

Large diameter rubber seat butterfly valves

700E Wafer with support lugs

700K Wafer with support lugs

700S Wafer with support lugs



-  Worm gear
-  Pneumatic cylinder
-  Motorised

Features and benefits

Simple structure and low cost. Many years of proven reliable performance in various industries.

Concentric design raised centre seat

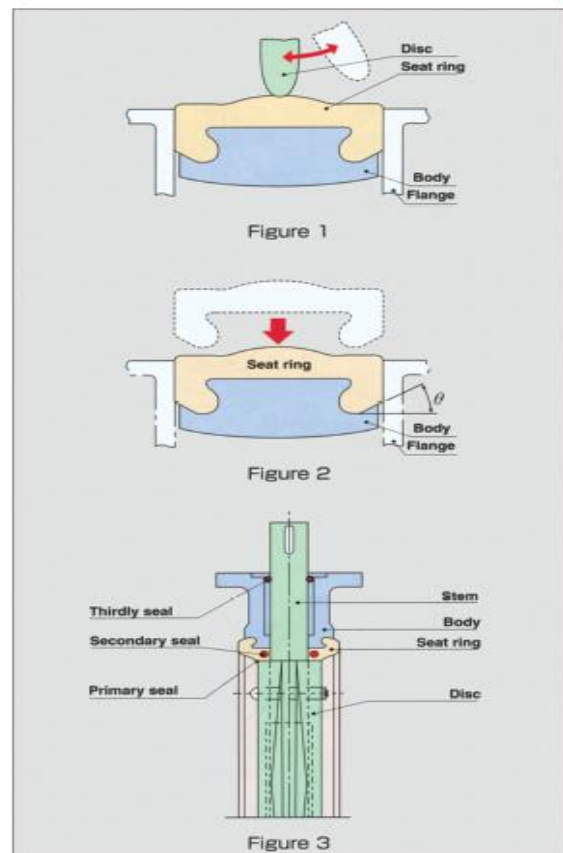
Figure 1 shows the TOMOE sealing design between the disc and seat. The raised section of the seat reduces and minimises the operating torque while ensuring a tight seal between disc and seat.

Rounded dove-tail design

Figure 2 shows the self-gripping seat ring design firmly in place inside the body. This design ensures the seat cannot be displaced during the bolting up of the adjoining flange. The seat also acts as the gasket between the valve and the pipe flange.

Triple-sealing system

Figure 3 shows the triple stem seal. The primary seal is created from the initial compression between the flat surface of the seat and the flat hub of the disc. When the valve is subject to normal operating conditions this seals the shaft and body from any contact with the flowing medium. The secondary seal is accomplished by an O-ring fitted into a stainless steel cartridge which is moulded into the seat ring. There is a secondary seal at each end of the stem where it penetrates the seat. The third seal is to prevent dirt and other foreign materials within the environment from getting into any of the working valve parts.



TOMOE

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700S Wafer with support lugs

Discs and seats come in various materials to meet a wide range of needs. These are the ultimate general purpose valves and they provide excellent cost performance.

