

---

**PRODUCT GUIDE**

**KNIFE GATE AND SLURRY VALVES**

UNIDIRECTIONAL | BIDIRECTIONAL





## SERIES 940 UNIDIRECTIONAL KNIFE GATE VALVES

One-piece cast body designed for rugged performance in applications ranging from general purpose to severe media handling.

### TECHNICAL SPECIFICATIONS

<b>Size Range</b>	NPS 2 to 24   DN 50 to 600	
<b>Body Style</b>	Single piece   Lug	
<b>Pressure Rating</b>	2-24 150psi	
	50-600mm 10 bar	
<b>Drilling</b>	ASME B16.5 CL150	
<b>Face to Face</b>	MSS SP-81	
<b>Certification</b>	CE/PED   Canadian CRN   AWWA C520 (2019)	
<b>Design Standard</b>	MSS SP-81	
<b>Testing Standard</b>	MSS SP-151	

### STANDARD CONSTRUCTION

<b>Body</b>	CF8 (304)	CF8M (316)
<b>Gate</b>	304	316
<b>Seat</b>	Metal   Nitrile   EPDM   FKM   PTFE	Metal   Nitrile   EPDM   FKM   PTFE
<b>Stem</b>	304	304
<b>Gland</b>	304	304
<b>Packing</b>	PTFE Impregnated Synthetic Fiber	PTFE Impregnated Synthetic Fiber
<b>Topworks</b>	CS	CS

### APPLICATION GUIDE

Pulp & Paper | General Industrial | Power | Wastewater | Chemical  
Food & Beverage



## SERIES 941 UNIDIRECTIONAL KNIFE GATE VALVES

Engineered for general purpose on/off service and isolation of clean, dirty, corrosive, abrasive, viscous and high temperature media

### TECHNICAL SPECIFICATIONS

<b>Size Range</b>	NPS 2 to 24   DN 50 to 600	
<b>Body Style</b>	Single Piece - Lug	
<b>Pressure Rating</b>	2-24 150psi	
	50-600mm 10 bar	
<b>Drilling</b>	ASME B16.5 CL150	
<b>Face to Face</b>	MSS SP-81	
<b>Certification</b>	CE/PED   Canadian CRN	
<b>Design Standard</b>	MSS SP-81	
<b>Testing Standard</b>	MSS SP-151	

### STANDARD CONSTRUCTION

<b>Body</b>	CF8M (316)	
<b>Gate</b>	316	
<b>Seat</b>	Metal   Nitrile   EPDM   FKM   PTFE	
<b>Stem</b>	304	
<b>Gland</b>	304	
<b>Packing</b>	Energized Quad Seal with PTFE Anti-Extrusion Ring	
<b>Topworks</b>	CS	

### APPLICATION GUIDE

Pulp & Paper | General Industrial | Power | Wastewater | Chemical | Mining  
Food & Beverage



## SERIES 942 UNIDIRECTIONAL VORTEX BREAKER KNIFE GATE VALVES

Vortex Breaker Knife Gate Valve is engineered for on/off service and isolation of pulp and paper recycle and rejects applications.

### TECHNICAL SPECIFICATIONS

<b>Size Range</b>	NPS 4 to 12   DN 100to 300
<b>Body Style</b>	Single piece   Lug
<b>Pressure Rating</b>	4-12 150psi 100-300mm 10 bar
<b>Drilling</b>	ASME B16.5 CL150
<b>Face to Face</b>	MSS SP-81
<b>Certification</b>	CE/PED   UKCA
<b>Design Standard</b>	MSS SP-81
<b>Testing Standard</b>	MSS SP-151

### STANDARD CONSTRUCTION

<b>Body</b>	CF8M (316)
<b>Gate</b>	17-4PH H-1025
<b>Seat</b>	Metal
<b>Stem</b>	304
<b>Packing</b>	4-layer (Copper-Kevlar-Quad Seal-Kevlar)
<b>Vortex Breaker</b>	Hi-Chrome
<b>Topworks</b>	CS

