



DSS VALVES M81 L84  
DSSVALVES.COM  
800-255-0718

SIZE: 12 INCH S	WGT: 450 LB
CLASS: 150	WGT: 450 LB
DATE: 04/18	DATE: 04/18

**DSS**

# M81 Knife Gate Valve



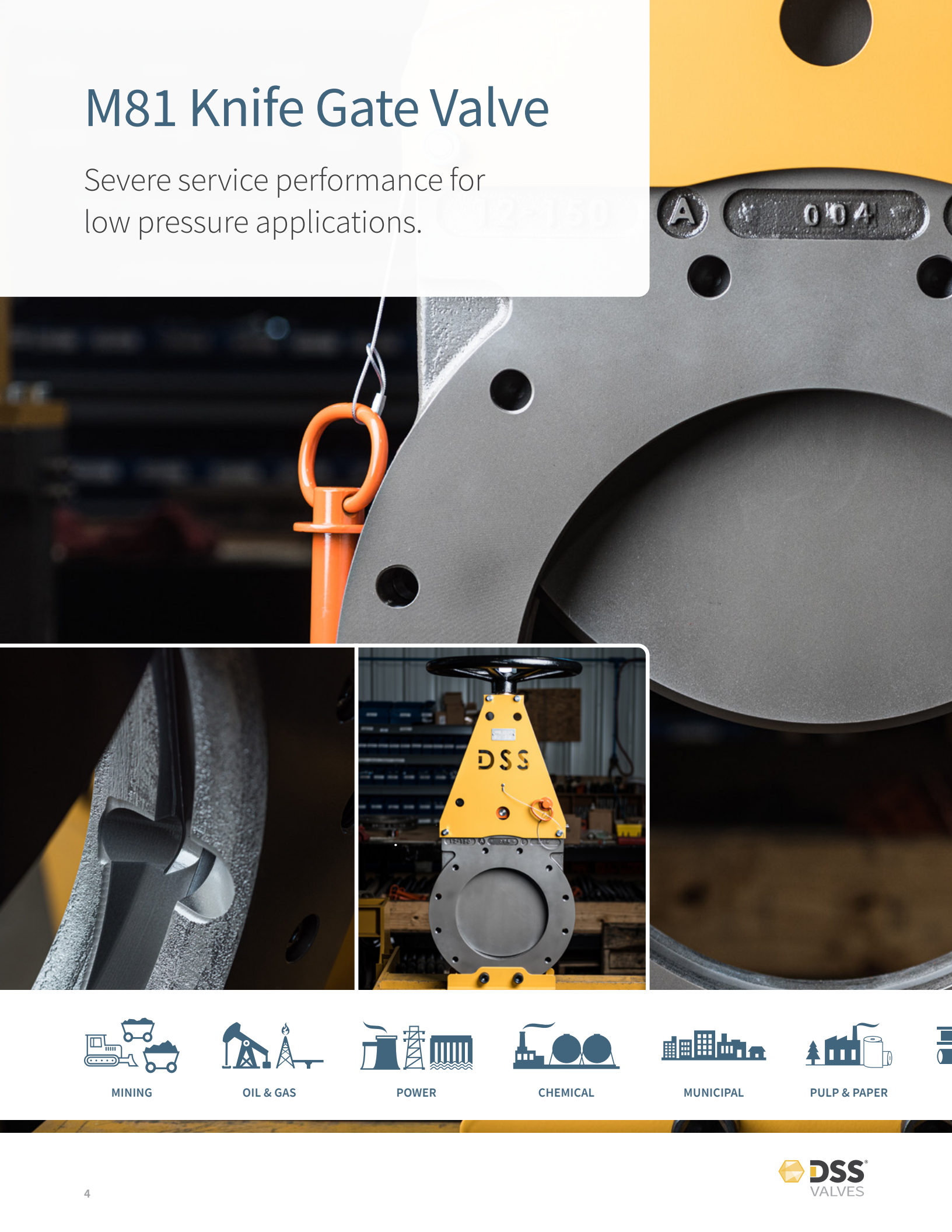


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# M81 Knife Gate Valve

Severe service performance for low pressure applications.



