



# Butterfly Valve

Series : SI - 1030

**S.I. ( SI-1030 ) Series wafer type LOW - TORQUE High Performance BUTTERFLY VALVES** are manufactured as per latest advanced technology and designed for the use in many Industrial applications and general services. The resilient lining which is moulded into the body bore through Vulcanising process, is made of Black Nitrile Rubber / EPDM / Silicon. Specially Designed for HVAC application.

**Note :** Black Nitrile Rubber seating is suitable for general services and EPDM / Silicon seating is suitable for Hot Water or Steam Services.

**S.I.** Butterfly Valves are manufactured in a wide variety of material, sizes, pressure ratings and types to meet process controls requirement and suitable to fit without gasket for variety of mounting flanges.



PIC-BV-01

## -- FEATURES --

- ➔ Integrally moulded liner to give accuracy. The integrally moulded liner makes a stable seat and overcomes the tendency of disc to push seat out of position.
- ➔ Tight Sealing & Low Torque. As liner is integrally moulded, the dimensional tolerances are less. Also Unique Elastomer formula provides self lubrication qualities. These two features helps in torque reduction. They can be used on Air, Gas Or Vacuum also.
- ➔ Unique streamlined dynamic disc design provides smooth curves & helps flow of fluid with minimum resistance.
- ➔ S.I. Butterfly valves have a standard mounting flange as per ISO 5211. This means you can just unscrew the lever & install actuator or gear box without any coupling or bush.
- ➔ Our Design has gasket integral to body so no need to use separate gasket.
- ➔ Body Lining & Disc are available in wide range to suit different medias.
- ➔ Available from **DN 40 to DN 600** in PN-10 & PN-16 Rating. Temperature range -34 °C to +200 °C ( and upto +300 °C for metal to metal seating).
- ➔ Design Reference IS : 13095 & BS : 5155
- ➔ Suits all types of Flange Dimensions.

## -- PRESSURE & TEMPERATURE RATING --

### Pressure Class

S.I. Butterfly Valves Available from DN 40 To DN 600 mm NB in PN-10, PN-16 Rating.  
(Also Available In PN-20 Rating).

### Temperature Class

Temperature Range : From -35 °C Upto 200 °C ( and upto 300 °C for metal to metal seating ).



**-- MATERIAL OF CONSTRUCTION --**

Valve Body	:	Cast Iron, Cast Carbon Steel, Ductile Iron, Stainless Steel.
Valve Disc	:	Cast Iron ( Rubber Coated, Powder Coated, Teflon Coated ), Ductile Iron, Stainless Steel, Cast Carbon Steel, Bronze.
Liner	:	Nitrile, Neoprene, EPDM, Silicon, Viton, Buna N.
Bushing	:	Teflon Or Nylon.
Stem	:	SS - 410.
Lever	:	Mild Steel / Ductile Iron.
O-Ring	:	Nitrile, Silicon, Viton.

**-- CHEMICAL RESISTANCE GUIDE --**

S.I. Butterfly Valve Liner material recommendations are based on practical experience of various users. The resistance can be affected by concentration, flow rate or evaporation of the medium. The suggested Temperature range is also not completely applicable to all the media shown, In case of doubt, the suitability is to be verified by tests under operating conditions.

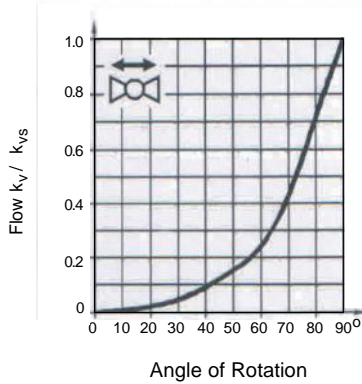
Liner Material	Resistance Against
NITRILE	: Petroleum, Grease, Alcohol, Propane, Diesel & Fuels.
NITRILE SPL	: As Nitrile Including food approval & potable water.
NEOPRENE	: Dry Air, Calcium Carbonate, Copper Sulphate, Glycerine, etc not a combustion agent.
EPDM	: Ozone, Alcohol, Sulphuric Acid, Alkaline Solutions, Treated Water ( with caustic soda or chlorine ), Hot water & Steam.
SILICON	: For High Temperature Application upto 200 °C.

**-- QUALITY CONTROL --**

All components used in the construction of **S.I.** Butterfly valve are produced from the highest quality material subject to stringent quality control. Each valve is pressure tested prior to leaving the factory.

