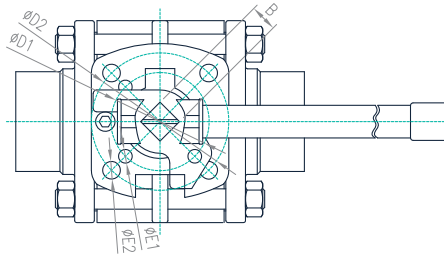
DIMENSIONS(mm)

SIZE	øA	øI	B	C	øD1	øD2	øE1	øE2	H	H1	H2	L	ISO5211
3/8"	7.75	9.53	9	139	36	42	6	6	42.6	7.6	77	134.5	F03/F04
1/2"	9.4	12.7	9	139	36	42	6	6	42.6	7.6	77	134.5	F03/F04
3/4"	15.75	19.05	9	139	36	42	6	6	42.6	7.6	77	140.9	F03/F04
1"	22.1	25.4	9	139	36	42	6	6	46.85	8.6	82	161.5	F03/F04
1-1/2"	34.8	38.1	11	165	42	50	6	7	62.6	10.4	102	182.2	F04/F05
2"	47.5	50.8	14	215	50	70	7	9	84.7	14.55	134	191.7	F05/F07

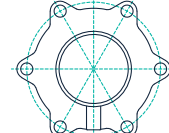
零組件清單 (BOM)

SERIES S604-20

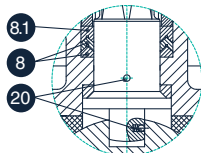
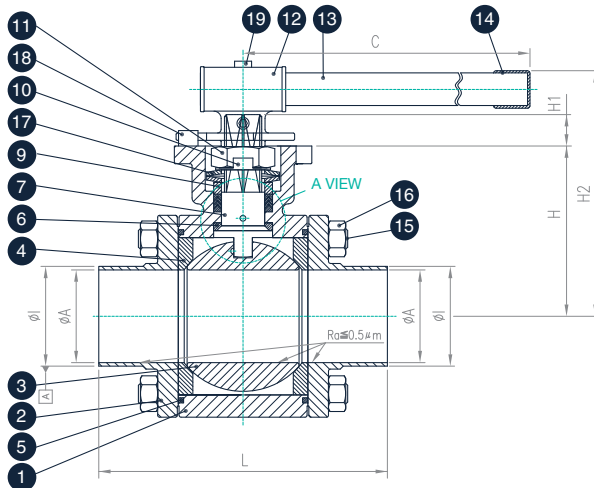
2-1/2"~ 4"



2-1/2"~ 3"



4"



A VIEW

NO.	Parts	Material	Qty
1	Body	CF3M	1
2	End Cap	CF3M	2
3	Ball	CF3M	1
4	Seat	PTFE	2
5	Joint Gasket	PTFE	2
6	Thrust Washer	PTFE	1
7	Stem	SS316L	1
8	Gland Packing	PTFE	2
8.1	Gland Packing	25% GLASS FIBER FILED + PTFE	1
9	Gland Bush	SS304	1
10	Stop Washer	SS304	1
11	Stem Nut	SS304	1
12	Handle-A	SS304	1
13	Handle-B	SS304	1
14	Handle cover	VINYL	1
15	Bolt	SS304	*
16	Bolt Nut	SS304	&
17	Belleville Washer	SS301	2
18	Stop Pin	SS304	1
19	Handle Nut	SS304	2
20	Anti-static Device	SS316	2

2-1/2"~ 3" 8pcs

4" 12pcs

* 2-1/2"~ 3" 4pcs of bolts(double ended external thread)

* 4" 6pcs of bolts(double ended external thread)

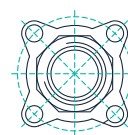
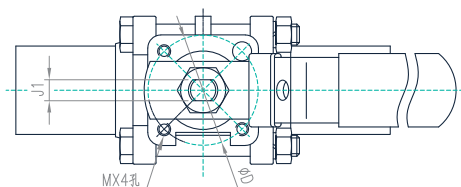
DIMENSIONS(mm)