MINING



OIL & GAS



POWER



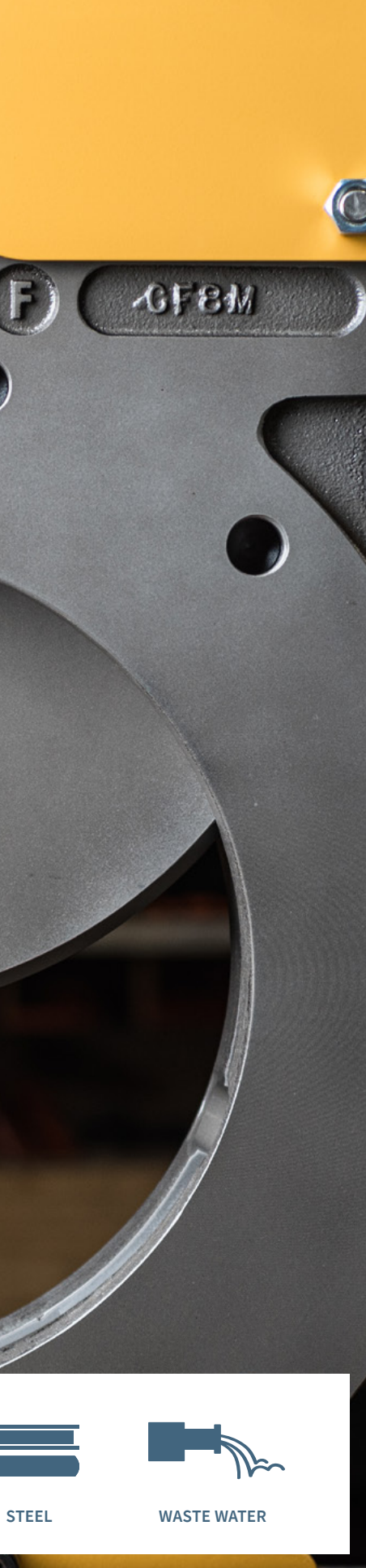
CHEMICAL



MUNICIPAL



PULP & PAPER



## About the M81 Knife Gate Valve

We've pared down our Severe Service Knife Gate Valve to create a lighter offering perfect for applications that still require bi-directional zero leakage isolation, but only up to MSS-SP-81 pressure specifications.

The M81 KGV is equipped with the Guided Shear Gate design to cut through scale, fiber and solids found within the pipeline. Additional features include a full round port, 316 stainless steel bodies, front and back flush-outs and a full flat face flange.

This product attacks low pressure severe service applications that don't always need the full capabilities of our SSKGV model. Consider this its younger sibling—it has the same DNA but is better suited to lower pressure and less severe applications.



