



SERIES E501/ T701

Check Valve



INTRODUCTION

The Series E501 is a Wafer type spring-loaded check valve engineered to ensure one-way flow of liquids, effectively preventing backflow. Featuring a durable metal seat and a spring-loaded disc, it offers flexible installation in any orientation to suit various system configurations. With a low opening pressure, the Series E501 is perfect for a wide array of applications where maintaining flow direction is crucial to preserving system integrity and preventing damage.

TECHNICAL SUMMARY

SIZE RANGE	NPS 1/2~4 (DN15~100)
PRESSURE RATING	PN40
BODY MATERIAL (ASTM)	CF8M
BODY MATERIAL (EN)	1.4408

*For safety reason, Suggest to liquid material installation only.

STANDARD OF COMPLIANCE

MATERIAL CERTIFICATION	EN 10204-3.1
PRESSURE TESTING	API 598
MARKING	ISO 5209
CE APPROVAL	2014 / 68 / EU Module H
QUALITY ASSURANCE	ISO 9001:2015
EUROPEAN DIRECTIVES APPLIED	ATEX, 2014/34/EU

SEREIS E501 CHECK VALVE Opening pressure

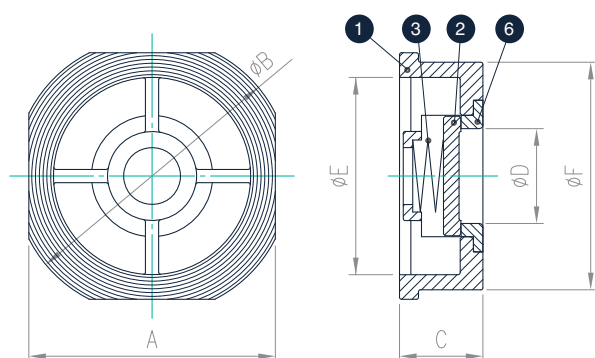
SIZE	Opening pressure (mbar)		
	Liquid from below	Liquid from above	Liquid from Side
DN15	↑ 25	↓ 20	→22.5
DN20	↑ 25	↓ 20	→22.5
DN25	↑ 25	↓ 20	→22.5
DN32	↑ 27	↓ 20	→23.5
DN40	↑ 28	↓ 20	→24
DN50	↑ 29	↓ 20	→24.5
DN65	↑ 30	↓ 20	→25
DN80	↑ 31	↓ 20	→25.5
DN100	↑ 33	↓ 20	→26.5

CONSTRUCTION-BILL OF MATERIAL

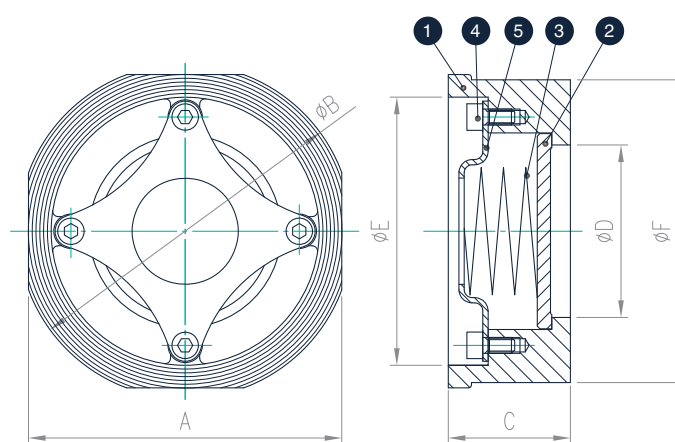
SERIES E501

1/2" ~ 4"

NO.	Parts	Material	Qty
1	Body	1.4408	1
2	Disc	SS316	1
3	Spring	SS316	1
4	Screw	SS316	4
5	Cap	SS316	1
6	Insert	1.4408	1



1-1/2" ~ 2"



2-1/2" ~ 4"

DIMENSIONS(mm)

