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**SERIES 768**

# **BRAY SLURRYSHIELD® BIDIRECTIONAL KNIFE GATE VALVES**

2 to 24 150psi (10bar)



 **Bray**<sup>®</sup>

BRAY.COM

THE HIGH PERFORMANCE COMPANY

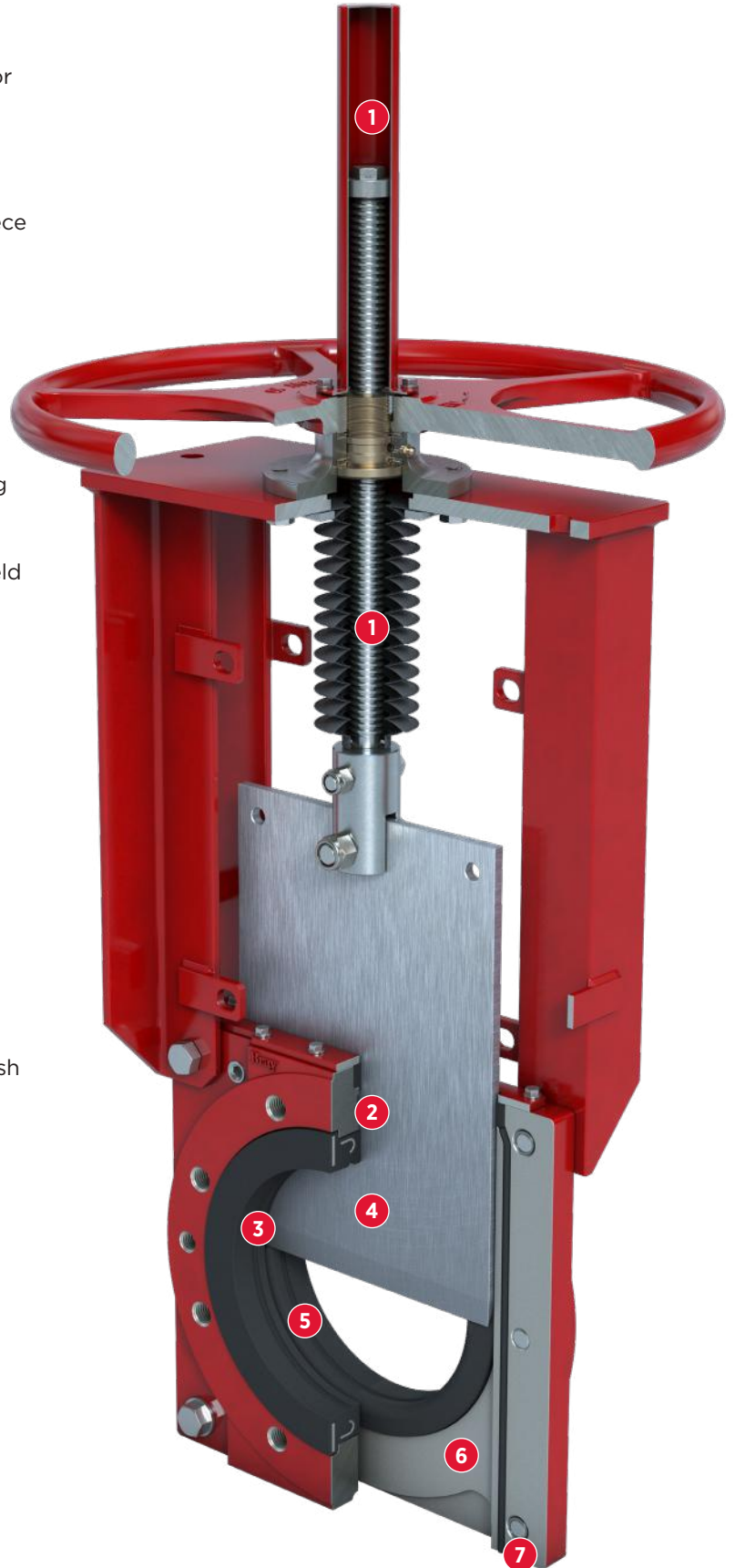
## FEATURES & BENEFITS

### DESIGN FEATURES

Series 768 is a bidirectional slurry valve, designed for demanding high pressure slurry applications. Twin elastomer seats and push-through gate design facilitate self-cleaning and prevent media build up.

