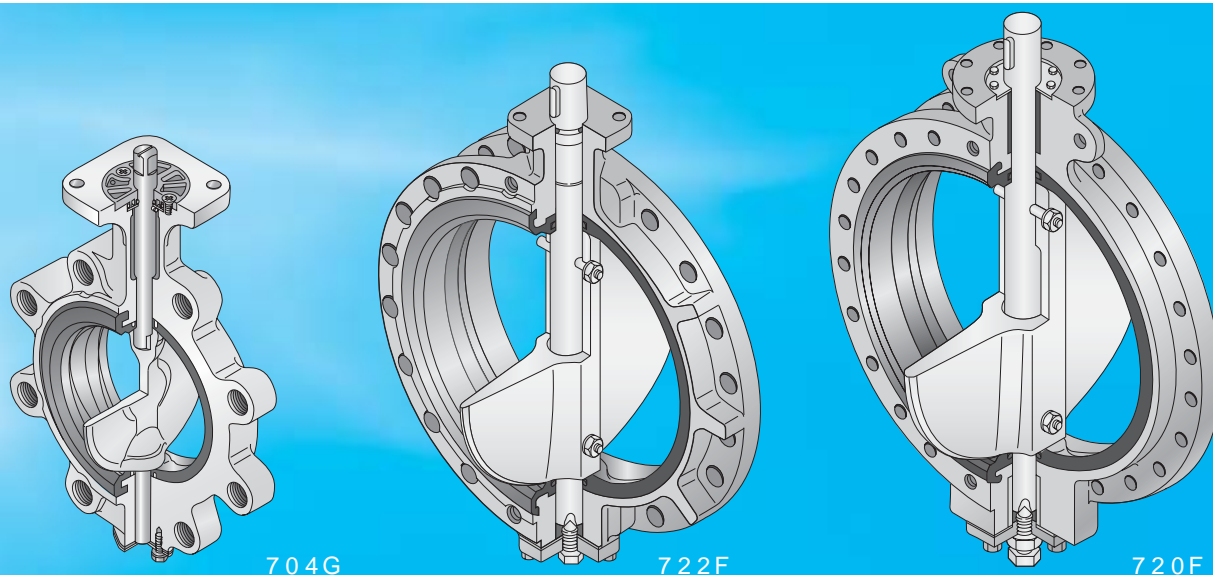


704G_(Lugged) 722F/720F_(Double flanged)

Butterfly Valves
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z _(NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C



Bubble Tight Closure and Long Life

Introduction

Today's ships have to work hard. With the extensive use of automated systems, minimum manning levels, extended journeys and quick turn round times, maintenance time is at a premium. Equipment must be ultra reliable and also meet the latest standards.

Long life and leak tight

The 704G/722F/720F are designed to meet all of these requirements. They are tough valves made to international standards with worldwide marine approvals. Long term leak tightness was achieved through attention to details in the spindle sealing and seat design.

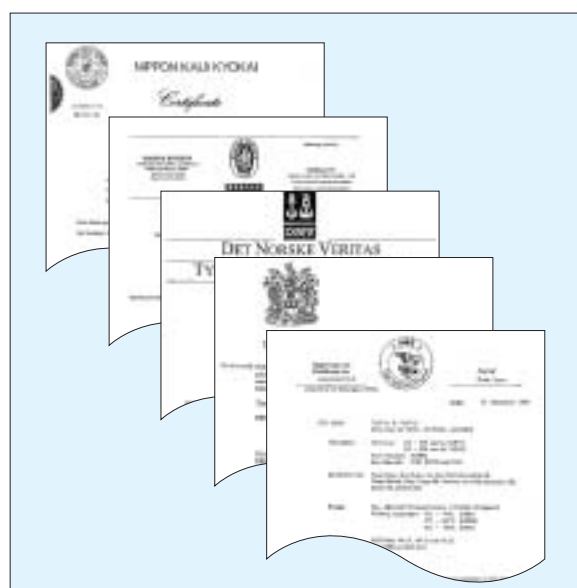
Low cost maintenance

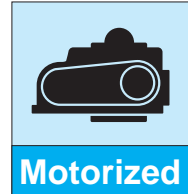
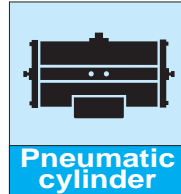
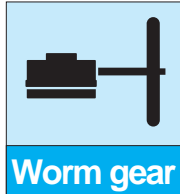
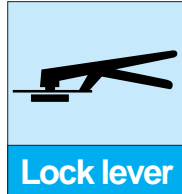
The seat and disc can easily be replaced under a planned maintenance schedule. This replacability does not affect the valve's function as this seat is positively located in machined grooves in the valve body.

Certification / Approval

Satisfies requirements of the major certification/approvals such as.

- Det Norske Veritas (DNV)
- Lloyd's Register of Shipping (LR)
- American Bureau of Shipping (ABS)
- Nippon Kaiji Kyokai (NK)
- Bureau Veritas (BV)
- Korean Register of Shipping (KR)





Butterfly Valves

- TRITEC
- TT2
- 334A
- 302A/303Q
- 304A/304Q
- 302Y/304Y
- 304M^(HLV)
- 507V/508V
- 846T/847T/847Q
- 841T/842T
- 773Z^(NAV-Z)
- 700G/704G/705G
- 731P/732P
732X/731X
- 700E/700K
- 704G/722F/720F
- LRV
- 227P
- MKT
- 903C/904C

Standard specifications

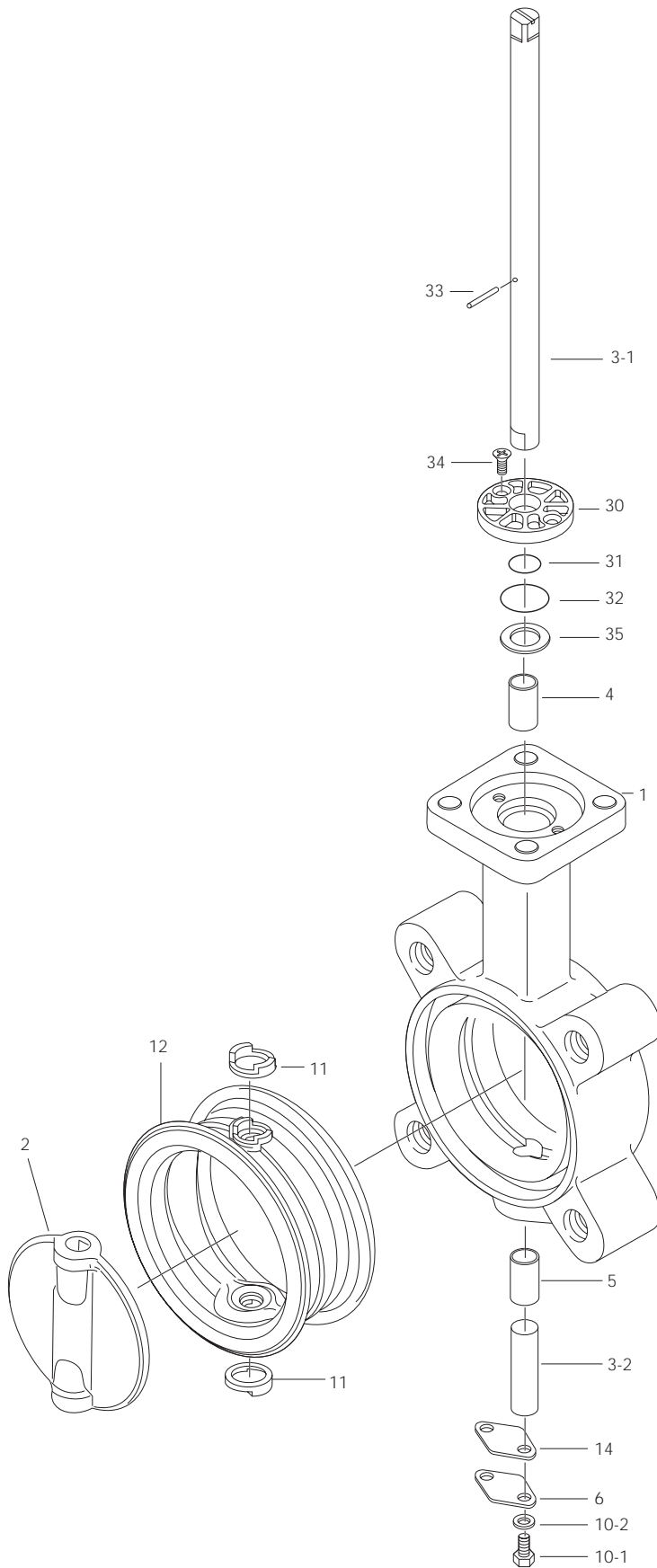
Type	704G	722F	720F
	Lugged type	Flanged type	
Valve nominal size	50mm to 100mm ¹	125mm to 800mm	850mm to 1350mm
Applicable flange standard ²	JIS 10K (JIS 5K, ANSI 125 /150, BS 4504 PN10)		
Max. working pressure	1.0MPa		
Body shell test	1.5MPa		
Seat leak test	1.1MPa		
Working temperature range	-10 to 80 degrees C (NBR), -20 to 120 degrees C (* EPDM)		
Working temperature in continuous use ³	0 to 60 degrees C (NBR), 0 to 100 degrees C (* EPDM)		
Standard materials ⁴	Body	Cast steel, JIS SCPH2	
	Disc	SCS 14 (316SS)	SCS13 (304SS)
	Stem	SUS 420J2	SUS 403
	Seat ring ⁵	NBR, * EPDM	
Painting	Epoxy primer finish (Munsell N7)		

1. Available up to 600mm.
 2. Semi-standard. Consult us
 3. "Working temperature in continuous use" stands for the temperature continuously kept exceeding one hour.
 4. Other materials, such as ductile iron body, aluminum bronze disc, etc., are also available. Consult us.
 5. Seating on 1000mm types and above are vulcanized to the body.
- * Never use an EPDM rubber seat or ring if the valve being used for oil or for a fluid containing even a slight amount of oil.

704G(Lugged) 722F/720F(Double flanged)

704G Expanded view of components

Butterfly Valves
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z(NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C



704G Parts list

704G Parts list(50mm to 100mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3-1	Upper stem	1	
3-2	Lower stem	1	
4	Bearing	1	
5	Bearing	1	
6	Bottom cover	1	
10-1	Hexagon bolt	2	
10-2	Spring washer	2	
11	Secondary ring	2	
12	Seat ring	1	
14	Gasket	1	
30	Bushing	1	
31	O-ring	1	
32	O-ring	1	
33	Spring pin	1	
34	Machine screw	2	
35	Plate	1	

Remark: The indicates recommended spare parts. They are supplied as "Seat ring set" with a small hexagonal spanner to remove set screws.