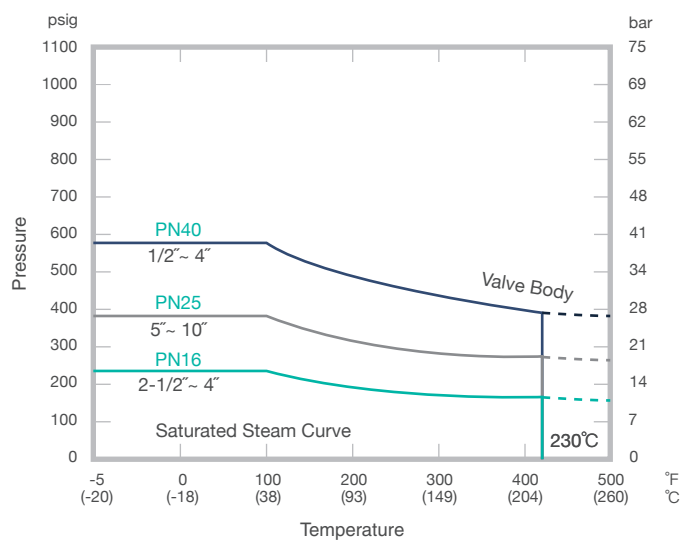
SIZE	øA	øB	C	øD	øE	øF
1/2"	45	53	16	15	34	41
3/4"	55	63	19	20	37	46
1"	65	73	22	25	46	56
1-1/4"	79	84	28	32	63	74
1-1/2"	89	94	31.5	38	76	86
2"	99	107	40	50	83	96
2-1/2"	118	126	46	62	103	115
3"	134	144	50	76.5	117	131
4"	154	164	60	96	132	150

TECHNICAL DATA | Cv and Kv values / Weight

Size	Cv values	Kv values (M ³ /h)	Weight (Kg)
1/2"	5.7	5	0.11
3/4"	12.6	11	0.19
1"	24.3	21	0.29
1-1/4"	38.7	33	0.49
1-1/2"	58	49	0.67
2"	104	88	1.14
2-1/2"	167	142	1.54
3"	243	207	2.01
4"	392	333	3.22

TECHNICAL DATA | Pressure-Temperature diagram

SERIES : E501



INTRODUCTION

The Series T701 is a three-piece spring-loaded check valve engineered to ensure one-way flow of liquids, effectively preventing backflow. Featuring a durable metal seat and a spring-loaded disc, it offers flexible installation in any orientation to suit various system configurations. With a low opening pressure and can be assembled with different types of end caps according to requirements., the Series T701 is perfect for a wide array of applications where maintaining flow direction is crucial to preserving system integrity and preventing damage.

TECHNICAL SUMMARY

SIZE RANGE	NPS 1/4~4 (DN15~100)
PRESSURE RATING	1000 WOG (NPS 1/4~2, DN8~50) 800 WOG (NPS 2-1/2~4, DN65~100)
END CONNECTIONS	Threaded, Butt Weld, Socket Weld, Flanged End Cap (Optional)
BODY MATERIAL (ASTM)	CF8M, CF3M, CF8, CF3
END CAP MATERIAL (ASTM)	CF8M, CF3M, CF8, CF3
BODY MATERIAL (EN)	1.4408, 1.4409, 1.4308, 1.4309
END CAP MATERIAL (EN)	1.4408, 1.4409, 1.4308, 1.4309
JOINT GASKET MATERIAL	PTFE, CTFE, TFM1600

*For safety reason, Suggest to liquid material installation only.

STANDARD OF COMPLIANCE

MATERIAL CERTIFICATION	EN 10204-3.1
THREADED END CONNECTIONS	NPT ASME B1.20.1 / BSPP ISO 228-1 / SPT 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
MARKING	ISO 5209
CE APPROVAL	2014 / 68 / EU Module H
QUALITY ASSURANCE	ISO 9001: 2015
EUROPEAN DIRECTIVES APPLIED	ATEX, 2014/34/EU

