### Technologically, Advanced, Yet Economical!

# TEFLON LINED / SEATED BUTTERFLY CONTROL VALVE

SERIES 799 Wafer / 792 Lug





TDK offers Customized End to End to Solution for all your PTFE Seated Butterfly Valves. Our Unique Butterfly Valve design ensures hassle free and reliable performance for all your specific Service conditions since last 30 years.

Depending upon your service conditions we customize the Valves in design and offer the same in all Exotic Alloys like TITANIUM, HAESTALLOY C-22, R-55, S.S 904-L, ALLOY-20, DUPLEX, S.S.316/S.S.316L, PFA encapsulated etc, selected in consultation with the Buyer.

#### Size 50 mm to 600 mm

Application:

Chemical Processing
Food and Pharma Industries
Filtration & Solvent Extraction Plants
Paper & Pulp Processing
Corrosive Liquid and Gas



Quality, At It's Best Always...!

tdkchemtrol.com

## TDK BUTTERFLY VALVE DESIGN FEATURES

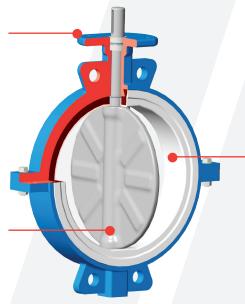


#### **VALVE BODY**

Unique two-piece split design to enable ease of maintenance.

#### **VALVE DISC & STEM**

TDK offers Disc & Stem
Single Piece Design Integral
Piece. Superior to old Taper
pin drive or square hub drive
design providing 100%
positive drive without any
joint & thus eliminating the
leakage path from Taper pin,
Disc & Shaft joint.
Mirror finish disc available
on request.



#### **VALVE SEAT**

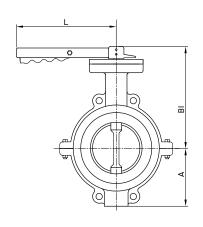
The Elastomer Backed unique Teflon Moulded Seats features a dovetail retention method which holds seat securely between the flanges and also allows simple and fast field replacements.

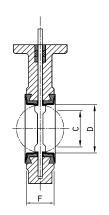
The Elastomer Backing moulded together provides resilient support for the Moulded Teflon (PTFE/TFM), thus maximizing the shut off and cycle life of the seat. Refer TDK PTFE Unique Seat Design for more details.

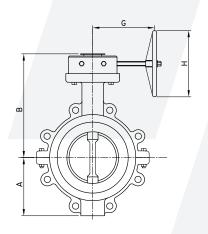
# TDK VALVE PTFE / TFM SEAT UNIQUE DESIGN FEATURES



- TDK Teflon /PTFE Seat is Backed up with Elastomer Rubber molded together to form a single Piece which is superior Seat Design as compare to loose back up traditional design provided by other manufacturers.
- As seen in the photograph TDK molded PTFE Seat there is no chance for relative movement /displacement between back up Rubber & PTFE SEAT as they are molded & bonded together. This design ensures reliable performance of Valve in Vacuum & High-Pressure service.
- TDK PTFE SEAT there is no Air Lock between PTFE & Rubber backing which reduces bulging issues of Seat when the Valves to be used under Vacuum Service.
   Caution: PTFE SEATS with Loose Rubber Back up provided by other manufacturers tend to be sucked in Vacuum application resulting in premature failure of the Valve.
- TDK PTFE MOULDED SEAT is tightly secured in the dovetail Geometry of body when tightened between the Flanges Providing a Rigid Fitment as compared to LOSSE RUBBER BACK UP PTFE SEAT design where there is no Elasticity to achieve the Flange Sealing & requires additional Gasket. TDK Valve seats provide 100% face sealing between Valve flanges as Rubber backup is Integral part, covering PTFE SEAT face from inside as seen in photograph & no additional gasket required.
- TDK Integral PTFE Rubber Moulded seat provides the required elasticity for Continuous operation & results in leak proof solution for a longer period of time. Due tointegral moulded design TDK SPARE PTFE seats are very easily field replaceable for maintenance purpose & thus user friendly for replacement re-hauling of Valves.