M81 Knife Gate Valve



STEEL

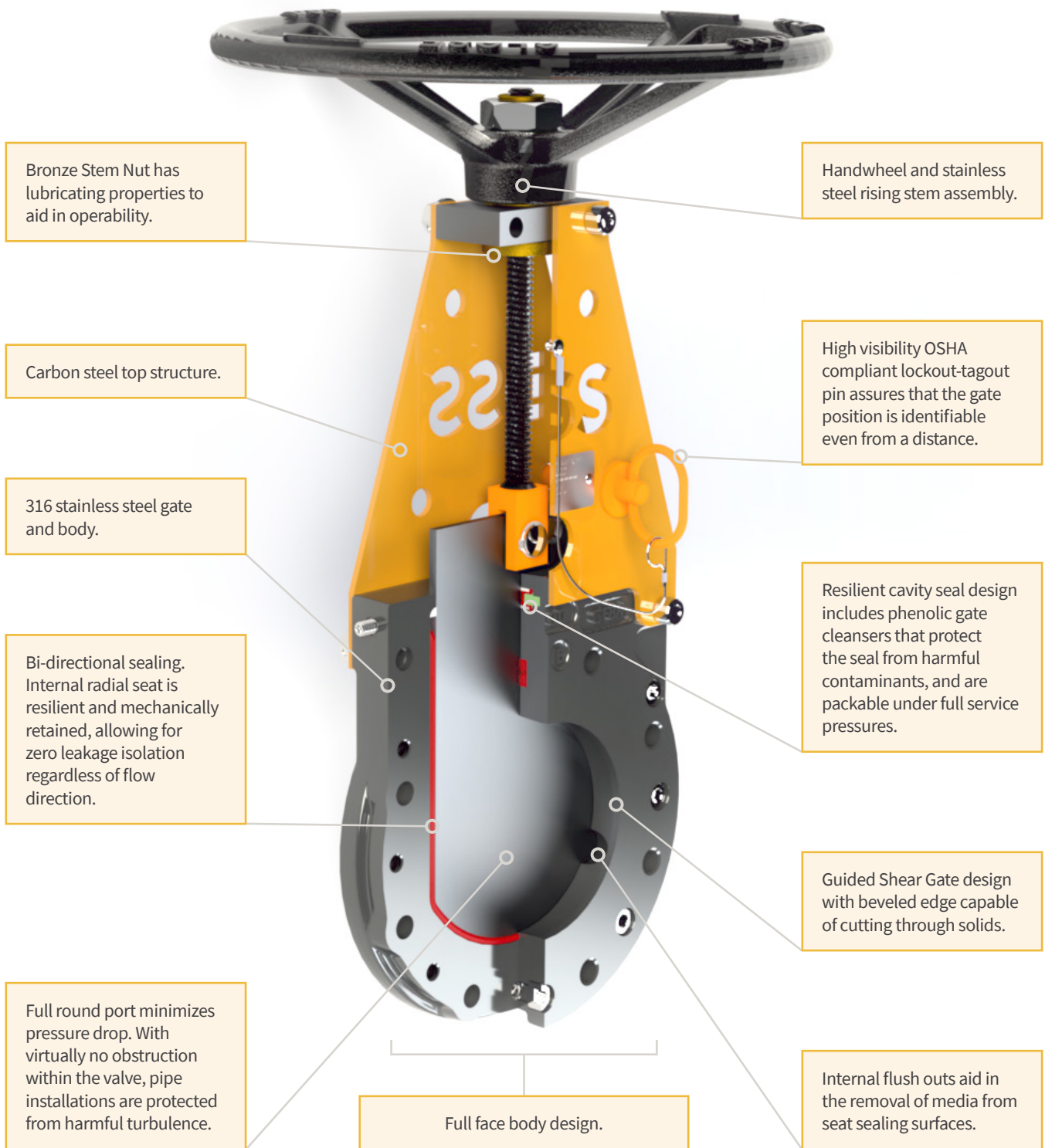


WASTE WATER



# M81 Knife Gate Valve

## Features and Benefits



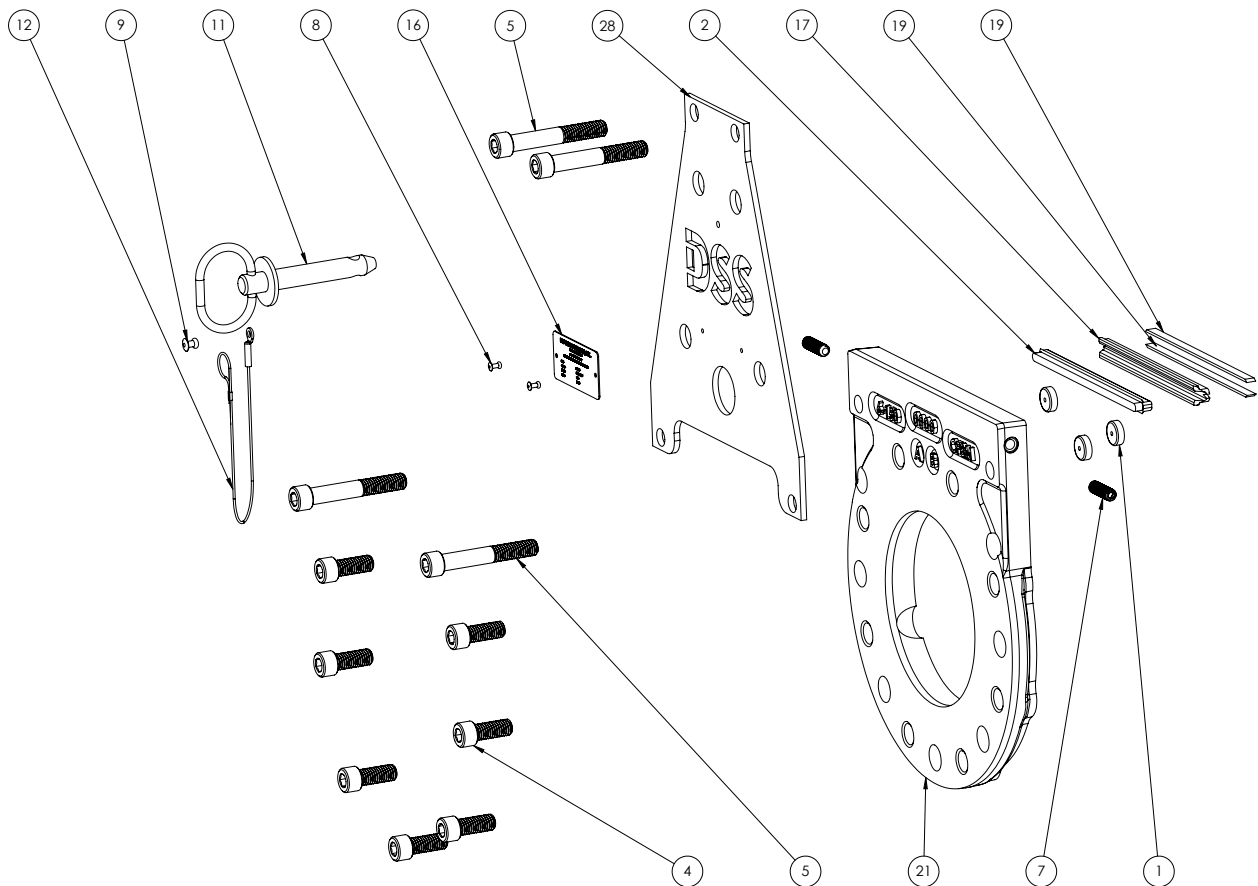
Fully compliant to MSS SP-81 Design Specifications.

