

**700 Series  
Rubber Seated Butterfly Valves**

**700G** Wafer

**704G** Full lugged

**705G** Semi lugged



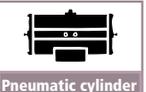
Lock lever



Worm gear



Centre handle



Pneumatic cylinder



Motorised

**Features and benefits**

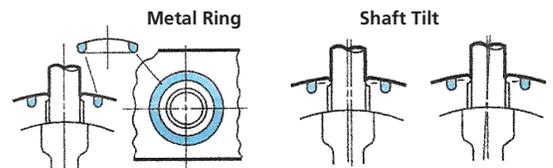
**Rib disc**

The 316 stainless steel (JIS SCS14) rib disc comes standard from 50mm to 300mm. Thin profile disc reinforced by ribs (patent pending) provides larger Cv compared to our conventional design. It also reduces weight while maintaining mechanical strength. A flat face disc is also available on request.



**Self-aligning stem seal through backup ring**

The stem seal is the primary and secondary seal system. The backup ring functions as the self-aligning stem seal.



**Patented cosine curve seat ring**

The cosine curve seat ring reduces valve operating torque substantially and allows the torque to be adjusted according to the working pressure.



**Long bonnet**

The long neck shape allows insulation of up to 50mm after the valve is installed. 701G: Nylon coated body is also available (50 to 300mm). Please contact us for more information.

**Much longer life with spherical design**

Similar to a spherical body rotating inside a spherical area, the operation of the disc is smooth and unhindered. Torque is reduced and the valve life is lengthened by 300%.



**Two aligning methods (350 to 600mm)**

Two valve models are available: the casted hole type (700G) and the tapped and drilled hole type (705G). They accommodate all the applicable flange standards.

**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

Handling, durability and longevity are the basic aspects by which valve performance can be improved. TOMOE has now developed the 700G series, a superior, pressure-proof, general purpose

valve, with the addition of a wide range of features to offer improved performance and better cost efficiency. The 700G series is designed to satisfy many international flange standards for use worldwide.

### Structure

The body is available in various designs such as wafer, semi-lugged and full-lugged, with various materials such as ductile iron, carbon steel, etc. The disc is also available with high-grade

stainless steel, type 316, nylon coating, aluminium, bronze or PPS. The patented cosine-curve structure is adopted for the seat ring. The 700G series is superior to conventional models in all respects.

### Standard Specification

Model	700G (Wafer)			704G (Fully Lugged)		705G (Semi Lugged)	
Valve nominal size	40 to 300mm	350 to 500mm	600mm	50 to 300mm	350 to 600mm	50 to 300mm	350 to 600mm
Applicable flange standard	JIS 5K/10K ANSI 125lb/150 lb DIN NP10, NP16 BS 4504 PN10, PN16, BS 10 'E'	JIS 5K/10K	JIS 5K, ANSI 125 lb/150 lb, DIN NP10, BS4504 PN10, (excluding JIS 10K)	JIS 5K/10K, ANSI 125lb/150lb, DIN NP10, NP16, BS 4504 PN10/PN16		JIS 5K/10K, ANSI 125lb/150lb, DIN NP10, NP16, BS 4504 PN10, PN16, BS10 "E"	JIS 5K/10K, ANSI 125lb/150lb, DIN NP10, BS 4504 PN10, PN16, BS10 "E"
Face-to-face dimensions	API 609 / ISO 5752 (20 series)						
Max. working pressure	1.0 MPa						
Body shell test (hydraulic)	1.5 MPa						
Seat leak test (pneumatic) #5	1.1 MPa						
Working temperature range #1, #2	NBR : -10 to 80 degrees C, *EPDM : -20 to 120 degrees C						
Working temperature in continuous use #3	NBR : 0 to 60 degrees C, *EPDM : 0 to 100 degrees C						
Standard materials	Body #4	Ductile iron, JIS FCD450	Cast iron, JIS FC 250	Ductile iron, JIS FCD450		Ductile iron, JIS FCD 450	Cast iron, JIS FC250, Ductile iron, JIS FCD450
	Disc	316 stainless steel, JIS SCS14 #8	304 stainless steel, JIS SCS13 316 stainless steel, JIS SCS14	316 stainless steel, JIS SCS14 #8	304 stainless steel, JIS SCS 13, 316 stainless steel, JIS SCS14	316 stainless steel, JIS SCS 14 #8	304 stainless steel, JIS SCS 13, 316 stainless steel, JIS SCS 14
		PPS (50 to 200mm) Aluminium bronze JIS CAC702 (50 to 600mm)	Aluminium bronze JIS CAC702	PPS (50 to 200mm) Aluminium bronze JIS CAC702 (50 to 600mm)	Aluminium bronze JIS CAC702	PPS (50 to 200mm) Aluminium bronze JIS CAC702 (50 to 600mm)	Aluminium bronze JIS CAC702
		Nylon coating #6	Ductile iron, JIS FCD 450 with hard chrome plating	Nylon coating #6	Ductile iron, JIS FCD 450 with hard chrome plating	Nylon coating #6	Ductile iron, JIS FCD450 with hard chrome plating
	Stem	SUS420J2 / SUS 392 J1					
Seat ring	NBR, *EPDM #7						
Actuators	Lock lever	40 to 200mm	-	50 to 200mm	-	50 to 200mm	-
	Worm gear	40 to 300mm	350 to 600mm	50 to 300mm	350 to 600mm	50 to 300mm	350 to 600mm
	Centre handle	40 to 300mm	-	50 to 300mm	-	50 to 300mm	-
	Pneumatic	40 to 300mm	350 to 600mm	50 to 300mm	350 to 600mm	50 to 300mm	350 to 600mm
	Motorised	40 to 300mm	350 to 600mm	50 to 300mm	350 to 600mm	50 to 300mm	350 to 600mm
Coating #9	Epoxy primer finish (Munsell N7)						

#1 Working temperature range varies depending on combination of disc materials and seating. Please consult us.

#2 Please consult us when using NBR and EPDM seating continuously above 60 degrees C and 100 degrees C respectively.

#3 "Working temperature in continuous use" stands for the temperature continuously kept exceeding one hour.

#4 Cast steel body or stainless steel body is also available.

#5 16bar finish is also available subject to working conditions.

#6 Nylon coated disc is available from 40A to 300A. Maximum working temperature of nylon coated disc is 60 degrees C.

#7 Heat resistant EPDM (to 150 degrees C), FPM, SEP, CR and white-NBR seats are also available.

#8 Rib disc: standard. Flat face disc: optional.

#9 Polyester powder backed finish (V-Pet #4000) for 700G size 40 to 300mm.

**\* Never use an EPDM rubber seat ring if the valve is being used for oil or for a fluid containing even a slight amount of oil.**