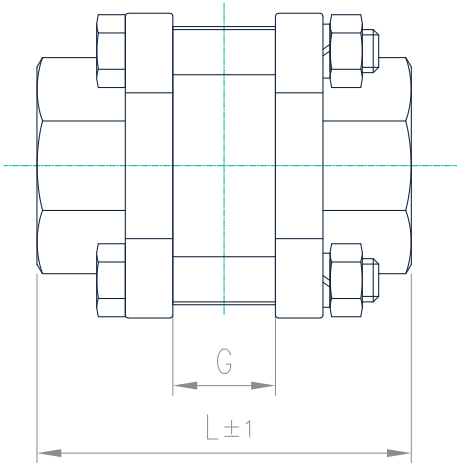
SEREIS T701 CHECK VALVE Opening pressure

SIZE	Opening pressure (mbar)		
	Liquid from below	Liquid from above	Liquid from Side
DN08	↑ 25	↓ 20	→22.5
DN15	↑ 25	↓ 20	→22.5
DN20	↑ 25	↓ 20	→22.5
DN25	↑ 25	↓ 20	→22.5
DN32	↑ 27	↓ 20	→23.5
DN40	↑ 28	↓ 20	→24
DN50	↑ 29	↓ 20	→24.5
DN65	↑ 30	↓ 20	→25
DN80	↑ 31	↓ 20	→25.5
DN100	↑ 33	↓ 20	→26.5

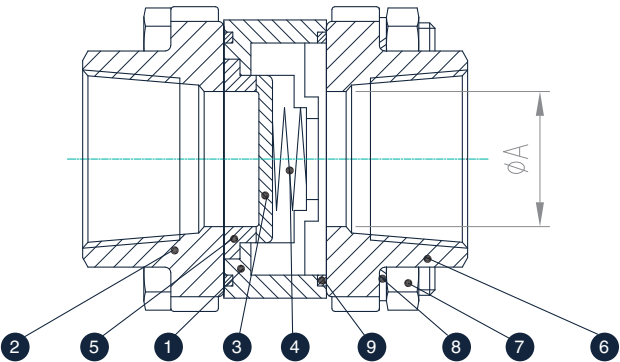
*Remark when required : CE

CONSTRUCTION-BILL OF MATERIAL

SERIES T701-10
3/8" ~ 2"



NO.	Parts	Material	Qty
1	Body	CF8M	1
2	End cap	CF8M	2
3	Disc	SS316	1
4	Spring	SS316	1
5	Insert	CF8M	1
6	Bolt	SS304	4
7	Bolt Nut	SS304	4
8	Bolt Washer	SS304	4
9	Joint Gasket	PTFE	2



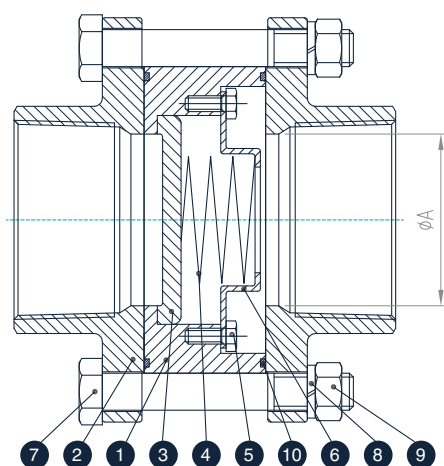
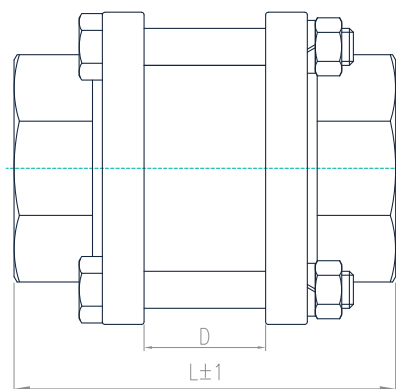
DIMENSIONS(mm)

SIZE	φA	D	L
1/4"	11.6	16	56.1
3/8"	12.7	16	56.1
1/2"	15	16	58.1
3/4"	20	19	67.2
1"	25	22	74.3
1-1/4"	32	28	88.3
1-1/2"	38	31.5	97.7
2"	50	40	106.8

CONSTRUCTION-BILL OF MATERIAL

SERIES T701-10

2-1/2" ~ 4"



