BRAY INTERNATIONAL

PRODUCT PROFILE





TABLE OF CONTENTS



Butterfly Valves
Ball Valves
Knife Gate Valves
Slurry Valves
Check Valves
Optional Special Accessories For Check Valves
Rack and Pinion Pneumatic Actuators
Scotch Yoke Actuators
Features - Series 98 and 98H Scotch Yoke Actuators
Electro-Hydraulic Actuators
Electric Actuators
Control Accessories

Inconel® is a registered trademark of Special Metals, Inc. Monel® is a registered trademark of Special Metals, Inc. Nitronic® is a registered trademark of AK Steel Corporation Hastelloy® is a registered trademark of Haynes International, Inc. Halar® is a registered trademark of Solvay Solexis, Inc. Viton™ is a trademark of The Chemours Company Bray® is a registered trademark of Bray International, Inc. Tek-Fil® is a registered trademark of Bray International, Inc. Seacorr® is a registered trademark of Bray International, Inc. Tri Lok® is a registered trademark of Bray International, Inc. Resolute Ball™ is a trademark of Bray International, Inc.

Polar Seat® is a registered trademark of Bray International, Inc. Slurrytuff® is a registered trademark of Bray International, Inc. SlurryShield® is a registered trademark of Bray International, Inc. Ritepro® is a registered trademark of Bray International, Inc. Amresist® is a registered trademark of Bray International, Inc. Acris® is a registered trademark of Bray International, Inc. Kugelhahn Müeller® is a registered trademark of Bray International, Inc. Flow-Tek® is a registered trademark of Bray International, Inc. Bray/Rite® is a registered trademark of Bray International, Inc. McCannalok™ is a trademark of Bray International, Inc.





BRAY TRI LOK® TRIPLE OFFSET VALVE

Size Range	NPS 3 to 48 DN 80 to 1200
Body Style	Wafer Lug Double Flanged Long Pattern (Gate)
Temperature Range	-320°F to 842°F -196°C to 450°C
Pressure Rating	ASME Class 150 300 600 900
Shut Off Class	Zero Leakage
Body Materials	Carbon Steel Stainless Steel
Disc Materials	Carbon Steel Stainless Steel
Stem Materials	17-4PH SS 410 SS XM-19 (Nitronic* 50)
Body Seat Materials	316 SS Hardened
Disc Seal Materials	Laminated 318 SS/Graphite
Applications	Critical Service High Pressure High Temperature Cryogenic Service



BRAY McCANNALOK™ HIGH PERFORMANCE BUTTERFLY VALVE

Size Range	NPS 2 to 66 DN 50 to 1500			
Body Style	Wafer Lug Double Flanged			
Temperature Range	-320°F to 900°	F -196°C to 482°C		
Pressure Rating	ASME Class 150) 300 600		
Shut Off Class	Zero Leakage	Zero Leakage		
Body Materials	Carbon Steel	Carbon Steel Stainless Steel Nickel Aluminum Bronze		
Disc Materials	Stainless Steel Nickel Aluminum Bronze			
Stem Materials	Stainless Steel Monel* K500			
	Resilient Seat RPTFE with Resilient Energizer PTFE with Resilient Energizer			
	Fire Safe RPTFE and Inconel® with Resilient Energizer			
Seat Materials	Seat Materials Polar Seat® Engineered Thermoplastic			
Metal Seat Inconel®		Inconel®		
	Low Temp.	TFM with Resilient Energizer		
Applications	High Pressure High Temperature Low Temperature Cryogenic Service Critical Service			



BRAY McCANNALOK™ CRYOGENIC HIGH PERFORMANCE BUTTERFLY VALVE

Size Range	NPS 3 to 24 DN 80 to 600
Body Style	Wafer Lug
Temperature Range	-320°F to 250°F -196°C to 121°C
Pressure Rating	ASME Class 150 300
Shut Off Class	Zero Leakage (at ambient temperatures) BS 6364 (at cryogenic temperatures) ISO 28921 (at cryogenic temperatures)
Body Materials	316 SS
Stem Materials	XM-19
Packing	PTFE Graphite
Bearing	Teflon Lined Stainless Steel Nitride Hardened Stainless Steel
Disc Materials	316 SS
Seat Material	Polar Seat*
Extended Bonnet	316 SS
Applications	Liquid Oxygen LNG Liquefaction LNG Receiving Terminals LPG Handling Petroleum Refrigeration Steel Production



BRAY SERIES 3W/3L

	,		
Size Range	NPS 2 to 24 DN 50 to 600		
Body Style	Wafer Lug		
Temperature Range	-20°F to 250°F -29°C to 121°C		
		High Pressure Disc - 250 psi 17.2 bar	
Pressure Ratings	Bidirectional Bubble Tight Shut Off	Standard Disc NPS 2-12 DN 50-300 - 175 psi 12 bar NPS 14-24 DN 350-600 - 150 psi 10.3 bar	
		Low Pressure Disc - 50 psi 3.4 bar	
Body Materials	Cast Iron Du	Cast Iron Ductile Iron	
Disc Materials	Nylon 11 Coated Ductile Iron Aluminum Bronze 316 SS Duplex Stainless Steel 4A		
Stem Materials	416 SS Stainless Steel (EN 1.4057)		
Seat Materials	EPDM BUN	EPDM BUNA-N HT-EPDM	
Applications	HVAC Chilled Water Desalination Sour Gas (NACE) Steam Vacuum		



BRAY SERIES 30/31

DIAN SERIES S	0/ 31	
Size Range	NPS 2 to 20 DN 50 to 500	
Body Style	Wafer Lug	
Temperature Range	-20°F to 400°F -29°C to 204°C	
Pressure Ratings	Bidirectional Bubble Tight Shut Off	175 psi 12 bar
Body Materials	Cast Iron Ductile Iron Carbon Steel Aluminum	
Disc Materials	Nylon 11 Coated Ductile Iron Aluminum Bronze Stainless Steel Hastelloy* Halar* Coated Ductile Iron	
Stem Materials	Stainless Steel Monel® K500	
Seat Materials	EPDM BUNA-N FKM Polyurethane HTEPDM	
Applications	Water Wastewater Seawater HVAC Other Liquids and Gases	



BRAY SERIES 31H

Size Range	NPS 2 to 20 DN 50 to 500	
Body Style	Lug	
Temperature Range	-20°F to 250°F -29°C to 121°C	
Pressure Ratings	Bidirectional Bubble Tight Shut Off 250 psi 17.2 bar	
Body Material	Ductile Iron	
Disc Materials	Nylon 11 Coated Ductile Iron Aluminum Bronze Stainless Steel	
Stem Materials	Stainless Steel	
Seat Materials	Bonded EPDM Bonded BUNA-N	
Applications	High Pressure HVAC Dead End Service	



BRAY SERIES 20/21

	-,	
Size Range	NPS 1 to 20 DN 25 to 500	
Body Style	Wafer Lug	
Temperature Range	-20°F to 400°F -29°C to 204°C	
Pressure Ratings	Bidirectional Bubble Tight Shut Off	150 psi 10.3 bar
Body Materials	Cast Iron Ductile Iron Stainless Steel Aluminum	
Disc/Stem Materials	Stainless Steel EPDM Molded over SS BUNA-N Molded over SS	
Seat Materials	EPDM BUNA-N PTFE Lined EPDM FKM Polyurethane	
Applications	Sanitary Service Mildly Corrosive Toxic Media Other Liquids and Gases	







BRAY SERIES 32/33 & 35/36

Size Range	S32/33 - NPS 22 to 36 DN 550 to 900 S35/36 - NPS 22 to 120 DN 550 to 3000	
Body Style	S32/33 Wafer S35/36 Full Flanged	
Temperature Range	-20°F to 250°F -29°C to 121°C	
Pressure Ratings	Bidirectional Bubble Tight Shut Off 150 psi 10.3 bar	
Body Materials	Cast Iron Ductile Iron Carbon Steel Stainless Steel	
Disc Materials	Nylon 11 Coated Ductile Iron Aluminum Bronze Stainless Steel Duplex Stainless Steel Super Austenitic Stainless Steel Hastelloy* Monel*	
Stem Materials	Stainless Steel Duplex Stainless Steel Super Austenitic Stainless Steel Monel*	
Seat Materials	EPDM BUNA-N FKM	
Applications	Water Wastewater Seawater Other Liquids and Gases	



BRAY SERIES 36H

NPS 22 to 60 DN 550 to 1500		
Full Flanged		
-20°F to 250°F -29°C to 121°C		
Bidirectional Bubble Tight Shut Off	232 psi 16 bar	
Ductile Iron		
Nylon 11 Coated Ductile Iron 316 SS Aluminum Bronze		
17-4 PH Stainless Steel		
Bonded EPDM Bonded BUNA-N		
High Pressure HVAC Dead End Service		
	Full Flanged -20°F to 250°F -29°C to 121°C Bidirectional Bubble Tight Shut Off Ductile Iron Nylon 11 Coated Ductile Iron 316 SS Alu 17-4 PH Stainless Steel Bonded EPDM Bonded BUNA-N	