Butterfly Valves

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M^(HLV)

507V/508V

846T/847T/847Q

841T/842T

773Z^(NAV-Z)

700G/704G/705G

731P/732P
732X/731X

700E/700K

704G/722F/720F

LRV

227P

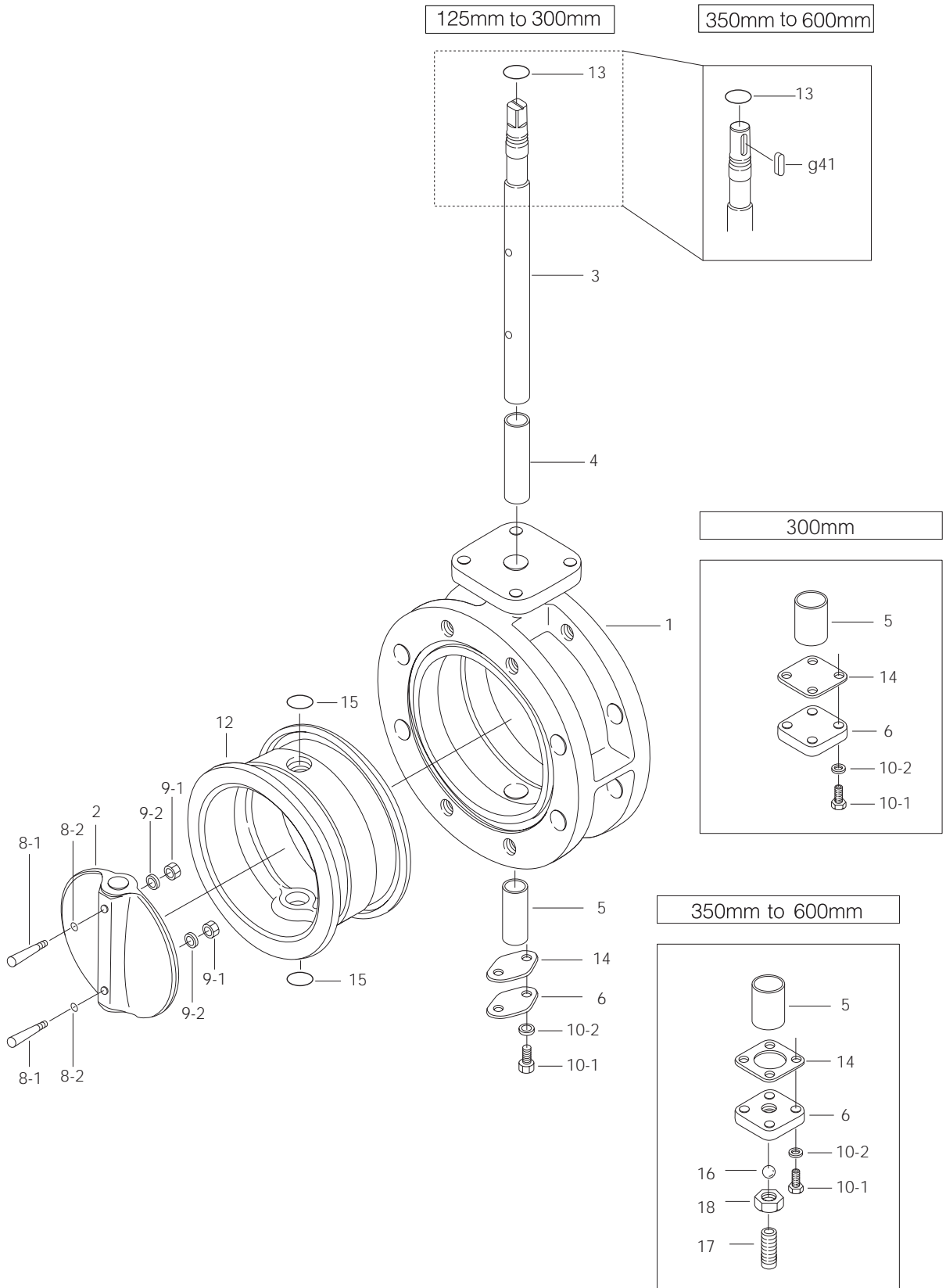
MKT

903C/904C

704G(Lugged) 722F/720F(Double flanged)

722F Expanded view of components

Butterfly Valves
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z(NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C



722F Parts list

722F Parts list(125mm to 300mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Stem	1	
4	Bushing	1	
5	Bushing	1	
6	Bottom cover	1	
8-1	Taper bolt	1	125mm
		2	150mm to 300mm
8-2	O-ring	4	Only 300mm
9-1	Hexagon nut	1	125mm
		2	150mm to 300mm
9-2	Spring washer	1	125mm
		2	150mm to 300mm
10-1	Hexagon bolt	2	125mm to 250mm
		4	300mm
10-2	Spring washer	2	125mm to 250mm
		4	300mm
12	Seat ring	1	
13	O-ring	1	
14	Gasket	1	
15	O-ring	2	See Remark 2.

722F Parts list(350mm to 600mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Stem	1	
4	Bushing	1	
5	Bushing	1	
6	Bottom cover	1	
8-1	Taper bolt	2	
8-2	O-ring	4	
9-1	Hexagon nut	2	
9-2	Spring washer	2	
10-1	Hexagon bolt	4	
10-2	Spring washer	4	
12	Seat ring	1	
13	O-ring	1	
14	Gasket	1	
15	O-ring	2	See Remark 2.
16	Ball	1	
17	Hollow bolt	1	
18	Lock nut	1	
g41	Key	1	

Remark 1: The indicates recommended spare parts. They are supplied as "Seat ring set" with a small hexagonal spanner to remove hollow bolt (P.17).

Remark 2: The O-ring material (item number 15) should be the same as the sea tring (item number 12).

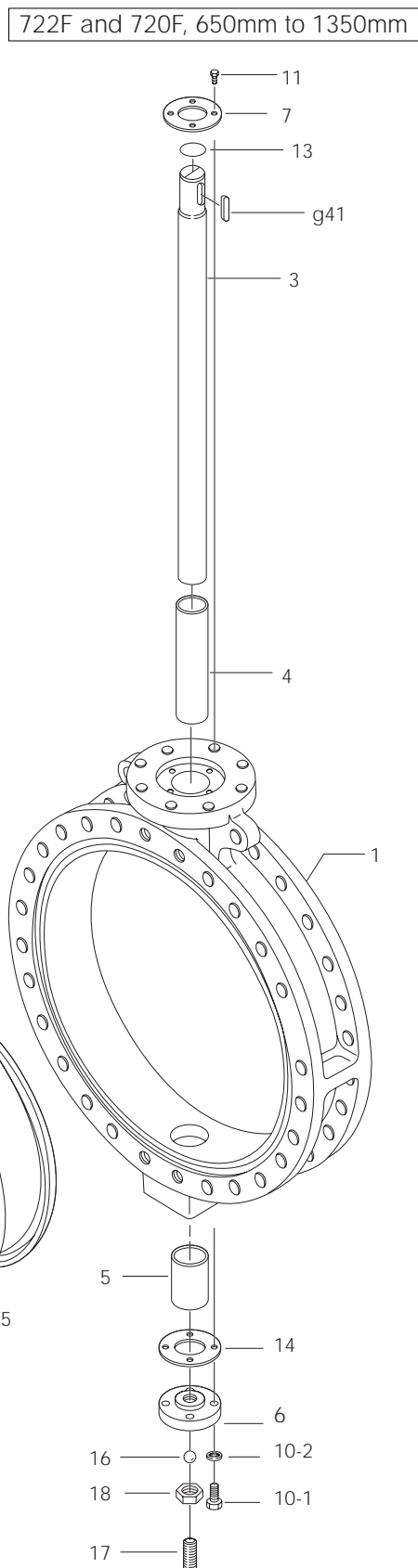
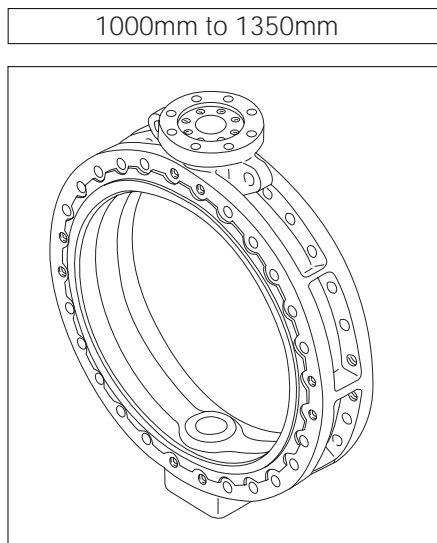
Butterfly Valves

TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M ^(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z ^(NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C

704G(Lugged) 722F/720F(Double flanged)

722F · 720F Expanded view of components

Butterfly Valves
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z(NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C



722F · 720F Parts list

722F and 720F Parts list(722F: 650mm to 800mm / 720F: 850mm to 1350mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Stem	1	
4	Bushing	1	
5	Bushing	1	
6	Bottom cover	1	
7	Retainer plate	1	
8-1	Taper bolt	2	650mm to 900mm
		4	1000mm to 1350mm
8-2	O-ring	4	650mm to 900mm
		8	1000mm to 1350mm
9-1	Hexagon nut	2	650mm to 900mm
		4	1000mm to 1350mm
9-2	Spring washer	2	650mm to 900mm
		4	1000mm to 1350mm
10-1	Hexagon bolt	4	650mm to 850mm
		8	900mm to 1350mm
10-2	Spring washer	4	650mm to 850mm
		8	900mm to 1350mm
11	Hexagon bolt	4	650mm to 850mm
		8	900mm to 1350mm
12	Seat ring	1	Vulcanized on 1000mm to 1350mm types.
13	O-ring	1	See Remark 2.
14	Gasket	1	
15	O-ring	2	See Remark 2.
16	Ball	1	
17	Hollow bolt	1	
18	Lock nut	1	
g41	Key	1	

Remark 1: The indicates recommended spare parts. They are supplied as "Seat ring set" with a small hexagonal spanner to remove hollow bolt (P.17).

Since the seat ring is vulcanized to the body of types 1000mm to 1350mm, please consult us if you wish to replace it.

Remark 2: The O-ring material (item numbers 13 and 15) should be the same as the seatring (item number 12).

