

UNI-FLO WAFER BUTTERFLY VALVES, POLYURETHANE LINER, PN16



MATERIALS LIST

PART	MATERIAL	OPTIONAL MATERIALS
Body	Cast Iron	Cast Iron
Seat	Polyurethane	Neoprene, Hypalon, Viton, EPDM, PTFE
Disk	Ductile Iron or 304SS	Aluminum bronze, 316SS,
Shaft	SS416	304SS, 316SS, Monel
O-ring	Buna-N	
Bushing	Fiberglass backed PTFE	

DIMENSIONS

DN	A	B	C	K	L	A/LT (kg) WEIGHT
40	120	70	30	70	20	2
50	161	80	42	90	30	3/4
65	175	90	44	90	30	5/5
80	181	95	46	90	30	5/6
100	200	114	52	90	30	6/8
125	213	127	54	90	30	8/9
150	226	139	56	90	30	10/11
200	260	175	60	90	32	16/17
250	292	203	68	125	32	24/27
300	337	242	76.5	125	32	35/39
350	370	270	76.5	140	45	43/72
400	400	300	86	197	51	52/90
450	422	320	102	197	51	87/111
500	480	360	128	197	64	98/123
600	562	420	151	210	70	133/178
700	624	520	163	300	100	175/221

DN800 - 1200 are available on request

Both Type A and LT valves have the same construction and performances and are made of the same materials.

The major differences between them is that the LT can be joined between two pipes using ordinary hexagon-headed bolts or mounted on the pipe end

* Should Table D be required for DN450-DN600

· please contact Sanspar.

DESCRIPTION

Uni-Flo Polyurethane Butterfly Valves are suitable for use with fresh water, sewage, sea water, air, food, medicine, oils, acids, alkalis, Salts, etc. Valves are 16 bar rated and suitable for the following temperatures:

Maximum temperature 100°C

Flange Alignment

DN40 to DN400 - PN10/PN16/Table D

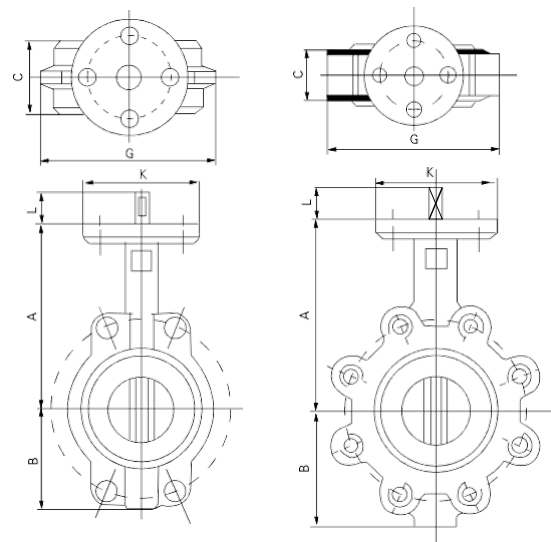
DN450 to DN600 - PN10/PN16*

CARTRIDGE SEAT DESIGN

All Uni-Flo Butterfly valves are supplied with the cartridge seat design.

The cartridge seat is a unified, rigid component that is formed by bonding the elastomer seat to a hard, dense phenolic backing which:

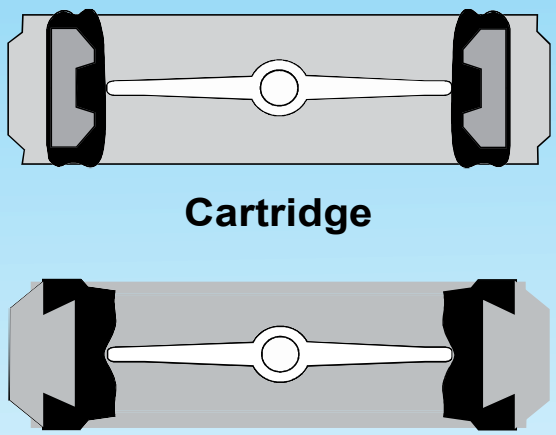
- Keeps elastomer from shifting during installation
- Reduces seat tearing and fatigue
- Minimizes seat swell
- Lowers closing and opening torques



UNI-FLO WAFER BUTTERFLY VALVE CARTRIDGE SEAT DESIGN

The most critical aspect of the butterfly valve is the cartridge seat design. It was introduced to alleviate installation problems associated with the “dove tail design” (booted) seats. The cartridge seat is a unified, rigid component that is formed by bonding an elastomer to a hard, dense phenolic composite ring, which is inserted into the valve body. The phenolic backing keeps the elastomer from shifting during installation, reducing seat tearing and fatigue caused by bunching. Installation is insensitive to all flange types and disc orientation is more forgiving, eliminating pinched seats and trapped discs.

Why the cartridge seat design is better!

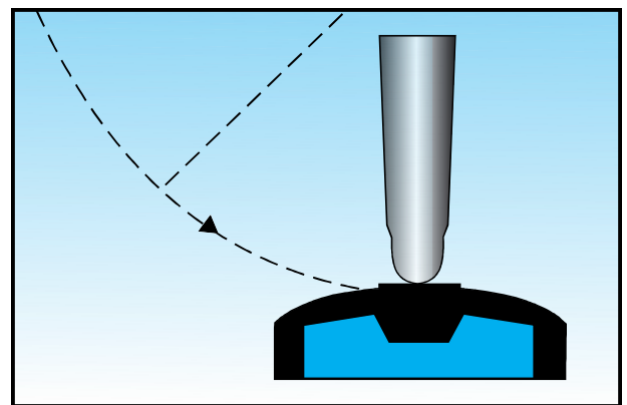


The diagram shows two cross-sectional views of valve seats. The top view, labeled 'Cartridge', shows a central disc with a circular seal on its face, supported by a thick, uniform grey phenolic ring. The bottom view, labeled 'Dovetail', shows a similar disc but with a more complex, multi-faceted seal profile and a thinner, less uniform backing.

Cartridge

Dovetail

UNI-FLO CARTRIDGE TYPE SEAT (Phenolic Backed)	COMMON BOOTED TYPE SEAT (Dovetail Design)
Elastomer is supported by hard phenolic backing which eliminates seat shifting during installation.	Dynamics of seat based on being installed between two flanges making seat subject to distortion during installation.
Seat to disc seal is independent of flange support and capable of full rated dead-end service.	Standard seat design is not rated for full pressure on dead end service.
Static seat design allows disc to sweep into seat for lower, more consistent torque.	Disc is designed to push into seat causing distortion and inconsistent torque.
Smaller mass of elastomer minimizes seat swell.	Overabundance of elastomer exaggerates any swelling.



Valve torque is lower and more consistent because the seat dynamics do not rely on being mated between two flanges. Precision matching of the disc and body allow the cartridge design to maintain a tighter disc to seat tolerance, providing a perfect low torque seal each and every time the valve is cycled.