NO.	Parts	Material	Qty
1	Body	CF8M	1
2	End cap	CF3M	2
3	Disc	SS316	1
4	Spring	SS316	1
5	Screw	SS316	4
6	Cap	SS316	1
7	Bolt	SS304	*
8	Bolt Washer	SS304	*
9	Bolt Nut	SS304	*
10	Joint Gasket	PTFE	2

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

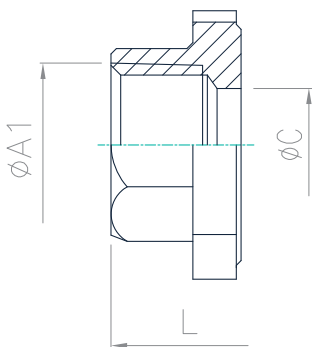
* 4" (6pcs)

DIMENSIONS(mm)

SIZE	ϕA	D	L
2-1/2"	65	46	123
3"	80	50	133.7
4"	100	60	169.2

CONSTRUCTION-BILL OF MATERIAL

SERIES T701-10 THREADED END

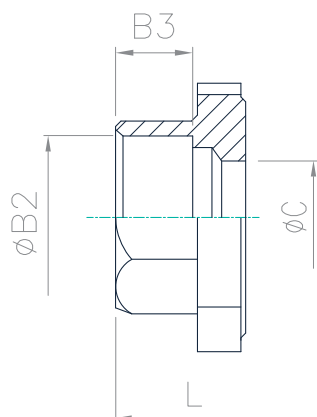


DIMENSIONS(mm)

SIZE	$\phi A1$	$\phi B2$	B3	ϕC	L	L1	LE	ϕG	T	ϕJ	ϕK	ϕM	LF
1/4"	NPT	14.3	10	11.6	56.1	54.1	222.4	16.2	1.6	10	1.6	13.7	112.6
3/8"		17.6	10	12.7	56.1	54.1	222.4	17.5	1.6	12.7	1.6	17.2	112.6
1/2"	PT	21.9	10	15	58.1	58.1	217.4	22.7	1.6	15	1.6	21.3	132.6
3/4"		27.3	13	20	67.2	67.2	216	27.5	1.6	20	1.6	26.9	131
1"	DIN259	33.9	13	25	74.3	74.3	233.4	34	1.6	25	1.8	33.7	140.3
1-1/4"		42.8	13	32	88.3	88.3	240.6	42.7	1.6	32	2	42.4	150.6
1-1/2"	DIN2999	48.9	13	38	97.7	97.7	238.3	48.6	1.6	38	2	48.3	168.7
2"	ISO228	61.3	16	50	106.8	106.8	250.4	60.5	1.6	50	2.5	60.3	178.4
2-1/2"		ANSI 74 EN 76.9	16	65	123	123	293	76.3	2	65	3	76.1	213
3"	BSP	90	16	80	133.7	133.7	305	90	2	80	3	88.9	231.2
4"		115.5	20	100	168.6	169.2	298	116	3.5	100	3	114.3	250

CONSTRUCTION-BILL OF MATERIAL

SERIES T701-20 SOCKET WELD END

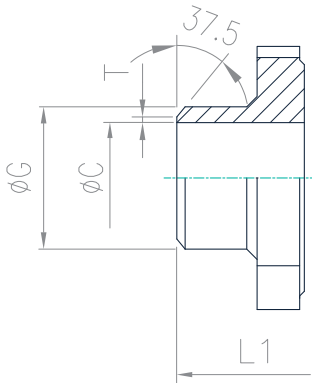


DIMENSIONS(mm)