BRAY SERIES 3A/3AH

	•		
Size Range	NPS 2 to 20 DN 50 to 500		
Body Style	Double Flanged		
Temperature Range	-20°F to 400°F -29°C to 204°C		
Pressure Ratings	Bidirectional Bubble Tight Shut Off 250 psi 17.2 bar		
Body Materials	Cast Iron Ductile Iron Carbon Steel		
Disc Materials	Nylon 11 Coated Ductile Iron Aluminum Bronze Stainless Steel		
Stem Materials	Stainless Steel Monel® K500		
Seat Materials	Bonded EPDM Bonded BUNA-N Bonded FKM		
Applications	Water Wastewater Seawater Other Liquids and Gases		



BRAY SERIES 31U

Size Range	NPS 2 to 12 DN 50 to 300		
Body Style	Lug		
Temperature Range	0°F to 212°F -18°C to 100°C		
Pressure Ratings	Bidirectional Bubble Tight Shut Off	285 psi 20 bar	
Body Materials	Ductile Iron Carbon Steel Nickel Aluminum Bronze		
Disc Materials	Stainless Steel Nickel Aluminum Bronze		
Stem Materials	Stainless Steel Monel® K500		
Seat Materials	Bonded BUNA-N		
Applications	High Pressure Industrial and Marine Dead End Service On-Shore and Off-Shore Fire Protection		



BRAY ACRIS® SERIES 24/25

	•	
Size Range	NPS 2 to 24 DN 50 to 600	
Temperature Range	-20°F to 320°F -29°C to 160°C	
Pressure Ratings	NPS 2 to 6: Up to 232 psi DN 50 to 150: Up to 16 bar	
	NPS 8 to 24: Up to 150 psi DN 200 to 600: Up to 10 bar	
Shutoff Rating	Zero leakage	
Body Style	2-piece Wafer Lug	
Body Materials	Ductile Iron	
Disc/Stem Materials	17-4 Stainless Steel with Over-Molded PFA Disc	
Liner Material	PFA	
Seat Energizer Material	Silicone Viton™	
Applications	Corrosive Chemical Semiconductor Ultrapure Water	



BRAY SERIES 22/23

DIG (1 SEIGHES EE,			
Size Range	NPS 2 to 24 DN 50 to 600		
Body Style	Wafer Lug		
Temperature Range	0°F to 392°F -18°C to 200°C		
Pressure Ratings	Bidirectional Bubble Tight Shut Off	150 psi 10.3 bar	
Body Materials	Ductile Iron Carbon Steel Stainless Steel		
Disc/Stem Materials	Stainless Steel PTFE/SS UHMWPE/SS UHMWPE/Ductile Iron Hastelloy* Titanium PFA/SS		
Seat Materials	PTFE Conductive PTFE UHMWPE		
Applications	Highly Corrosive Toxic Media Ultra Pure Water		



BRAY SERIES 39

Size Range	NPS 2 to 24 DN 50 to 600	
Body Style	Wafer Flanged Long Body	
Temperature Range	-20°F to 300°F -29°C to 150°C	
Pressure Rating	230 psi 16 bar	
Shut Off Rating	≥ Class 1	
Body Materials	Ductile Iron Carbon Steel Stainless Steel	
Disc Materials	Chrome-Molly Iron (Hardened) PSZ Ceramic (Partially Stabilized Zirconia)	
Stem Materials	Stainless Steel	
Liner Materials	Ceramic (Sintered Silicone Carbide) Metallic Carbide Rich Chrome Iron Alloy	
Applications	Slurry Control Highly Abrasive	



AMRESIST® ACRIS® PFA LINED BUTTERFLY VALVES

AMRESIST ACRIST PEA LINED BUTTERFLY VALVES		
Size Range	NPS 1 to 24 DN25 to 600	
Body Style	Wafer Lug	
Temperature Range	-20°F to 320°F -29°C to 160°C	
Pressure Ratings	NPS 1 to 12 (DN25 to 300) 185 psi (12.5 bar) NPS 14 to 24 (DN350 to 600) 150 psi (10 bar)	
Body Material	Ductile Iron	
Disc/Stem Materials	1k = 17-4SS Over Molded with PFA - NPS 1 to 12 (DN25 to 300) 1k = 17-4SS Shafts/High Strength Steel Disc Over Molded with PFA NPS 14 to 24 (DN350 to 600) 1s = Carbon Steel Over Molded with PFA - NPS 2 to 12 (DN50 to 300) 7t = Titanium grade 7 - NPS 3 to 12 (DN80 to 300)	
Applications	Highly Corrosive and Ultra Pure Industrial Applications	



WWW.AMRESIST.COM

Pressure/Temperature ratings and material availability depend on valve size and series. 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 Solvay Solexis, Inc.





KUGELHAHN MÜELLER® - KM 20/21 - FLANGED

Size Range	NPS ½ to 8 DN 15 to 200
Body Type	Two-piece Flanged
Port	Full port
Temperature Range	PTFE: -76°F to 392°F -60°C to 200°C O-Ring: 13°F to 392°F -25°C to 200°C
Pressure Rating	40 bar
Valve Design	EN 12569 EN 593 NE 167
Material Standard	EN 16668 AD2000 W0
Food Contact	EC 1935
Marking	EN 19 DIN EN IEC 61406* DIN 91406*
Top Flange	ISO 5211
Flange Drilling	EN 1092-1 PN 10 16 25 40
Face-to-Face	EN 558 Series 1 Series 27
Testing Standard	EN 12266-1
Fugitive Emissions Certification	ISO 15848-1 TA Luft VDI 2440
Media	Acids Alkalis Corrosive Chemicals Gases Hydrogen Oxygen Water
Chemical Gases Chemical Fluids Petrochemicals pplications Food and Beverage (FDA) Pharmaceutical Water and Wastewater Treatment	

^{*} Auto ID available shortly.



AMRESIST® ACRIS® PFA LINED

Size Range	NPS $\frac{1}{2}$ to 6 DN 15 to 150 - Full Port - One Piece Ball/Stem NPS 1 to 4 DN 25 to 100 - Standard Port - Floating Ball		
Body Style	2 Piece		
Ports	Full Standard		
Temperature Range	-49°F to 400°F -45°C to 204°C		
Pressure Ratings	NPS ½ to 4 - 250 psi DN 15 to 100 - 17 bar NPS 6 - 150 psi DN 150 10 bar		
Body Material	PFA Lined ASTM A-216 WCB PFA Lined ASTM A-351 CF8M (optional)		
Seat Materials	TFM		
Applications	Highly Corrosive and Ultra Pure Industrial Applications		

WWW.AMRESIST.COM



BRAY SERIES 19 SEGMENTED

Size Range	NPS 1 to 16 DN 25 to 400	
Port	Segmented V-Ball	
Body Style	1 Piece	
Temperature Range	-50°F to 500°F -46°C to 260°C	
Pressure Rating	ASME Class 150 300 600 PN 10 PN 16 PN 25 PN 40	
End Connections	Flanged ASME Class 150 300 600 Wafer ASME Class 150 300 PN 10 PN 16 PN 25 PN 40	
Body Materials	Stainless Steel Carbon Steel Optional Special Alloys	
Seat Materials	Metal Tek-Fil*	
Applications	Liquid Gas Steam Pressure Control Temperature Control Level Control Slurry and Abrasive Services Suspended Solids	



BRAY SERIES 19L SEGMENTED

DICAL SERIES .	13E SEGMENTED	
Size Range	NPS 1 to 12 DN 25 to 300	
Port	Segmented V-Ball	
Body Style	1 Piece	
Temperature Range	-50°F to 500°F -46°C to 260°C	
Pressure Rating	ASME Class 150 300 600 PN 10 PN 16 PN 25 PN 40	
End Connections	Flanged ASME Class 150 300 600 PN 10 PN 16 PN 25 PN 40	
Body Materials	Stainless Steel Carbon Steel Optional Special Alloys	
Seat Materials	Metal	
Applications	Liquid Gas Steam Pressure Control Temperature Control Level Control Slurry and Abrasive Services Suspended Solids	



BRAY SERIES F15/F30 | RF15/RF30 FLANGED

Size Range	NPS ½ to 12 DN 15 to 300	
Ports	Full Standard Port	
Body Style	F15/F30 2 Piece RF15/RF30 1 Piece	
Temperature Range	-50°F to 650°F -46°C to 343°C	
Pressure Rating	ASME Class 150 300 PN 10 to PN 40	
End Connections	ASME Class 150 300 PN 10 to PN 40	
Body Materials	Stainless Steel Carbon Steel Alloys	
Seat Materials	Standard: TFM 1600	Optional: Tek-Fil* PEEK UHMWPE RPTFE Metal Cavity Fillers
Applications	General Service Process Tank Farms Fueling Oil and Gas NACE Fire Safe Potable Water (NSF 61)	