# M81 Knife Gate Valve

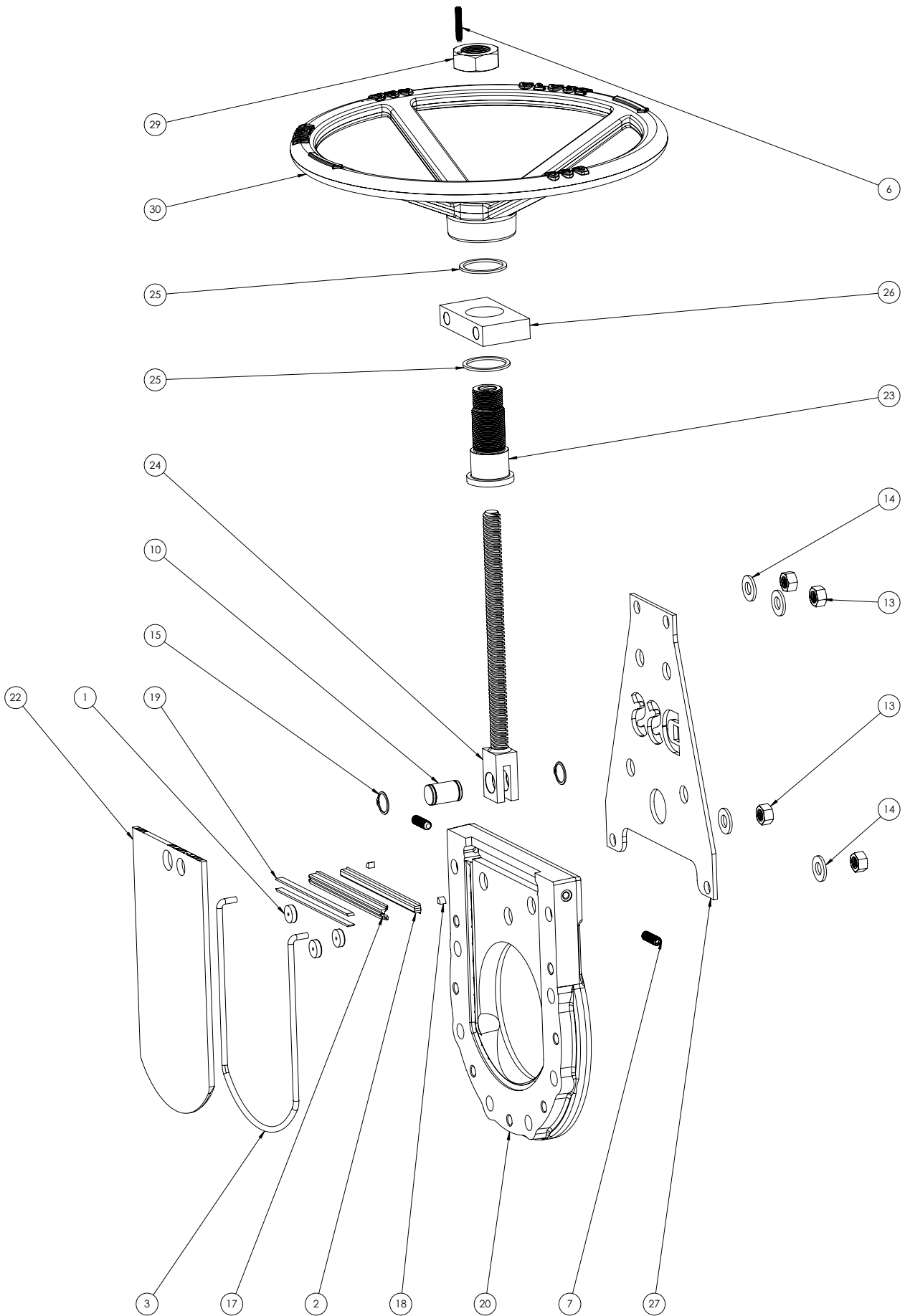
## Parts Diagram and List—Handwheel

ITEM #	PART NUMBER	QTY	DESCRIPTION
1	000-191-00-093	6	Disc, Gate Glide
2	000-195-00	1	Packing
3	40-006-024-095	1	Seal, Primary
4	50-050-13-0125-089	7	SHCS, 1/2-13 X 1.250
5	50-050-13-0325-089	4	SHCS, 1/2-13 X 3.250
6	55-025-20-0100-089	1	Set Screw, Extended-Tip
7	55-037-16-0125-088	4	SSS, 3/8-16 X 1.250
8	65-125-188-250-2	2	Pop-Rivet, Domed Head, 1/8" Dia. X .188"-.250" Range
9	65-187-126-250-2	1	Pop-Rivet, Domed Head, 3/16" Dia. X .126"-.250" Range
10	67-088-0163-2	1	Pin, Clevis
11	68-062-0524-1	1	Pin, Locating
12	69-063-12-2	1	Lanyard, 12 inch
13	73-050-13-2	4	Locknut, Steel Center Lock Distorted
14	81-050-2	4	Washer
15	91-087-1	2	Ring, External Retaining

ITEM #	PART NUMBER	QTY	DESCRIPTION
16	99-150-300-2	1	Tag, Identification
17	106-172-00-095	2	Seal, Cavity
18	106-181-00-093	2	Seal, Quarter
19	106-186-00-090	4	Blade, Seal Scraper
20	8106-014-00-009	1	Body, Front
21	8106-034-00-009	1	Body, Back
22	8106-050-00-055	1	Gate
23	8106-266-00-062	1	Bushing, Threaded Stem
24	8106-270-00	1	Assembly, Rising Stem
25	8106-280-00-069	2	Bearing, Thrust
26	8106-404-00-056	1	Plate, Screw
27	8106-230-00-076	1	Plate, Back Top
28	8106-220-00-076	1	Plate, Front Top
29	71-125-12-1-SL	1	Nut, Hex Jam 1-1/4-12
30	RS-002-316-00-011	1	16" Handwheel, Rising Stem