SIZE	ϕA	ϕI	B	C	$\phi D1$	$\phi D2$	$\phi E1$	$\phi E2$	H	H1	H2	L	ISO5211
2-1/2"	60.2	63.5	17	300	70	102	10	12	108.7	16.8	167	247.6	F07/F10
3"	72.9	76.2	17	370	70	102	10	12	117.7	17.8	176	266.8	F07/F10
4"	97.4	101.6	17	370	70	102	10	12	132.55	16.8	192	317.6	F07/F10

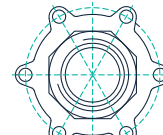
零組件清單 (BOM)

SERIES S701-70

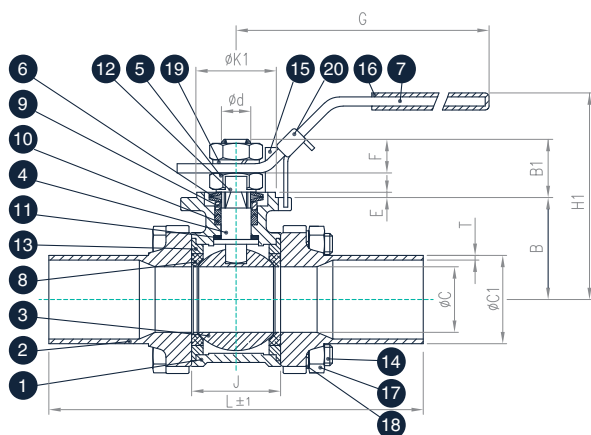
1/4" ~ 4"



1/4" ~ 3"



4"



NO.	Parts	Material	Qty
1	Body	CF8M	1
2	End Cap	CF3M	2
3	Ball	SS316 / CF8M	1
4	Stem	SS316	1
5	Stem Nut	SS304	2
6	Belleville Washer	SS301	2
7	Handle	SS304	1
8	Seat	PTFE	2
9	Gland Bush	SS304	1
10	Gland Packing	PTFE	1 Set
11	Thrust Washer	RTFE	1
12	Stop Washer	SS304	1
13	Joint Gasket	PTFE	2
14	Bolt	SS304	*
15	Stop Pin	SS304	1
16	Handle cover	VINYL	1
17	Bolt Nut	SS304	&
18	Bolt Washer	SS304	&
19	Stem Washer	SS304	1
20	Locking Device	SS304	1

* 1/4"~ 2" 4pcs of bolts(single ended external thread)

* 2-1/2"~ 3" 4pcs of bolts(double ended external thread)

* 4" 6pcs of bolts(double ended external thread)

& 1/4"~ 2" 4pcs

& 2-1/2"~ 3" 8pcs

& 4" 12pcs

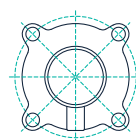
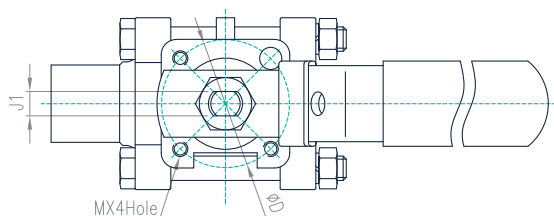
DIMENSIONS(mm)

SIZE	øC	øC1	T	B	B1	øD	E	ød	F	G	H1	J	J1	øK1	L	M	ISO5211
1/4"	10	13.5	1.6	29.1	19.8	36	2	9.5	7.4	130	75	23.6	6.5	25	120.2	M5	FOR F03
3/8"	12.7	17.2	1.6	29.1	19.8	36	2	9.5	7.4	130	75	23.6	6.5	25	120.2	M5	FOR F03
1/2"	15	21.3	1.6	29.1	19.8	36	2	9.5	7.4	130	75	23.6	6.5	25	140.2	M5	FOR F03
3/4"	20	26.9	1.6	32.6	17.5	36	2	9.5	6.4	130	77	28	6.5	25	140	M5	FOR F03
1"	25	33.7	1.8	38.9	20.7	42	2	11	12.3	160	85	33.9	8	30	152.2	M5	FOR F04
1-1/4"	32	42.4	2	40.4	24.5	42	2	11	10.9	160	92	42.5	8	30	165.1	M5	FOR F04
1-1/2"	38	48.3	2	46.2	31	50	2	14	13.7	185	102	53.2	9.7	35	190.4	M6	FOR F05
2"	50	60.3	2.5	54.7	31	50	2	14	13.7	185	110	64.6	9.7	35	203	M6	FOR F05
1-1/2"	65	76.1	3	71.5	42.6	70	2.5	19	23.2	260	150	87	12	55	254	M8	FOR F07
3"	80	88.9	3	84.5	39.3	102	2.5	19	18.7	260	162	99	12	70	280.2	M10	FOR F10
4"	100	114.3	3	106.5	52.3	102	3	24	34.2	290	190	127	15	70	317	M10	FOR F10