General Description

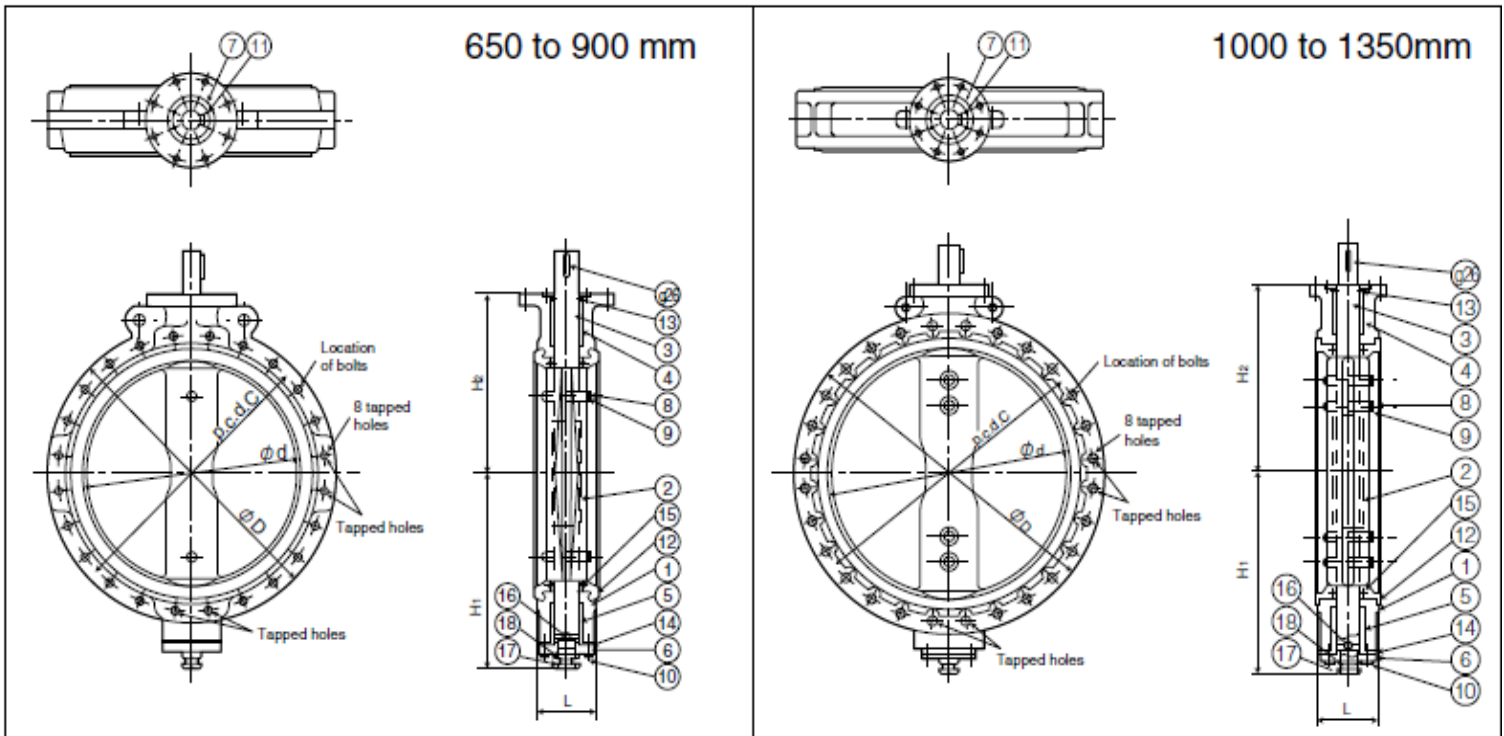
TOMOE butterfly valves are used worldwide for various applications in water treatment, shipbuilding, air conditioning, petrochemical, power generation and other industries. Among the various types of TOMOE rubber seated butterfly valves, there are three types – 700E, 700K and 700S – that are particularly suitable for large diameter applications

Standard Specification

Type	700E	700K	700S
Size	650mm – 1350mm		
Max. Working Pressure MPa (kgf/cm ²)	0.98 MPa		
Flange standard	JIS 5K/10K	ASME B16.1 Class 125 ISO PN 10 ASME B 16.47 Series A Class 150lb	ASME B16.47 Series B Class 150lb API 605 Class 150
Standard materials	Body	Cast iron	Cast iron, Ductile iron, Carbon steel
	Disc	Ductile iron with hard Cr plated stainless steel casting Aluminium bronze	
	Stem	Stainless steel, K-MONEL	
	Seat	NBR : -10 to 80 degrees C, EPDM : -20 to 120 degrees C	
Coating	Lacquer Primer (Munsell N7)		
Test Standard	API 598, AWWA C504		
Material Certification	EN 10204 3.1B for body disc and stem		
Marking	MSS SP-25		

- Other flange standards may be available on request. Consult us.
- Clean face disc (2 shaft design) is available for 700E/S/K and 720F.
- The seat ring of 1000mm and over for 700E/S/K and 720F are vulcanized to the body.
- Please refer to 700G, 704G, 705G in case of 600mm or below.