Butterfly Valves

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M(HLV)

507V/508V

846T/847T/847Q

841T/842T

773Z(NAV-Z)

700G/704G/705G

731P/732P
732X/731X

700E/700K

704G/722F/720F

LRV

227P

MKT

903C/904C

704G(Lugged) 722F/720F(Double flanged)

704G Actuator selection chart

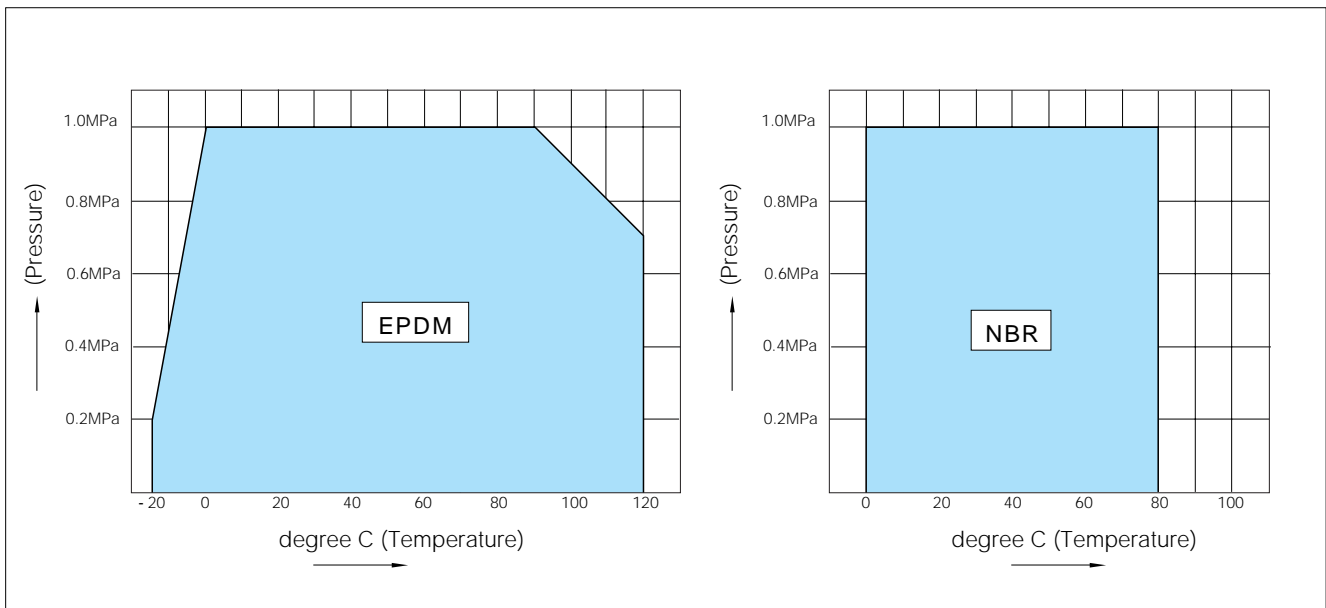
Butterfly Valves
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z(NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C

704G

Model	Category	Size (mm / inch)			
		50	65	80	100
		2	2 1/2	3	4
1T	Standard Heavy duty	1T-1			
2U	Standard Heavy duty	2U-0	2U-1		
2G	Standard Heavy duty	2G-1			
3E	Standard Heavy duty	K30	K70	K170	
3G,3F	Standard Heavy duty	K70S	K170S	K370S	
4I	ON-OFF Control	4 I-00	4 I-0	4 I-1	
4J	Standard Heavy duty	SRJ-010			

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

704G/722F/720F Pressure-temperature rating



722F Actuator selection chart

722F

Model	Category	Size <small>(mm / inch)</small>																		
		125	150	200	250	300	350	400	450	500	550	600	650	700	750	800				
		5	6	8	10	12	14	16	18	20	22	24	26	28	30	32				
1T	Standard	1T-2		1T-3																
	Heavy duty	1T-2		1T-3																
2U,2S	Standard	2U-2		2U-3		2U-4		2U-5				2U-6		MGH-4	MGH-4 1/2					
	Heavy duty	2U-2		2U-3		2U-4		2U-5				2U-6		MGH-4	MGH-4 1/2					
2G,2R	Standard	2G-2		2G-3		2G-4		2R-3				2R-4								
	Heavy duty	2G-2		2G-3		2G-4		2R-3				2R-4								
3E,3A	Standard	K170		K370		K700		TGA-125				TGA-180		TGA-200		TGA-220				
	Heavy duty	K170		K370		K700		TGA-125		TGA-140		TGA-160		TGA-180		TGA-200		TGA-220		TGA-250
3G,3F 3U,3K	Standard	K370S		K700S		TG-10S		TG-20S												
	Heavy duty	K370S		K700S		TG-10S		TG-12S		TG-14S		TG-20S								
4I	ON-OFF	4I-2		4I-2.5		4I-3				4I-4										
	Control	4I-2		4I-2.5		4I-3				4I-4										
4J,4L	Standard	SRJ-020		SRJ-060		LTKD-01 0.2kW/MGH-3		LTKD-01 0.4kW/MGH-3		LTKD-02 0.75kW/MGH-4		LTKD-05 0.75kW/MGH-4		LTKD-05 0.75kW/MGH-5		LTKD-05 1.5kW/MGH-5		LTKD-1 1.5kW/MGH-5		
	Heavy duty	SRJ-020		SRJ-060		LTKD-01 0.2kW/MGH-3		LTKD-01 0.4kW/MGH-3		LTKD-02 0.75kW/MGH-4		LTKD-05 0.75kW/MGH-4		LTKD-05 0.75kW/MGH-5		LTKD-05 1.5kW/MGH-5		LTKD-1 1.5kW/MGH-5		

Remark: For the 400mm type with the accessories below, type 4I-4 should be selected.

Micom unit
Servo unit
Speed control unit
Potentiometer

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

720F Actuator selection chart

720F

Model	Category	Size <small>(mm / inch)</small>					
		850	900	1000	1100	1200	1350
		34	36	40	44	48	54
2S	Standard	MGH-5		MGH-6			MGH-7
	Heavy duty	MGH-5		MGH-6			MGH-7
3A	Standard	TGA-220		TGA-250			
	Heavy duty	TGA-220		TGA-250			
4L	Standard	LTKD-1 1.5kW/MGH-5		LTKD-1 1.5kW/MGH-6			LTKD-1 2.2kW/MGH-7
	Heavy duty	LTKD-1 1.5kW/MGH-5		LTKD-1 1.5kW/MGH-6			LTKD-1 2.2kW/MGH-7

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

Butterfly Valves

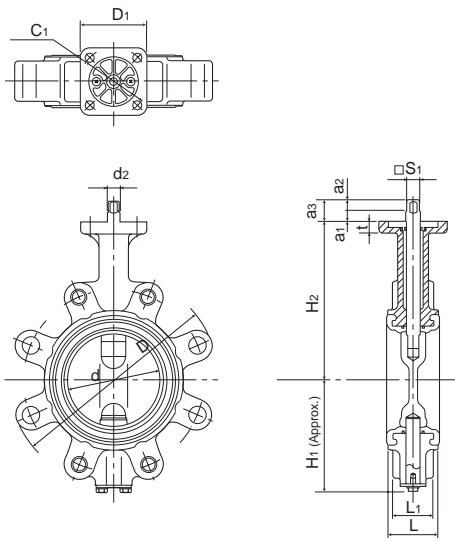
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M _(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z _(NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C

704G(Lugged) 722F/720F(Double flanged)

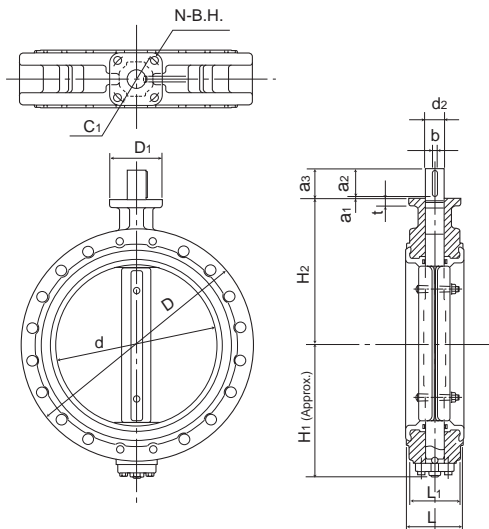
704G/722F/720F Dimension list

Butterfly Valves
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z(NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C

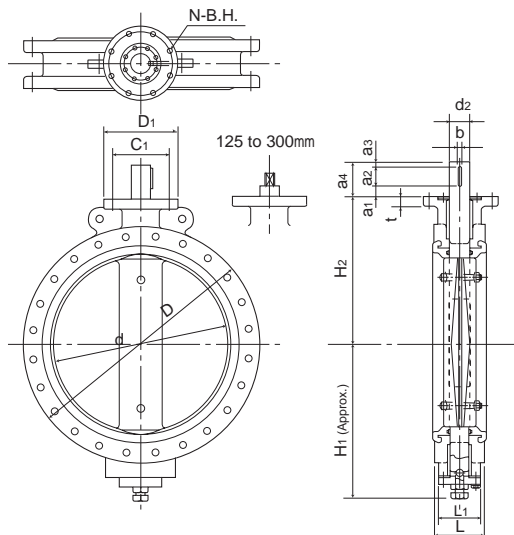
704G



722F



720F



704G Dimensions

Nominal size	Dimension (mm)																	Approx. weight (kg)
	mm	inch	d	L	L ₁	D	H ₁	H ₂	d ₂	a ₁	a ₂	a ₃	S ₁	D ₁	t	C ₁	RE	
50	2	56	43	33	155	67	138	10	11	10.5	21.5	8	70	12	70	10	9	3.4
65	2 1/2	69	46	36	175	78	151	10	11	10.5	21.5	8	70	12	70	10	9	4.4
80	3	84	46	36	187	85	156	12	11	11.5	22.5	10	70	12	70	10	9	5
100	4	104	52	42	220	117	167	14	11	11.5	22.5	12	70	12	70	10	9	7.7
125	5	130	56	46	250	143	191	16	11	16.5	27.5	14	102	14	102	23.5	11	8.8
150	6	153.5	56	46	276	164	202	18	11	16.5	27.5	14	102	14	102	23.5	11	10.4
200	8	199	60	50	334(329)	176	227	22	10	20	30	18	102	14	102	23.5	11	16.3
250	10	253	68	58	402	215	280	28	5	30	35	24	102	14	102	23.5	11	27
300	12	302	78	68	472(438)	253	312	32	5	30	35	24	125	16	125	32.4	13	39
350	14	337	78	70	533(505)	276	348	32	5	40	3	—	140	23	140	28	19	66
400	16	394	102	90	596.7	338	383	40	6	45	3	—	140	23	140	28	19	107
450	18	441	114	102	633.8(620)	368	413	46	6	56	3	—	140	23	140	28	19	128
500	20	492	127	115	691	403	453	50	6	70	3	—	140	28	140	28	19	170
600	24	584	154	142	819.3(795)	458	528	55	6	70	3	—	165	28	165	28	23	275

