

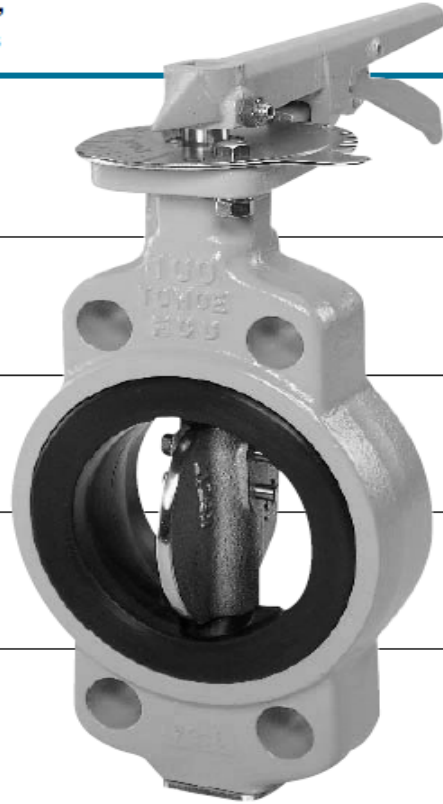
Ideal, Cost Effective Valve for Use in High Velocity,  
 High Pressure and Industrial Vacuum Applications

**731P** Wafer

**732P** Wafer

**732Q** Lugged

**752W** Lugged



Worm Gear

Pneumatic  
Cylinder

Motorized

**Features and Benefits**

**Perfect sealing against high pressure to 1.96MPa**

By employing a cosine-curve design seat ring, the disc contacts simultaneously around the entire seat during closure which enables perfect sealing against pressures up to 1.96MPa. Perfect sealing is assured in high differential pressure, high velocity and vacuum applications. The operation torque for the valve is substantially reduced. Also, since the body is covered with the seat ring, it is never exposed to fluid.

**No restrictions in direction of flow even for high differential pressures**

With a concentric design and low operating torque, 731P/732P can perfectly seal pressures up to 1.96MPa or 1.57MPa for both directions.

**Face-to-face dimensions satisfy ISO standards**

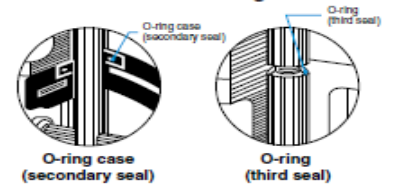
The face-to-face dimensions satisfy BS 5155 and ISO 5752. It is also adaptable to many international flange standards.

**Long neck**

The long neck enables insulation of up to 50mm after installation of the valve.

**O-ring case with self-aligning stem seal function**

The stainless steel O-ring case (utility model) counteracts any stem displacement and shaft tilt caused during the operation of the valve under fluid pressure. Because this O-ring is never exposed to the fluid, it never erodes.



**The rubber seat is reinforced with a metallic core**

Since this reinforced seat ring is clamped in position by the flanges, it is much more effective in high velocity and industrial vacuum applications than a soft resilient seat without a metallic core. Moreover, the seat ring can easily be replaced (100 to 600mm types). The vulcanized seat to the body is used in sizes 50 to 80mm.

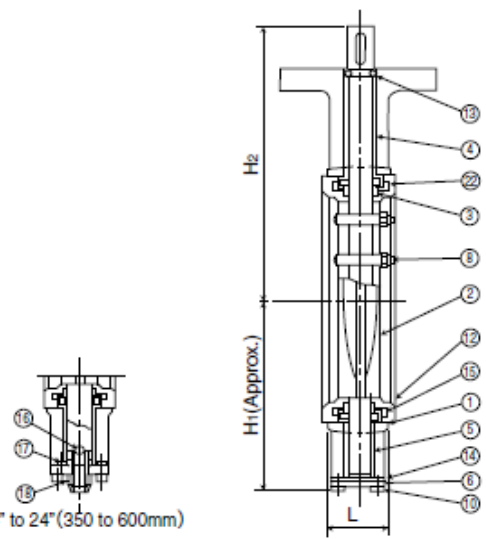


**Stainless steel disc as a standard material**

Stainless steel disc provides excellent corrosion resistance in various applications.

## General Description

With applications for high pressure service valves increasing, TOMOE have developed a new 20K type in addition to the traditional 16K type. The 20K type is designed to seal high pressures up to 2.0MPa, while the 16K type can seal up to 1.6MPa. This concentric butterfly valve incorporates a cosine-curve design seat ring reinforced with a metallic core and provides excellent cost advantages.