## -- FLOW DIAGRAM --

### Flow Characteristics :



### Engineering Notes :

Single Flange Mounting is possible for the following size :

DN 40 To 250 : 300 kPa  
 DN 300 To 600 : 200 kPa

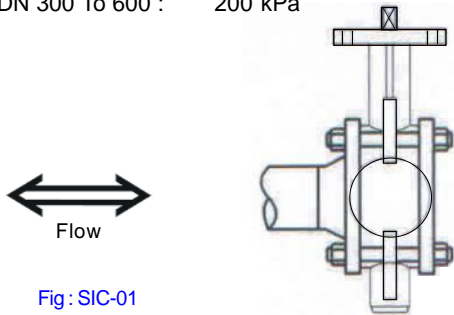


Fig: SIC-01

S.I. Butterfly valves can accommodate Flow in Either Directions.

### Warning

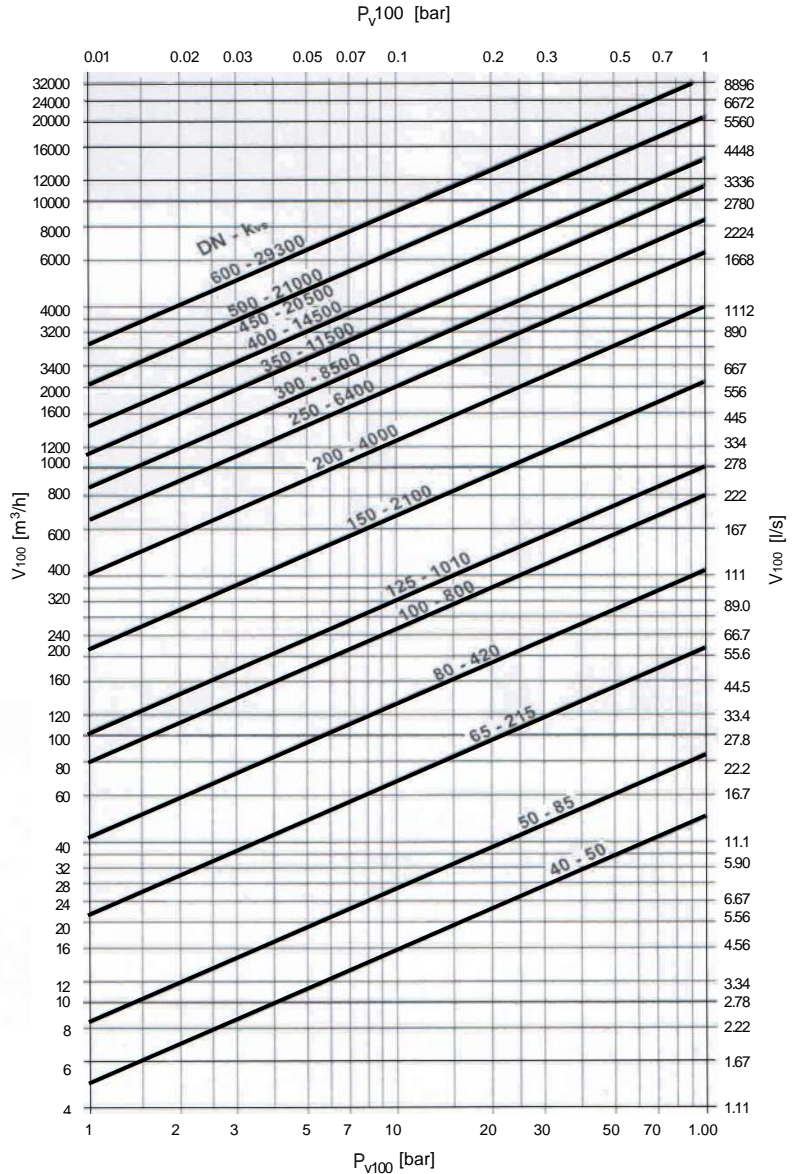
To Avoid Pressure shocks on the Butterfly valve, the valve must be driven to its fully Open (either manually or via positioning signal) prior to Pump Activation.

### Maintenance :

S.I. Butterfly Valves are maintenance Free Valves. Before performing any service work on the Valve, actuator Or mounting Kit, follow the procedures :

- Caution**
- Switch Off the Pumps and power supply.
  - Close the main shut-Off valves in the pipe line.
  - Release Pressure in the pipes and allow them cool down completely.

