
SERIES 941

UNIDIRECTIONAL KNIFE GATE VALVES

2" to 24" 150psi (10bar)



 **Bray**[®]

FEATURES & BENEFITS

DESIGN FEATURES

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

- 1 Universal topworks designed for easy, quick conversion between manual and pneumatic actuation. Manual valves include a lubricant injection port for continuous, smooth operation with minimal maintenance.
- 2 Clevis design and horizontal bolting stabilizes gate ensuring proper alignment.
- 3 Standard energized quad seal packing including PTFE anti-extrusion ring.
- 4 Standard integral metal seat and optional replaceable zero leakage resilient seats.
- 5 Gate design ensures consistent alignment throughout the length of the stroke.
- 6 Rounded gate design enables longer packing life and increases valve durability.
- 7 Unique body design with no dead pockets enables self-draining of valve.
- 8 Lugged body suitable for all mounting orientations including dead-end service.
- 9 Cast Yoke superstructure ensures robustness in valve design for different operators/orientation.

APPLICATIONS

Pulp & Paper

- > Paper Stock
- > Liquor Services
- > Recycle Reject

General Industrial

- > Pneumatic Conveyance
- > Raw & Treated Water
- > Water Conveyed Solids
- > Dry Media | Cement
- > Hot Gases

Power

- > Fly Ash | Bottom Ash
- > Branch Lines

Wastewater

- > Slurry/Sludge Lines

Chemical

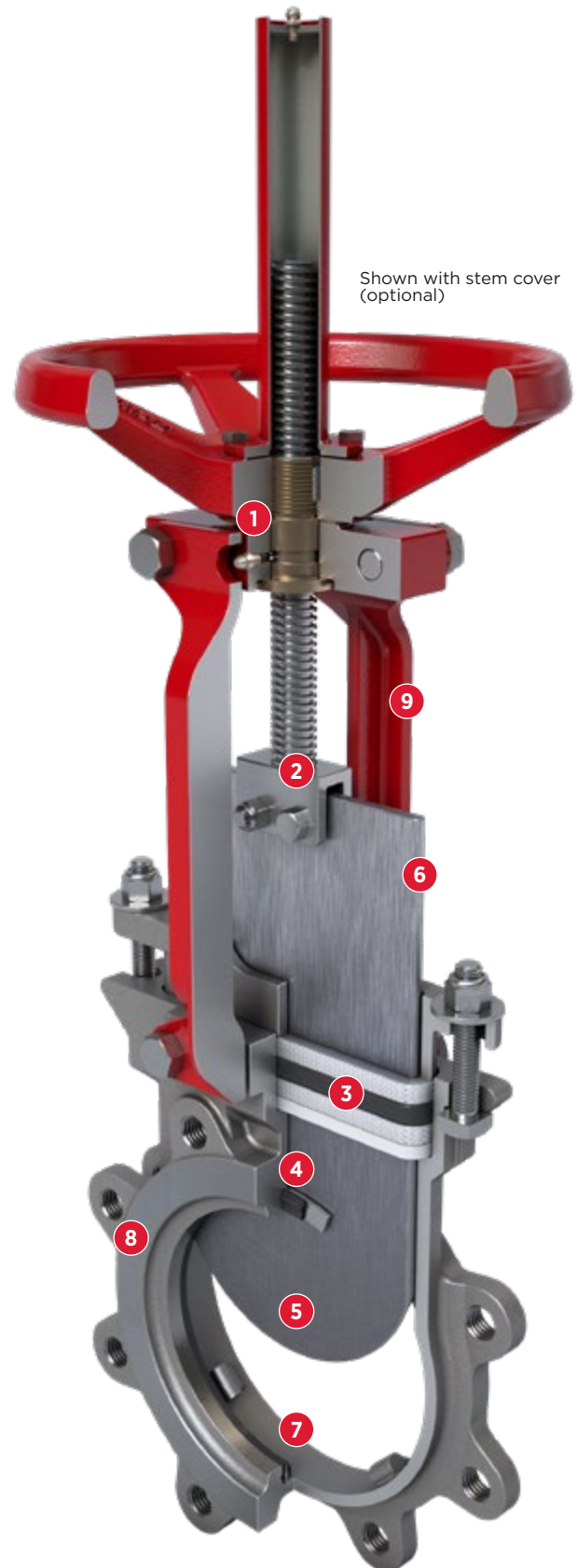
- > Pellets
- > Process Fluids & Chemicals
- > Petroleum Products