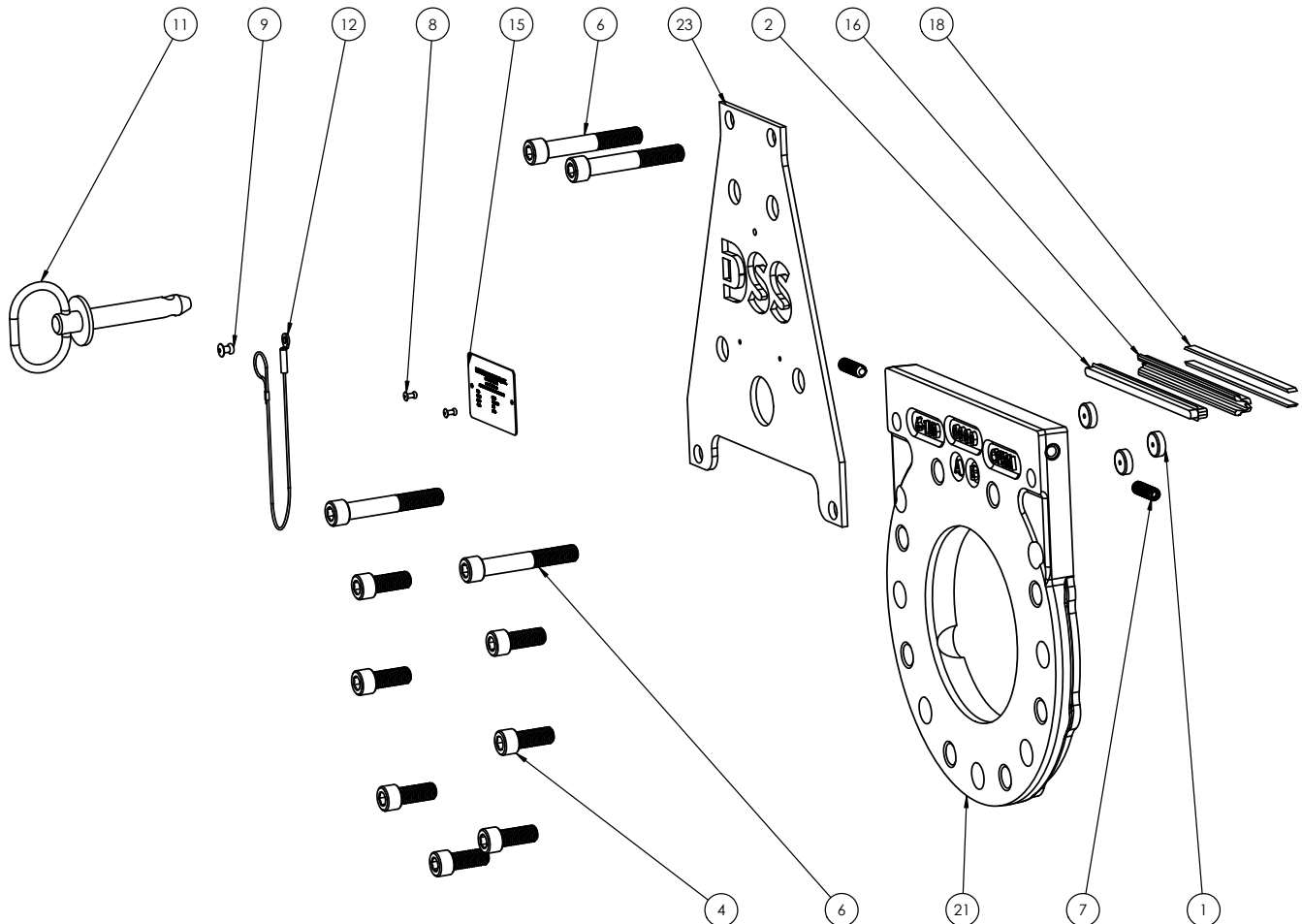


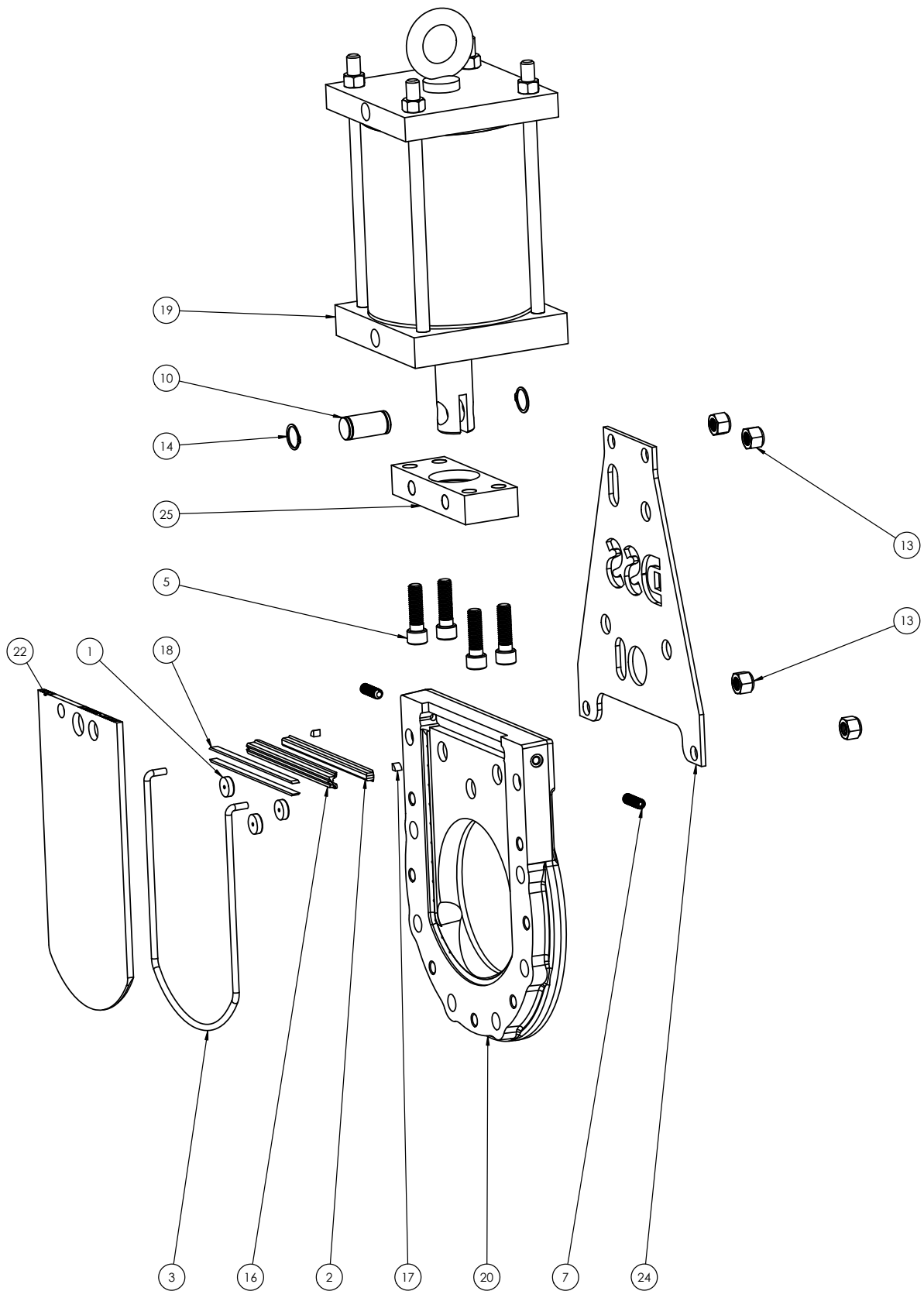
# M81 Knife Gate Valve

## Parts Diagram and List—Pneumatic Cylinder

ITEM #	QTY	DESCRIPTION
1	6	Disc, Gate Glide
2	1	Packing
3	1	Seal, Primary
4	7	SHCS, 1/2-13 X 1.250
5	4	SHCS, 1/2-13 X 1.750
6	4	SHCS, 1/2-13 X 3.250
7	4	SSS, 3/8-16 X 1.250
8	2	Pop-Rivet, Domed Head, 1/8" Dia. X .188"- .250" Range
9	1	Pop-Rivet, Domed Head, 3/16" Dia. X .126"- .250" Range
10	1	Pin, Clevis
11	1	Pin, Locating
12	1	Lanyard, 12 inch
13	4	NHN, 1/2-13