If necessary, disconnect electrical connections from the Terminals.



$P_{\sqrt{100}}$  = Differential Pressure across the fully open Butterfly Valve by a volume flow  $V_{100}$

$V_{100}$  = Volume flow through fully open Butterfly Valve

100 kPa = 1 Bar ~ 10 mWC

1 m<sup>3</sup> / h = 0.278 l/s water at 20 °C

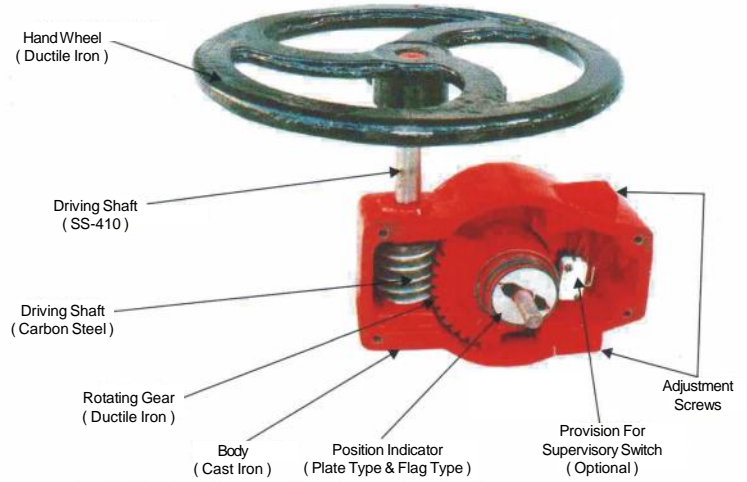
## -- INSTALLATION DIMENSIONS --

### Gear System For S.I. Butterfly Valves

Strong & Compact manually operated Gear are manufactured In-house for our Butterfly Valves.

For actuators all our Gear Systems have been designed for IS : 5211 mounting & our Butterfly Valves can be fitted with our standard Gear Systems by simply removing the Lever.

High grade material is used for manufacturing of these Gear Systems to give longer life & helps easy operation.



As Gear has been shown in open position Top Cover (Cast Iron) and Gasket are not shown.

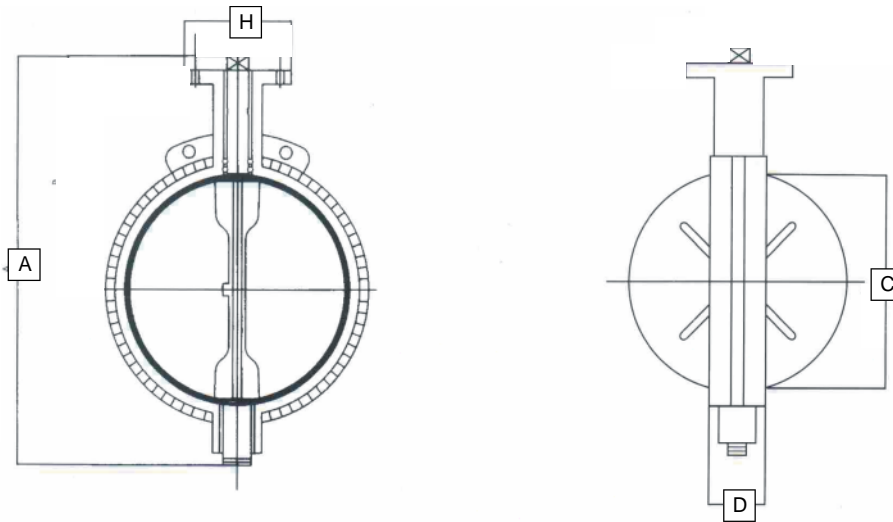


Fig: SIC-02

Nominal Size	40	50	65	80	100	125	150	200	250	300	350	400	450
<b>A</b>	210	235	253	268	286	318	363	454	545	593	670	694	743
<b>C</b>	38	49	63	79	103	125	154	201	253	300	357	385	437
<b>D</b>	32	42	44	44	50	56	56	60	68	78	92	102	114
<b>H</b>	65	65	65	65	65	90	90	90	125	125	175	175	175



# SANT INDUSTRIAL CONTROLS PVT. LIMITED.

Engineers, Manufacturers & Traders.

**MANUFACTURERS OF INDUSTRIAL VALVES, STRAINERS & BOILERS**

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