BRAY TRIAD SERIES 3-PIECE

2.0.11		
Size Range	NPS ¼ to 4 DN 8 to 100	
Ports	Full Standard Port	
Body Style	3 Piece	
Temperature Range	-50°F to 550°F -46°C to 287°C	
Pressure Rating	2200 psi WOG 151.6 bar	
End Connections	Threaded Socket Weld Butt Weld Flanged Extended Socket Weld or Butt Weld	
Body Materials	Stainless Steel Carbon Steel Special Alloys	
Seat Materials	Standard: TFM 1600	Optional: Tek-Fil* PEEK UHMWPE RPTFE Metal Cavity Fillers
Applications	General Service Process Steam Fire Safe Industrial Gases Critical Service High Cycle	







BRAY SERIES 7000/8000 3-PIECE

Size Range	NPS ½ to 12 DN 8 to 300	
Port	Full Port	
Body Style	3 Piece	
Temperature Range	-50°F to 550°F -46°C to 287°C	
Pressure Rating	NPS ¼ to 4 - 1000 psi WOG DN 8 to 100 - 69 bar NPS 6 to 12 - 400 psi WOG DN 150 to 300 - 27.6 bar	
End Connections	Threaded Socket Weld Butt Weld Flanged Extended Socket Weld or Butt Weld JIC (Male) Tank Bottom Tri-Clamp	
Body Materials	Stainless Steel Series 7000 Carbon Steel Series 8000	
Seat Materials	Standard: RPTFE Optional: TFM 1600 Tek-Fil* UHMWPECavity Fillers	
Applications	General Service Process OEM Equipment Potable Water (NSF 61)	



BRAY SERIES 1B TRUNNION MOUNTED

Size Range	NPS 2 to 24 DN 50 to 600		
Ports	Full		
Body Style	2-Piece 3-Piece Forged Cast		
Temperature Range	-50°F to 500°F -46°C to 260°C		
Pressure Rating	ASME Class 150 300 600 900 1500		
End Connections	Flanged Butt Weld RTJ		
Body Materials	Stainless Steel Carbon Steel		
Seat Materials	RPTFE Nylon Metal		
Applications	Liquid and Gas Transmission and Storage Emergency Shutdown Suction and Discharge Isolation Block and Bypass Pumping Units Compression Units Reinjection Units Metering Stations Pig Trap Launchers and Receivers Surge-Relief Skids		



BRAY SERIES MPT/MPC | SERIES MPF | SERIES 3HP MULTI-PORT VALVES

Size Range	NPS ½ to 12 DN 8 to 300		
Ports	Full Standard Port T-Port L-Port LL-Port		
Body Style	3 & 4 Way		
Temperature Range	-20°F to 450°F -29°C to 232°C		
Pressure Ratings	ASME Class 150 300 800 - 1000 PSI WOG PN 10 16 25 40 55 - 69 bar		
End Connections	Threaded Tri-Clamp Socket Weld Butt Weld Flanged		
Body Materials	Stainless Steel Carbon Steel Alloys		
Seat Materials	Standard: TFM 1600 Optional: Tek-Fil* UHMWPE RPTFE PTFE Cavity Fillers		
Applications	Diverting Mixing Blending and Bypassing		



Custom Slotted Custom Flow

BRAY V-CONTROL BALLS FOR SERIES F15/F30 | RF15/RF30 TRIAD SERIES | SERIES 7000/8000 | SERIES S7500

Size Range	NPS ¼ to 12 DN 8 to 300		
Ports	V-Port 15° 30° 60° & 90° Custom and Slotted Ports Full/Standard Port		
Body Style	Flanged 1-Piece 2-Piece 3-Piece		
Temperature Range	-50°F to 650°F -46°C to 343°C		
Pressure Rating	F-Series: ASME Class 150 300 PN 10 PN 16 PN 25 PN 40 Triad: 2200 psi WOG 7000/8000 S7500: 1000 psi WOG		
End Connections	Flanged Threaded Socket Weld Butt Weld Extended Socket Weld or Butt Weld Tri-Clamp		
Body Materials	Stainless Steel Carbon Steel Alloys		
Seat Materials	Standard: Tek-Fil®	Optional: RPTFE TFM PEEK Metal	
Applications	Flow Control Level Control Temperature Control Low Pressure Steam Control		



BRAY SERIES M1 - SEVERE SERVICE

Size Range	NPS $\frac{1}{2}$ to 36 DN 15 to 900 Custom and Larger Sizes Upon Request		
Pressure Ratings	ASME 150-4500 PN 10 - PN 720		
Temperature	Standard Design Rated Up to 1100 °F 593 °C Can Be Customized for Higher Temperatures		
Design Standards	ASME B16.34 ASME Section VIII - Div 1 Appendix 2, PED 2014/68/EU		
End Connections	Raised Face and Ring Type Joint (ASME B16.5 and DIN 2501) Butt Weld (ASME B16.25) Socket Weld (ASME B16.11) Hubs and Custom Ends Available		
End-To-End	ASME B16.10 (Long Pattern) EN 558-1		
Testing	MSS SP-61 API 598 ANSI/FCI 70-2 Custom Tests Available		
Applications	Conventional Power Combined Cycle Power Plants Superheated Steam Slurry Discharge Hydromet Pump Isolation High Pressure Acid Leaching Acid Injection Delayed Coking Hydrotreating Fluid Catalytic Cracking		



BRAY SERIES M4 - SEVERE SERVICE

	0212112 02111102	
Size Range	NPS ½ to 2½ DN 15 to 65 SW or BW NPS 3 and 4 DN 80 and 100 BW	
Bore Sizes	0.63" 1.03" 1.56"	
Pressure Ratings	ASME 1700 3100 4500 NPS ½ to 2½ DN 15 to 65 Limited Class NPS 3 and 4 DN 80 and 100 Standard Class	
Temperature	Up to 1100°F 593°C Customizable for Higher Temperature Upon Request	
Design Standards	ASME B16.34 Bore sizes per ASME TDP-1 PED 2014/68/EU	
End Connections	SW per ASME B16.11 BW per ASME B16.25	
Body Materials	A105 A182-F22 Cl.3 A182-F91	
Ball Materials	410 SS/HVOF Chromium Carbide A182-F91/F92 Inconel® 718/Fused Chromium Carbide	
Seat Materials	410 SS/HVOF Chromium Carbide Inconel® 718/HVOF Chromium Carbide	
Testing	API 598 MSS SP 61 Custom Tests Available	
Characteristics	On/Off Zero Leakage	
Applications	Power Plant Steam Vent and Drains Isolation or Blowdown of Steam Water Other High Temperature and/or High Pressure Medias	



BRAY RESOLUTE BALL™ ACCESSORY FOR SERIES F15/F30 | RF15/RF30

FOR SERIES F15/F30 RF15/RF30				
Body Style	Model	Pressure Class	Size - NPS	Size - DN
Flanged (Full Port)	F15	ASME Class 150 PN 10 PN 16	1/ +- 10	15 +- 700
	F30	ASME Class 300 PN 25 PN 40	- ½ to 12 15 to 30	
Flanged	RF15	ASME Class 150 PN 10 PN 16	1 to 10	25 to 700
(Standard Port)	RF30	ASME Class 300 PN 25 PN 40	- 1 to 12	25 to 300
Available Standards	and Certific	ations		
Valve Design	NACE MR0175 ISO 15156			
Fugitive Emissions	API 641 ISO 15848-1 ISO 15848-2			
Features and Benefits	Direct Replacement Ball Design Self Flushing/Cleaning Reduced Seat-to-Ball Interface Bidirectional Sealing Multiple Seating Options			
Applications	Calcifying and Crystallizing Medias Abrasive Slurries Tank Drain and Isolation Pump Isolation White/Green/Black Liquor Polymers/Monomers Polyvinyl Chloride Petrochemicals			







FLOW-TEK® SERIES S20 | S40 | S51 | S70/S90 | S80 THREADED

Size Range	NPS 1/4 to 4 DN 8 to 100	
Ports	Full Standard Reduced Port	
Body Style	1 Piece & 2 Piece	
Temperature Range	-50°F to 450°F -46°C to 232°C	
Pressure Ratings	Through 2000 psi WOG 138 bar	
End Connections	Threaded	
Body Materials	Stainless Steel Carbon Steel Brass	
Seat Materials	RPTFE PTFE	
Applications	General Service Air Water Oil and Gas Vacuum Service	



FLOW-TEK® SERIES S85 THREADED

Size Range	NPS ½ to 3 DN 15 to 80		
Port	Full Port		
Body Style	2 Piece		
Temperature Range	-50°F to 450°F -46°C to 232°C		
Pressure Ratings	1000 psi WOG 69 bar		
End Connections	Threaded		
Body Materials	Stainless Steel		
Seat Materials	Standard: RPTFE Optional: UHMWPE		
Applications	General Service Air Water Oil and Gas Vacuum Service Water Treatment Water Filtration Potable Water (NSF 61)		



