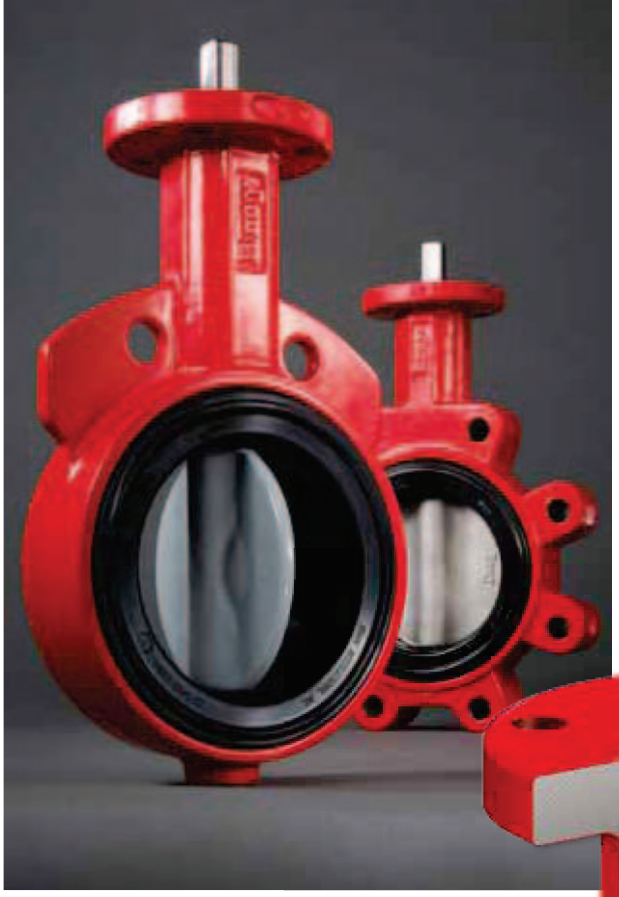


SERIES 30/31 2"-20" (50mm-500mm)

PRESSURE RATINGS		
BIDIRECTIONAL BUBBLE-TIGHT SHUT-OFF – Standard Disc* Downstream Flanges/Disc in Closed Position		
S30/31 Standard Disc*	2-12" (50-300mm)	175 psi (12 Bar)
	14-20" (350-500mm)	150 psi (10.3 Bar)
DEAD-END SERVICE – Lug Bodies/Standard Disc* No Downstream Flanges/Disc in Closed Position		
S31	2-12" (50-300mm)	75 psi (5.2 Bar)
	14-20" (350-500mm)	50 psi (3.4 Bar)
BODY: 250 psi (17.2 Bar) CWP		

*For low pressure application, Bray offers a standard reduced disc diameter to decrease seating torques and extend seat life, thus increasing the valve's performance and reducing actuator costs.

VELOCITY LIMITS For On/Off Services:	
Fluids 30 ft/sec (9 m/s)	**Gases** 175 ft/sec (54 m/s)

High strength through-stem design allows easy disassembly and reduced disc to stem failure.

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: Precision double "D" disc to stem connection drives the disc without the need for screws or pins. The close tolerance, double "D" connection that drives the valve disc is an exclusive feature of the Bray valve. Disassembly of the Bray stem is just a matter of pulling the stem out of the disc.

SEAT: Bray's tonque and groove seat design lowers torque and provides complete isolation of flowing media from the body. The seat also features a molded O-ring which eliminates the use of flange gaskets.

STEM RETAINING ASSEMBLY: The stem is retained in the body by means of a unique Stainless Steel Spirolox® retaining ring, a thrust washer and two C-rings, manufactured from brass as standard, stainless steel upon request. The retaining ring may be easily removed with a standard hand tool. The stem retaining assembly prevents unintentional removal of the stem during field service.

STEM BUSHING: Non-corrosive, heavy duty acetal bushing absorbs actuator side thrust.

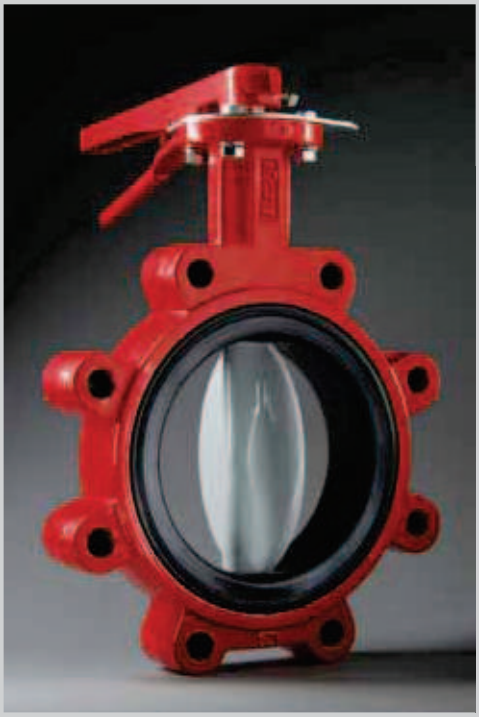
STEM SEAL: Double "U" cup seal design is self-adjusting and gives positive sealing in both directions.

NECK: Extended neck length allows for 2" of piping insulation and is easily accessible for mounting actuators.

DISC: Casting is spherically machined and hand polished to provide a bubble-tight shut off, minimum torque, and longer seat life.

BODY: One-piece wafer or lug style. Polyester coating for excellent corrosion resistance. Nylon 11 coating is available as an option.

Spirolox® designation is a registered trademark of Kaydon Ring and Seal, Inc.



SERIES 31H

2"-20" (50mm-500mm)

Series 31H Lug valves are drilled and tapped to meet ASME Class 125/150 and PN16 flanges.

PRESSURE RATINGS	
BIDIRECTIONAL BUBBLE-TIGHT SHUT OFF & DEAD-END SERVICE	
2-20" (50-500mm)	250 psi (17.2 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)

STANDARD MATERIALS SELECTION 31H

Body	Cast Iron Ductile Iron
Disc	Aluminum Bronze Nylon 11 Coated Ductile Iron 316 Stainless Steel
Stem	416 Stainless Steel
Seat	Bonded EPDM Bonded BUNA-N

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

STANDARD MATERIALS SELECTION S30/31

NAME	MATERIAL
Body	Cast Iron
	Ductile Iron
	Carbon Steel
	Aluminum
Disc	Nickel Aluminum Bronze
	Coated Ductile Iron
	Nylon 11 Coated Ductile Iron
	Halar® Coated Ductile Iron
	304 Stainless Steel
	316 Stainless Steel
	Duplex Stainless Steel
	Super Duplex Stainless Steel
	Hastelloy®
Stem	416 Stainless Steel
	304 Stainless Steel
	316 Stainless Steel
	Monel K500
Seat	BUNA-N – Food Grade
	EPDM – Food Grade
	FKM*
	White BUNA-N – Food Grade
	Bonded EPDM
	Bonded BUNA-N

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.