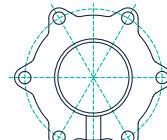
零組件清單 (BOM)

SERIES S704-20

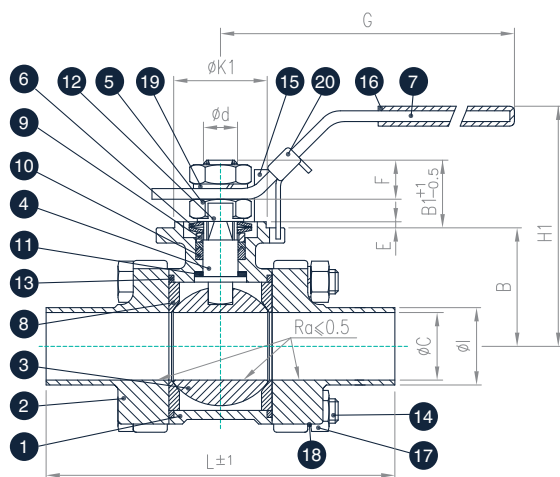
1/2" ~ 4"



1/2" ~ 3"



4"



NO.	Parts	Material	Qty
1	Body	CF8M	1
2	End Cap	CF3M	2
3	Ball	SS316	1
4	Stem	SS316	1
5	Stem nut	SS304	2
6	Belleville Washer	SS301	2
7	Handle	SS304	1
8	Seat	PTFE	2
9	Gland Bush	SS304	1
10	Gland Packing	PTFE	1 Set
11	Thrust Washer	PTFE	1
12	Stop Washer	SS304	1
13	Joint Gasket	PTFE	2
14	Bolt	SS304	*
15	Stop Pin	SS304	1
16	Handle cover	VINYL	1
17	Bolt Nut	SS304	&
18	Bolt washer	SS304	&
19	Stem Washer	SS304	1
20	Locking Device	SS304	1

* 1/2" ~ 2" 4pcs of bolts(single ended external thread)

* 2-1/2" ~ 3" 4pcs of bolts(double ended external thread)

* 4" 6pcs of bolts(double ended external thread)

& 1/2" ~ 2" 4pcs

& 2-1/2" ~ 3" 8pcs

& 4" 12pcs

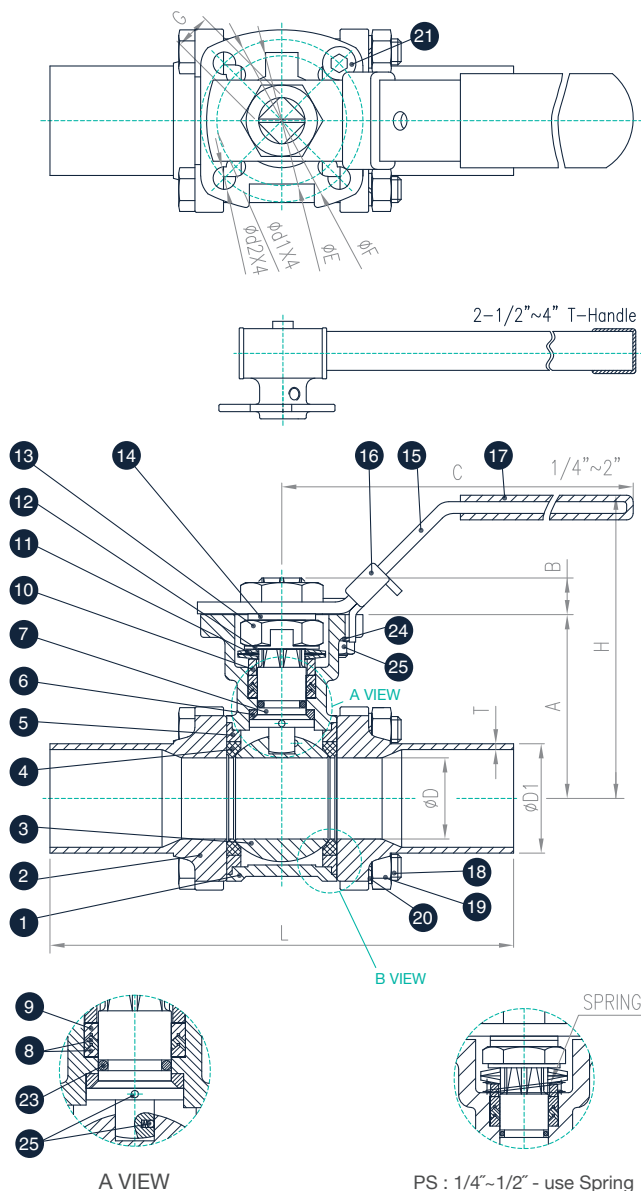
DIMENSIONS(mm)