### APPLICATION GUIDE

Pulp & Paper



## SERIES 943 UNIDIRECTIONAL KNIFE GATE VALVES

Engineered for general purpose on/off service and isolation of clean, dirty, corrosive, abrasive, viscous and high temperature media

### TECHNICAL SPECIFICATIONS

<b>Size Range</b>	NPS 2 to 24   DN 50 to 600
<b>Body Style</b>	Single Piece - Lug
<b>Pressure Rating</b>	2-24 150psi 50-600mm 10 bar
<b>Drilling</b>	ASME B16.5 CL150
<b>Face to Face</b>	MSS SP-81
<b>Certification</b>	CE/PED   Canadian CRN
<b>Design Standard</b>	MSS SP-81
<b>Testing Standard</b>	MSS SP-151

### STANDARD CONSTRUCTION

<b>Body</b>	CF8M (316)
<b>Gate</b>	316
<b>Seat</b>	Integral Metal
<b>Stem</b>	304
<b>Gland</b>	CF8
<b>Packing</b>	PTFE Impreganted Synthetic Fiber w/Quad Seal
<b>Topworks</b>	Carbon Steel

### APPLICATION GUIDE

Pulp & Paper | General Industrial | Power | Water/ Wastewater | Chemical  
Mining | Food & Beverage



## SERIES 950 UNIDIRECTIONAL KNIFE GATE VALVES

Engineered for general purpose on/off service and isolation of clean, dirty, corrosive, abrasive, viscous and high temperature media.

### TECHNICAL SPECIFICATIONS

<b>Size Range</b>	NPS 2 to 24   DN 50 to 600
<b>Body Style</b>	Single Piece - Semi-Lug
<b>Pressure Rating</b>	2-12 150psi   14-24 75psi 50-300mm 10 bar   350-600mm 5 bar
<b>Drilling</b>	ASME B16.5 CL150
<b>Face to Face</b>	MSS SP-81
<b>Certification</b>	Canadian CRN   CE/PED   ATEX   AWWA C520 (2019)
<b>Design Standard</b>	MSS SP-81
<b>Testing Standard</b>	MSS SP-151

### STANDARD CONSTRUCTION

<b>Body</b>	DI
<b>Gate</b>	304
<b>Seat</b>	Integral
<b>Stem</b>	304
<b>Gland</b>	CS
<b>Packing</b>	PTFE Impregnated Synthetic Fiber
<b>Topworks</b>	CS

### APPLICATION GUIDE

Pulp & Paper | General Industrial | Power | Wastewater | Chemical  
Food & Beverage



## SERIES 953 UNIDIRECTIONAL KNIFE GATE VALVES

Engineered for general purpose on/off service and isolation of clean, dirty, corrosive, abrasive, viscous and high temperature media.

### TECHNICAL SPECIFICATIONS

<b>Size Range</b>	NPS 2 to 24   DN 50 to 600
<b>Body Style</b>	Single Piece - Semi-Lug
<b>Pressure Rating</b>	2-10 150psi   50-250mm 10bar 12-16 90psi   300-400mm 6bar 18 75psi   450mm 5bar 20-24 60psi   500-600mm 4bar
<b>Drilling</b>	ASME B16.5 CL150
<b>Face to Face</b>	MSS SP-81
<b>Certification</b>	Canadian CRN   CE/PED   ATEX
<b>Design Standard</b>	Manufacturers Standard
<b>Testing Standard</b>	MSS SP-151

### STANDARD CONSTRUCTION

<b>Body</b>	Cast Iron
<b>Gate</b>	304
<b>Seat</b>	Integral Metal
<b>Stem</b>	304
<b>Gland</b>	Ductile Iron
<b>Packing</b>	PTFE Impregnated Synthetic Fiber w/Quad Seal
<b>Topworks</b>	Carbon Steel

### APPLICATION GUIDE

Pulp & Paper | General Industrial | Power | Wastewater | Chemical  
Food & Beverage



## SERIES 740 BIDIRECTIONAL KNIFE GATE VALVES

One-piece cast body with flexible wire reinforced elastomer seat for bidirectional zero leakage shutoff in a wide range of industrial applications.

