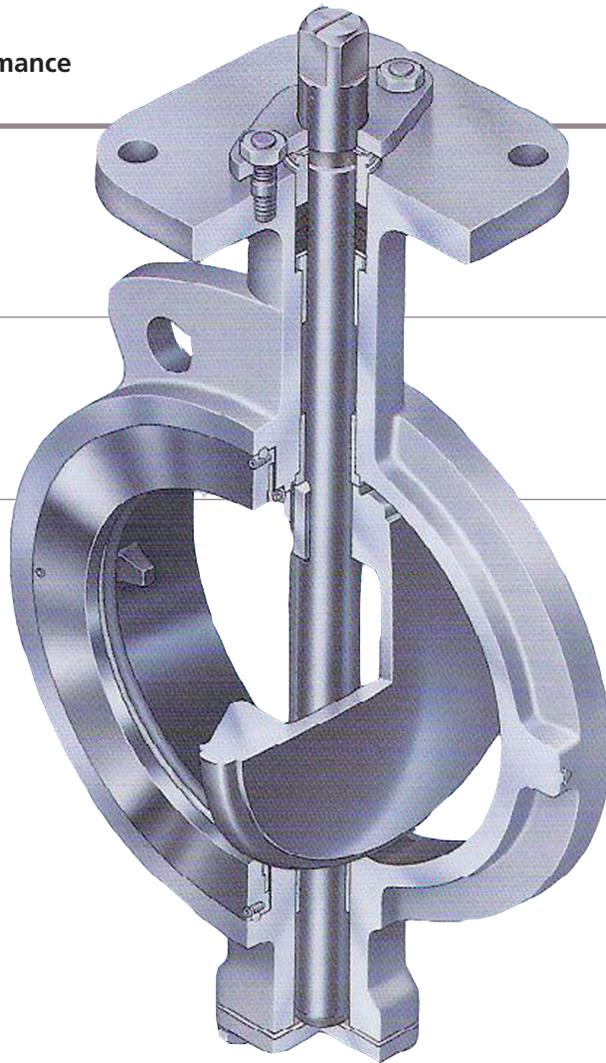


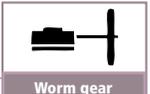
Double offset metal seat high performance butterfly valves to suit API standards

302A

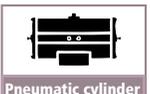
303Q



Lock lever



Worm gear



Pneumatic cylinder



Motorised

## Features and benefits

### Fire safe design

Designed as an inherently fire safe metal seated butterfly valve. Certified to Fire Safe Test as per API 607 4th Edition.

### Bi-directional flow

Workable in both directions. The valve can be used at the non-preferred direction subject to pressure rating and the leakage rate.

### Disc with reinforced rib

Discs up to 300mm have a thin cross section but feature a reinforcing rib. As for 350mm to 600mm, the disc rib has a convex figuration. These designs successfully reduce thermal expansion and provide a constant sealing performance against any change in temperature or pressure of the fluid.

### Double offset geometry

The axis of disc rotation is double offset to the seat ring. When the disc rotates, it unseats at a small turning angle by its cam effect. This prevents seat wear and provides reliable sealing performance over long periods.

### Metal Seat

The resilient metal seat ring with coil spring compensates for thermal expansion or contraction of the body or disc. The ball lock method is adopted to facilitate replacement of the seat ring.

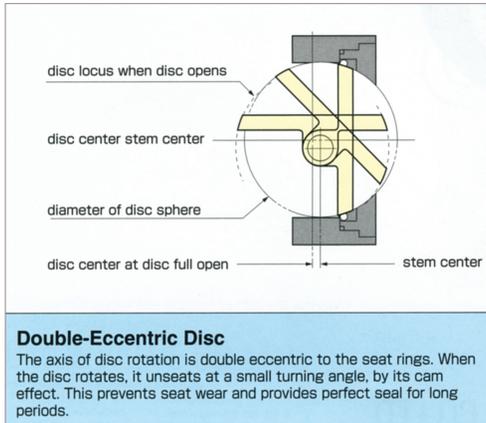
### Improved reliability

By minimising the effect of friction and the special hard facing of the seating, the reliability of this metal seat butterfly valve is dramatically improved. The key connection of the disc and stem will prevent the direct effect of heat transaction from the stem to the disc as well as provide an anti-blow-out facility on the stem.