14" to 24" (350 to 600mm)

**Parts List (standard)**

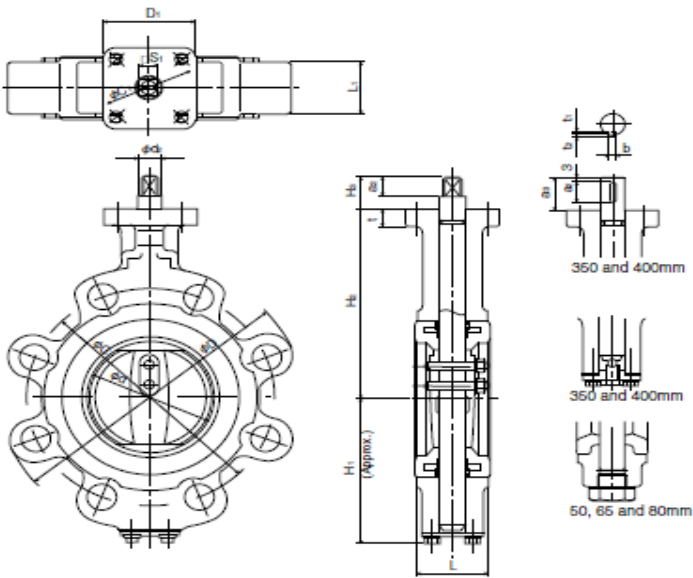
No.	Parts	Materials
1	Body	Ductile cast Iron
2	Disc	Stainless steel casting
3	Stem	Stainless steel
4	Bush	METALOPLAST
5		
6	Mild steel / ductile cast iron	Bottom cover
8	Taper bolt	Stainless steel
10	Bolt & SP. washer	Mild steel / high carbon steel
12	Seat ring	Elastomer
13	O-ring	Elastomer
14	Packing	Asbestos
15	O-ring	Elastomer
16	Ball	Steel
17	Bolt	Carbon steel
18	Lock nut	Mild steel
22	Core	Mild steel

## Standard Specifications

Valve nominal size	16K type	20K type
		731P
	350mm to 600mm	350mm to 600mm
Applicable flange standard	JIS 10K /16K /20K ANSI 125 /150lb DIN NP 10 /16 BS 4504 PN 10 /16	
Face-to-face dimensions	JIS B 2002 (2032) 46 series / ISO 5752 (20 series) / BS5155	
Max. working pressure	1.6MPa	2.0MPa
Body shell test (hydraulic)	2.4MPa	3.0MPa
Seat leak test	1.76MPa	2.2MPa
Velocity range	Max. 6m/sec (when fully open)	
Working temperature range	NBR : -10 to 80 degrees C, *EPDM : -20 to 120 degrees C	
Working temperature in continuous use *1	NBR : 0 to 60 degrees C, *EPDM : 0 to 70 degrees C	
Standard materials	Body	Ductile iron (FCD450 / A395), Carbon steel (SCPH2 / WCB)
	Disc	Stainless steel (SC13 / CF8, SCS14 / CF8M), Aluminium bronze (CAC702 / B148 C95400)
	Stem	420J2 S.S
	Seat ring	NBR, *EPDM
Actuators	Worm gear	350mm to 600mm
	Pneumatic cylinder	
	Motorised	
Coating	Lacquer primer (munsell N7)	

\*1 'Working temperature in continuous use' stands for the temperature continuously kept exceeding one hour.  
 \* 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.  
 732Q/752W are available in lugged body versions with ANSI 150lb flange accommodation.

## 732Q Lugged type



### ■ Dimensions

Nominal size		Dimension (mm)																	Approx. Mass (kg)
mm	inch	$\phi d$	$\phi D$	L	$L_1$	$H_1$	$H_2$	$H_3$	$\phi d_2$	$a_2$	$S_1$	b	$t_1$	$t_2$	$D_1$	t	$\phi C_1$		
50	2	55	152	43	32	76	120	23	14	12	12	-	-	-	70	12	70	4	
65	2 1/2	70	178	46	36	85	130	23	14	12	12	-	-	-	70	12	70	4.5	
80	3	80	190	46	36	94	140	23	14	12	12	-	-	-	70	12	70	5.5	
100	4	98	229	52	42	125	165	28	18	17	14	-	-	-	70	12	70	12	
125	5	123	254	56	46	148	180	28	18	17	14	-	-	-	102	14	102	15	
150	6	150	279	56	46	166	205	28	18	17	14	-	-	-	102	14	102	17	
200	8	202	343	60	50	190	230	35	28	30	24	-	-	-	102	14	102	24.5	
250	10	254	406	68	58	232	270	35	32	30	24	-	-	-	125	14	125	41	
300	12	304	483	78	68	259	300	35	32	30	24	-	-	-	125	16	125	69.5	
350	14	336	555	78	70	304	340	54	40	45	-	12	5	3	140	20	140	95	
400	16	390	597	102	86	343	380	65	46	56	-	14	5.5	3.5	140	20	140	131	

## 752W Lugged type

### ■ Dimensions (ANSI 125/150Lb)

Nominal size		Dimension (mm)																	Approx. Mass (kg)	
mm	inch	$\phi d$	$\phi D$	L	$L_1$	$H_1$	$H_2$	$\phi d_2$	$a_1$	$a_2$	$a_3$	b	$t_1$	$t_2$	t	$\phi D_1$	$\phi C_1$	N		B.H.
450	18	439	635	113	94	379	420	47	60	50	3	12	4.5	3.5	20	200	170	4	19	120
500	20	490	698	126	109	422	460	47	60	50	3	12	4.5	3.5	20	200	170	4	19	170
600	24	583	813	153	132	494	530	65	75	60	5	12	6	6	25	260	220	4	23	255

