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**SERIES 768**

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

2" to 24"



 **Bray**<sup>®</sup>

BRAY.COM

THE HIGH PERFORMANCE COMPANY

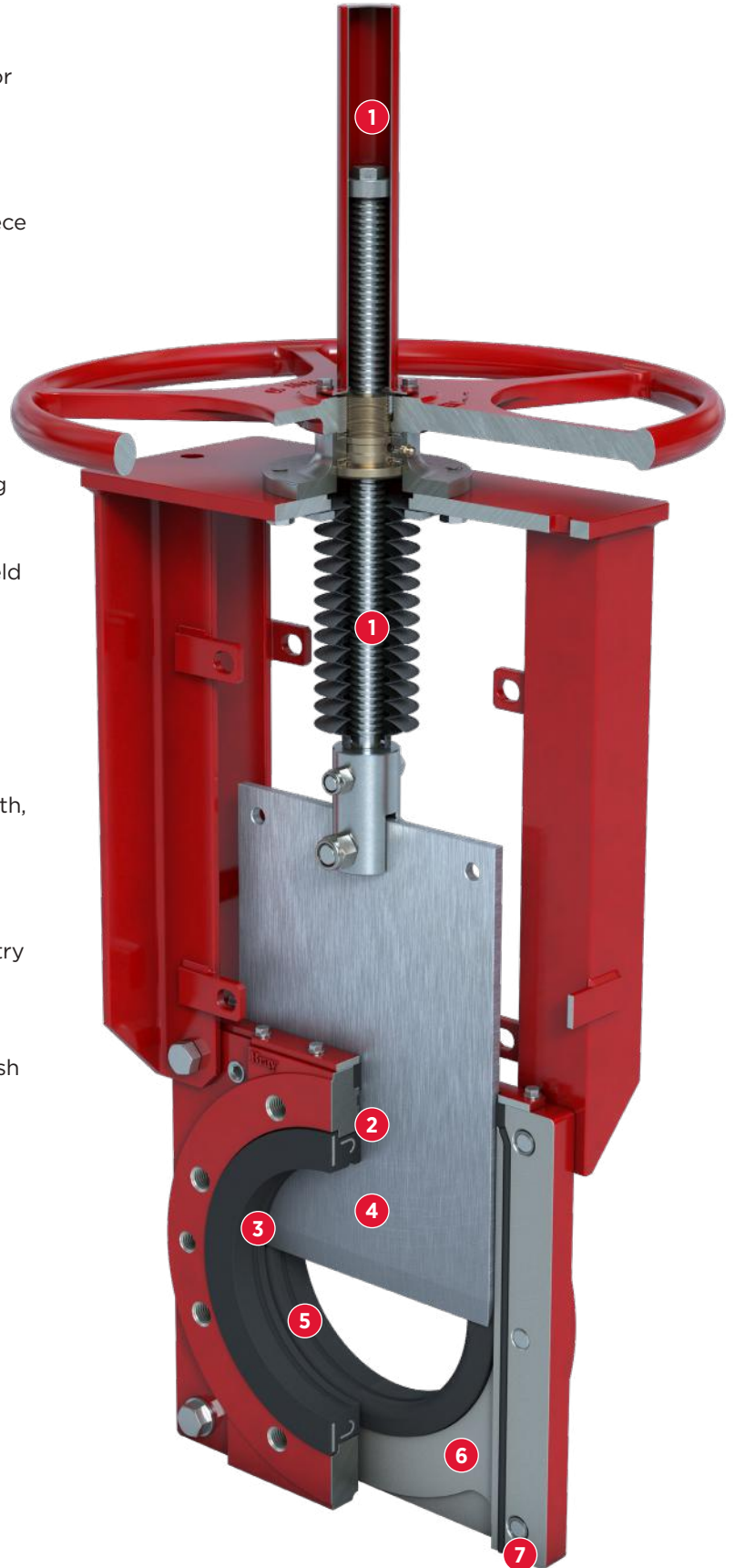
## FEATURES & BENEFITS

### 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>
	2-16 150psi	18-24 90psi	2-18 232 psi    20-24 150psi
	50-400mm 10 bar	450-600mm 6.2 bar	50-450mm 16bar    500-600mm 10 bar
<b>Drilling</b>	ASME B16.5 CL150		
<b>Face to Face</b>	Manufacturer 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		

**NOTE** <sup>1</sup> F768 valves are elastomer sleeved slurry valves and MSS SP-81 and MSS SP-151 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, 317 Stainless Steel
- SAF 2507 Duplex
- 17-4PH Stainless Steel
- Hastelloy® C
- Monel®
- Titanium