### TECHNICAL SPECIFICATIONS

<b>Size Range</b>	NPS 2 to 36   DN 50 to 900	
<b>Body Style</b>	Single Piece - Lug	
<b>Pressure Rating</b>	2-24 150psi   30-36 100psi	
	50-600mm 10 bar   750-900mm 7 bar	
<b>Drilling</b>	ASME B16.5 CL150   ASME B16.47 CL150	
<b>Face to Face</b>	MSS SP-81	
<b>Certification</b>	CE/PED   Canadian CRN   AWWA C520 (2019)	
<b>Design Standard</b>	MSS SP-81	
<b>Testing Standard</b>	MSS SP-151	

### STANDARD CONSTRUCTION

<b>Body</b>	CF8 (304)	CF8M (316)
<b>Gate</b>	304	316
<b>Seat</b>	Nitrile   EPDM	Nitrile   EPDM
<b>Stem</b>	304	304
<b>Gland</b>	304	304
<b>Packing</b>	PTFE Impregnated Synthetic Fiber	PTFE Impregnated Synthetic Fiber
<b>Topworks</b>	Steel	Steel

### APPLICATION GUIDE

Pulp & Paper | General Industrial | Power | Wastewater | Chemical | Ethanol



## SERIES 746HP POLYURETHANE LINED BIDIRECTIONAL SLURRY VALVES

One-piece polyurethane bonded liner throughout the body and chest providing Zero Leakage shutoff in the most abrasive applications.

### TECHNICAL SPECIFICATIONS

<b>Size Range</b>	NPS 2 to 24   DN 50 to 600	
<b>Body Style</b>	Single Piece - Wafer	
<b>Temp. Rating</b>	Polyurethane: -20°F to 194°F   -29°C to 90°C	
<b>Pressure Rating</b>	150psi   10 bar 232psi   16 bar	
<b>Drilling</b>	ASME B16.5 CL150	
<b>Face to Face</b>	MSS SP-81	
<b>Design Standard</b>	Manufacturer Standard	
<b>Testing Standard</b>	MSS SP-151	

### STANDARD CONSTRUCTION

<b>Body</b>	Ductile Iron	
<b>Gate</b>	10bar - 316 Stainless Steel   16bar - 2205	
<b>Liner</b>	Polyurethane	
<b>Stem</b>	304	
<b>Gland</b>	Carbon Steel	
<b>Packing</b>	PTFE Impregnated Synthetic Fiber + Quad Seal	
<b>Topworks</b>	Carbon Steel	

### APPLICATION GUIDE

Wastewater | Mining | Power | Chemical



## SERIES 762 SLURRYSHIELD® BIDIRECTIONAL HEAVY DUTY SLURRY VALVES

Two-piece bolted body with twin elastomer seats designed, for bidirectional heavy duty zero leakage shutoff with self cleaning in aggressive slurries.

### TECHNICAL SPECIFICATIONS

<b>Size Range</b>	NPS 3 to 54   DN 80 to 1350	
<b>Body Style</b>	Two-piece Bolted - Flanged	
<b>Pressure Rating</b>	<b>SS 316 Gate</b>	<b>Duplex 2205 Gate</b>
	NPS 3-24 100psi   DN 80-600 7 bar	NPS 3-18 232psi   DN 80-450 16bar
	NPS 26-42 75psi   DN 650-1050 5 bar	NPS 20-24 150psi   DN 500-600 10bar
	NPS 48-54 50psi   DN 1200-1350 3 bar	NPS 26-42 100psi   DN 650-1050 7bar
	NPS 48 75psi   DN 1200 5bar	
<b>Drilling</b>	ASME B16.5 CL150   ASME B16.47 CL150	
<b>Face-to-Face</b>	Per Industry Standard	
<b>Certification</b>	Canadian CRN   PED Category I Module A (Group 2 liquids)	
<b>Design Standard</b>	Manufacturer Standard	
<b>Testing Standard</b>	Manufacturer Standard <sup>1</sup>	

**NOTE<sup>1</sup>:** 762 valves are elastomer sleeved slurry valves and MSS SP-81 and MSS SP-151 does not apply. The valves are tested for bidirectional, zero leakage across the sleeves.