The durable ductile iron body is offered in a two-piece bolted wafer style. When fully open, the valve is full bore, offering no resistance to line media.

- 1 Upper and lower protective stem cover is standard in all models, increasing cycle life in hazardous environments.
- 2 Fully encapsulated J-ring providing sleeve reinforcement and memory assist, guaranteeing bidirectional zero leakage performance.
- 3 In the open position, the energized sleeves shield all metal components from direct contact with the flowing process media.
- 4 Gate available in a wide range of corrosion resistant alloys to suit the pressure rating and application.
- 5 Full port design provides unobstructed flow path, extending sleeve life and minimizing pressure drop across valve.
- 6 Two-piece bolted wafer body allows for easy maintenance and is drilled and tapped to country standards.
- 7 Optional bottom flush plate with tapped ports, allows for safe discharge of media and easy flush water connection.



Series 768 Bidirectional Heavy Duty Slurry Valve

**INDUSTRY APPLICATIONS**

**Mining**

- > Primary Milling
- > Secondary Milling
- > Primary Cyclone
- > Secondary Cyclone
- > Thickener
- > Filter Pump/Press

> Process Water

> Tailings

**HPAL/POX**

- > Autoclave Application
- Process Pumps

**Pulp & Paper**

**General Industry**

**Power**

**Chemical**

**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>	<b>SS 316 Gate</b>	<b>SS 316 Gate</b>	<b>Duplex 2205 Gate</b>	<b>17-4 PH Gate</b>
	2-16 150psi	18-24 90psi	18-24 150psi	up to 232psi
	50-400mm 10 bar	450-600mm 6.2 bar	450-600mm 10bar	up to 16bar
<b>Drilling</b>	ASME B16.5 CL150 ASME B16.47 CL150			
<b>Face to Face</b>	MSS SP-81			
<b>Certification</b>	Canadian CRN			
<b>Design Standard</b>	Manufacturer Standard			
<b>Testing Standard</b>	Manufacturer Standard			

**NOTE** <sup>1</sup> F768 valves are elastomer sleeved slurry valves and MSS SP-81 does not apply. The valves are tested for bi-directional, zero leakage across the seats.

**STANDARD CONSTRUCTION**

<b>Body</b>	DI
<b>Gate</b>	316
<b>Seat</b>	Natural Rubber
<b>Stem</b>	304
<b>Gland Plate</b>	Carbon Steel
<b>Secondary Seal</b>	EPDM
<b>Topworks</b>	Steel

**GATE OPTIONS**

- 304, 316, 317 Stainless Steel
- SAF 2507 Duplex
- 17-4PH Stainless Steel
- Hastelloy® C
- Monel®
- Titanium

**BODY OPTIONS**

- Carbon Steel (WCB)
- CF8 Stainless Steel
- CF8M Stainless Steel
- CF3M Stainless Steel
- SAF 2205 Duplex
- SAF 2507 Duplex

**SEAT OPTIONS**



<b>Natural Rubber</b>	-60 to 165°F -51 to 74°C
<b>Buna-N</b>	-34 to 194°F -36 to 90°C
<b>EPDM*</b>	-65 to 248°F -54 to 150°C

\* Exposure to continuous elevated temperatures will result in premature aging of the elastomer.  
<sup>1</sup> Do not operate the valve if the media in the line is frozen.