FLOW-TEK® SERIES 5000/6000 3-PIECE

NPS 1/4 to 4 DN 8 to 100	
Full Port	
3 Piece	
-50°F to 450°F -46°C to 232°C	
NPS ¼ to 2 - 1000 psi CWP DN 8 to 50 - 69 bar NPS 2½ to 4 - 800 psi WOG DN 65 to 100 - 55 bar	
Threaded Socket Weld	
Stainless Steel Series 5000 Carbon Steel Series 6000	
RPTFE	
General Service OEM Equipment Process	



FLOW-TEK® SERIES S7500/S7700 MICRO PURE 3-PIECE

- 12 11 12 1			
Size Range	NPS ¼ to 4 DN 8 to 100		
Port	Tube Bore		
Body Style	3 Piece		
Temperature Range	-50°F to 450°F -46°C to 232°C		
Pressure Rating	1000 psi WOG 69 bar		
End Connections	Tri-Clamp Extended Tube JIC (Male)		
Body Materials	Stainless Steel		
Seat Materials	Standard: PTFE Optional: TFM 1600 UHMWPE Cavity Fillers		
Applications	High Purity Semi Conductor Food and Beverage		



BRAY SERIES 740 BIDIRECTIONAL KNIFE GATE VALVES

Size Range	NPS 2 to 36 DN 50 to 900		
Dragouse Dating	NPS 2 to 24 - 150 psi DN 50 to 600 - 10 bar		
Pressure Rating	NPS 30 to 36 - 100 psi DN 750 to 900 - 7 bar		
Body Style	Single Piece (Lug)		
Design	MSS SP-81		
Testing	MSS SP-151		
Face-to-Face	MSS SP-81		
Certification	CRN PED UKCA ATEX UKCA EX		
Drilling	ASME B16.5 CL150 ASME B16.47 CL150		
Actuator Options	Handwheel Pneumatic Electric Bevel Gear Hydraulic		

Body Materials	CF8 (304 SS) CF8M (316 SS)	
Gate Materials	304 SS 316 SS	
Seat Materials	BUNA-N EPDM Viton™	
Stem Materials	304 SS	
Packing Materials	PTFE Impregnated Synthetic Fiber	
Applications: On/off service and isolation of clean/dirty, corrosive or viscous media in pulp and paper, chemical, mining, power, and wastewater applications.		



BRAY SERIES 746HP POLYURETHANE LINED HIGH PERFORMANCE KNIFE GATE VALVES

Size Range	NPS 2 to 24 DN 50 - 600		
Pressure Rating	150 psi 10 bar		
Body Style	One-Piece (Wafer)		
Design	Manufacturer Standard		
Testing	MSS SP-151		
Face-to-face	MSS SP-81		
Certifications	ATEX TR CU		
Drilling	ASME B16.5 CL150		
Actuator Options	Handwheel Pneumatic Electric Bevel Gear Hydraulic		

Body Material	Ductile Iron	
Gate Material	316 SS	
Gland Material	Carbon Steel	
Liner Material	Polyurethane	
Stem	304 SS	
Packing Materials	PTFE Impregnated Synthetic Fiber + Quad Seal	
Applications: On/off service handling corrosive or abrasive media in wastewater,		

chemical, mining, and power applications.



BRAY SERIES 752 BIDIRECTIONAL KNIFE GATE VALVES

Size Range	NPS 2 to 24 DN 50 to 600		
Pressure Rating	150 psi 240 psi 10 bar 16 bar		
Body Style	Two-Piece Bolted (Wafer)		
Design	MSS SP-81		
Testing	MSS SP-151		
Face-to-Face	MSS SP-81 150 psi 10 bar 240 psi 16 bar models		
Certification	CRN PED UKCA ATEX UKCA EX		
Drilling	ASME B16.5 CL150		
Actuator Options	Handwheel Pneumatic Electric Bevel Gear Hydraulic		

## TO 12 12 12 12 12 12 12 12 12 12 12 12 12	
Body Materials	CF8 CF8M WCB Ductile Iron
Gate Materials	304 SS 316 SS
Seat Materials	BUNA-N EPDM Viton™
Stem Material	304 SS
Packing Materials	PTFE Impregnated Synthetic Fiber
Applications: On/or	ff service handling

Applications: On/off service handling corrosive or abrasive media in pulp and paper, chemical, mining, and power applications.







BRAY SERIES 755 BIDIRECTIONAL KNIFE GATE VALVES

Size Range	NPS 2 to 24 DN 50 to 600		
Pressure Rating	150 psi 240 psi 10 bar 16 bar		
Body Style	Two-Piece Bolted (Wafer)		
Design	Manufacturer Standard		
Testing	MSS SP-151		
Face-to-face	MSS SP-81		
Certification	CRN PED UKCA ATEX UKCA EX		
Drilling	ASME B16.5 CL150		
Actuator Options	Handwheel Pneumatic Electric Bevel Gear Hydraulic		

Body Materials	CF8 CF8M WCB Ductile Iron	
Gate Materials	304 SS 316 SS	
Seat Materials	BUNA-N EPDM Viton™	
Packing Materials	PTFE Impregnated Synthetic Fiber	
Bore Liner Materials	Polyurethane	
Applications: Heavy-duty on/off service and isolation of dirty, corrosive, abrasive or viscous media in chemical, mining, and power applications.		



BRAY SERIES 765 BIDIRECTIONAL SLURRY VALVES

Size Range	NPS 2 to 12 DN 50 to 300		
Pressure Rating	90 psi 6.2 bar		
Body Style	Two-Piece Bolted (Wafer)		
Design	Manufacturer Standard		
Testing	Manufacturer Standard		
Face-to-face	MSS SP-81		
Certification	CRN ATEX UKCA EX		
Drilling	ASME B16.5 CL150		
Actuator Options	Handwheel Pneumatic Electric Bevel Gear Hydraulic		

Body Materials	Ductile Iron
Gate Materials	304 SS
Seat Material	Natural Rubber
Stem Material	304 SS
Wiper Material	EPDM
and isolation of dir	t-duty on/off service ty, corrosive, abrasive or nemical, mining, and power



BRAY SERIES 762 SLURRYSHIELD® BIDIRECTIONAL SLURRY VALVES

Size Range	NPS 3 to 48	DN 80 to 1	200
	NPS 3 to 24 DN 80 to 600	•	
Pressure Rating	NPS 26 to 42 DN 650 to 10	•	
	NPS 44 to 48 - 50 psi DN 1100 to 1200 - 3 bar		
Body Style	Two-Piece Bolted (Flanged)		
Design	Manufacturer Standard		
Testing	Manufacturer Standard		
Face-to-Face	Per Industry Standard		
Certification	CRN		
Drilling	ASME B16.5 CL150 ASME 16.47 CL150		
Actuator Options	Handwheel Bevel Gear	Pneumatic Hydraulic	Electric

CHONAL SLURRY VALVES		
Body Materials	NPS 3 to 28 DN 80 to 700 - Ductile Iron	
	NPS 3 to 48 DN 80 to 1200 - Steel	
Gate Materials	316 SS 2205 17-4 PH (depending on pressure rating)	
Seat Materials	Natural Rubber BUNA-N EPDM EPDM-HT	
Stem Material	304 SS	
Secondary Seal	EPDM	
and isolation of dirt	ry-duty on/off service cy, corrosive, abrasive or nemical, mining, and power	



BRAY SERIES 767 SLURRYSHIELD® BIDIRECTIONAL SLURRY VALVES

Size Range	NPS 3 to 36 DN 80 to 900		
Pressure Rating	300 psi 450 psi 740 psi 20 bar 30 bar 51 bar		
Body Style	Two-Piece Bolted		
Design	Manufacturer Standard		
Testing	Manufacturer Standard		
Face-to-face	Per Industry Standard		
Certification	CRN ATEX UKCA EX		
Drilling	ASME B16.5 CL300		
Actuator Options	Handwheel Pneumatic Electric Bevel Gear Hydraulic		

Body Materials	WCB
Gate Materials	316 SS 2205 17-4PH SS (depending on pressure rating)
Sleeve Material	Natural Rubber EPDM
Stem Material	304 SS
Secondary Seal	EPDM
Applications: High	pressure on/off service

Applications: High pressure on/off service and isolation of dirty, corrosive, abrasive or viscous media in chemical, mining, and power applications.