**BODY OPTIONS**

- CF3M Stainless Steel
- Ductile Iron

**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 120°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.

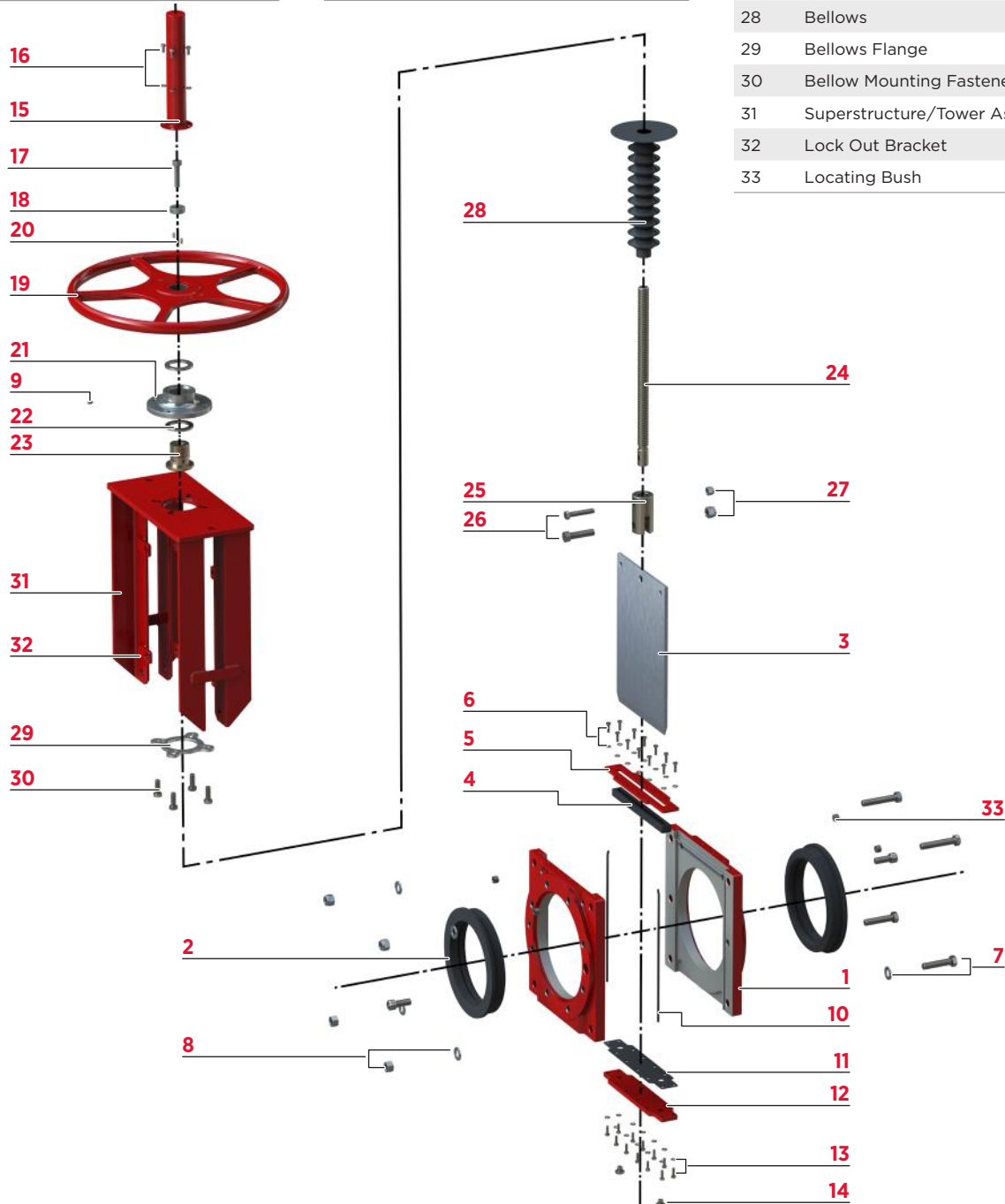
# MATERIALS OF CONSTRUCTION

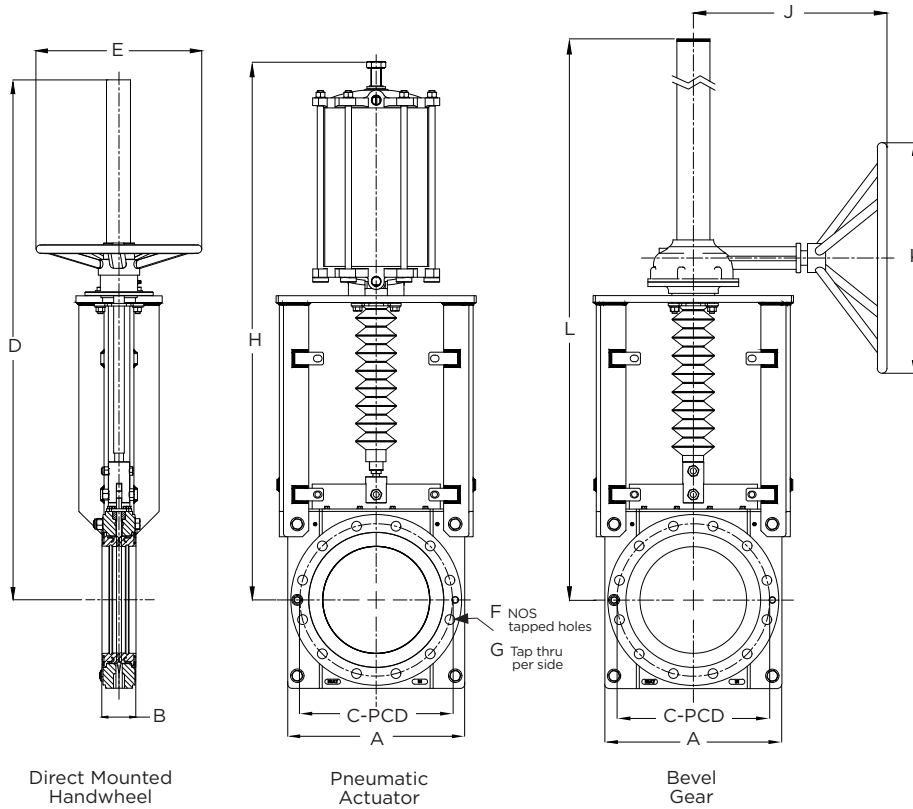
## BILL OF MATERIALS & PARTS CALL OUT

Item	Description
1	Body
2	Seat
3	Gate
4	Secondary Seal
5	Gland Plate
6	Gland Plate Fasteners & Washers
7	Body Mounting Bolt & Washer
8	Body Mounting Nut & Washer
9	Grease Nipple

Item	Description
10	Body O-Ring
11	Drain Plate Gasket (optional)
12	Drain Plate (optional)
13	Drain Plate Fasteners & Washers (opt.)
14	Drain Plug (optional)
15	Stem Guard
16	Stem Guard Bolt & Nut
17	Travel Stop Fastener
18	Travel Stop

Item	Description
19	Handwheel
20	Grub Screws
21	Handwheel Assembly Housing
22	Thrust Bearing
23	Stem Nut
24	Stem
25	Clevis
26	Clevis Bolt
27	Clevis Lock Nut
28	Bellows
29	Bellows Flange
30	Bellow Mounting Fasteners
31	Superstructure/Tower Assembly
32	Lock Out Bracket
33	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)

DIMENSIONS (Inches)											
NPS	A	B	CPCD	D	ØE	F	G	H	J	K	L
2	7.09	2.13	4.75	20.31	12	4	5/8"-11	20.08	9.06	11.81	26.77
3	8.15	2.28	6.00	23.31	12	4	5/8"-11	23.23	9.06	11.81	28.74
4	9.45	2.28	7.50	26.18	12	8	5/8"-11	25.98	9.06	11.81	30.31
6	11.81	2.52	9.50	33.98	16	8	3/4"-10	33.46	13.39	11.81	40.16
8	14.17	2.99	11.75	40.0	20	8	3/4"-10	39.45	13.39	11.81	45.67