722F Dimensions

Nominal size	Dimension (mm)																	Approx. weight (kg)	
	mm	inch	d	L	L ₁	D	H ₁	H ₂	d ₂	a ₁	a ₂	a ₃	S ₁	b	D ₁	t	C ₁		RE
125	5	129	100	—	250	139	165	18	11	16.5	27.5	14	—	102	14	102	24	11	18
150	6	154	100	—	280	157	180	18	11	16.5	27.5	14	—	102	14	102	24	11	19
200	8	194	100	—	330	181	210	22	10	20	30	18	—	102	14	102	24	11	37
250	10	250	110	—	400	221	250	30	5	30	35	24	—	102	14	102	24	11	43
300	12	296	110	—	445	251	280	32	5	30	35	24	—	125	16	125	32	13	52
350	14	334	120	110	490	298	320	40	6	45	54	—	12	140	20	140	—	19	70
400	16	384	130	116	560	334	360	46	6	56	65	—	14	140	20	140	—	19	93
450	18	435	150	134	620	356	390	50	6	70	79	—	14	140	20	140	—	19	132
500	20	482	160	140	675	382	420	50	6	70	79	—	14	140	25	140	—	19	182
550	22	531	170	156	745	418	460	55	6	70	79	—	16	165	25	165	—	23	225
600	24	581	170	156	795	476	490	55	6	70	79	—	16	165	25	165	—	23	270
650	26	627	170	156	845	586	510	65	10	60	75	—	18	260	32	220	—	23	415
700	28	670	180	160	905	629	560	75	10	80	95	—	20	320	35	280	—	23	585
750	30	723	190	170	970	659	590	75	10	80	95	—	20	320	35	280	—	23	680
800	32	772	200	180	1020	679	620	75	10	80	95	—	20	320	35	280	—	23	810

720F Dimensions

Nominal size	Dimension (mm)																	Approx. weight (kg)	
	mm	inch	d	L	L ₁	D	H ₁	H ₂	d ₂	a ₁	a ₂	a ₃	a ₄	b	D ₁	t	C ₁		N
850	34	822	210	—	1070	709	650	75	10	80	5	95	20	320	40	280	8	23	
900	36	858	230	—	1120	759	685	75	10	80	5	95	20	320	40	280	8	23	
1000	40	975	250	210	1235	819	745	95	10	100	10	120	24	320	45	280	8	23	
1100	44	1070	280	210	1345	874	820	95	10	100	10	120	24	320	45	280	8	23	
1200	48	1170	300	225	1465	948	880	95	10	100	10	120	24	320	45	280	8	23	
1350	54	1314	330	300	1630	1030	960	120	60	140	10	210	32	320	45	280	8	23	

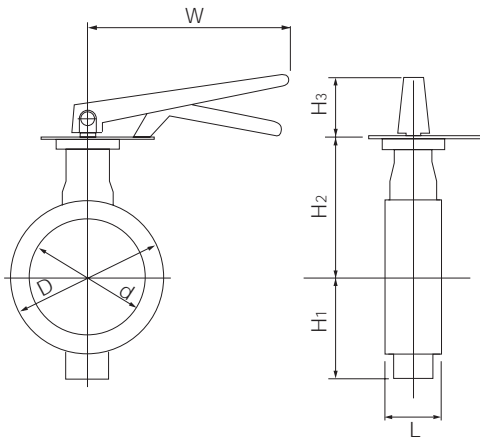
Please consult us.

Lock lever type 704G-1T(50mm to 100mm) / 722F-1T(125mm to 200mm)

Type	Nominal size		Dimension (mm)								Lever type	Approx. weight (kg)
	mm	inch	d	D	L	H ₁		H ₂	H ₃	W		
						JIS5K	JIS10K					
704G	50	2	56	155	43	68	68	138	66	200	1T-1	4
	65	2 1/2	69	175	46	79	79	151	66	200	1T-1	5
	80	3	84	187	46	86	109	156	66	200	1T-1	5.6 (6.1)
	100	4	104	220	52	117	117	167	66	200	1T-1	8.3
722F	125	5	129	250	100	139	139	165	92	300	1T-2	19.3
	150	6	154	280	100	157	157	180	92	300	1T-2	20.3
	200	8	194	330	100	181	181	210	97	350	1T-3	38.7

Remark: Value in brackets is for JIS 10K flanges.

704G/722F-1T



1T Installation direction

1TTL S (standard)	1TLR	1TRS	1TRR
1TXS	1TXR	1TVS	1TVR

Butterfly Valves

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M^(HLV)

507V/508V

846T/847T/847Q

841T/842T

773Z^(NAV-Z)

700G/704G/705G

731P/732P
732X/731X

700E/700K

704G/722F/720F

LRV

227P

MKT

903C/904C

704G(Lugged) 722F/720F(Double flanged)

Worm gear type 704G-2U(50mm to 100mm) / 722F-2U(125mm to 600mm) / 722F-2S(650mm to 800mm) / 720F-2S(850mm to 1350mm)

Butterfly Valves

704G-2U (50mm to 100mm)

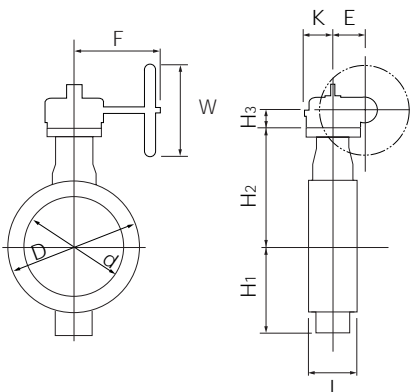
Type	Nominal size		Dimension (mm)											Gear type	Approx. weight (kg)
	mm	inch	d	D	L	H ₁		H ₂	H ₃	E	K	F	W		
						JIS5K	JIS10K								
704G	50	2	56	155	43	68	68	138	29.5	36	46	160	100	2U-0	5.7
	65	2 1/2	69	175	46	79	79	151	29.5	36	46	160	100	2U-0	6.7
	80	3	84	187	46	86	109	156	29.5	36	46	160	100	2U-1	7.3(7.8)
	100	4	104	220	52	117	117	167	29.5	36	46	160	100	2U-1	10

Remark: Value in brackets is for JIS 10K flanges.

722F-2U (125mm to 600mm) / 722F-2S (650mm to 800mm) / 720F-2S (850mm to 1350mm)

Type	Nominal size		Dimension (mm)											Gear type	Approx. weight (kg)
	mm	inch	d	D	L	H ₁	H ₂	H ₃	E	K	F	W			
722F	125	5	129	193	55	132	165	34.5	44	53	173.5	160	2U-2	22.2	
	150	6	154	224	60	145	180	34.5	44	53	173.5	160	2U-2	23.2	
	200	8	194	272	65	181	210	41.5	67	75	198	200	2U-3	45	
	250	10	250	332	80	221	250	41.5	67	75	198	200	2U-3	51	
	300	12	296	382	90	261	280	48	87.5	90	222.5	200	2U-4	66	
	350	14	334	425	100	297	320	50	90	105	266	280	2U-5	86	
	400	16	384	486	110	333	360	50	90	105	266	280	2U-5	109	
	450	18	435	544	120	355	390	50	90	105	266	280	2U-5	148	
	500	20	482	596	140	381	420	50	90	105	266	280	2U-5	198	
	550	22	531	653	150	417	460	61	113	140	352	400	2U-6	256	
	600	24	581	710	160	475	490	61	113	140	352	400	2U-6	301	
	650	26	627	845	170	558	510	65	140	198	400	450	MGH-4	473	
	700	28	670	905	180	639	560	75	185	267	457	500	MGH-4 1/2	692	
	750	30	723	970	190	659	590	75	185	267	457	500	MGH-4 1/2	787	
	800	32	772	1020	200	679	620	75	185	267	457	500	MGH-4 1/2	917	
	720F	850	34	822	1070	210	709	650	100	210	293	490	500	MGH-5	1050
900		36	858	1120	230	759	685	100	210	293	490	500	MGH-5	1150	
1000		40	975	1235	250	819	745	100	210	293	490	500	MGH-6	1384	
1100		44	1070	1345	280	874	820	100	210	293	490	500	MGH-6	1584	
1200		48	1170	1465	300	948	880	100	210	293	490	500	MGH-6	1984	
1350		54	1314	1630	330	1030	960	151	280	293	675	600	MGH-7	2330	

704G/722F/720F-2U/2S



2U/2S Installation direction

2 U A / 2 S A (standard)	2 U A R / 2 S A R
2 U B / 2 S B	2 U B R / 2 S B R

Center handle type 704G-2G(50mm to 100mm) / 722F-2G (125mm to 300mm) / 722F-2R (350mm to 600mm)

704G-2G (50mm to 100mm)

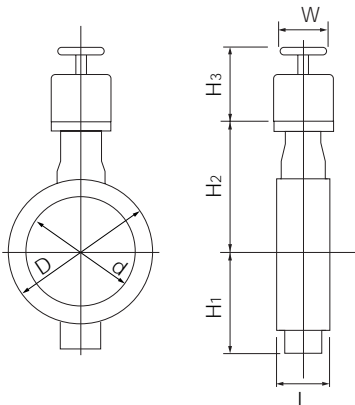
Nominal size		Dimension (mm)								Center handle type	Approx. weight (kg)
mm	inch	d	D	L	H ₁		H ₂	H ₃	W		
					JIS5K	JIS10K					
50	2	56	155	43	68	68	138	136	100	2G-1	6.3
65	2 1/2	69	175	46	79	79	151	136	100	2G-1	7.3
80	3	84	187	46	86	109	156	136	100	2G-1	7.9(8.4)
100	4	104	220	52	117	117	167	136	100	2G-1	10.6

Remark: Value in brackets is for JIS 10K flanges.