### STANDARD CONSTRUCTION

<b>Body</b>	DI NPS 3 to 28   DN 80 to 700   WCB NPS 30-48   DN 750 to 1200
<b>Gate</b>	316
<b>Sleeve</b>	Natural Rubber
<b>Stem</b>	304
<b>Gland Plate</b>	Carbon Steel
<b>Secondary Seal</b>	EPDM
<b>Topworks</b>	Steel

### APPLICATION GUIDE

Chemical | Mining | Power | Pulp & Paper | Alumina | Cement | HPAL/POX



## SERIES 767 SLURRYSHIELD® BIDIRECTIONAL HIGH PRESSURE SLURRY VALVES

Two-piece bolted body with twin elastomer seats, designed for bidirectional zero leakage shutoff with self cleaning in high pressure slurries.

### TECHNICAL SPECIFICATIONS

<b>Size Range</b>	NPS 3 to 36   DN 80 to 900
<b>Body Style</b>	Two-piece Bolted - Flanged
<b>Pressure Rating</b>	300psi   450psi   740psi
	20 bar   31 bar   51bar
<b>Drilling</b>	ASME B16.5 CL150   ASME B16.5 CL300
<b>Face-to-face</b>	Per Industry Standard
<b>Design Standard</b>	Manufacturer Standard
<b>Testing Standard</b>	Manufacturer Standard
<b>Certification</b>	Canadian CRN

### STANDARD CONSTRUCTION

<b>Body</b>	WCB
<b>Gate</b>	316   2205   17-4 (depending on pressure rating)
<b>Sleeve</b>	Natural Rubber   EPDM
<b>Secondary Seal</b>	EPDM

### APPLICATION GUIDE

Chemical | Mining | Power | Pulp & Paper | Cement



## SERIES 768 SLURRYSHIELD® BIDIRECTIONAL HEAVY DUTY SLURRY VALVES

Two-piece bolted body with twin elastomer seats and a push-through gate designed for bidirectional zero leakage shutoff with self cleaning in demanding slurries.

### TECHNICAL SPECIFICATIONS

<b>Size Range</b>	NPS 2 to 24   DN 50 to 600
<b>Body Style</b>	Two-piece Bolted - Wafer
<b>Pressure Rating</b>	2"-16" 150psi   18"-24" 90psi 50mm-400mm 10 bar   450mm-600mm 6.2 bar
<b>Drilling</b>	ASME B16.5 CL150
<b>Face-to-face</b>	Per Industry Standard
<b>Design Standard</b>	Manufacturer Standard
<b>Testing Standard</b>	Manufacturer Standard
<b>Certification</b>	Canadian CRN

### STANDARD CONSTRUCTION

<b>Body</b>	DI
<b>Gate</b>	316
<b>Sleeve</b>	Natural Rubber   EPDM
<b>Secondary Seal</b>	EPDM

### APPLICATION GUIDE

Chemical | Mining | Power | Pulp & Paper | HPAL/POX





## SERIES 752 BIDIRECTIONAL SLURRY VALVES

Two-piece bolted body with steel reinforced perimeter seat for bidirectional zero leakage shutoff in demanding slurries.