SIZE	øA1	øB2	B3	øC	L	L1	LE	øG	T	øJ	øK	øM	LF
1/4"	NPT	14.3	10	11.6	56.1	54.1	222.4	16.2	1.6	10	1.6	13.7	112.6
3/8"		17.6	10	12.7	56.1	54.1	222.4	17.5	1.6	12.7	1.6	17.2	112.6
1/2"	PT	21.9	10	15	58.1	58.1	217.4	22.7	1.6	15	1.6	21.3	132.6
3/4"		27.3	13	20	67.2	67.2	216	27.5	1.6	20	1.6	26.9	131
1"	DIN259	33.9	13	25	74.3	74.3	233.4	34	1.6	25	1.8	33.7	140.3
1-1/4"	DIN2999	42.8	13	32	88.3	88.3	240.6	42.7	1.6	32	2	42.4	150.6
1-1/2"		48.9	13	38	97.7	97.7	238.3	48.6	1.6	38	2	48.3	168.7
2"	ISO228	61.3	16	50	106.8	106.8	250.4	60.5	1.6	50	2.5	60.3	178.4
2-1/2"		ANSI 74 EN 76.9	16	65	123	123	293	76.3	2	65	3	76.1	213
3"	BSP	90	16	80	133.7	133.7	305	90	2	80	3	88.9	231.2
4"		115.5	20	100	168.6	169.2	298	116	3.5	100	3	114.3	250

CONSTRUCTION-BILL OF MATERIAL

SERIES T701-30 BUTT WELD END

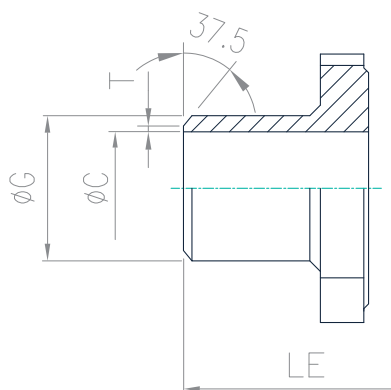


DIMENSIONS(mm)

SIZE	øA1	øB2	B3	øC	L	L1	LE	øG	T	øJ	øK	øM	LF
1/4"	NPT	14.3	10	11.6	56.1	54.1	222.4	16.2	1.6	10	1.6	13.7	112.6
3/8"		17.6	10	12.7	56.1	54.1	222.4	17.5	1.6	12.7	1.6	17.2	112.6
1/2"	PT	21.9	10	15	58.1	58.1	217.4	22.7	1.6	15	1.6	21.3	132.6
3/4"		27.3	13	20	67.2	67.2	216	27.5	1.6	20	1.6	26.9	131
1"	DIN259	33.9	13	25	74.3	74.3	233.4	34	1.6	25	1.8	33.7	140.3
1-1/4"		42.8	13	32	88.3	88.3	240.6	42.7	1.6	32	2	42.4	150.6
1-1/2"	DIN2999	48.9	13	38	97.7	97.7	238.3	48.6	1.6	38	2	48.3	168.7
2"	ISO228	61.3	16	50	106.8	106.8	250.4	60.5	1.6	50	2.5	60.3	178.4
2-1/2"		ANSI 74 EN 76.9	16	65	123	123	293	76.3	2	65	3	76.1	213
3"	BSP	90	16	80	133.7	133.7	305	90	2	80	3	88.9	231.2
4"		115.5	20	100	168.6	169.2	298	116	3.5	100	3	114.3	250

CONSTRUCTION-BILL OF MATERIAL

SERIES T701-40 EXTENDED BUTT WELD END

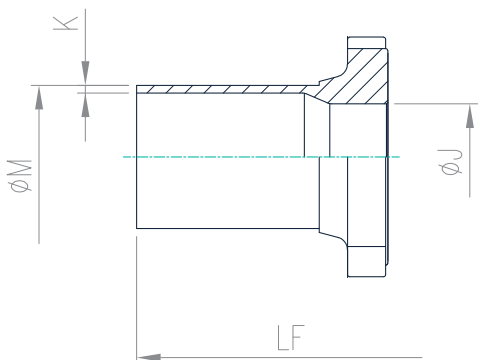


DIMENSIONS(mm)