Size Range:

50 MM TO 600 MM

Design/Manuf. Std:

ISO 5752 , API 609 , MSS SP 67, IS-13095, BS 5155

**End Connections:** WAFER, LUG, FLANGED

Flange. Standard:

ASA 125 /150, BS-10 TABLE D / E ND-10, JIS-10 K

Pressure Rating:

150 PSI & FULL VACCUM

**Testing:** API 598

Size MM	A	В	B1	С	D	F	G	Н	L
50	75	160	125	26	48	43	145	110	175
65	80	175	140	49	64	46	145	110	175
80	90	180	150	62	73	46	145	110	175
100	118	195	170	90	100	52	215	200	265
125	140	220	-	122	130	56	215	250	-
150	145	235	-	138	144	56	215	250	-
200	180	270	-	191	195	60	215	250	-
250	205	320	-	241	245	68	250	350	-
300	245	355	-	291	295	78	250	350	-
350	290	415	-	328	331	78	315	400	-
400	305	460	-	376	382	102	315	500	-
450	350	495	-	429	435	109	330	500	-
500	385	532	-	473	482	127	330	500	-
600	445	630	-	557	570	154	350	600	-

For further details please contact - TDK CHEMTROL INDIA

TORQUE -NEWTON METER														
VALVE SIZE NB	50	65	80	100	125	150	200	250	300	350	400	450	500	600
PRESSURE Δ P-10 Bar	16	20	33	42	55	75	155	245	380	520	730	1030	1250	2050

Note: Above Torques are derived in ideal factory conditions, factor of safety not included.

MATERIAL OF CONSTRUCTION - OPTIONS								
BODY	DISC & SHAFT	SEAT	OPERATION	ACCESSORIES				
CAST IRON as per IS FG 220 DUCTILE IRON - ASTM A 65- 40 -18	TITANIUM-Gr. 1 / 2 /3 /4	PTFE BACKED BY EPDM RUBBER	BY MANUAL HANDLEVER	SOLENOID VALVES				
CARBON STEEL as per ASTM A 216 GR. WCB/LCC	S.S.316 /DUPLEX - PFA (TEFLON) ENCAPSULATED/LINED	PTFE BACKED BY NEOPRENE RUBBER	BY WORM GEAR BOX WITH HANDWHEEL	LIMIT SWITCHES				
S.S.304/316/316L as per ASTM A 351 CF8/CF8M/ CF3M	S.S.304/316/316L as per ASTM A 351 CF8/CF8M/ CF3M	PTFE BACKED BY SILICON RUBBER	BY PNEUMATIC ROTARY ACTUATOR	ELECTROPNEUMATIC POSITIONER				
DUPLEX /SUPER DUPLEX - as per ASTM A 894 GR CE8MN /CE3MN	DUPLEX /SUPER DUPLEX - as per ASTM A 894 GR CE8MN /CE3MN	PTFE BACKED BY VITON RUBBER	BY PNEUMATIC LINEAR CYLINDER	SMART POSITIONER				
ALLOY- 20 as per ASTM A 351 CN7M	ALLOY- 20 as per ASTM A 351 CN7M	TFM BACKED BY EPDM RUBBER	BY ELECTRICAL ACTUATOR	MANUAL OVERDRIVE				
S.S.904-L	S.S.904-L	TFM BACKED BY NEOPRENE RUBBER	BY WORM GEAR BOX WITH CHAIN PULLEY	EXTENDED SHAFT ARRANGMENT				
R - 5 5	R - 5 5	TFM BACKED BY SILICON RUBBER	-	-				
HAESTALLOY C-22 as per ASTM A 894 CX2MW	HAESTALLOY C-22 as per ASTM A 894 CX2MW	TFM BACKED BY VITON RUBBER	-	-				

PTFE / TFM VALVE SEAT BACK UP MATERIAL SELCTION						
EPDM	SILICON	VITON				
-50°C to +130°C	-50°C to +170°C	-50°C to +200°C				

# **CUSTOMIZED MATERIAL**OF CONSTRUCTION/DESIGN





TITANIUM INTERNALS



**VALVE WITH MOR** 



LUG BODY / HC-22 INT.



**DUPLEX INTERNALS** 



**R-55 INTERNALS VALVE** 



PFA LINED VALVE



MANUAL HANDLEVER



S.S.316-L INTERNALS



SS BODY/HC-22 INT.



SS VALVE /MOR



SMART POSITIONER



SS BODY/ALLOY-20 INT.





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the specific requirements and material selection for your intended application.

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