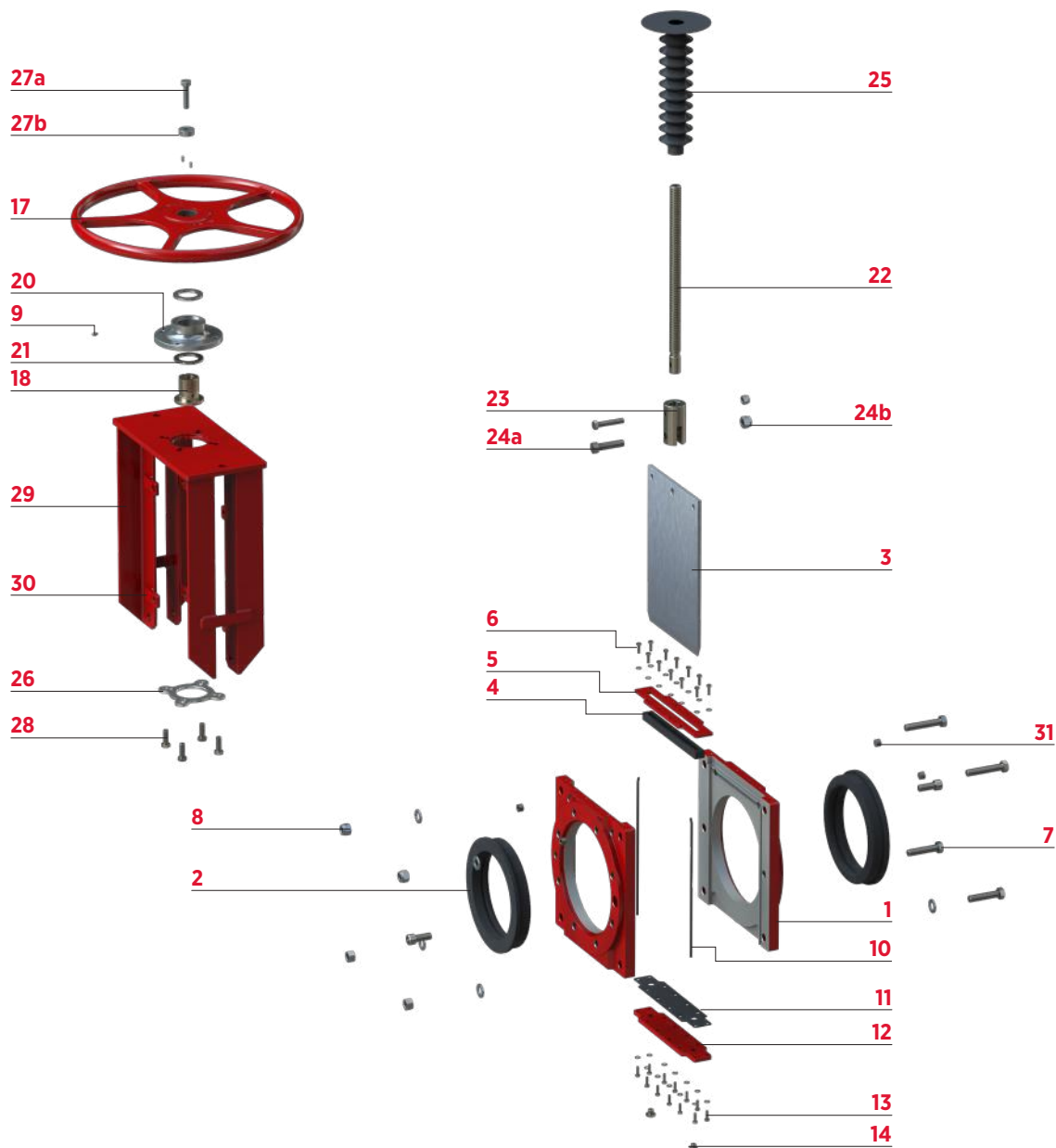
# MATERIALS OF CONSTRUCTION

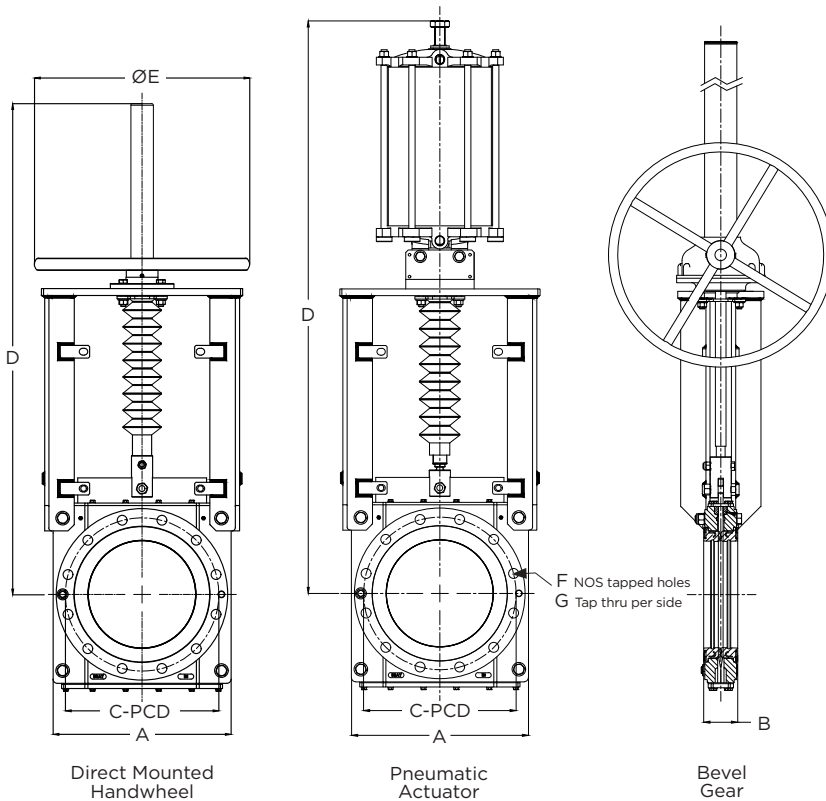
## BILL OF MATERIALS & PARTS CALL OUT

Item	Description
1	Body
2	Seat
3	Gate
4	Secondary Seal
5	Gland Plate
6	Gland Plate Fasteners
7	Body Mounting Bolt & Washer
8	Body Mounting Nut & Washer
9	Grease Nipple
10	Body O-Ring
11	Drain Plate Gasket

Item	Description
12	Drain Plate
13	Drain Plate Fasteners
14	Drain Plug
15	Stem Guard
16	Lock Nut
17	Handwheel
18	Stem Nut
19	Key
20	Handwheel Assembly Housing
21	Thrust Bearing
22	Stem

Item	Description
23	Clevis
24a	Clevis Bolt
24b	Clevis Lock Nut
25	Bellows
26	Bellows Flange
27a	Travel Stop
27b	Travel Stop Fasteners
28	Actuator/Superstructure Fasteners
29	Superstructure (Tower Assembly)
30	Lock Out Bracket
31	Locating Bush





**NOTE**

- 1 Consult factory for hydraulic and electric actuator dimensions.
- 2 Dimensions are approximate and subject to change. Consult factory for certified drawings.
- 3 For ease of replacement and installation, the installed face to face of the F768 is designed to suit an MSS SP-81 face-to-face take-out
- \* In conformance with ASME B16.5, Class 150 for sizes NPS 2 (DN50) through NPS 24 (DN600) and per ASME B16.47 Series A for sizes > NPS 24.