SIZE	$\phi A1$	$\phi B2$	B3	ϕC	L	L1	LE	ϕG	T	ϕJ	ϕK	ϕM	LF
1/4"	NPT	14.3	10	11.6	56.1	54.1	222.4	16.2	1.6	10	1.6	13.7	112.6
3/8"		17.6	10	12.7	56.1	54.1	222.4	17.5	1.6	12.7	1.6	17.2	112.6
1/2"	PT	21.9	10	15	58.1	58.1	217.4	22.7	1.6	15	1.6	21.3	132.6
3/4"		27.3	13	20	67.2	67.2	216	27.5	1.6	20	1.6	26.9	131
1"	DIN259	33.9	13	25	74.3	74.3	233.4	34	1.6	25	1.8	33.7	140.3
1-1/4"		42.8	13	32	88.3	88.3	240.6	42.7	1.6	32	2	42.4	150.6
1-1/2"	DIN2999	48.9	13	38	97.7	97.7	238.3	48.6	1.6	38	2	48.3	168.7
2"	ISO228	61.3	16	50	106.8	106.8	250.4	60.5	1.6	50	2.5	60.3	178.4
2-1/2"		74.6	16	65	123	123	293	76.3	2	65	3	76.1	213
3"	BSP	90	16	80	133.7	133.7	305	90	2	80	3	88.9	231.2
4"		115.5	20	100	168.6	169.2	298	116	3.5	100	3	114.3	250

CONSTRUCTION-BILL OF MATERIAL

SERIES T701-70 EXTENDED ISO 1127 BUTT WELD END

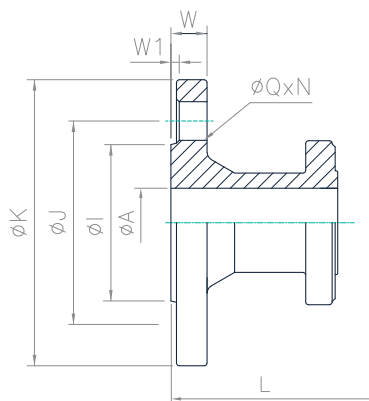


DIMENSIONS(mm)

SIZE	øA1	øB2	B3	øC	L	L1	LE	øG	T	øJ	øK	øM	LF
1/4"	NPT	14.3	10	11.6	56.1	54.1	222.4	16.2	1.6	10	1.6	13.7	112.6
3/8"		17.6	10	12.7	56.1	54.1	222.4	17.5	1.6	12.7	1.6	17.2	112.6
1/2"	PT	21.9	10	15	58.1	58.1	217.4	22.7	1.6	15	1.6	21.3	132.6
3/4"		27.3	13	20	67.2	67.2	216	27.5	1.6	20	1.6	26.9	131
1"	DIN259	33.9	13	25	74.3	74.3	233.4	34	1.6	25	1.8	33.7	140.3
1-1/4"	DIN2999	42.8	13	32	88.3	88.3	240.6	42.7	1.6	32	2	42.4	150.6
1-1/2"		48.9	13	38	97.7	97.7	238.3	48.6	1.6	38	2	48.3	168.7
2"	ISO228	61.3	16	50	106.8	106.8	250.4	60.5	1.6	50	2.5	60.3	178.4
2-1/2"		76.9	16	65	123	123	293	76.3	2	65	3	76.1	213
3"	BSP	90	16	80	133.7	133.7	305	90	2	80	3	88.9	231.2
4"		115.5	20	100	168.6	169.2	298	116	3.5	100	3	114.3	250

CONSTRUCTION-BILL OF MATERIAL

SERIES T701-60 CLASS 150 FLANGE END

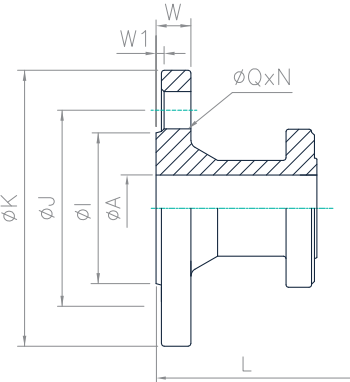


DIMENSIONS(mm)

SIZE	ØA	ØI	ØJ	ØK	ØQ	N	W1	W	L
1/2"	15	35.1	60.5	88.9	16	4	1.6	11.2	119.4
3/4"	20	42.9	69.9	98.6	16	4	1.6	11.2	131
1"	25	50.8	79.2	108	16	4	1.6	11.5	142.1
1-1/4"	32	63.5	88.9	117.3	16	4	1.6	13.1	157.6
1-1/2"	38	73.2	98.6	127	16	4	1.6	14.6	164.3
2"	50	91.9	120.7	152.4	19	4	1.6	15.9	189.2
2-1/2"	65	104.6	139.7	177.8	19	4	1.6	17.6	204
3"	76	127	152.4	190.5	19	4	1.6	19.1	212.6
4"	100	157.2	190.5	228.6	19	8	1.6	23.9	281

