

SERIES 32/33 & 35/36



PRESSURE RATINGS

BIDIRECTIONAL BUBBLE-TIGHT SHUT-OFF Downstream Flanges/Disc in Closed Position

Series 32 (Wafer)	22-36" (550-900mm)	75 psi (5.2 Bar)
Series 33 (Wafer)	22-36" (550-900mm)	150 psi (10.3 Bar)
Series 35 (Full Flanged)	22-120" (550-3000mm)	75 psi (5.2 Bar)
Series 36 (Full Flanged)	22-120" (550-3000mm)	to 150 psi (10.3 Bar)

DEAD-END SERVICE No Downstream Flanges/Disc in Closed Position

Series 35 (Full Flanged)	22-120" (550-3000mm)	30 psi (2.1 Bar)
Series 36 (Full Flanged)	22-120" (550-3000mm)	50 psi (3.4 Bar)

BODY : 250 psi (17.2 Bar) CWP

VELOCITY LIMITS For On/Off Services:

Fluids 30 ft/sec (9 m/s)	Gases 175 ft/sec (54 m/s)
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This valve series has many of the design features and benefits of the smaller Bray valves, such as high Cv ratings, minimum parts exposed to the line media, greater reliability and a proven record of long service life.

BODY: One piece full flanged style. All bodies are drilled to be compatible with ASME 125/150, PN 10 or other international flange standards. Wafer style bodies are also available.

DISC: High strength discs are first cast, the sealing edges are spherically machined then either hand polished or the entire disc is Nylon 11 coated. The symmetrical disc profile increases C_v values, reduces turbulence and increases pressure recovery.

SEAT: The replaceable tongue and groove seat to body retention method is the most advanced design in the industry. Molded O-ring eliminates the requirement of flange gaskets. The seat isolates the valve body and stem from line media and has been specifically designed to seal with slip-on or weld-neck flanges.

BLOW-OUT PROOF STEM: A retaining ring, installed between the machined stem groove and gland retainer step, provides full retention of the stem in the unlikely event of internal stem failure.

ADJUSTABLE PACKING SYSTEM:

Design allows for field adjustment of stem packing without removing manual operators or power actuators. The advanced, self-adjusting V-Type stem packing prevents external substances from entering the upper stem bore.

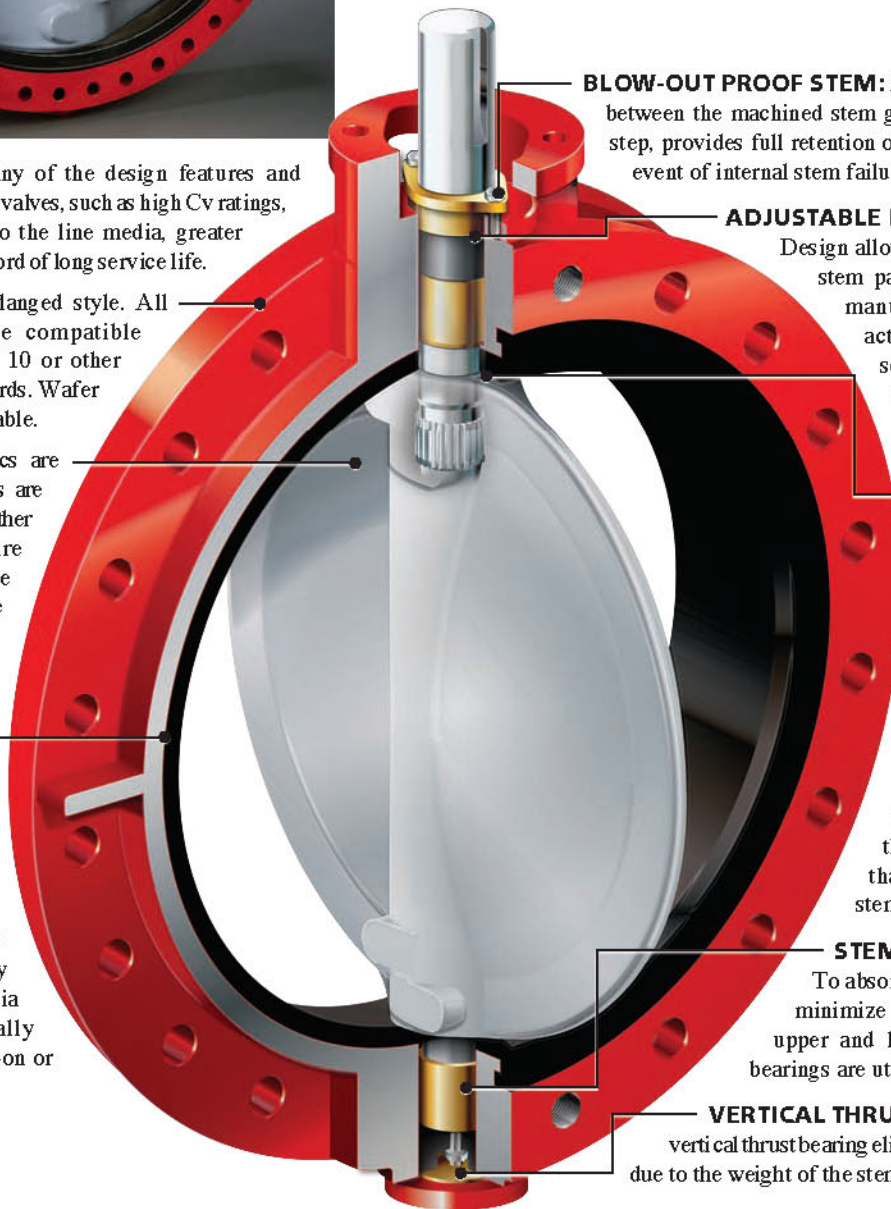
PRIMARY & SECONDARY SEALS:

These seals prevent line media from coming in contact with the stem or body. *Primary Seal* is achieved by an interference fit of the molded seat flat with the disc hub. *Secondary Seal* is created because the stem diameter is greater than the diameter of the seat stem hole.

STEM BEARINGS:

To absorb actuator side thrust and minimize bearing friction torque, upper and lower heavy wall sleeve bearings are utilized.

VERTICAL THRUST BEARING: A bronze vertical thrust bearing eliminates disc displacement due to the weight of the stem and disc.



DISC - STEM CONNECTIONS

Spline: male splines in the stem and female in the disc.

Standard Sizes 22" - 48" (550mm - 1200mm)
Selected Sizes 54" - 120" (1400mm - 3000mm)



Double Keyed: keyways machined into disc matching keys in the stem
Selected Sizes 54" - 120" (1400mm - 3000mm)



STANDARD MATERIALS SELECTION

NAME	MATERIAL
Body	Cast Iron
	Ductile Iron
	Carbon Steel
	316 Stainless Steel
Disc	Nylon 11 Coated Ductile Iron
	316 Stainless Steel
	304 Stainless Steel
	Aluminum Bronze
	Monel®
	Hastelloy®
	Duplex Stainless Steel
	Super Austenitic Stainless Steel
Stem	416 Stainless Steel
	304 Stainless Steel
	316 Stainless Steel
	17-4 PH Stainless Steel
	Monel®
	Super Austenitic Stainless Steel
Seat <small>Valves 54" (1400 mm) and larger are provided with bonded seats</small>	EPDM
	BUNA-N
	FKM*
Packing	BUNA-N
Bearings	Lubricant Impregnated Bronze
	PTFE Encapsulated Stainless Steel
Thrust Bearing	Bronze

Material availability depends on valve size & series. Other materials are available. Please consult your local Bray representative for your specific application.

*FKM is the ASTM D1418 designation for Fluorinated Hydrocarbon Elastomers (also called Fluoroelastomers).
Hastelloy® is a registered trademark of Haynes International, Inc.
Halar® is a registered trademark of Ausimont U.S.A., Inc.
Monel® is a registered trademark of The International Nickel Company, Inc.

BRAY TONGUE & GROOVE SEATS

Competitor Strip Seats expose the body, stem and disc stem hole to the line media, thus causing premature failure due to corrosion. Material costs are significantly increased for highly corrosive applications.

Bray's Seat isolates the line media from contacting the body and stem, thus increasing service life and therefore lowering costs over the life of the valve.

Competitor's Seat

Bray's Seat