BRAY SERIES 768 SLURRYSHIELD® BIDIRECTIONAL SLURRY VALVES

Size Range	NPS 2 to 24 DN 50 to 600		
Pressure Rating	NPS 2 to 16 150 psi NPS 18 to 24 90 psi		
	DN 50 to 400 10 bar DN 450 to 600 6.2 bar		
Body Style	Two-piece Bolted (Wafer)		
Design	Manufacturer Standard		
Testing	Manufacturer Standard		
Face-to-Face	MSS SP-81		
Certification	CRN		
Drilling	ASME B16.5 CL150		
Actuator Options	Handwheel Pneumatic Elect Bevel Gear Hydraulic	tric	

Body Materials Ductile Iron Stee			
Gate Material	316 SS 2205 17-4PH SS (depending on pressure rating)		
Sleeve Materials	Natural Rubber EPDM		
Stem Material	304 SS		
Secondary Seal	EPDM		
Applications: On /off service and isolation			

Applications: On/off service and isolation of clean/dirty corrosive or viscous media in pulp and paper, chemical, mining, power, and wastewater applications.



BRAY SERIES 940 UNIDIRECTIONAL KNIFE GATE VALVES

Size Range	NPS 2 to 24 DN 50 to 600			
Pressure Rating	150 psi 10 bar			
Body Style	Single Piece Lug			
Design	MSS SP-81			
Testing	MSS SP-151			
Face-to-Face	MSS SP-81			
Certification	PED UKCA ATEX UKCA EX			
Drilling	ASME B16.5 CL150			
Actuator Options	Handwheel Pneumatic Electric Bevel Gear Hydraulic			

Body Materials	CF8 CF8M		
Gate Materials	316 SS 304 SS		
Seat Materials	Metal BUNA-N EPDM FKM PTFE		
Packing Materials	PTFE Impregnated Synthetic Fiber		

Applications: General purpose on/off service and isolation of clean/dirty, corrosive, abrasive, viscous, and high temperature media in power, mining, pulp and paper, cement, carbon black, and chemical applications.



BRAY SERIES 941 UNIDIRECTIONAL KNIFE GATE VALVES

Size Range	NPS 2 to 24 DN 50 to 600			
Pressure Rating	NPS 2 to 24 - 150 psi DN 50 to 600 - 10 bar			
Body Style	Single Piece - Lug			
Design	MSS SP-81			
Testing	MSS SP-151			
Face-to-Face	MSS SP-81			
Certification	CRN PED UKCA ATEX UKCA EX			
Drilling	ASME B16.5 CL150			
Actuator Options	Handwheel Pneumatic Electric Bevel Gear Hydraulic			

Body Materials	CF8 CF8M (316 SS)		
Gate Materials	304 SS 316 SS		
Seat Materials	Metal BUNA-N EPDM FKM PTFE		
Stem Materials	304 SS		
Energized Quad Packing Materials Seal with PTFE Anti Extrusion Ring			
Applications: On/off service and isolation			

Applications: On/off service and isolation of clean/dirty corrosive or viscous media in pulp and paper, chemical, mining power, and wastewater applications.











BRAY SERIES 942 UNIDIRECTIONAL VORTEX BREAKER KNIFE GATE VALVES

Size Range	NPS 4 to 12 DN 100 to 300			
Pressure Rating	NPS 4 - 12 - 150 psi DN 100 - 300 - 10 bar			
Body Style	Single Piece - Lug			
Design	MSS SP-81			
Testing	MSS SP-151			
Face-to-Face	MSS SP-81			
Certification	CE/PED			
Drilling	ASME B16.5 CL150			
Actuator Options	Handwheel Bevel Gear	Pneumatic Hydraulic	Electric	

Body Materials CF8M (316 SS)			
Gate Materials 17-4PH SS H-900			
Seat Materials Hard Faced			
Packing Materials High Performance Arami Packing with Copper Wi			
Vortex Breaker Hi-Chrome			
Applications: Recycle/rejects in pulp and paper.			

BRAY SERIES 943 UNIDIRECTIONAL KNIFE GATE VALVES

Size Range	NPS 2 to 24 DN 50 to 600			
Pressure Rating	150 psi 10 bar			
Body Style	Single Piece Lug			
Design	MSS SP-81			
Testing	MSS SP-151			
Face-to-Face	MSS SP-81			
Drilling	ASME B16.5 CL150			
Actuator Options	Handwheel Bevel Gear	Pneumatic Hydraulic	Electric	

Body Materials	CF8 CF8M			
Gate Materials	304 SS 316 SS 317 SS			
Seat Materials	Metal BUNA-N EPDM FKM RPTFE			
Packing Materials	ng Materials PTFE Impregnated Synthetic Fiber with Quad Seal			
Applications: Conoral purpose on /off service				

Applications: General purpose on/off service and isolation of clean/dirty corrosive, abrasive, viscous, and high temperature media in power, mining, pulp and paper, cement, carbon black, and chemical applications.

BRAY SERIES 950 UNIDIRECTIONAL KNIFE GATE VALVES

Size Range	NPS 2 to 24 DN 50 to 600			
Duassius Dating	NPS 2 - 12 - 150 psi NPS 14 - 24 - 75 psi			
Pressure Rating	DN 50 - 300 - 10 bar DN 350 - 600 - 5 bar			
Body Style	Single Piece Semi-Lug			
Design	Manufacturer Standard			
Testing	MSS SP-151			
Face-to-Face	MSS SP-81			
Certification	CRN PED UKCA ATEX UKCA EX			
Drilling	ASME B16.5 CL150			
Actuator Options	Handwheel Pneumatic Electric Bevel Gear Hydraulic			

	5		
Body Materials	Ductile Iron		
Gate Materials	304 SS		
Seat Materials	Metal BUNA-N EPDM FKM PTFE		
Stem Materials 304 SS			
Gland Materials	CS		
Packing Materials PTFE Impregnated Synthetic Fiber			
and isolation of dirt	y-duty on/off service y, corrosive, abrasive or emical, mining, and power		

BRAY SERIES 953 UNIDIRECTIONAL KNIFE GATE VALVES

<u> </u>				
Size Range	NPS 2 to 24	DN 50	to 600	
	NPS 2 - 10	150 psi	DN 50 - 2	50 10 bar
Pressure	NPS 12 - 16	90 psi	DN 300 -	400 6 bar
Rating	NPS 18	75 psi	DN 450	5 bar
	NPS 20 - 24	60 psi	DN 500 -	600 4 bar
Body Style	Single Piece Semi Lug			
Design	Manufacturer Standard			
Testing	MSS SP-151			
Face-to-Face	MSS SP-81			
Drilling	ASME B16.5 CL150			
Actuator	Handwheel	P	neumatic	Electric
Options	Bevel Gear	Н	ydraulic	Lever

Body Materials	Cast Iron
Gate Materials	304 SS
Seat Materials	Metal BUNA-N EPDM FKM RPTFE
Stem Materials	304 SS
Gland Materials	Carbon Steel
Packing Materials	PTFE Impregnated Synthetic Fiber with Quad Seal

Applications: General purpose on/off service and isolation of clean/dirty corrosive, abrasive, viscous, and high temperature media in power, mining, pulp and paper, cement, carbon black, and chemical applications.



BRAY SLURRYTUFF® - EZI-VAC AIR RELEASE VACUUM BREAK VALVE

Operation	Air Release & Vacuum Break (EV) Triple Action (ET) Vacuum Break Only (EB)	
Sizes Range	NPS 1 to 16 DN 25 to 400	
Rating	ASME Class 150 300 600	
Body	Fabricated or Cast Carbon Steel Stainless Steel Duplex Steel	
Float	High Density Polyethylene or Urethane Coated Aluminum	
Outlet Cover	Carbon Steel Standard Stainless Steel Optional	
Connection	Flanged ANSI B16.5 RF Class 150 300 600 (Or as Required)	
Seal	Chutex Wear Resistant Natural Rubber Standard Nitrile Viton™ EPDM	
Gasket	BUNA-N O-ring Viton™ EPDM Other Options on Request	
Fasteners	Galvanized Carbon Steel Stainless Steel	
Lining (Optional)	Natural Rubber Nitrile Urethane EPDM Bromobutyl	
Finish	2-coat Interzone 954 Epoxy Paint	
Testing	API 598	
Standard	ASME B16.34 ASME B16.5 ASME B31.3	
Option	Non-Slam Bird Screen Flush Port Secondary Release	
Applications	Slurries Chemical Sand Pulp Dewatering and Process Water	



BRAY SLURRYTUFF® - MAXI-CHECK H HIGH WEAR BALL CHECK VALVE (MH)

Sizes Range	NPS 2 to 32 DN 50 to 800	
Rating	ASME Class 150 300 600 900	
Body	Carbon Steel Standard Stainless Steel Option	
Connection	Flanged ANSI B16.5 RF Class 150 300 600 900 (Or as Required)	
Ball	Urethane Coated Aluminum Silica Bronze Stainless Steel	
Seat	Stainless Steel Hardened Carbon Steel (Replaceable)	
Seal	Molded Rubber (40 Shore hardness) when Required (Replaceable)	
Gasket	BUNA-N & Synthetic Fiber Nitrile Viton™ EPDM	
Fasteners	Galvanized Carbon Steel Stainless Steel	
Lining	Natural Rubber as Standard Nitrile EPDM Bromobutyl	
Finish	2-Coat Interzone 954 Epoxy Paint	
Applications	Slurries Chemicals Sands Pulp Dewatering and Ash Disposal	
-		