CONSTRUCTION-BILL OF MATERIAL

SERIES T701-50
FLANGE END

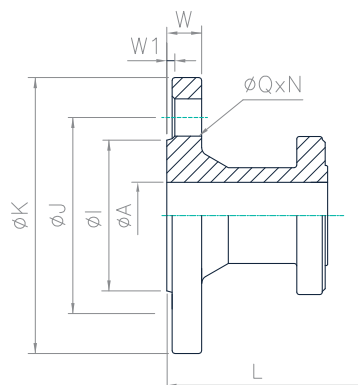


DIMENSIONS(mm)

SIZE	PN16								
	øA	øI	øJ	øK	øQ	N	W1	W	L
1/2"	15	See under nominal pressure 40							
3/4"	20								
1"	25								
1-1/4"	32								
1-1/2"	38								
2"	50								
2-1/2"	65	122	145	185	18	4	3	18	249
3"	76	138	160	200	18	8	3	20	261
4"	100	158	180	220	18	8	3	20	283

CONSTRUCTION-BILL OF MATERIAL

SERIES T701-90 FLANGE END



DIMENSIONS(mm)

SIZE	PN40								
	ØA	ØI	ØJ	ØK	ØQ	N	W1	W	L
1/2"	15	45	65	95	14	4	2	16	122.4
3/4"	20	58	75	105	14	4	2	18	141
1"	25	68	85	115	14	4	2	18	148.1
1-1/4"	32	78	100	140	18	4	2	18	165.5
1-1/2"	38	88	110	150	18	4	3	18	178.3
2"	50	102	125	165	18	4	3	20	105.4
2-1/2"	65	122	145	185	18	8	3	22	249
3"	76	138	160	200	18	8	3	24	261
4"	100	162	190	235	22	8	3	24	283

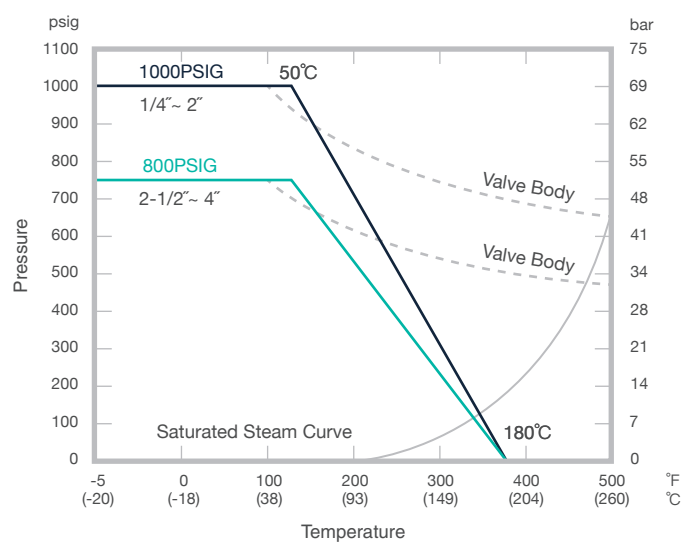
TECHNICAL DATA | Cv and Kv values / Weight

Size	Cv values	Kv values (M ³ /h)	Weight (Kg)
1/4"	1.8	1.5	0.39
3/8"	3.4	3	0.37
1/2"	6	5	0.40
3/4"	13	11	0.53
1"	24	21	0.73
1-1/4"	39	33	1.30
1-1/2"	58	49	1.81
2"	104	88	2.68
2-1/2"	167	142	4.55
3"	243	207	7.22
4"	392	333	10.22

TECHNICAL DATA | Pressure-Temperature Diagram | 1/4" ~ 4"

SERIES : T701 (FULL PORT)

Seat material : PTFE





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

INNOVATION

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