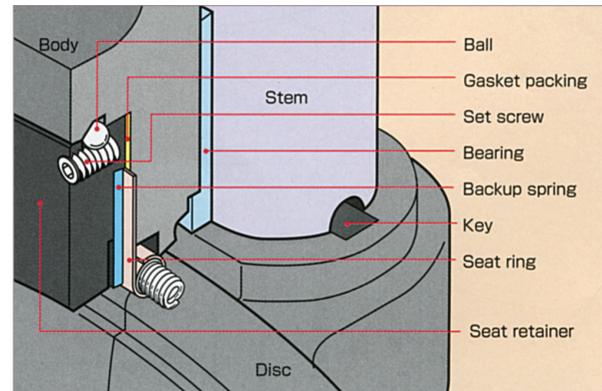
# 302A 303Q

## General Description

Inherent fire safe design with carbon steel or stainless steel body with ASME/ANSI B16.34 Class 150# rating and API 609 pressure temperature rating. Ideal for use in general hydrocarbon, chemical process, low pressure steam and gas applications.



## Fire Safe Seat Design



## Standard Specification

Valve nominal size #1	80, 100, 125, 150, 200, 250, 300mm						350, 400, 450, 500, 600mm						
Applicable flange standard	JIS 10K/16K/20K, ANSI 125/150lb, API/JPI 150lb, BS10 Table F, BS4504, PN 10/16, DIN NP 10/16						JIS 5K/10K/16K/20K, ANSI 125/150lb, API/JPI 150lb, BS 4504 PN 10/16, DIN NP 10/16						
Face-to-face dimensions	API 609 (class 150 lb, categoryBV), JPI-7S-83 (class 150 lb)												
	Nominal size	80	100	125	150	200	250	300	350	400	450	500	600
	Face-to-face dimensions	48	54	56	57	64	71	81	92	102	114	127	154
* 125mm is as per JIS B 2002 (series 46) / ISO 5752 (series 20)													
Seat leakage	API 598-7th Edition												
Connection	Wafer type												
Pressure-temperature rating #2	API 609 Class 150lb Category B, ASME/ANSI B16.34 Class 150lb												
Fire safe	API 607 4th Edition												
Max. working pressure #2	2.0MPa												
Working temperature range #3	-29 to 600 degrees C (Ext.bonnet is required at 400 degrees C and over)												
Flow direction	Bi-directional flow (Flow to disc side is recommended). Flow to disc side (2.0MPa). Flow to stem side (1.0MPa).												
Pressure test	Body shell	3.1MPa (API 598 7th Edition) by hydraulic											
	Seat leak	7 bar (API 598 7th Edition) by air											
Actuators	Lock lever (80 to 150mm), Worm gear, Pneumatic cylinder, Motorised												
Standard materials #3	Body	SCPH2/WCB, SCS 14A/CF8M						SCPH2/WCB, SCS 13A/CF8, SCS 14A/CF8M					
	Disc	80 to 150mm			200 to 300mm			350 to 600mm					
		SCS 16A/CF3M (hard chrome plating)			SCS 14A/CF8M (hard chrome plating)			SCS 13A/CF8 (hard chrome plating), SCS 14A/CF8M (hard chrome plating)					
	Stem	SUS 420J2, SUS 329J1, SUS 316, SUS 329J4L						SUS 420J2, SUS 304, SUS 630					
Seat ring	SUS 316L Hard facing treatment												
Coating	Silicon resin coating (Grey N7) for 200 degrees C and lower Heat resistant silver coating for over 200 degrees C. No painting for stainless steel.												
Option	Anti-static device												

#125mm as per JIS B 2002 (Series 46)/ISO 5752 (Series 20)

#1 Please use 302Y or 337Y if using a nominal valve diameter of 50mm and 65mm

#2 Refer to pressure-temperature rating chart

#3 Please contact us regarding special material

Please contact us at 400 degrees C and over for oxidizing atmosphere.