Food & Beverage

- > Winery
- > Dairy Processing
- > Brewery | Grain Storage Silo
- > Spent Grain

Mining

- > Non Hard Rock Mining Applications e.g. Lithium, Cobalt



Shown with stem cover (optional)

Shown with replaceable resilient seat (optional)

Series 941 Lug Style

TECHNICAL SPECIFICATIONS

Size Range	NPS 2 to 36 DN 50 to 900
Body Style	Single Piece - Lug
Pressure Rating	2-24 150psi 50-600mm 10 bar
Drilling	ASME B16.5 CL150
Face to Face	MSS SP-81
Certification	CE/PED, Canadian CRN
Design Standard	MSS SP-81
Testing Standard	MSS SP-151

STANDARD CONSTRUCTION

Body	CF8M (316)
Gate	316
Seat	Integral
Stem	304
Gland	304
Packing	Energized Quad Seal with PTFE Anti-Extrusion Ring
Topworks	CS

GATE OPTIONS

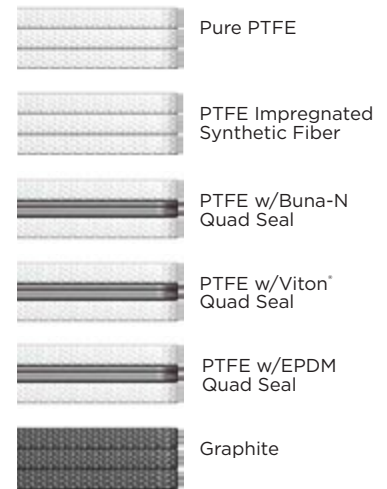
304, 316, 317 Stainless Steel
SAF 2507 Duplex
17-4PH Stainless Steel
Hastelloy® C
Monel®
Titanium

BODY OPTIONS

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

PACKING MAXIMUM TEMPERATURE RANGE

Pure PTFE	500°F 260°C
PTFE Impregnated Synthetic Fiber	450°F 232°C
PTFE w/Buna-N Quad Seal¹	194°F 90°C
PTFE w/Viton® Quad Seal¹	392°F 200°C
PTFE w/EPDM Quad Seal	248°F 120°C
Graphite	1202°F 650°C



NOTE ¹ Pure PTFE or PTFE Impregnated Synthetic Fiber can be used.

SEAT OPTIONS

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



Buna-N	-34 to 194°F
	-36 to 90°C
EPDM	-65 to 248°F
	-54 to 120°C
Viton®	-15 to 392°F
	-26 to 200°C



