

## MIL 33000 - High Performance Butterfly Valve

- Excellent flow control and rangeability
- Disc design for minimum dynamic torque
- Low maintenance
- Metallic & Soft seat options

### Applications

- Refinery / Oil & Gas
- Chemical & Fertilizer Industries
- Power Stations
- Water & Steam applications
- Pulp & Paper Industries

More information: [www.ksb-mil.com](http://www.ksb-mil.com)



Double Flanged Double Offset Butterfly Control Valve



Butt weld End High Pressure Butterfly Control Valve



Wafer type Double Offset Butterfly Control Valve



Lugged Type Triple Offset Butterfly Control Valve

Your contact:

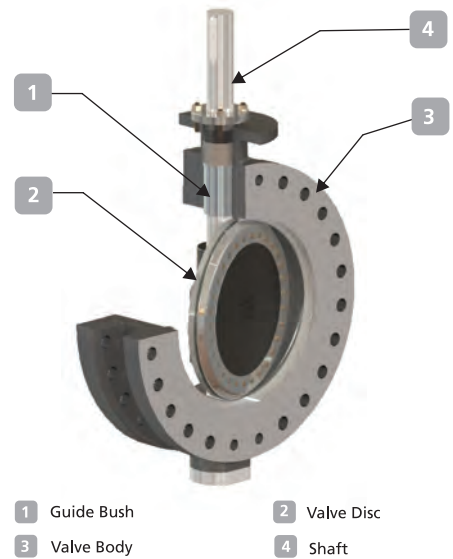


# MIL 33000 - High Performance Butterfly Valve

KSB MIL 33000 series Double & Triple offset butterfly valves are considered as High Performance Butterfly valves. Double offset Butterfly valves are mostly used in industries for control applications where seat leakage requirements are not critical as valves will mostly be in open position i.e. in the controllable range between 20% to 80%. Triple Offset Butterfly valves are mostly used in Isolation applications & stringent shut off requirements using Graphite / PTFE with metallic laminated or Solid metallic seals which ensure better sealing even at high temperature or erosive services. These valves are designed in compliance to API 609, ASME B 16.34 or EN 593 & Tested in accordance to FCI 70.2, API 598 etc.

Additional Design features includes

- Fire safe Design with Primary soft seat & secondary metal seat in accordance to API 607 or ISO 10497. KSB MIL 33000 series soft seated Lugged wafer type Butterfly valves are Fire safe tested & certified by TPI in accordance with API 607. Metallic or laminated seals are considered as inherently Fire safe.
- Fugitive emission testing in accordance to ISO 15848-1
- Cryogenic testing in accordance to BS 6364 for valve with long extended bonnet with Sealing's complying for cryogenic low temperature services.



## Model Decodification

1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>
Actuator Type		Body Series		Design Variant	End Connections	Seat Type
-	-	3	3	-	-	-
37. Spring diaphragm for fail close and open 67. Direct piston cylinder 68. Reverse piston cylinder 75. Rack and Pinion Double Acting 76. Rack and Pinion Spring Return 85. Scotch Yoke Double Acting 86. Scotch Yoke Spring Return 90. Electrical actuator 95. Link actuator Double acting 96. Link actuator Spring return		33. High Performance Butterfly Control Valves		0. Undefined 1. Concentric* 2. Double Offset 3. Triple Offset	0. Undefined 1. Wafer 2. Lugged 3. Flanged 4. RTJ 5. Weld end	0. Undefined 1. Rubber seated (NBR / Viton / EPDM / Ebonite) 2. PTFE Seated 3. Metal Seated 4. Clearance Seat

\* For more details, consult KSB MIL

## General Data\*

### Materials

Body	Carbon Steel, Stainless Steel, Super Duplex & Others on request
Disc	Stainless Steel & Specials on request
Stem	Stainless Steel & Specials on request
Seat	Stainless Steel / PTFE / Stellite & Specials on request

### Actuator Options

Diaphragm Actuators
Single / Double acting Rack & Pinion Actuators
Electrical Actuators
Hydraulic Actuators
Single / Double Acting Scotch Yoke Actuators
Single / Double Acting Spring return

\*\*For other standards / requirements, consult KSB MIL

### Note

Additional accessories or Instruments like Solenoid Valve, Limit Switches, Air Filter Regulator & Positioner (Pneumatic / Electro-Pneumatic / Smart) can be supplied along with valve depending upon the requirement.

### Technical Data

Size	2" - 56" (DN 50 to 1400)
Pressure class	150# to 2500#
Temperature Range	-196°C to 550°C
Leakage class	Class II, III, IV & V (Metal to Metal seat) Class VI (PTFE / Laminated seal)
Body Connection Type	Wafer, Lugged, Double Flanged, RTJ & Weld end
Characteristics	Inherent (Mod. Equal %)
Valve Face to Face Standard	API 609
Disc Orientation	Counter Clockwise to Open & Clockwise to Close
Design Standard	ASME B16.34 & API 609



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