SIZE	øC	øI	B	B1	øD	E	ød	F	G	H1	J1	øK1	L	M	ISO5211
1/2"	9.4	12.7	29.1	19.8	36	2	9.5	7.4	130	75	6.5	25	139.8	M5	FOR F03
3/4"	15.75	19.05	32.6	17.5	36	2	9.5	6.4	130	77	6.5	25	146	M5	FOR F03
1"	22.1	25.4	38.9	20.7	42	2	11	12.3	160	85	8	30	158.7	M5	FOR F04
1-1/2"	34.8	38.1	46.2	31	50	2	14	13.7	185	102	9.7	35	190.6	M6	FOR F05
2"	47.5	50.8	54.7	31	50	2	14	13.7	185	110	9.7	35	216	M6	FOR F05
2-1/2"	60.2	63.5	71.5	3142.6	70	2.5	19	23.2	260	150	12	55	247.6	M8	FOR F07
3"	72.9	76.2	84.5	39.3	102	2.5	19	18.7	260	162	12	70	266.8	M10	FOR F10
4"	97.4	101.6	106.5	52.3	102	3	24	34.2	290	190	15	70	317.6	M10	FOR F10

零組件清單 (BOM)

SERIES S900-70

1/4" ~ 4"



NO.	Parts	Material	Qty
1	Body	CF8M	1
2	End Cap	CF3M	2
3	Ball	SS316 / CF8M	1
4	Seat	PTFE	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	Bolt 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	@

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

DIMENSIONS(mm)

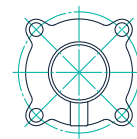
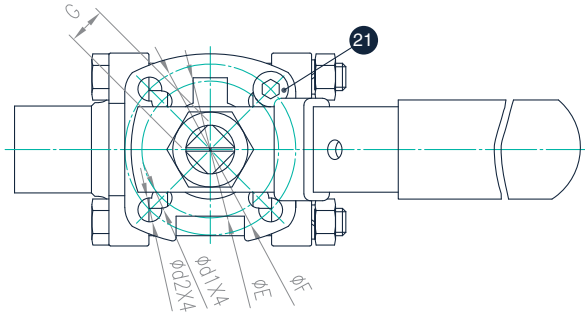
SIZE	øD	øD1	T	A	B	C	øE	øF	G	L	H	ød1	ød2	ISO5211
1/4"	10	13.5	1.6	42.1	6.1	139	36	42	9	120.2	77	6	6	F03 / F04
3/8"	12.7	17.2	1.6	42.1	6.1	139	36	42	9	120.2	77	6	6	F03 / F04
1/2"	15	21.3	1.6	42.1	6.1	139	36	42	9	140.2	77	6	6	F03 / F04
3/4"	20	26.9	1.6	48	6.6	139	36	42	9	140	83	6	6	F03 / F04
1"	25	33.7	1.8	56.6	10.9	165	42	50	11	152.2	96	6	7	F04 / F05
1-1/4"	32	42.4	2	60.9	10.9	165	42	50	11	165.1	100	6	7	F04 / F05
1-1/2"	38	48.3	2	77.5	13.9	215	50	70	14	190.4	127	7.5	9	F05 / F07
2"	50	60.3	2.5	85.2	13.9	215	50	70	14	203	134	7.5	9	F05 / F07
2-1/2"	65	76.1	3	108.7	16.8	300	70	102	17	254	167	10	12	F07 / F10
3"	80	88.9	3	117.7	17.8	370	70	102	17	280.2	176	10	12	F07 / F10
4"	100	114.3	3	132.55	17.8	370	70	102	17	317	192	10	12	F07 / F10