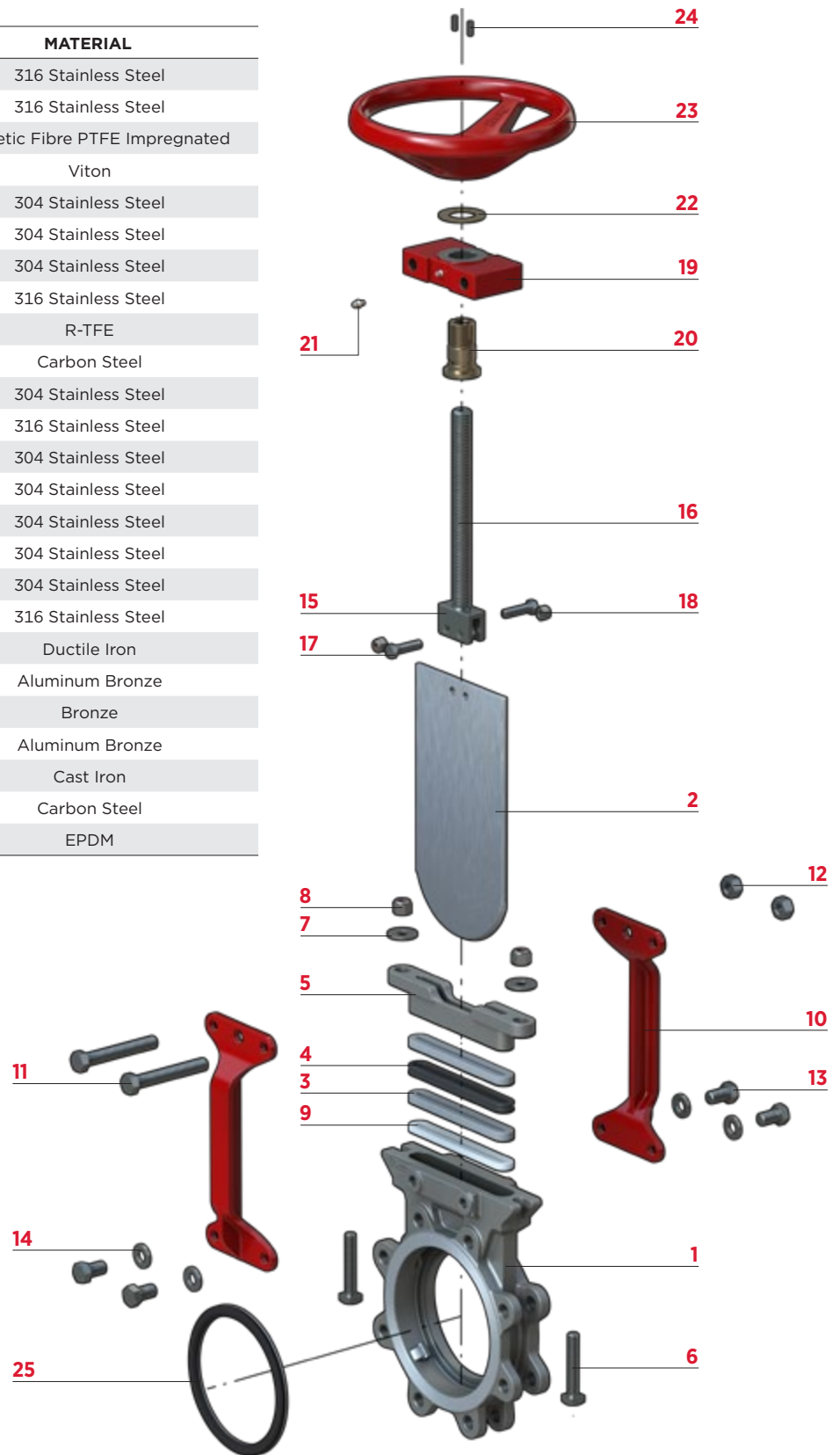
PTFE w/Viton Back-up Ring**	-235 to 500°F
	-148 to 260°C