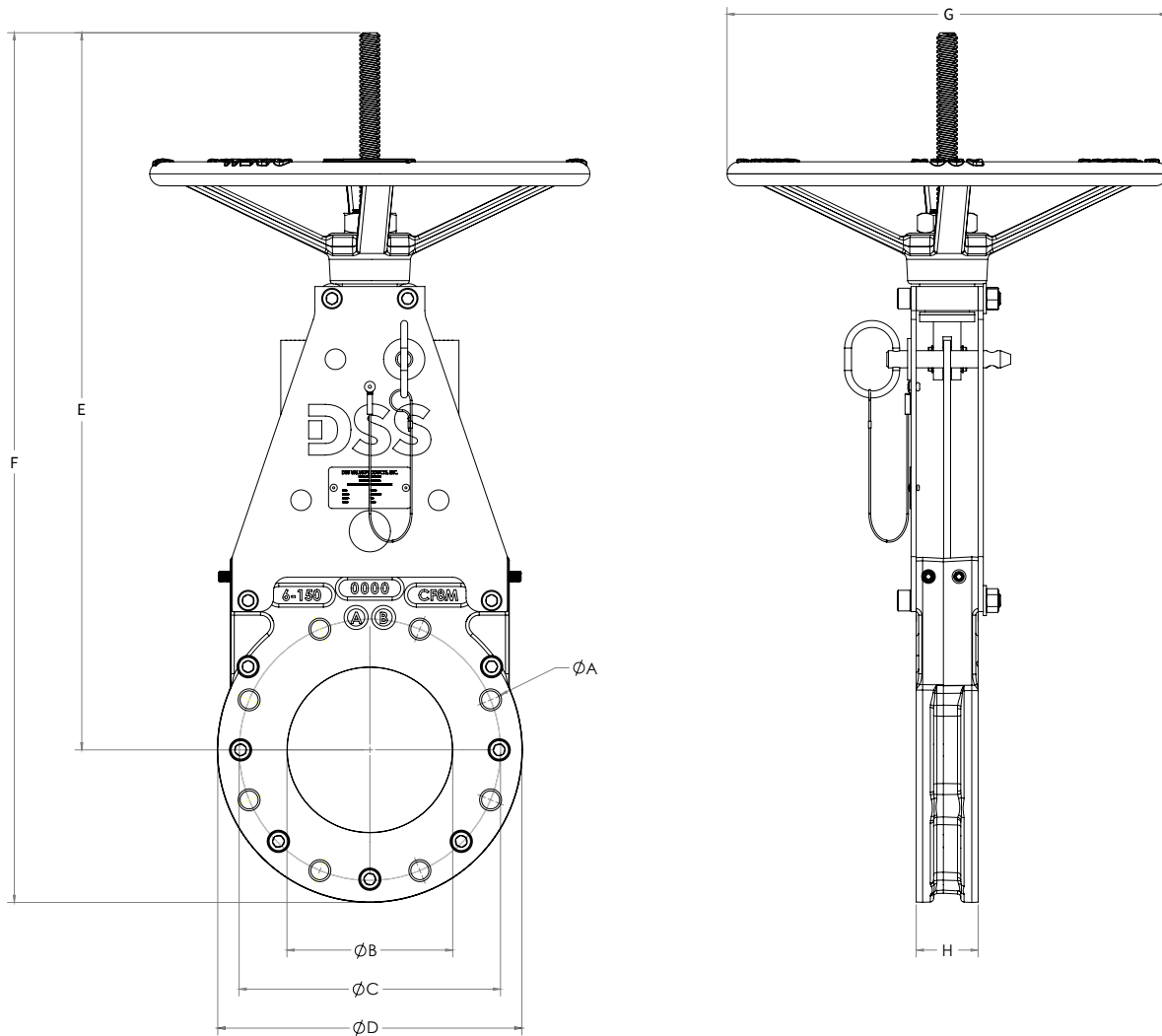
ITEM #	QTY	DESCRIPTION
14	2	Ring, External Retaining
15	1	Tag, Identification
16	2	Seal, Cavity
17	2	Seal, Quarter
18	4	Blade, Seal Scraper
19	1	Cylinder, 6" Pneumatic
20	1	Body, Front
21	1	Body, Back
22	1	Gate
23	1	Plate, Front Top
24	1	Plate, Back Top
25	1	Plate, Screw