722F-2G (125mm to 300mm) / 722F-2R (350mm to 600mm)

Nominal size		Dimension (mm)								Center handle type	Approx. weight (kg)
mm	inch	d	D	L	H ₁	H ₂	H ₃	W			
125	5	129	250	100	139	165	133	100	2G-2	22	
150	6	154	280	100	157	180	133	100	2G-2	23	
200	8	194	330	100	181	210	151	200	2G-3	45	
250	10	250	400	110	221	250	151	200	2G-3	51	
300	12	296	445	110	251	280	161	200	2G-4	60	
350	14	334	490	120	298	320	409	355	2R-3	103	
400	16	384	560	130	334	360	409	355	2R-3	126	
450	18	435	620	150	356	390	409	355	2R-3	165	
500	20	482	675	160	382	420	409	355	2R-3	215	
550	22	531	745	170	418	460	489	450	2R-4	278	
600	24	581	795	170	476	490	489	450	2R-4	323	

704G/722F-2G/2R



Butterfly Valves

TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M ^(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z ^(NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C

704G(Lugged) 722F/720F(Double flanged)

Double-acting pneumatic cylinder type 704G-3E(50mm to 100mm) / 722F-3E(125mm to 350mm)

Butterfly Valves

Standard

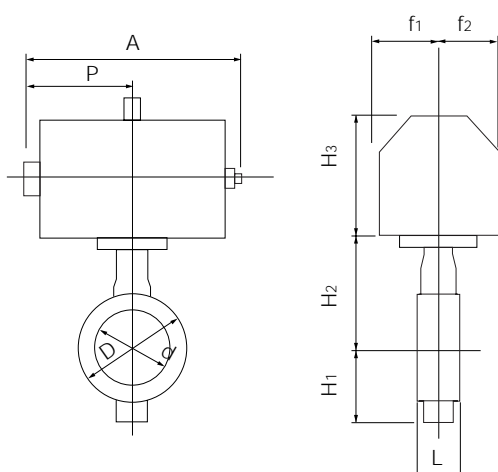
Type	Nominal size		Dimension (mm)										Cylinder type	Approx. weight (kg)		
	mm	inch	d	D	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂				
TRITEC																
TT2																
334A	704G	50	2	56	155	43	68	138	113	216.5	111.5	35	50	K30	5.3	
302A/303Q	704G	65	2 1/2	69	175	46	79	151	113	216.5	111.5	35	50	K30	6.3	
304A/304Q	704G	80	3	84	187	46	86 (109)	156	133	266	136	53	51	K70	8.9 (9.4)	
302Y/304Y	704G	100	4	104	220	52	117	167	133	266	136	53	51	K70	11.6	
304M(HLV)	722F	125	5	129	250	100	139	165	157	330	169	65	58	K170	25	
507V/508V	722F	150	6	154	280	100	157	180	157	330	169	65	58	K170	26	
846T/847T/847Q	722F	200	8	194	330	100	181	210	157	330	169	65	58	K170	44	
841T/842T	722F	250	10	250	400	110	221	250	184	409	207	83	69	K370	55	
773Z(NAV-Z)	722F	300	12	296	445	110	251	280	224	518	260	101	85	K700	82	
700G/704G/705G	722F	350	14	334	490	120	298	320	314	518	260	101	85	K700	100	

Remark: Value in brackets is for JIS 10K flanges.

Standard

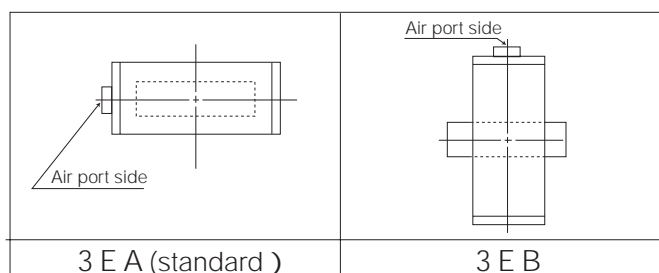
Type	Nominal size		Dimension (mm)										Cylinder type	Approx. weight (kg)	
	mm	inch	d	D	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂			
731P/732P 732X/731X	704G	50	2	56	155	43	68	138	113	216.5	111.5	35	50	K30	5.3
700E/700K	704G	65	2 1/2	69	175	46	79	151	113	216.5	111.5	35	50	K30	6.3
704G/722F/720F	704G	80	3	84	187	46	86 (109)	156	133	266	136	53	51	K70	8.9 (9.4)
LRV	704G	100	4	104	220	52	117	167	157	330	169	65	58	K170	14.3
227P	722F	125	5	129	250	100	139	165	157	330	169	65	58	K170	25
MKT	722F	150	6	154	280	100	157	180	157	330	169	65	58	K170	26
903C/904C	722F	200	8	194	330	100	181	210	184	409	207	83	69	K370	49
	722F	250	10	250	400	110	221	250	224	518	260	101	85	K700	73
	722F	300	12	296	445	110	251	280	224	518	260	101	85	K700	82

704G/722F-3E



Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

3E Installation direction



Double-acting pneumatic cylinder type 722F-3A(350mm to 800mm) / 720F-3A(850mm, 900mm)

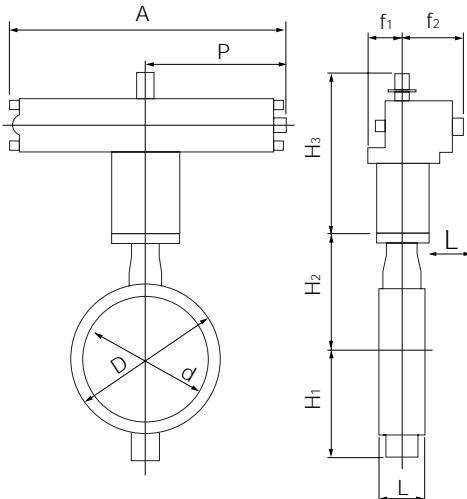
Standard

Type	Nominal size		Dimension (mm)										Cylinder type	Approx. weight (kg)
	mm	inch	d	D	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
722F	400	16	384	560	130	334	360	364	743	381	100	164	TGA-125	134
	450	18	435	620	150	356	390	437	810	417	100	180	TGA-140	192
	500	20	482	675	160	382	420	465	939	483	130	202	TGA-160	272
	550	22	531	745	170	418	460	465	939	483	130	202	TGA-160	318
	600	24	581	795	170	476	490	478	1053	543	130	218	TGA-180	409
	650	26	627	845	170	586	510	478	1053	543	130	218	TGA-180	566
	700	28	670	905	180	629	560	570	1163	599	160	253	TGA-200	812
	750	30	723	970	190	659	590	570	1163	599	160	253	TGA-200	907
	800	32	772	1020	200	679	620	600	1248	642	160	270	TGA-220	1061
720F	850	34	822	1070	210	709	650	600	1248	642	160	270	TGA-220	1151
	900	36	858	1120	230	759	685	633	1381	707	160	299	TGA-250	1317

Heavy duty

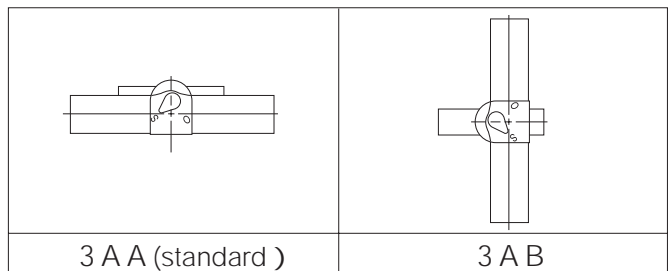
Type	Nominal size		Dimension (mm)										Cylinder type	Approx. weight (kg)
	mm	inch	d	D	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
722F	350	14	334	490	120	298	320	364	743	381	100	164	TGA-125	111
	400	16	384	560	130	334	360	412	810	417	100	180	TGA-140	145
	450	18	435	620	150	356	390	465	939	483	130	202	TGA-160	233
	500	20	482	675	160	382	420	465	939	483	130	202	TGA-160	272
	550	22	531	745	170	418	460	478	1053	543	130	218	TGA-180	364
	600	24	581	795	170	476	490	525	1163	599	160	253	TGA-200	469
	650	26	627	845	170	558	510	600	1248	642	160	270	TGA-220	672
	700	28	670	905	180	639	560	600	1248	642	160	270	TGA-220	842
	750	30	723	970	190	659	590	633	1381	707	160	299	TGA-250	996
	800	32	772	1020	200	679	620	633	1381	707	160	299	TGA-250	1126

722F/720F-3A



Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

3A Installation direction



TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M _(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z _(NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C

704G(Lugged) 722F/720F(Double flanged)

Single-acting pneumatic cylinder type 704G-3G(Air to open: 50mm to 100mm) / 722F-3G(Air to open: 125mm to 200mm)
704G-3F(Air to close: 50mm to 100mm) / 722F-3F(Air to close: 125mm to 200mm)

Butterfly Valves

Standard

Type	Nominal size		Dimension (mm)										Cylinder type	Approx. weight (kg)
	mm	inch	d	D	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
704G	50	2	56	155	43	68	138	133	360	176.5	53	51	K70S	8.5
	65	2 1/2	69	175	46	79	151	157	444	218.5	65	58	K170S	13.3
	80	3	84	187	46	86 (109)	156	157	444	218.5	65	58	K170S	13.9 (14.4)
	100	4	104	220	52	117	167	157	444	218.5	65	58	K170S	16.6
722F	125	5	129	250	100	139	165	184	545	269	83	69	K370S	34
	150	6	154	280	100	157	180	184	545	269	83	69	K370S	35
	200	8	194	330	100	181	210	224	707	350	101	85	K700S	67

Remark: Value in brackets is for JIS 10K flanges.

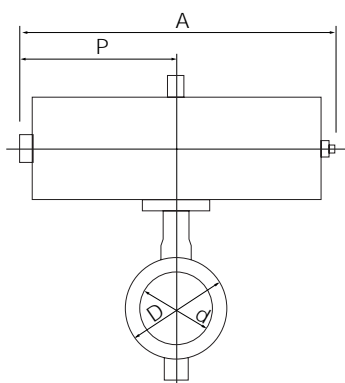
Heavy duty

Type	Nominal size		Dimension (mm)										Cylinder type	Approx. weight (kg)
	mm	inch	d	D	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
704G	50	2	56	155	43	68	138	133	360	176.5	53	51	K70S	8.5
	65	2 1/2	69	175	46	79	151	157	444	218.5	65	58	K170S	13.3
	80	3	84	187	46	86 (109)	156	157	444	218.5	65	58	K170S	13.9 (14.4)
	100	4	104	220	52	117	167	184	545	269	83	69	K370S	23.5
722F	125	5	129	250	100	139	165	184	545	269	83	69	K370S	34
	150	6	154	280	100	157	180	184	545	269	83	69	K370S	35
	200	8	194	330	100	181	210	224	707	350	101	85	K700S	67

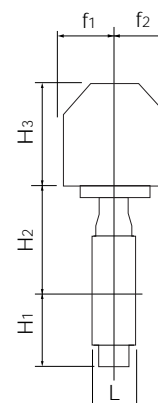
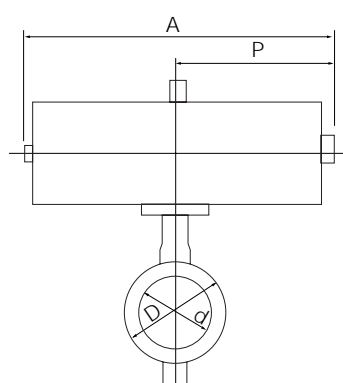
Remark: Value in brackets is for JIS 10K flanges.