### TECHNICAL SPECIFICATIONS

<b>Size Range</b>	NPS 2 to 24   DN 50 to 600
<b>Body Style</b>	Two-piece bolted - Wafer
<b>Pressure Rating</b>	150psi   240psi   300psi 10bar   16bar   20bar
<b>Drilling</b>	ASME B16.5 CL150
<b>Face-to-face</b>	MSS SP-81 (150psi & 240psi models)
<b>Design Standard</b>	MSS SP-81
<b>Testing Standard</b>	MSS SP-151
<b>Certification</b>	Canadian CRN

### STANDARD CONSTRUCTION

<b>Body</b>	CF8   CF8M   WCB   DI
<b>Gate</b>	304   316
<b>Seat</b>	Nitrile
<b>Packing</b>	PTFE impregnated synthetic fiber

### APPLICATION GUIDE

Chemical | Mining | Power



## SERIES 755 BIDIRECTIONAL SLURRY VALVES

Two-piece bolted body with a replaceable polyurethane bore liner and steel reinforced perimeter seat for bidirectional zero leakage shutoff in abrasive/corrosive slurries.

### TECHNICAL SPECIFICATIONS

<b>Size Range</b>	NPS 2 to 24   DN 50 to 600
<b>Body Style</b>	Two-piece bolted - Wafer
<b>Pressure Rating</b>	150psi   240psi   300psi 10bar   16bar   20bar
<b>Drilling</b>	ASME B16.5 CL150
<b>Face-to-face</b>	MSS SP-81 (150psi & 240psi models)
<b>Design Standard</b>	Manufacturer Standard
<b>Testing Standard</b>	MSS SP-151
<b>Certification</b>	Canadian CRN

### STANDARD CONSTRUCTION

<b>Body</b>	CF8   CF8M   WCB   DI
<b>Gate</b>	304   316
<b>Seat</b>	Nitrile   EPDM
<b>Packing</b>	PTFE impregnated synthetic fiber

### APPLICATION GUIDE

Chemical | Mining | Power



## SERIES 765 BIDIRECTIONAL SLURRY VALVES

Compact, two-piece bolted body with twin elastomer seats and a push-through gate designed for bidirectional zero leakage shutoff with self cleaning in demanding slurries.

### TECHNICAL SPECIFICATIONS

<b>Size Range</b>	NPS 2 to 12   DN 50 to 300
<b>Body Style</b>	Two-piece bolted - Wafer
<b>Pressure Rating</b>	90psi 6.2bar
<b>Drilling</b>	ASME B16.5 CL150
<b>Face-to-face</b>	MSS SP-81
<b>Design Standard</b>	Manufacturer Standard
<b>Testing Standard</b>	Manufacturer Standard
<b>Certification</b>	Canadian CRN

### STANDARD CONSTRUCTION

<b>Body</b>	DI
<b>Gate</b>	304
<b>Seat</b>	Natural Rubber
<b>Secondary Seal</b>	EPDM

### APPLICATION GUIDE



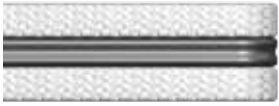
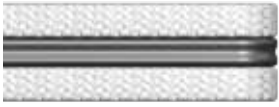
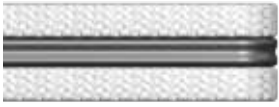



Chemical | Mining | Power



## PACKING OPTIONS



### MAXIMUM TEMPERATURE RANGE

<b>Pure PTFE</b>	500°F	
	260°C	
<b>PTFE impregnated Synthetic Fiber</b>	450°F	
	232°C	
<b>PTFE w/Nitrile Quad Seal<sup>1</sup></b>	194°F	
	90°C	
<b>PTFE w/Viton® Quad Seal<sup>1</sup></b>	392°F	
	200°C	
<b>PTFE w/EPDM Quad Seal</b>	248°F	
	120°C	
<b>PTFE w/Copper Wiper<sup>2</sup></b>	500°F	
	260°C	
<b>Graphite</b>	1202°F	
	650°C	
<b>HD Packing</b>	536°F	
	280°C	

<sup>1</sup> PTFE packing with energized elastomer.