10	16.54	2.99	14.25	46.14	20	12	7/8"-9	45.59	13.39	11.81	51.57
12	19.29	3.27	17.00	--	--	12	7/8"-9	51.97	18.70	19.69	61.02
14	20.98	3.27	18.75	--	--	12	1"-8	57.09	18.70	19.69	67.91
16	23.62	3.78	21.25	--	--	16	1"-8	62	22.83	19.69	75.79
18	25.51	3.78	22.75	--	--	16	1-1/8"-7	68.98	22.83	19.69	79.13
20	27.95	4.76	25.00	--	--	20	1-1/8"-7	75.59	22.83	29.53	86.02
24	33.0	4.76	29.50	--	--	20	1-1/4"-7	97.64	25.20	39.37	101.97

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	J	K	L
50	180	54	120.7	516	300	4	5/8-11	510	230	300	680
80	207	58	152.4	592	300	4	5/8"-11	590	230	300	730
100	240	58	190.5	665	300	8	5/8"-11	660	230	300	770
150	300	64	241.3	863	400	8	3/4"-10	850	340	300	1020
200	360	76	298.5	1016	500	8	3/4"-10	1002	340	300	1160
250	420	76	362	1172	500	12	7/8"-9	1158	340	300	1310
300	490	83	431.8	--	--	12	7/8"-9	1320	475	500	1550
350	533	83	476.3	--	--	12	1"-8	1450	475	500	1725
400	600	96	539.8	--	--	16	1"-8	1575	580	500	1925
450	648	96	577.9	--	--	16	1-1/8"-7	1752	580	500	2010
500	710	121	635	--	--	20	1-1/8"-7	1920	580	750	2185
600	838	121	749.3	--	--	20	1-1/4"-7	2480	640	1000	2590

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



Handwheel Lock Out



Pneumatic Failsafe



Non-Rising Stem



Gate Guard



Manual Override



Chain Wheel



Mechanical Limit Switch



Proximity Sensor



Solenoid



Drain Plate



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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