零組件清單 (BOM)

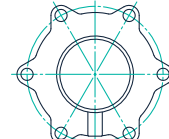
SERIES S904-20

1/2" ~ 4"

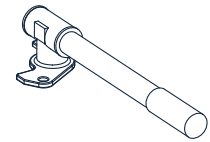
Sanitary Tube Cap



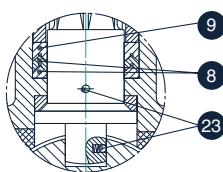
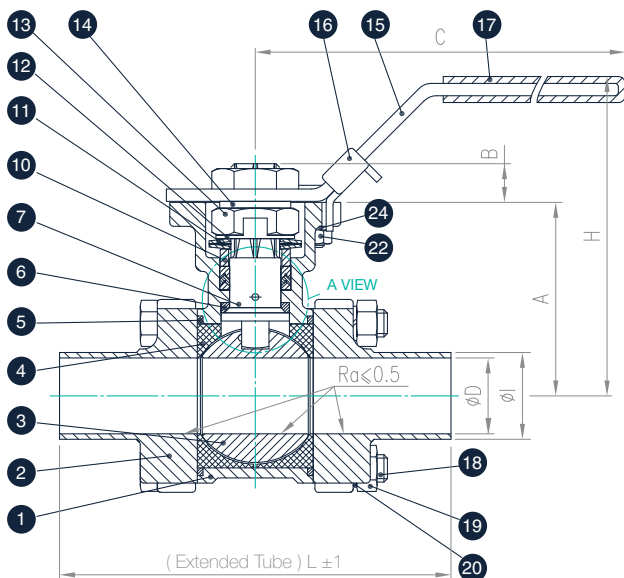
1-1/2" ~ 3"



4"



2-1/2" ~ 4"
S.S. T-HANDLE



A VIEW

NO.	Parts	Material	Qty
1	Body	CF3M	1
2	End Cap	CF3M	2
3	Ball	SS316L / CF3M	1
4	Seat	PTFE	2
5	Joint Gasket	PTFE	2
6	Thrust Washer	PTFE	1
7	Stem	SS316L	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	*
19	Bolt Nut	SS304	&
20	Bolt Washer	SS304	&
21	Stop Pin	SS304	1
22	Pin Nut	SS304	1
23	Washer	SS304	1
24	Anti-static Device	SS316	2

1/2"~ 2" (2pcs) , 2-1/2"~4" (3pcs)

* 1/2"~ 2" - 4pcs of bolts(single ended external thread)

* 2-1/2"~ 3" - 4pcs of bolts(double ended external thread)

* 4" - 6pcs of bolts(double ended external thread)

& 1/2"~2" - 4pcs

& 2-1/2"~3" - 8pcs

& 4" - 12pcs

DIMENSIONS(mm)

SIZE	øD	øI	A	B	C	øE	øF	G	L	H	ød1	ød2	ISO5211
1/2"	9.4	12.7	42.1	6.1	139	36	42	9	139.8	77	6	6	F03 / F04
3/4"	15.75	19.5	48	6.1	139	36	42	9	146	83	6	6	F03 / F04
1"	22.1	25.4	56.6	10.9	165	42	50	11	158.7	96	6	7	F03 / F04
1-1/2"	34.8	38.1	77.5	13.9	215	50	70	14	190.6	127	7.5	9	F03 / F04
2"	47.5	50.8	85.2	13.9	215	50	70	14	216	134	7.5	9	F03 / F04
2-1/2"	60.2	63.5	108.7	16.8	300	70	102	17	247.6	167	10	12	F03 / F04
3"	72.9	76.2	117.7	17.8	370	70	102	17	266.8	176	10	12	F03 / F04
4"	97.4	101.6	132.55	16.8	370	70	102	17	317.6	192	10	12	F03 / F04



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Established in 1992
TAWD has dedicated over 30 years to
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