<sup>2</sup> PTFE packing with copper wiper. Copper wiper not applicable for F752 / 755

## SEAT OPTIONS

### UNIDIRECTIONAL

Series 940 Standard integral metal seat and optional replaceable zero leakage resilient seat

Nitrile	-35° to 194°F	-37° to 90°C
EPDM	-65° to 248°F	-54° to 120°C
FKM	-15° to 392°F	-26° to 200°C
PTFE	-235° to 500°F	-148° to 260°C



Series 941 Standard integral metal seat and optional replaceable zero leakage resilient seat.

Nitrile	-35° to 194°F	-37° to 90°C
EPDM	-65° to 248°F	-54° to 120°C
FKM	-15° to 392°F	-26° to 200°C
PTFE	-235° to 500°F	-148° to 260°C



Series 953 Standard integral metal seat and optional replaceable zero leakage resilient seat

Nitrile	-35° to 194°F	-37° to 90°C
EPDM	-65° to 248°F	-54° to 120°C
FKM	-15° to 392°F	-26° to 200°C
PTFE	-235° to 500°F	-148° to 260°C



Series 943 Standard integral metal seat and optional replaceable zero leakage resilient seat

Nitrile	-35° to 194°F	-37° to 90°C
EPDM	-65° to 248°F	-54° to 120°C
FKM	-15° to 392°F	-26° to 200°C
PTFE	-235° to 500°F	-148° to 260°C



Series 950 Standard integral metal seat and optional replaceable zero leakage resilient seat

Nitrile	-35° to 194°F	-37° to 90°C
EPDM	-65° to 248°F	-54° to 120°C
FKM	-15° to 392°F	-26° to 200°C
PTFE	-235° to 500°F	-148° to 260°C



Series 740 Replaceable flexible wire reinforced elastomer seat

Nitrile	-35° to 194°F	-37° to 90°C
EPDM	-65° to 248°F	-54° to 120°C
FKM	-15° to 392°F	-26° to 200°C



Series 752 Replaceable steel reinforced elastomer seat

Nitrile	-35° to 194°F	-37° to 90°C
EPDM	-65° to 248°F	-54° to 120°C
FKM	-15° to 392°F	-26° to 200°C



Series 755 Replaceable steel reinforced elastomer seat

Nitrile	-35° to 194°F	-37° to 90°C
EPDM	-65° to 248°F	-54° to 120°C
FKM	-15° to 392°F	-26° to 200°C



Series 762 Twin elastomer seats

Natural Rubber	-60° to 165°F	-51° to 74°C
Nitrile	-35° to 194°F	-37° to 90°C
EPDM-HT	-65° to 302°F	-54° to 150°C



Series 765 Twin elastomer seats

Natural Rubber	-60° to 165°F	-51° to 74°C
EPDM	-65° to 248°F	-54° to 120°C



Series 767 Twin elastomer seats

Natural Rubber	-60° to 165°F	-51° to 74°C
EPDM	-65° to 248°F	-54° to 120°C



Series 768 Twin elastomer seats

Natural Rubber	-60° to 165°F	-51° to 74°C
Nitrile	-35° to 194°F	-37° to 90°C
EPDM	-65° to 248°F	-54° to 120°C



**ACTUATOR OPTIONS** | SHOWN IN RED



DIRECT MOUNTED HANDWHEEL



BEVEL GEAR OPERATOR



DOUBLE ACTING PNEUMATIC ACTUATOR



HYDRAULIC ACTUATOR



LEVER



ELECTRIC ACTUATOR

AVAILABLE ACCESSORIES | SHOWN IN RED



DEFLECTION CONE



HANDWHEEL LOCK OUT



PINNED LOCKOUT OPEN & CLOSED



PNEUMATIC FAILSAFE



NON-RISING STEM



GATE GUARD



CHAIN WHEEL



MANUAL OVERRIDE



PROXIMITY SENSOR



MECHANICAL LIMIT SWITCH



ELECTRO PNEUMATIC POSITIONER



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.

© 2024 BRAY INTERNATIONAL, INC. ALL RIGHTS RESERVED. BRAY.COM

EN\_B-1102\_KGV\_Product Guide\_20241107



**THE HIGH PERFORMANCE COMPANY**

**BRAY.COM**