WWW.SLURRYTUFF.COM





BRAY SLURRYTUFF® - MAXI-CHECK L LOW WEAR BALL CHECK VALVE (ML)

Size Range	NPS 3 to 24 DN 80 to 600	
Rating	ANSI B16.5 150 300	
Body	Carbon Steel Standard Stainless Steel Option	
Connection	Flanged ANSI B16.5 Class 150 300 (Or as Required)	
Ball	Urethane Coated Aluminum	
Seat	Integral Carbon Steel	
Gasket	BUNA-N O-Ring Nitrile Viton™ EPDM	
Fasteners	Galvanized Carbon Steel Stainless Steel	
Lining	Epoxy Coated as Standard Natural Rubber Nitrile EPDM	
Finish	2-Coat Interzone 954 Epoxy Paint	
Applications	Light Duty Dewatering Process Water Chemical Wastewater Sewerage Pulp Food	



BRAY SLURRYTUFF® MAXI-CHECK I DUAL FUNCTION BALL CHECK ISOLATION VALVE (MI)

Sizes Range	NPS 2 to 30 DN 50 to 750	
Actuation	Hand Wheel Actuated Up to DN 450 Bevel Gearbox DN 500-DN 750 and Higher	
Option	Electric, Pneumatic or Hydraulic Actuators as Required Proximity Switches are Optional	
Rating	ASME B16.5 class 150 300 600 900	
Body	Carbon Steel Standard Stainless Steel Optional	
Connection	Flanged ANSI B16.5 RF Class 150 300 600 900 (Or as Required)	
Ball	Urethane Coated Aluminum Silica Bronze Stainless Steel	
Seat	Stainless Steel Hardened Carbon Steel (Replaceable)	
Seal	Molded Rubber (40 Shore hardness) when Required (Seal is Replaceable)	
Gasket	BUNA-N O-Ring Nitrile Viton™ EPDM	
Fasteners	Galvanized Carbon Steel Stainless Steel	
Lining	Natural Rubber as Standard Nitrile EPDM Bromobutyl	
Finish	2-coat Interzone 954 Epoxy Paint	
Applications	Slurries Chemicals Sands Pulp Dewatering and Ash Disposal	

WWW.SLURRYTUFF.COM



RITE® SERIES 210/212 WAFER CHECK VALVES

	·		
Size Range	NPS 1 to 60 DN 25 to 1500		
Temp. Range	Cryogenic to High Temperature (pending materials/models selected)		
Pressure Ratings	ASME 125 150 300 PN 10/16/25/40		
Body Materials	ASTM A126 CLB ASTM A216 WCB ASTM A351 CF8M ASTM A 395 DI (Exotics optional)		
Seat Materials (Hard or Soft)	Soft: Integral (as per body) or Seat Ring (A240 304 SS) with O-Ring as BUNA, EPDM, PTFE Virgin, Teflon Encapsulated Silicone, Viton™. Hard: Integral (as per body) or Seat Ring (A240 304 SS)		
Disc Materials	ASTM A351 CF8M (Exotics optional)		
Spacer	ASTM A479 316 SS (PTFE optional)		
Face to Face	Manufacturer Standard Valve Design ASME B16.34		
Test Standard	API 598 ASME B16.34		
Optional Approvals	CE CRN FM NSF-61 PED ULC		
Optional Special	H100 SA01 SA1 SA2 SA3 SA4 SA4A SA6 SA7		
Accessories	SA10 SA16 SA40 SA40A SA50		



RITE® SERIES 205 WAFER CHECK VALVES

KITE SERIES	205 WAFER CHECK VALVES		
Size Range	NPS 2 to 48 DN 50 to 1200		
Temp. Range	Cryogenic to High Temperature (pending materials/models selected)		
Pressure Ratings	ASME 125 150 300 600 900 1500 PN 10/16/25/40/64/100		
Body Materials	ASTM A126 CLB ASTM A216 WCB ASTM A351 CF8M ASTM A 395 DI (Exotics optional)		
Seat Materials (Hard or Soft)	Soft: Integral (as per body) or Seat Ring (A240 304 SS) with O-Ring as BUNA, EPDM, PTFE Virgin, Teflon Encapsulated Silicone, Viton™. Hard: Integral (as per body) or Seat Ring (A240 304 SS)		
Disc Materials	ASTM A351 CF8M (Exotics optional)		
Spacer	ASTM A479 316 SS (PTFE optional)		
Face to Face	API 594 Valve Design API 594		
Test Standard	API 598 ASME B16.34		
Optional Approvals	API 6FD CE CRN NSF-61 PED		
Optional Special	H100 SA01 SA1 SA2 SA3 SA4 SA4A SA6 SA7		
Accessories	SA10 SA16 SA40 SA40A SA50 SA54		



RITE® SERIES 211 FLANGED CHECK VALVES

Size Range	NPS 2 to 42 DN 50 to 1050		
Temp. Range	Cryogenic to High Temperature (pending materials/models selected)		
Pressure Ratings	ASME 125 150 300 600 900 1500 PN 10/16/25/40/64/100		
Body Materials	ASTM A126 CLB ASTM A216 WCB ASTM A351 CF8M ASTM A 395 DI (Exotics optional)		
Seat Materials (Hard or Soft)	Soft: Integral (as per body) or Seat Ring (A240 304 SS) with O-Ring as BUNA, EPDM, PTFE Virgin, Teflon Encapsulated Silicone, Viton™. Hard: Integral (as per body) or Seat Ring (A240 304 SS)		
Disc Materials	ASTM A351 CF8M (Exotics optional)		
Spacer	ASTM A479 316 SS (PTFE optional)		
Face to Face	API 594 Valve Design API 594		
Test Standard	API 598 ASME B16.34		
Optional Approvals	API 6FD CE CRN NSF-61 PED		
Optional Special Accessories	H100 SA01 SA1 SA2 SA3 SA4 SA4A SA6 SA7 SA10 SA16 SA40 SA40A SA50 SA54		



RITE® SERIES PVC FLANGED CHECK VALVES

MITE SERVICES I VOTE	ATTOLD GITLER VALUE		
Size Range	NPS 2 to 24 DN 50 to 600		
Temp. Range	35°F to 140°F 2°C to 60°C		
Pressure Ratings	ASME 125 150		
Body Material	ASTM D 1784 PVC		
Seat Materials (Soft)	Integral (as per body) with O-Ring as BUNA, EPDM, Viton™.		
Disc Materials	ASTM A351 CF8M (Exotics optional)		
Spacer	ASTM A479 316 SS		
Face to Face	Manufacturer Standard Valve Design ASME B16.34		
Test Standard	Manufacturer Standard		
Optional Special Accessories	SA4A		



OPTIONAL SPECIAL ACCESSORIES FOR CHECK VALVES





RITE® SERIES H100 External Hydraulic Damper, Spring and Weight

Use: Design slows down the opening of the valve to protect the disc assembly in the last few degrees of travel in fluctuating flow applications.



RITE® SERIES SA3

External Backflush Lever and Spring

Use: Design allows manual operation to backflush pipelines and spring applies additional force for valve closure while providing a visual indication of the disc position.



RITE® SERIES SA01 External Spring

Use: Design applies additional force for valve closure. Extra force needed to close as it has rapid media with high potential for flow. Design can be used for downward flow application.



RITE® SERIES SA4 External Position Indicator

Use: Design allows visual indication of degree of open/close.



RITE® SERIES SA1 External Spring and Weight

Use: Design allows additional force for valve closure and additional cracking pressure to the disc which allows for closing time adjustment (decrease/increase). Can be used on applications with mixed solids/liquids. Design can be used for downward flow application.



RITE® SERIES SA4A External Backflush Lever

Use: Design allows manual operation to backflush pipelines while providing a visual indication of the disc position.



RITE® SERIES SA2 External Limit Switch

Use: Design allows remote indication signal where required for flow and valve position monitoring in automated control system.



RITE® SERIES SA6 External Basket

Use: Design strains impurities, maintains pump prime, and allows valve to close as intended. May include applications with mixed solids/liquids.

OPTIONAL SPECIAL ACCESSORIES FOR CHECK VALVES





RITE® SERIES SA7 External Fusible Link

Use: Design allows fusible link to melt releasing lever allowing disc to close in fire condition to contain spread. Provides failsafe protection and emergency shutoff.



RITE® SERIES SA40A

External Compression Spring and Weight

Use: Design allows additional force for valve closure and additional cracking pressure to disc with protected spring. Closing time adjustment (decrease/increase), may include applications with mixed solids/liquids. Design can be used for downward flow application.



RITE® SERIES SA10 External Weights

Use: Design allows additional cracking pressure to the disc. Weight #1 is used to adjust cracking pressure and Weight #2 is used to counterbalance the disc. For use on low flow rate applications (blowers).