Wafer with Support Lugs



■ Dimensions (700E / 700K / 700S)

Nominal size		Dimension (mm)						Weight (kg)	Flange Rating ^{※1}							
									JIS 5K ^{※2}		JIS 10K ^{※2}		ASME B 16.47 Series A		BS 4504 NP10, DIN PN10	
mm	inch	ϕd	ϕD ^{※1}	L	H ₁	H ₂		Long bolts & Nuts	Hex. bolts	Long bolts & Nuts	Hex. bolts	Long bolts & Nuts	Hex. bolts	Long bolts & Nuts	Hex. bolts	
650	26	627	845	170	558	510	360	16-M24x285x50	16-M24x65x54	16-M30x310x60	16-M30x 80x66	16-U1 1/4x390x70	16-U1 1/4x110x70	16-M20x200x45	—	
700	28	670	905	180	629	560	490	16-M24x295x50	16-M24x65x54	16-M30x320x60	16-M30x 80x66	20-U1 1/4x410x70	16-U1 1/4x110x70	16-M24x210x50	—	
750	30	723	970	190	659	590	540	16-M30x320x60	16-M30x75x66	16-M30x335x60	16-M30x 80x66	20-U1 1/4x425x70	16-U1 1/4x125x70	20-M24x250x50	—	
800	32	772	1020	200	679	620	710	16-M30x335x60	16-M30x75x66	20-M30x345x60	16-M30x 80x66	20-U1 1/2x460x80	16-U1 1/4x125x80	16-M27x280x60	8-M27x 60x50	
850	34	822	1070	210	709	650	800	16-M30x345x60	16-M30x75x66	20-M30x360x60	16-M30x 80x66	24-U1 1/2x475x80	16-U1 1/4x135x80	16-M27x305x60	16-M27x 65x54	
900	36	858	1120	230	759	685	870	16-M30x360x60	16-M30x75x66	20-M30x385x65	16-M30x 85x66	24-U1 1/2x510x80	16-U1 1/4x145x80	16-M30x335x60	16-M30x 65x54	
1000	40	975	1235	250	819	745	1200	20-M30x385x65	16-M30x85x66	20-M36x420x75	16-M36x100x78	28-U1 1/2x530x80	16-U1 1/4x145x80	20-M30x370x65	16-M30x 75x66	
1100	44	1070	1345	280	874	820	1350	20-M30x420x65	16-M30x85x66	20-M36x450x80	16-M36x100x78	32-U1 1/2x580x80	16-U1 1/4x155x80	20-M33x400x65	16-M33x 90x72	
1200	48	1168	1465	300	949	880	1700	24-M30x445x65	16-M30x85x66	24-M36x475x80	16-M36x100x78	36-U1 1/2x615x80	16-U1 1/4x160x80	24-M36x475x80	16-M36x100x78	
1350	54	1314	1630	330	1030	960	2300	24-M30x475x65	16-M30x85x66	28-M42x525x80	16-M42x100x90	—	—	—	—	

※700S dimensions for ASME B16-47, series B class finish are available upon request.

※1 "D" dimension shows for 700E, JIS 10 K.

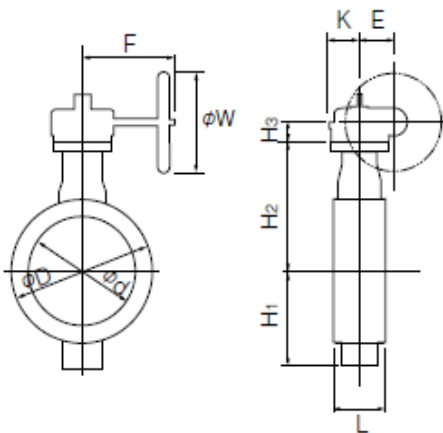
※2 Nut is 80% of bolt diameter.

Worm Gear Type 700E / 700K / 700S-2S (650mm to 1350mm)

■ 700E / 700K / 700S-2S

Nominal size		Dimension (mm)										Gear type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	E	K	F	W		
650	26	627	845	170	558	510	65	140	198	400	450	MGH-4	363
700	28	670	905	180	629	560	75	185	267	457	500	MGH-41/2	487
750	30	723	970	190	659	590	75	185	267	457	500	MGH-41/2	547
800	32	772	1020	200	679	620	75	185	267	457	500	MGH-41/2	617
850	34	822	1070	210	709	650	100	210	293	490	500	MGH-5	780
900	36	858	1120	230	759	685	100	210	293	490	500	MGH-5	855
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

■ 700E / 700K / 700S-2S



■ 2S Installation Direction