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

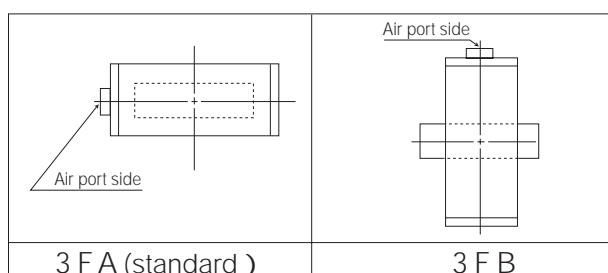
704G/722F-3G



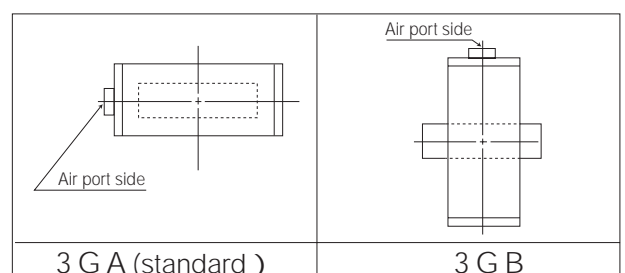
704G/722F-3F



3F Installation direction



3G Installation direction



Single-acting pneumatic cylinder type 722F-3U(Air to open: 200mm to 600mm) / 722F-3K(Air to close: 200mm to 600mm)

Standard

Nominal size		Dimension (mm)										Cylinder type	Approx. weight (kg)
mm	inch	d	D	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
250	10	250	400	110	221	250	307	945	585	70	165	TG-10S	99
300	12	296	445	110	251	280	307	1080	720	94	206	TG-12S	153
350	14	334	490	120	298	320	307	1080	720	94	206	TG-12S	171
400	16	384	560	130	334	360	340	1255	865	131	257	TG-14S	291
450	18	435	620	150	356	390	340	1255	865	131	257	TG-14S	330
500	20	482	675	160	382	420	474	1655	1095	164	348	TG-20S	593
550	22	531	745	170	418	460	474	1655	1095	164	348	TG-20S	636
600	24	581	795	170	476	490	474	1655	1095	164	348	TG-20S	681

Heavy duty

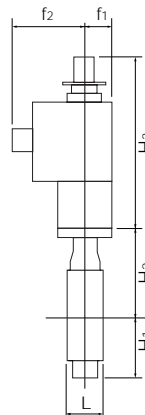
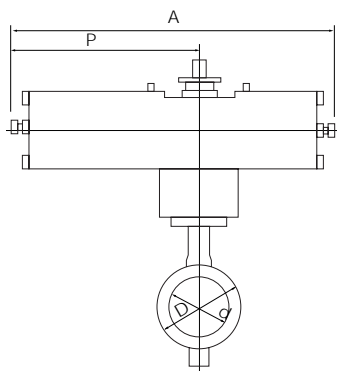
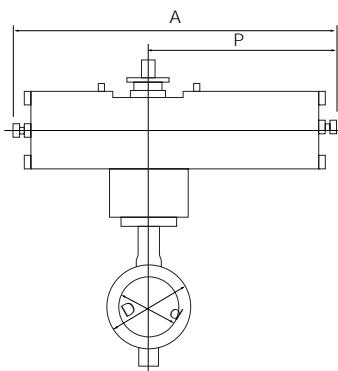
Nominal size		Dimension (mm)										Cylinder type	Approx. weight (kg)
mm	inch	d	D	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
200	8	194	330	100	181	210	307	945	585	70	165	TG-10S	93
250	10	250	400	110	221	250	307	1080	720	94	206	TG-12S	144
300	12	296	445	110	251	280	307	1080	720	94	206	TG-12S	153
350	14	334	490	120	298	320	340	1255	865	131	257	TG-14S	267
400	16	384	560	130	334	360	340	1255	865	131	257	TG-14S	291
450	18	435	620	150	356	390	474	1655	1095	164	348	TG-20S	543
500	20	482	675	160	382	420	474	1655	1095	164	348	TG-20S	593
550	22	531	745	170	418	460	474	1655	1095	164	348	TG-20S	636
600	24	581	795	170	476	490	474	1655	1095	164	348	TG-20S	681

Butterfly Valves

TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M ^(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z ^(NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C

704G/722F-3U

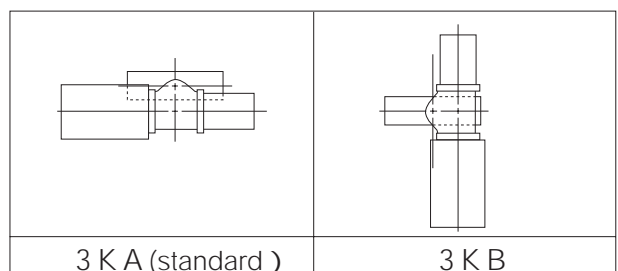
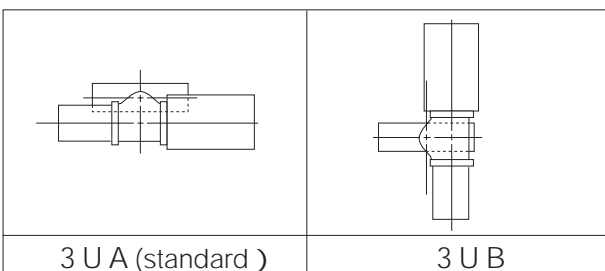
704G/722F-3K



Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

3U Installation direction

3K Installation direction



704G(Lugged) 722F/720F(Double flanged)

Single phase motor type 704G-4 I (50mm to 100mm) / 722F-4 I (125mm to 500mm)

Butterfly Valves

704G-4 I

Nominal size		Dimension (mm)											Motor type	Approx. weight (kg)
mm	inch	d	D	L	H ₁		H ₂	H ₃	A	P	F	K		
					JIS5K	JIS10K								
50	2	56	155	43	68	68	138	150	202	100	85	54	4 I-0	7.6
65	2 1/2	69	175	46	79	79	151	150	202	100	85	54	4 I-0	8.6
80	3	84	187	46	86	109	156	150	202	100	85	54	4 I-0	9.2(9.7)
100	4	104	220	52	117	117	167	165	252	138	126	65	4 I-1	14.1

Remark: Value in brackets is for JIS 10K flanges.

722F-4 I

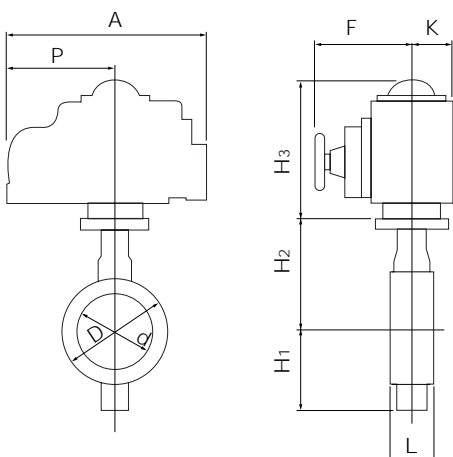
Nominal size		Dimension (mm)											Motor type	Approx. weight (kg)
mm	inch	d	D	L	H ₁	H ₂	H ₃	A	P	F	K			
125	5	129	250	100	139	165	198	310	167	154	85	4 I-2	30	
150	6	154	280	100	157	180	198	310	167	154	85	4 I-2	31	
200	8	194	330	100	181	210	198	310	167	154	85	4 I-2.5	50	
250	10	250	400	110	221	250	230	388	223	246	136	4 I-3	67	
300	12	296	445	110	251	280	230	388	223	246	136	4 I-3	76	
350	14	334	490	120	298	320	230	388	223	246	136	4 I-3	93	
400	16	384	560	130	334	360	230	388	223	246	136	4 I-3	116	
							255	388	223	246	136	4 I-4	122	
450	18	435	620	150	356	390	230	388	223	246	136	4 I-4	161	
500	20	482	675	160	382	420	230	388	223	246	136	4 I-4	211	

Remark: For the 400mm type with the accessories below, type 4I-4 should be selected.

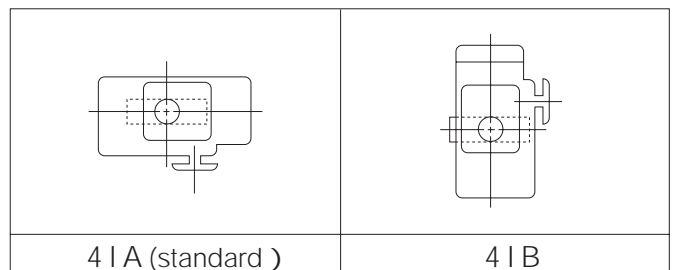
- Micom unit
- Servo unit
- Speed control unit
- Potentiometer

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

704G/722F-4 I



4 I Installation direction



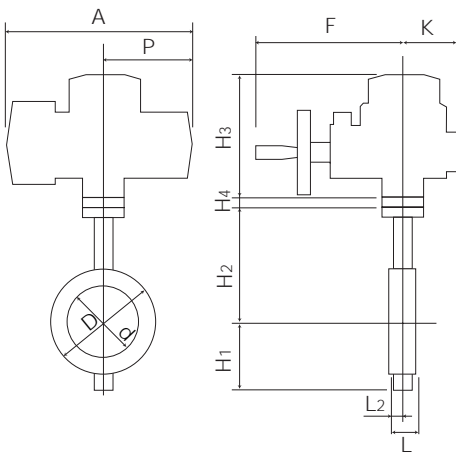
Three phase motor actuator type 704G-4J(50mm to 100mm)

704G-4J

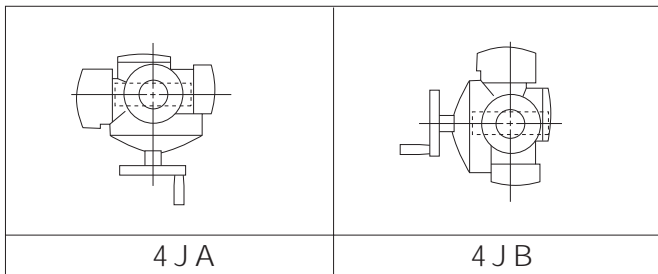
Nominal size		Dimension (mm)												Motor type	Approx. weight (kg)
mm	inch	d	D	L	H1		H2	H3	H4	A	P	F	K		
					JIS5K	JIS10K									
50	2	56	155	43	68	68	138	218	3.2	353	167	286	104	SRJ-010	17.1
65	2 1/2	69	175	46	79	79	151	218	3.2	353	167	286	104	SRJ-010	18.1
80	3	84	187	46	86	109	156	218	3.2	353	167	286	104	SRJ-010	19.2(19.7)
100	4	104	220	52	117	117	167	218	3.2	353	167	286	104	SRJ-010	21.2

Remark: Value in brackets is for JIS 10K flanges.