RITE® SERIES SA50

External Compression Spring, Hydraulic Damper and Weight

Use: Design allows additional force for valve closure with protected spring, which slows down valve opening to protect the disc assembly in the last few degrees of travel. Additional cracking pressure to the disc is applied for fluctuating flow applications.



RITE® SERIES SA16 External Weight

Use: Design allows additional cracking pressure to open disc, and torque to close. Design can be used for downward flow application.



RITE® SERIES SA40 External Compression Spring

Use: Design allows additional force for valve closure with protected spring. Extra force is needed to close as it has rapid media with high potential for flow. Design can be used for downward flow application.



RITE® SERIES SA54

External Compression Spring, Reversible

Use: Design allows additional force for valve closure with protected spring to suit various installation directions. Extra force needed to close as it has rapid media with high potential for flow. Site reversible orientation from left/right hand mount.











Extreme High Temperature Actuator



Stainless Steel Actuator

BRAY SERIES 92/93

Rack and pinion actuators available in double acting and spring return

SPECIFICATIONS

Output Torque	Double Acting up to: 44,130 lb-in 4,986 N m		
Output Torque	Spring End Torque up to: 14,173 lb-in 1,601 N m		
Pressure Range	40 - 140 psi 2.8 - 10 bar		
	Standard	-4°F to 200°F -20°C to 93°C	
Temperature	Low	-40°F to 176°F -40°C to 80°C	
Range ¹	High	0°F to 300°F -18°C to 149°C	
	Extreme High Temperature	0°F to 482°F -18°C to 250°C	
Supply Media	Dry Compressed Air/Inert Gas*		
Series 92 Double Acting	Available in 90° 135° 180° rotation		
Series 93 Spring Return	Available in 90° Rotation		
Direct Mounting	ISO 5211: 2001(E)		
Control Options	On-Off Modulating Double Acting Spring Return		
Power Source	Pneumatic		
Enclosure Ratings	IP66/IP67M per IEC 60529		
Options	Single or Double Acting Extended Travel Stops		
Valve Compatibility	Butterfly Valves Ball Valves		

 $^{^{*}}$ Contact factory for other media or non-standard temperature range.

CERTIFICATIONS AND APPROVALS

ABS | ATEX | Bureau Veritas | PED | SIL 3

FEATURES

- > Series 92/93 is completely enclosed and self contained
- > Minimal maintenance
- > Safe, simple disassembly and assembly.
- > Two independently adjustable travel stop screws and a cam on the output shaft to permit precise bidirectional adjustment of movement in both the open and closed positions for quarter turn valves (+5° to -5° limit adjustment)
- > Integral porting
- > Standard units have anodized aluminum bodies with polyester coated end caps
- > Optional Seacorr® coating for harsh environments
- > SIL 3 capable
- > NAMUR accessory compatible

^{1.} Cycle life on low and high temperature seal kits is reduced compared to standard BUNA-N seals.





BRAY SERIES 98 PNEUMATIC

Media ¹	Dry Compressed Air Inert Gas Natural Gas		
Pressure Range	40 to 150 psi 2.8 to 10.3 bar		
	Standard	-20°F to 200°F -29°C to 93°C	
Temperature Range ¹	High Temperature	Up to 300°F Up to 149°C	
	Low Temperature	Down to -50°F Down to -46°C	
Torque Output	Double Acting 1787 lbf-in to 885,100 lbf-in Double Acting 220 N m to 100,000 N m		
Spring End Torque	2,741 to 445,261 lbf-in 310 to 50,306 N m		
Torque Base	Mounting Dimension	ons as per ISO 5211: 2017	
Accessories	Shaft Driven Accessories Mounting per NAMUR-VDE		
Performance Testing	EN 15714-3:2009		
Ingress Protection	IP67M per IEC 605	29	
Safety	ATEX SIL 3 suita	ıble PED on request	

¹ Contact factory for other media or non-standard temperature range.



BRAY SERIES 98H HYDRAULIC

Media ¹	Hydraulic Fluid - Standard Trim ISO VG 32/46, ISO-L-HV	
Pressure Range	500 to 3000 psi 35 to 207 bar	
	Standard: -20°F to 212°F -29°C to 100°C	
Temperature Range ¹	Low Temperature: Down to -50°F Down to -46°C	
	PED: -20°F to 176°F -29°C to 80°C	
Torque Output	Double Acting 730 lbf-in to 885,100 lbf-in Double Acting 84 N m to 100,000 N m	
Spring-End Torque	2,741 to 445,261 lbf-in 310 to 50,306 N m	
Mounting Base	ISO 5211: 2017	
Accessory Mounting	NAMUR-VDE (Shaft Driven)	
Performance Testing	EN 15714-4:2009	
Ingress Protection	IP67M and IP68 per IEC 60529	
Safety	ATEX SIL 3 suitable PED on request	

 $[\]ensuremath{\mathtt{1}}$ Contact factory for other media or non-standard temperature range.



BRAY SERIES 98C COMPACT

Media ¹	Dry Compressed Air Inert Gas Natural Gas		
Pressure Range	40 to 150 psi 2.8 to 10.3 bar		
Temperature Range ¹	Standard	-20°F to 200°F -29°C to 93°C	
	High Temperature	Up to 300°F Up to 149°C	
	Low Temperature	Down to -50°F Down to -46°C	
Torque Output	Double Acting 699 lbf-in to 17,701 lbf-in Double Acting 79 N m to 2,000 N m		
Spring End Torque	490 to 8,921 lbf-in 55 to 1,008 N m		
Torque Base	Mounting Dimensions Options per ISO 5211		
Accessories	Shaft Driven Accessories Mounting Adaptation as per NAMUR-VDE		
Performance Testing	EN 15714-3:2022		
Ingress Protection	IP66, IP67M & IP68 per IEC 60529		
Safety	ATEX SIL 3 suitable PED		

 $^{\,\,1\,}$ Contact factory for other media or non-standard temperature range.

FEATURES - SERIES 98 AND 98H SCOTCH YOKE ACTUATORS



SYMMETRICAL OR CANTED YOKES

The heart of the Series 98 actuator is the scotch yoke. This mechanism converts linear motion into rotational motion. The piston and/or springs directly couple to a rotating yoke with a slot that engages the sliding blocks.

This type of actuator has a distinct torque curve, which starts high, then dips toward the middle of the stroke, and ends with increasing torque — offering an inherent optimization of torque requirements associated with many valve applications.



SYMMETRICAL YOKE

- Torque output curve is balanced.
- Torque demands are similar at seat break and end positions.



CANTED YOKE

- > Torque output curve is shifted.
- > Torque demands are not the same at seat break and end positions.
- Applications for optimizing the torque output vs shaft angle curve.

SCOTCH YOKE COMMON FEATURES

- > Compact design offers a high torque-to-weight ratio.
- Modular design offers multiple configurations, providing flexibility and efficiency at reduced cost.
- > Module alignment ensured by precision machined centering rings.
- Symmetrical yoke or canted yoke options available to meet a broad range of application torque requirements.
- Optimized for ISO 5211 mounting bases, with fully configurable direct-mount accessories.
- > Easy field configuration and simplified maintenance.
- > Premium epoxy/polyurethane coating as standard.

EMERGENCY SHUTDOWN CAPABILITY

- Fast Acting (less than one second)
- > Rugged Design
- > Customizable Configurations
- > Manual and Automatic Release Options
- > Certified Safety Integrity Level 3 (SIL) per IEC 61508

MODULAR DESIGN

PRESSURE MODULE

> Pneumatic

TORQUE MODULE

 Symmetrical or Canted Yoke

HAND PUMP

> Hand Pump for Hydraulic Override

DIRECT ACTING OR SPRING RETURN MODULES

- JackscrewDirect Drive Override
- > Jackscrew Gear Driven Override
- Hydraulic Override
- > Extended Travel Stop
- > Hydraulic Damper
- > Partial Stroke Testing/Locking Device



> Provides self contained hydraulic cushioning at the end of high speed stroke, preventing slamming and seat damage to the valve, as well as shock to the piping. (Available for Double Acting or Spring Return.)



PARTIAL STROKE DEVICE

 Allows ESD valve function verification without disrupting the running process.









COMPACT AUTOMATION

Hydraulic Break to Open Torque Range	730 lb-in to 885,100 lb-in 84 N m to 100,000 N m	
Spring-Ending Torque Range	2,741 lb-in to 445,261 lb-in 310 N m to 50,306	
	12 or 24 VDC or 48VDC	
	120 - 220 VAC	
Supply Voltage	480 V 3-Phase	
	50/60 Hz	
	Solar or wind charged power packs	
	4-20mA	
Cantual Cinnal	12 or 24 VDC or 48 VDC	
Control Signal	120 - 220 VAC	
	Network Protocols	
Rugged and repeatable pe	erformance under the most challenging conditions.	