DIMENSIONS (Inches)								
NPS	A	B	CPCD	D	ØE	F	G	H
2	7.09	2.24	4.75	19.00	12	4	5/8"-11	10
3	8.15	2.48	6.00	22.05	12	4	5/8"-11	10
4	9.45	2.48	7.50	24.88	12	8	5/8"-11	10
6	11.81	2.72	9.50	32.68	16	8	3/4"-10	12
8	14.17	3.19	2.99	38.27	20	8	3/4"-10	16
10	16.54	3.23	14.25	44.69	20	12	7/8"-9	12.5
12	19.29	3.50	17.00	51.79	20	12	7/8"-9	18.70
14	20.98	3.50	18.75	57.09	20	12	1"-8	18.70
16	23.62	4.02	21.25	62.00	20	16	1"-8	22.83
18	25.51	4.09	22.75	68.98	20	16	1-1/8"-7	22.83
20	27.95	5.16	25.00	75.59	30	20	1-1/8"-7	22.83
24	33.0	5.20	29.50	97.64	39	20	1-1/4"-7	25.20

WEIGHT (lbs)		
HAND WHEEL	PNEUMATIC ACTUATOR	GEAR OPERATOR
52.9	57	58
65	73	70
79.4	86	84
130	137	132
185	209	185
251	313	247
--	443	328
--	586	419
--	811	608
--	1164	734
--	1145	933
--	2258	1351

DIMENSIONS (Millimeters)								
DN	A	B	CPCD	D	ØE	F	G	H
50	180	57	120.7	480	300	4	5/8-11	10
80	207	63	152.4	560	300	4	5/8"-11	10
100	240	63	190.5	632	300	8	5/8"-11	10
150	300	69	241.3	830	300	8	3/4"-10	12
200	360	81	298.5	972	300	8	3/4"-10	16
250	420	82	362	1135	300	12	7/8"-9	12.5
300	490	89	431.8	1320	500	12	7/8"-9	18.70
350	533	89	476.3	1450	500	12	1"-8	18.70
400	600	102	539.8	1575	500	16	1"-8	22.83
450	648	104	577.9	1752	500	16	1-1/8"-7	22.83
500	710	131	635	1920	750	20	1-1/8"-7	22.83
600	838	132	749.3	2480	1000	20	1-1/4"-7	25.20

WEIGHT (kg)		
24	26	26
29.5	33	32
36	39	38
59	62	60
84	95	84
114	142	112
--	201	149
--	266	190
--	368	276
--	528	333
--	642	423
--	1024	613



# OPTIONS & ACCESSORIES

## ACTUATOR OPTIONS | SHOWN IN RED



Direct Mounted Handwheel



Bevel Gear Operator



Double Acting Pneumatic Actuator

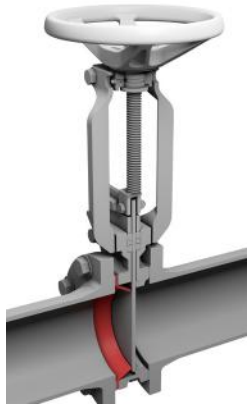


Hydraulic Actuator



Electric Actuator

ADDITIONAL ACCESSORIES | SHOWN IN RED



Deflection Cone



Handwheel Lock Out



Pinned Lockout Open & Closed



Pneumatic Failsafe



Non-Rising Stem



Gate Guard



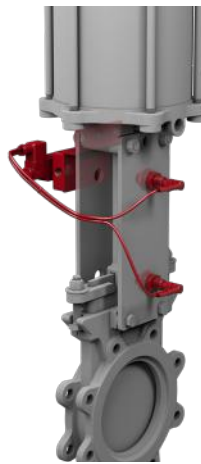
Manual Override



Chain Wheel



Mechanical Limit Switch



Proximity Sensor



Solenoid



BRAY FLOW CONTROL SOLUTIONS ARE AVAILABLE FOR A VARIETY OF INDUSTRIES.

**ENERGY**

Mining  
Oil & Gas  
Power / FGD  
Nuclear Power

**WATER**

Water / Wastewater  
Ultra Pure Water  
Desalination  
Irrigation

**INDUSTRIAL**

Chemical  
Pulp & Paper  
Textile  
Marine

**INFRASTRUCTURE**

Beverage & Food  
Transportation  
Heating, Ventilation & Air Conditioning (HVAC)



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