704G-4J



4J Installation direction



Butterfly Valves

TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z (NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C

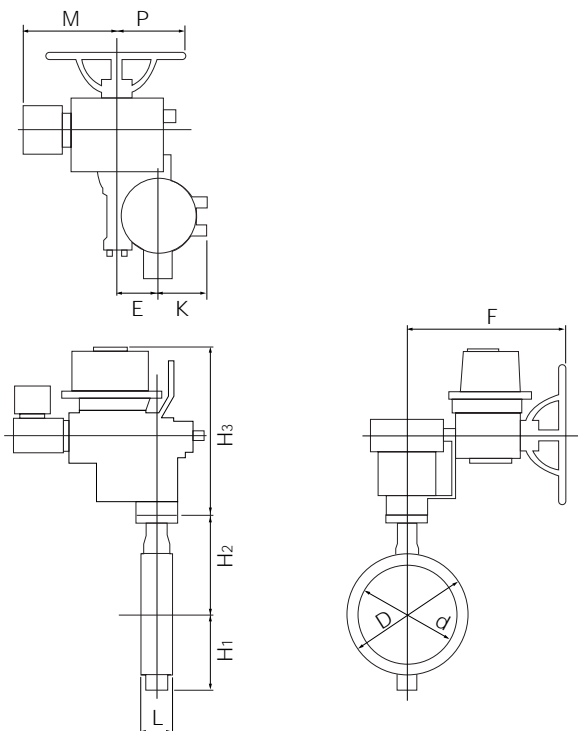
704G(Lugged) 722F/720F(Double flanged)

Three phase motor actuator type 722F-4L(350mm to 800mm) / 720F-4L(850mm to 1350mm)

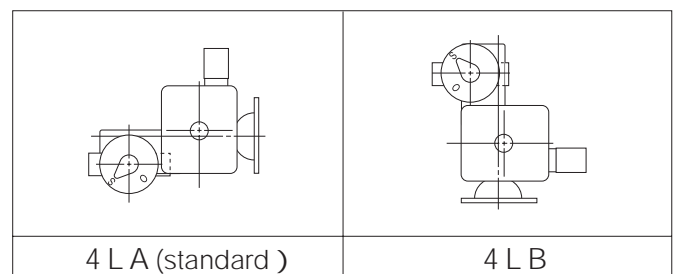
Butterfly Valves
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z(NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C

Type	Nominal size		Dimension (mm)											Cylinder type	Approx. weight (kg)
	mm	inch	d	D	L	H ₁	H ₂	H ₃	E	K	F	M	P		
722F	350	14	334	490	120	298	320	487	117	164	533	357	230	LTKD-01 0.2kW/ MGH-3	171
	400	16	384	560	130	334	360	487	117	164	533	357	230	LTKD-01 0.2kW/ MGH-3	194
	450	18	435	620	150	356	390	487	117	164	533	370	230	LTKD-01 0.4kW/ MGH-3	237
	500	20	482	675	160	382	420	487	117	164	533	370	230	LTKD-01 0.4kW/ MGH-3	287
	550	22	531	745	170	418	460	559	140	198	592	395	230	LTKD-02 0.75kW/ MGH-4	388
	600	24	581	795	170	476	490	559	140	198	637	440	375	LTKD-05 0.75kW/ MGH-4	477
	650	26	627	845	170	586	510	570	140	198	637	440	375	LTKD-05 0.75kW/ MGH-4	625
	700	28	670	905	180	629	560	640	210	293	747	440	375	LTKD-05 0.75kW/ MGH-5	915
	750	30	723	970	190	659	590	640	210	293	747	477	375	LTKD-05 1.5kW/ MGH-5	1010
	800	32	772	1020	200	679	620	680	210	293	797	537	425	LTKD-01 1.5kW/ MGH-5	1205
720F	850	34	822	1070	210	709	650	680	210	293	797	537	425	LTKD-1 1.5kW/ MGH-5	1295
	900	36	858	1120	230	759	685	680	210	293	797	537	425	LTKD-1 1.5kW/ MGH-5	1395
	1000	40	975	1235	250	819	745	700	210	293	762	537	425	LTKD-1 1.5kW/ MGH-6	1670
	1100	44	1070	1345	280	874	820	700	210	293	762	537	425	LTKD-1 1.5kW/ MGH-6	1870
	1200	48	1170	1465	300	948	880	700	210	293	762	537	425	LTKD-1 1.5kW/ MGH-6	2270
	1350	54	1314	1630	330	1030	960	700	280	293	810	540	410	LTKD-1 2.2kW/ MGH-7	2650

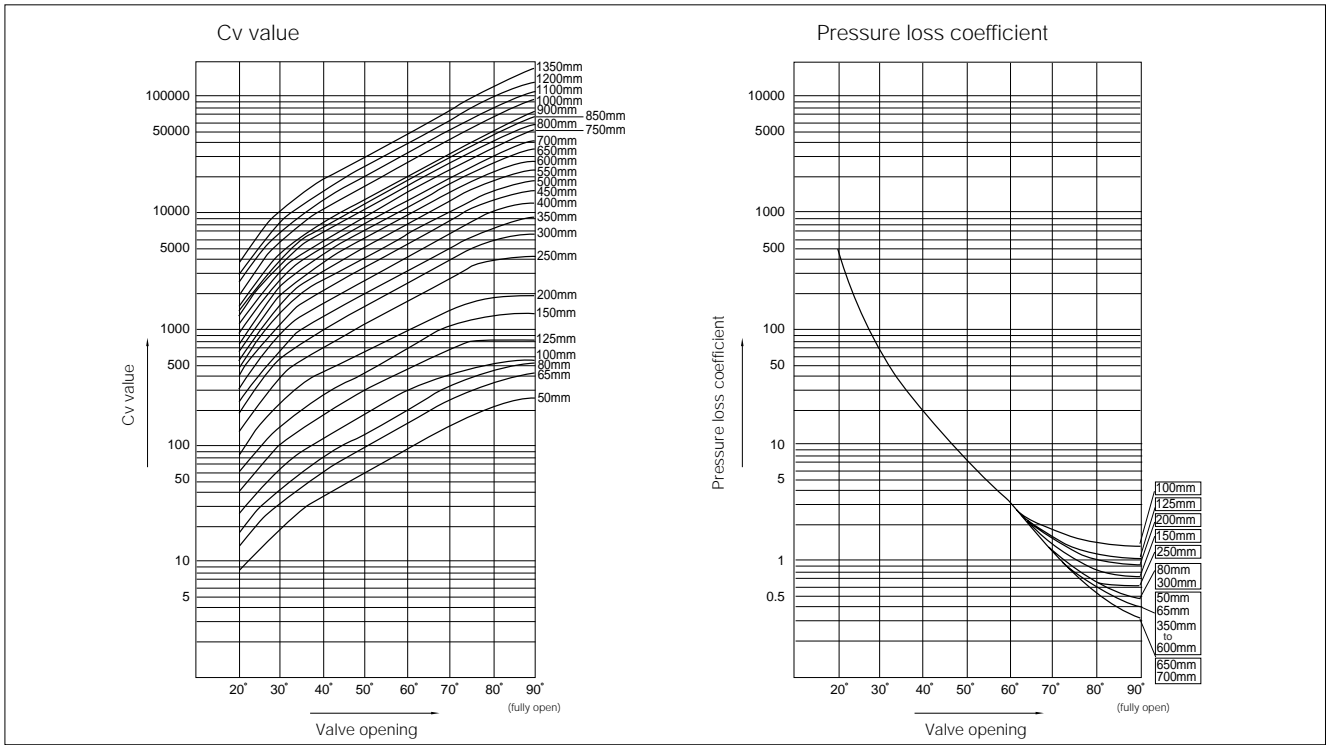
722F/720F-4L



4L Installation direction



704G/722F/720F Cv value/Pressure loss coefficient



704G/722F/720F Cv value

Nominal size	Nominal size		Valve opening							
	mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
704G	50	2	8	15	25	40	64	103	160	200
	65	2 1/2	12	25	41	64	102	162	260	320
	80	3	15	33	57	95	163	271	450	580
	100	4	27	58	100	162	269	444	749	880
722F	125	5	40	102	180	297	457	692	767	800
	150	6	61	146	272	429	710	1039	1295	1350
	200	8	71	239	417	646	969	1457	1836	1950
	250	10	139	375	693	1135	1746	2724	3855	4200
	300	12	184	544	995	1593	2461	3909	5571	6400
	350	14	215	678	1248	1982	3028	4827	7054	9000
	400	16	304	905	1656	2649	4094	6460	9782	12000
	450	18	381	1158	2136	3433	5274	8120	12430	15000
	500	20	496	1440	2631	4209	6434	10085	15436	17500
	550	22	571	1765	3234	5141	7833	12066	17999	22500
	600	24	688	2074	3815	6126	9433	14595	21897	26500
	650	26	817	2441	4473	7159	11013	17254	26972	32500
720F	700	28	934	2807	5122	8152	12511	19728	30929	39000
	750	30	935	3220	5965	9450	14328	22687	38260	52000
	800	32	1200	3721	6791	10771	16553	26976	43316	59000
	850	34	1164	4018	7516	12063	18567	29284	46350	66000
	900	36	1358	4497	8298	13177	20139	32362	53126	73000
	1000	40	1784	5835	10740	17060	26110	42070	68860	95000
	1100	44	2075	7030	13020	20680	31530	50420	83340	114000
	1200	48	2570	8520	15710	24900	37930	60280	98640	138000
	1350	54	3385	10180	18810	30490	47840	75750	119000	173000

