**SANT (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.

SANT Butterfly Valves are manufactured in a wide variety of material, sizes, pressure ratings and types to meet process control requirements and suitable to fit without gasket for variety of mounting flanges.

--- 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 help 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.
- Sant 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**

Sant 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 --

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve Body</td>
<td>Cast Iron, Cast Carbon Steel, Ductile Iron, Stainless Steel.</td>
</tr>
<tr>
<td>Valve Disc</td>
<td>Cast Iron ( Rubber Coated, Powder Coated, Teflon Coated ), Ductile Iron, Stainless Steel, Cast Carbon Steel, Bronze.</td>
</tr>
<tr>
<td>Liner</td>
<td>Nitrile, Neoprene, EPDM, Silicon, Viton, Buna N.</td>
</tr>
<tr>
<td>Bushing</td>
<td>Teflon Or Nylon.</td>
</tr>
<tr>
<td>Stem</td>
<td>SS - 410.</td>
</tr>
<tr>
<td>Lever</td>
<td>Mild Steel / Ductile Iron.</td>
</tr>
<tr>
<td>O-Ring</td>
<td>Nitrile, Silicon, Viton.</td>
</tr>
</tbody>
</table>

-- CHEMICAL RESISTANCE GUIDE --

Sant 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.

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

-- QUALITY CONTROL --

All components used in the construction of SANT 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 Characteristics:**

![Graph showing flow characteristics.](image)

**Engineering Notes:**

Single Flange Mounting is possible for the following size:

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

![Flow diagram image](image)

- Sant Butterfly valves can accommodate flow in either direction.

**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:**

Sant Butterfly Valves are maintenance free valves. Before performing any service work on the Valve, actuator or mounting kit, follow the procedures:

- 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.

---

**Symbols and Equations:**

- \( P_{v100} \) = 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 m³/h = 0.278 l/s water at 20 °C
--- INSTALLATION DIMENSIONS ---

**Gear System For Sant 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.

---

**Installation Dimensions**

<table>
<thead>
<tr>
<th>Nominal Size</th>
<th>40</th>
<th>50</th>
<th>65</th>
<th>80</th>
<th>100</th>
<th>125</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
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Fig: SIC-02