** Allowable seat leakage as per MSS SP-151 metal seated valves

MATERIALS OF CONSTRUCTION

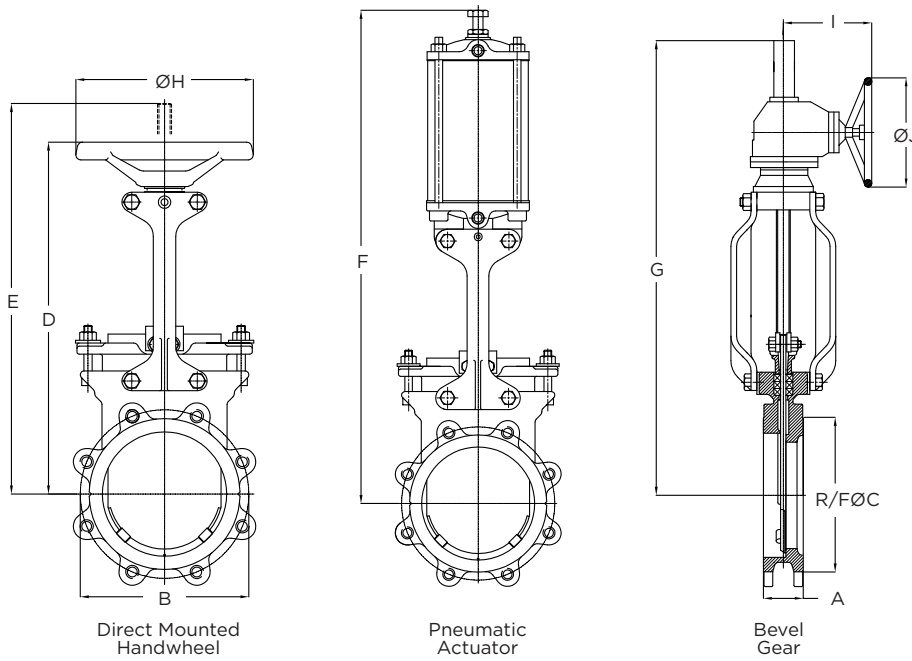
MATERIAL SPECIFICATIONS

ITEM	DESCRIPTION	MATERIAL
1	Body	316 Stainless Steel
2	Gate	316 Stainless Steel
3	Packing Set	Synthetic Fibre PTFE Impregnated
4	Quad Seal	Viton
5	Gland	304 Stainless Steel
6	Gland Bolt	304 Stainless Steel
7	Gland Washer	304 Stainless Steel
8	Gland Nut	316 Stainless Steel
9	Anti-Extrusion Ring	R-TFE
10	Yoke	Carbon Steel
11	Mounting Bolt (Top)	304 Stainless Steel
12	Mounting Nut (Top)	316 Stainless Steel
13	Mounting Bolt (Bottom)	304 Stainless Steel
14	Spring Washer	304 Stainless Steel
15	Clevis	304 Stainless Steel
16	Stem	304 Stainless Steel
17	Clevis Bolt	304 Stainless Steel
18	Clevis Nut	316 Stainless Steel
19	Collar	Ductile Iron
20	Yoke Sleeve	Aluminum Bronze
21	Grease Nipple	Bronze
22	Thrust Washer	Aluminum Bronze
23	Hand Wheel	Cast Iron
24	Socket Screw	Carbon Steel
25	Seat ¹	EPDM



NOTE

1 Optional replaceable resilient seat.



NOTE

1 Consult factory for hydraulic and electric actuator dimensions.

2 Dimensions are approximate and subject to change. Consult factory for certified drawings.

* In conformance with ASME B16.5, Class 150 for sizes NPS 2 (DN50) through NPS 24 (DN600.)

DIMENSIONS (Inches)

NPS	A	B*	R/FØC	D	E	F	G	ØH	I	ØJ
2	1.88	4.75	3.62	13.03	13.94	19.17	--	8.00	--	--
3	2.00	6.00	5.00	15.71	18.43	22.80	--	8.00	--	--
4	2.00	7.50	6.19	17.32	21.10	25.39	--	8.00	--	--
5	2.25	8.50	7.31	19.41	23.90	28.35	--	10.00	--	--
6	2.25	9.50	8.50	20.91	26.34	31.65	--	10.00	--	--
8	2.75	11.75	10.62	24.84	32.28	38.74	35.63	12.00	11.65	20.00
10	2.75	14.25	12.75	27.28	37.68	44.21	41.06	16.00	11.65	20.00
12	3.00	17.00	15.00	30.67	43.11	51.22	47.80	16.00	11.65	20.00
14	3.00	18.75	16.25	33.66	47.72	54.96	49.80	20.00	12.05	20.00
16	3.50	21.25	18.50	37.01	52.83	63.07	55.12	20.00	12.05	20.00
18	3.50	22.75	21.00	41.85	60.04	70.28	61.93	20.00	12.05	20.00
20	4.50	25.00	23.00	46.34	66.10	76.34	68.39	20.00	12.05	20.00
24	4.50	29.50	27.25	54.06	77.99	89.92	80.04	20.00	12.05	20.00

WEIGHT (lbs)

HAND WHEEL	PNEUMATIC ACTUATOR	GEAR OPERATOR
20	35	--
29	40	--
31	53	--
49	77	--
51	84	--
77	121	106
117	212	183
168	313	209
265	410	282
357	496	364
474	600	474
750	805	606
893	1054	959

DIMENSIONS (Millimeters)

DN	A	B*	R/FØC	D	E	F	G	ØH	I	ØJ
50	48	120.7	92	331	354	487	--	203	--	--
80	51	152.4	127	399	468	579	--	203	--	--
100	51	190.5	158	440	536	645	--	203	--	--
125	57	215.9	186	493	607	720	--	254	--	--
150	57	241.3	216	531	669	804	--	254	--	--
200	70	295.5	270	631	820	984	905	305	296	508
250	70	362.0	324	693	957	1123	1043	406	296	508
300	76	431.8	375	779	1095	1301	1214	406	296	508
350	76	476.3	413	855	1212	1396	1265	508	306	508
400	89	539.8	470	940	1342	1602	1400	508	306	508
450	89	577.9	533	1063	1525	1785	1573	508	306	508
500	114	635.0	585	1177	1679	1939	1737	508	306	508
600	114	749.3	692	1373	1981	2284	2033	508	306	508

WEIGHT (kg)

9	16	--
13	18	--
14	24	--
22	35	--
23	38	--
35	55	48
53	96	83
76	142	95
120	186	128
162	225	165
215	272	215
340	365	275
405	478	435

OPTIONS & ACCESSORIES

ACTUATOR OPTIONS | SHOWN IN RED



Direct Mounted Handwheel



Bevel Gear Operator



Double Acting Pneumatic Actuator



Hydraulic Actuator



Lever



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



Positioner



Proximity Sensor

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