Butterfly Valves

- TRITEC
- TT2
- 334A
- 302A/303Q
- 304A/304Q
- 302Y/304Y
- 304M(HLV)
- 507V/508V
- 846T/847T/847Q
- 841T/842T
- 773Z(NAV-Z)
- 700G/704G/705G
- 731P/732P
- 732X/731X
- 700E/700K
- 704G/722F/720F
- LRV
- 227P
- MKT
- 903C/904C

704G(Lugged) 722F/720F(Double flanged)

704G/722F/720F Pressure loss coefficient

Butterfly Valves	Nominal size	Nominal size		Valve opening							
		mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
TRITEC	704G	50	2	257	68	25	10	4	2	1	0.4
TT2		65	2 1/2	310	75	28	11	4	2	1	0.4
334A		80	3	394	83	27	10	3	1	0.4	0.2
302A/303Q		100	4	350	78	26	10	4	1	0.4	0.3
304A/304Q	722F	125	5	399	61	19	7	3	1	1	1
304A/304Q		150	6	336	58	17	7	2	1	1	1
302Y/304Y		200	8	745	65	22	9	4	2	1	1
304M(HLV)		250	10	464	63	19	7	3	1	1	1
507V/508V		300	12	545	62	19	7	3	1	1	0.4
507V/508V		350	14	615	62	18	7	3	1	1	0.3
846T/847T/847Q		400	16	540	61	18	7	3	1	1	0.3
841T/842T		450	18	560	61	18	7	3	1	1	0.3
773Z(NAV-Z)		500	20	510	61	18	7	3	1	1	0.4
700G/704G/705G		550	22	571	60	18	7	3	1	1	0.3
731P/732P 732X/731X		600	24	561	62	18	7	3	1	1	0.3
700E/700K		650	26	553	62	18	7	3	1	1	0.4
704G/722F/720F		700	28	573	63	19	8	3	1	1	0.3
LRV		750	30	758	64	19	7	3	1	0.5	0.3
227P		800	32	599	62	19	7	3	1	0.5	0.3
MKT		850	34	815	68	20	8	3	1	0.5	0.3
903C/904C	900	36	756	69	20	8	3	1	0.5	0.3	
	720F	1000	40	645	60	18	7	3	1	0.4	0.2
		1100	44	701	61	18	7	3	1	0.4	0.2
		1200	48	658	60	18	7	3	1	0.4	0.2
		1350	54	611	68	20	8	3	1	0.5	0.2

704G/722F/720F Applicable flange standard

Type	Nominal size		JIS		ANSI		BS4504 PN10	DIN NP10
	mm	inch	5K	10K	125Lb	150Lb		
704G	50	2	○	○	○	○	○	○
	65	2 1/2	○	○	○	○	○	○
	80	3	◎	○	◎	◎	○	○
	100	4	○	○	○	○	○	○
722F	125	5	○	○	◎	◎	○	○
	150	6	○	○	◎	◎	○	○
	200	8	○	○	◎	◎	◎	◎
	250	10	○	○	◎	◎	○	○
	300	12	○	○	◎	◎	○	○
	350	14	○	○	◎	◎	◎	◎
	400	16	○	○	◎	◎	○	○
	450	18	○	○	◎	◎	○	—
	500	20	○	○	◎	◎	◎	◎
	550	22	○	○	—	—	—	—
	600	24	○	○	◎	◎	◎	◎
	650	26	○	○	Consult us if the flange standard is not JIS 5K/10K in 650mm type and over.			
	700	28	○	○				
	750	30	○	○				
800	32	○	○					
850	34	○	○					
900	36	○	○					
1000	40	○	○					
720F	1100	44	○	○				
	1200	48	○	○				
	1350	54	○	○				

○ : Can be used without flange drilling.
◎ : Tapped holes only. (ANSI body only)

Butterfly Valves

TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M ^(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z ^(NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C

704G(Lugged) 722F/720F(Double flanged)

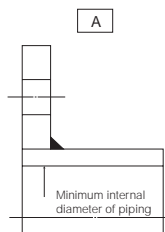
704G/722F/720F Applicable pipe list in case of **A**

Butterfly Valves	Type	Nominal size		SGP	STPY	Sch20	Sch40	Sch10S	Sch20S	Minimum internal diameter of piping (mm)
		mm	inch							
TRITEC	704G	50	2		-					34
TT2		65	2 1/2		-					51
334A		80	3		-					70
302A/303Q		100	4		-					91
304A/304Q	722F	125	5		-					118
302Y/304Y		150	6		-					143
304M(HLV)		200	8		-					187
507V/508V		250	10		-					240
846T/847T/847Q		300	12		-					286
841T/842T		350	14					-	-	322
773Z(NAV-Z)		400	16					-	-	372
700G/704G/705G		450	18					-	-	421
731P/732P 732X/731X		500	20					-	-	463
700E/700K		550	22	-				-	-	509
704G/722F/720F		600	24	-				-	-	566
LRV		650	26	-				-	-	612
227P		700	28	-		-	-	-	-	653
MKT		750	30	-		-	-	-	-	705
903C/904C		800	32	-		-	-	-	-	754
		720F	850	34	-		-	-	-	-
	900		36	-		-	-	-	-	834
	1000		40	-		-	-	-	-	950
	1100		44	-		-	-	-	-	1040
	1200		48	-		-	-	-	-	1138
		1350	54	-		-	-	-	-	1277

Remark 1: =Applicable

Remark 2: Butterfly valves are inserted into a pipe that was fitted with the disc when fully open.

In cases where you are using a pipe or flange that is less than the minimum inner pipe diameter, use is still possible if means are taken such as inserting a spacer between the valve and flange. For details, please consult us.



704G/722F/720F Applicable pipe list in case of **B**

Type	Nominal size		SGP	STPY	Sch20	Sch40	Sch10S	Sch20S
	mm	inch						
704G	50	2		-				
	65	2 1/2		-				
	80	3		-				
	100	4		-				
722F	125	5		-				
	150	6		-				
	200	8		-				
	250	10		-				
	300	12		-				
	350	14					-	-
	400	16					-	-
	450	18					-	-
	500	20					-	-
	550	22	-				-	-
	600	24	-				-	-
	650	26	-				-	-
	700	28	-		-	-	-	-
	750	30	-		-	-	-	-
	800	32	-		-	-	-	-
	720F	850	34	-		-	-	-
900		36	-		-	-	-	-
1000		40	-		-	-	-	-
1100		44	-		-	-	-	-
1200		48	-		-	-	-	-
1350		54	-		-	-	-	-

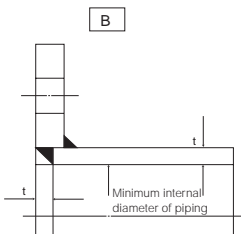
Butterfly Valves

TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M ^(HLV)
507V/508V
846T/847T/847Q
841T/842T
773Z ^(NAV-Z)
700G/704G/705G
731P/732P 732X/731X
700E/700K
704G/722F/720F
LRV
227P
MKT
903C/904C

Remark 1: = Applicable

Remark 2: Butterfly valves are inserted into a pipe that was fitted with the disc when fully open.

In cases where you are using a pipe or flange that is less than the minimum inner pipe diameter, use is still possible if means are taken such as inserting a spacer between the valve and flange. For details, please consult us.



704G(Lugged) 722F/720F(Double flanged)

704G/722F/720F Piping bolts sizes

Butterfly Valves	Type	Nominal size		JIS 5K		JIS 10K	
		mm	inch	Hexagon bolts and nuts	Hexagon bolts	Hexagon bolts and nuts	Hexagon bolts
TRITEC	704G	50	2	—	8-M12×30×25	—	8-M16×35×30
TT2		65	2 1/2	—	8-M12×35×30	—	8-M16×35×30
334A		80	3	—	8-M16×35×30	—	16-M16×35×30
302A/303Q		100	4	—	16-M16×40×35	—	16-M16×40×35
304A/304Q	722F	125	5	8-M16×60×38	8-M16×40×35	8-M20×65×46	8-M20×45×37
302Y/304Y		150	6	8-M16×60×38	8-M16×40×35	8-M20×70×46	8-M20×50×42
304M(HLV)		200	8	8-M20×65×46	8-M20×50×42	16-M20×70×46	8-M20×50×42
507V/508V		250	10	16-M20×70×46	8-M20×50×42	16-M22×75×50	8-M22×50×42
846T/847T/847Q		300	12	16-M20×70×46	8-M20×50×42	24-M22×75×50	8-M22×50×42
841T/842T		350	14	16-M22×80×50	8-M22×55×47	24-M22×80×50	8-M22×55×47
773Z(NAV-Z)		400	16	24-M22×85×50	8-M22×55×47	24-M24×90×54	8-M24×60×50
700G/704G/705G		450	18	24-M22×90×50	8-M22×60×50	32-M24×100×54	8-M24×65×54
731P/732P 732X/731X		500	20	32-M22×90×50	8-M22×60×50	32-M24×100×54	8-M24×70×54
700E/700K		550	22	32-M24×100×54	8-M24×65×54	32-M30×110×66	8-M30×70×54
704G/722F/720F		600	24	32-M24×100×54	8-M24×65×54	40-M30×110×66	8-M30×70×54
LRV		650	26	40-M24×100×54	8-M24×70×54	40-M30×110×66	8-M30×80×66
227P		700	28	40-M24×100×54	8-M24×70×54	40-M30×110×66	8-M30×80×66
MKT		750	30	40-M30×110×66	8-M30×80×66	40-M30×115×66	8-M30×80×66
903C/904C		800	32	40-M30×110×66	8-M30×80×66	48-M30×115×66	8-M30×80×66
		720F	850	34	40-M30×110×66	8-M30×80×66	48-M30×115×66
	900		36	40-M30×115×66	8-M30×75×66	48-M30×120×66	8-M30×80×66
	1000		40	40-M30×130×72	16-M30×90×66	40-M36×145×84	16-M36×110×78
	1100		44	40-M30×130×72	16-M30×90×66	40-M36×145×84	16-M36×110×78
	1200		48	48-M30×130×72	16-M30×90×66	48-M36×150×84	16-M36×110×78
		1350	54	56-M30×135×72	16-M30×90×66	56-M42×165×96	16-M42×110×90

Remarks:

1. The bolt for valve positioning uses the screw hole.
2. The hexagon bolt is used in the screw hole part for valve positioning.
3. Please use a hexagon nut with 80% threading.
4. For uses other than marine, use SS400 as the bolt (and nut) material.

Example

Hexagon bolts: 4 - M30 x 95 x 65



Hexagon bolts