# M81 Knife Gate Valve

## Dimensions—Handwheel

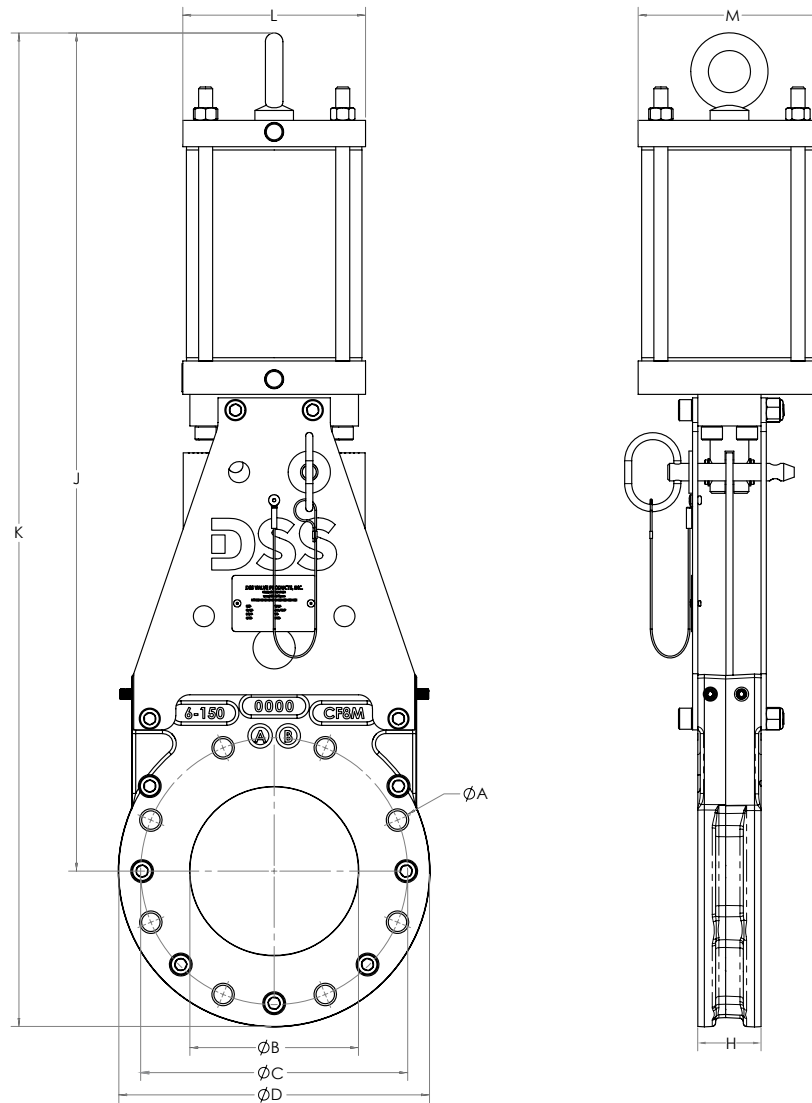


**M81 KGV DIMENSIONS—HANDWHEEL**

Valve Size		Full Flat Face Flange (ASME B16.5 Class 150)						Dimensions				Valve Weight
		Bolting		Dimensions								
NPS	DN [mm]	QTY.	A (THREAD)	ØA (CLEARANCE)	ØB	ØC	ØD	E*	F*	G	H	(+/-5%) [lbs]
2	50	4	5/8-11	0.75	1.88	4.75	6.32	16.17	19.34	12.00	1.88	35
3	75	4	5/8-11	0.75	2.88	6.00	7.50	17.86	21.65	12.00	2.00	45
4	100	8	5/8-11	0.75	4.00	7.50	9.00	22.20	26.77	12.00	2.00	55
6	150	8	3/4-10	0.88	6.00	9.50	11.00	26.06	31.61	16.00	2.25	85
8	200	8	3/4-10	0.88	8.00	11.75	13.73	36.66	43.56	16.00	2.75	145
10	250	12	7/8-9	1.00	10.00	14.25	16.00	40.31	48.38	20.00	2.75	190
12	300	12	7/8-9	1.00	12.00	17.00	19.00	43.84	53.41	20.00	3.00	265

# M81 Knife Gate Valve

## Dimensions—Pneumatic Cylinder



M81 KGV DIMENSIONS— PNEUMATIC CYLINDER														
Valve Size		Full Flat Face Flange (ASME B16.5 Class 150)						Dimensions					Standard Pneumatic Cylinder Bore	Valve Weight (+/-5%) [lbs]
		Bolting		Dimensions										
NPS	DN [mm]	QTY.	A (THREAD)	ØA (CLEARANCE)	ØB	ØC	ØD	H	J	K	L	M		
2	50	4	5/8-11	0.75	1.88	4.75	6.35	1.88	19.26	22.43	5.5	3.75	3.25	31
3	75	4	5/8-11	0.75	2.88	6.00	7.60	2.00	21.94	25.74	5.5	3.75	3.25	41
4	100	8	5/8-11	0.75	4.00	7.50	9.13	2.00	24.61	29.17	6.25	4.5	4.00	56
6	150	8	3/4-10	0.88	6.00	9.50	11.09	2.25	29.83	35.37	6.5	6.5	6.00	89
8	200	8	3/4-10	0.88	8.00	11.75	13.8	2.75	36.09	42.99	8.5	8.5	8.00	154
10	250	12	7/8-9	1.00	10.00	14.25	16.13	2.75	42.74	50.81	10.63	10.63	10.00	242
12	300	12	7/8-9	1.00	12.00	17.00	19.14	3.00	48.27	57.84	12.75	12.75	12.00	344



# M81 Knife Gate Valve Technical Specifications

## SPECS AND MATERIALS

**Size:** 2–12”

**Connection:** ASME CL 150 FF lugged full face flange

**Body Material:** A351 Gr. CF8M

**Blade/Gate Material:** A240 316 SS

**Top Structure:** Carbon Steel

**Seat:** Aflas

**Cavity Seal:** Aflas w/Teflon Packing

**Operator:** Handwheel with Rising Stem

**Coatings:** Clear Xylan Coated Gate

**Face to Face Dimensions:** Per MSS-SP-81

## PART NUMBER

**M8102-SS-SS-AF/1-HW**

Note: The underlined “02” portion represents the size and therefore will vary from 02 to 12 accordingly.

## DESIGN STANDARDS

The M81 Knife Gate Valve meets the following design and build specifications:

ASME B16.5

MSS SP-25

MSS SP-81

MSS SP-151



## Ready When You Are

Located in Niles, Michigan, our manufacturing facility is primed and ready to serve your severe service needs. With over 90,000 square feet of manufacturing space and a dedicated crew in operation around the clock, we take pride in our ability to deliver a *cutting edge valve* at an industry leading pace.

To learn more, contact us at [info@dssvalves.com](mailto:info@dssvalves.com) directly. We look forward to working with you.

## Contact Us

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