Custom Built Automation Packages



Custom Built Linear Actuators

KEY FEATURES

- > Completely Self-Contained
- > Electric On/Off Failsafe
- > Continuous Modulating Duty
- Precise Controllability and Repeatable Accuracy
- > Adjustable Opening and Closing Speeds
- > Weather-Proof or Explosion-Proof Construction
- > Fail Freeze, Fail Last, Fail Open Or Fail Close Using Spring or Stored Accumulator Energy
- > ESD and PST Capable
- > Line Break Protection
- > SIL Capable
- > UL | FM | ATEX | CSA Certifications
- > Manual Hydraulic Override
- > Custom Built Options Available

APPLICATIONS

- > Power Generation
- > Mining and Minerals
- > Refining
- > LNG Facilities
- > Gas Pipelines
- > Liquid Pipelines
- > Water / Wastewater
- Oil and Gas Exploration and Production
- > Pulp and Paper Plants



SERIES 70 ELECTRIC ACTUATOR



SPECIFICATIONS

120V AC, 220V AC	300 to 18,000 lb-in 34-2034 Nm		
24V AC/DC	S70-E06: 600 lb-in 68 Nm		
	S70-E08: 800 lb-in 90 Nm		
	S70-E20: 2,000 lb-in 226 Nm		
	S70-050: 5,000 lb-in 565 Nm		
On/Off	Interposing Relay Board (I.R.B) - 120V AC, 220V AC		
	On/Off NXT Controller - 24V AC/DC		
Modulating	Servo NXT Controller 120V AC, 220V AC, 24V AC/DC		
Communication Protocols	EtherNet/IP™ 120V AC, 220V AC, 24V AC/DC		
120V, 220V AC, 50/60 Hz, 1-phase 24V AC/VDC			
NEMA Type 4, Type 4X IP65 IP67 (IP67 does not include S70-130/131 and 180/181)			
IS0-5211 & MSS SP-101			
120V, 220V AC, 1-phase Reversible, Permanent Split Capacitor Induction Motor			
24 V: Permanent Magnet Brushed DC Motor			
-22°F to +150°F -29°C to +65°C			
2 SPDT Mechanical Switches Standard			
Additional Auxiliary Switches Available (up to 6 total)			
Optional Torque Switches Available			
Continuous Duty - Will Operate Continuously at Max Ambient Temperature of 104°F 40°C			
Intermittent Duty - One Motor-On Period, followed by Three Motor-Off Periods			
	On/Off Modulating Communication Protocols 120V, 220V AC, 50/60 Hz, 1-p 24V AC/VDC NEMA Type 4, Type 4X IPC ISO-5211 & MSS SP-101 120V, 220V AC, 1-phase Re 24 V: Permanent Magnet Brus -22°F to +150°F -29°C to + 2 SPDT Mechanical Switches Additional Auxiliary Switches Optional Torque Switches Ava Continuous Duty - Will Opera		

CERTIFICATIONS & APPROVALS

UL | CSA and CE Approved (most 120V models)

24V & 220V: CE Approved

NOTE: For a complete list of certifications by product, please consult your local Bray representative.



SERIES 76 ELECTRIC ACTUATOR



SPECIFICATIONS

Voltage	3 Phase: 220V, 380V & 460V AC 1 Phase: 110V, 220V & 240V AC 24V DC, 24V AC/DC		
Torque Rating	3 Phase: Torque up to 79,000 lb-in (9,000 Nm) 1 Phase: Torque up to 26,500 lb-in (3,000 Nm)		
Enclosure Ratings	NEMA: Type 4, Type 4X, Type 6 Ingress Protection: IP66, IP67 Submersible: IP68 (Optional)		
Main Housing	High Grade Aluminum Alloy Anodized Interior and Exterior Polyester Powder Top Coated		
Mounting	ISO 5211 & MSS SP-101		
Ambient Temperature	-4°F to +140°F (-20°C to +60°C) Optional: -40°F to +140°F (-40°C to +60°C)		
Conduit Entries	Weatherproof: > Sizes 1 thru 5 = 3x 3/4" NPT or 3x M20 > Sizes 6 thru 7 = 2x 3/4" NPT + 1 x 1" NPT or 2x M20 + 1x M25	Explosionproof: > 2x 3/4" NPT or 2x M25	
Lubrication	Grease Moly EP Type		
Duty Cycle	S4 Per EN 60034-1		
Control Options	Potentiometer: 1k Ohm Position Transmitter: Output Signal: 4-20mA Modulating: 0-20mA 4-20mA 0-5V 1-5V 0-10V 2-10V Local Control Station		
Motor	Squirrel Caged AC Induction Motor > Class F Motor Insulation 311°F (155°C) > Embedded Thermal Protection 275°F (135°C)		
Drive Bushing	Removable Drive Bushing		
Manual Override	Declutch Mechanism, which can be Padlocked		
Position Indicator	Top Mount Visual Position Indicator		
Travel	90 degrees +/- 5°		

CERTIFICATIONS & APPROVALS

NEMA Type 4, Type 4X & Type 6	Flameproof: Ex db IIB T4
IP66 IP67	Dust: Ex tb IIIC T135°C
IP68 Certified for Submersible Applications (32 ft 72 hours)	Weatherproof: FCC ICES CE UKCA CSA
CSA CE UKC	Explosionproof: ATEX IECEx CSA





BRAY SERIES 6A ELECTRO-PNEUMATIC POSITIONER

- > Smart Digital Positioner for Precise Control of Valve in Various Applications
- > Low Air Consumptions Thanks to Zero Bleed Design
- Compatible with Rotary or Linear Actuators for Single and Double Acting Applications
- Various Enclosure Options Available to Withstand Challenging Environmental Conditions
- > Equipped with On-Board Diagnostics Checks to Support Preventative and Efficient Maintenance
- > Local User Interface for Quick and Easy Positioner Configuration
- > Modular Design Capable of Field Upgradeable Options
- Integral Volume Booster Available for Fast Operation of Large Valves
- > Fail Safe, Fail in Place, Fail to Open Options Available
- > Advanced Communications Via PROFIBUS PA, Foundation Fieldbus and HART



BRAY SERIES 6P PNEUMATIC POSITIONER

- > Pneumatic to Pneumatic Positioner for Single and Double Acting Actuators
- > Rugged Aluminum Die Cast Housing for Harsh Environments
- > Minimal Setup Time for Zero and Span Adjustment
- > Split Range Capabilities
- > High Visibility Dome Position Indicator
- > Optional 2 x SPDT Mechanical Switches



BRAY SERIES 5A, 5B AND 5C VALVE STATUS MONITORS

- > Discrete Status Monitor for Quarter Turn Rotary Actuators
- > All Models: NEMA 4, 4X and IP66 and IP67 Ingress Protection
- > Model 5A/B Resin and 5C Aluminum: NEMA 4, 4X and IP66, IP67 and IP68 Ingress Protection
- > Intrinsically Safe Or Explosion-Proof Options for Hazardous Locations
- > High Visibility Dome Position Indicator
- > Up to 6 SPDT Switches or Non-Contacting Proximity Switches
- > Switches Pre-Wired to Internal Terminal Block
- > Available in Die-Cast Aluminum Housing Coated with 2-Layers of Polyester or Fiberglass Reinforced PBT Housing for Highly Corrosive Environments



BRAY SERIES 54 VALVE PROXIMITY SENSOR

- > Dual Proximity Sensors for Valve Position
- > IP66, IP67, IP69K Ingress Protection Available
- > Available Solenoid Outputs
- > 2 or 3 wire DC, AC/DC, intrinsically Safe, and AS-i interface
- > Pin Connector or Conduit Versions Available



BRAY SERIES 63 SOLENOID VALVES

- > Weatherproof NEMA 4, 4X and explosion proof housings available
- > Flying leads or DIN connectors, single or dual coil
- > 5/2 or 3/2 operation
- > NAMUR mounted
- > High Flow up to 1.4 Cv
- > Intrinsically Safe Versions Available
- > Available Voltages: 12, 24 VDC; 24, 110, 220 VAC

SINCE 1986, BRAY HAS PROVIDED FLOW CONTROL SOLUTIONS FOR A VARIETY OF INDUSTRIES AROUND THE WORLD.

VISIT **BRAY.COM** TO LEARN MORE ABOUT BRAY PRODUCTS AND LOCATIONS NEAR YOU.

HEADQUARTERS

Bray International, Inc. 13333 Westland East Blvd.

Houston, Texas 77041 Tel: +1.281.894.5454

All statements, technical information, and recommendations in this bulletin are for general use only. Consult Bray representatives or factory for the specific requirements and material selection for your intended application. The right to change or modify product design or product without prior notice is reserved. Patents issued and applied for worldwide. Bray* is a registered trademark of Bray International, Inc.

© 2025 BRAY INTERNATIONAL, INC. ALL RIGHTS RESERVED. BRAY.COM

EN_BII_I-5000_Product_Profile_3-24-2025



