



General Service Knife Gate Valve



DSSVALVES.COM

SPECS AND MATERIALS

Connection

2–12 inch (50–300 mm)

- ASME Class 150 FF or RF
- PN10 FF or RF
- Table D FF or RF
- Table E FF or RF

14–36 inch (350–900 mm)

- ASME Class 150 RF

Body Materials

- WCB (Carbon Steel)
- LCC (Low Temperature Carbon Steel, -50°F (-46°C)
- CF8M (316 Stainless Steel)
- CD3Mn 4A (Duplex Stainless Steel, 22% Cr 5% Ni)
- CE3Mn 5A (Super Duplex Stainless, 25% Cr 7% Ni)

Blade/Gate Material

- A240 316/316L
- A240 317/317L
- A240 S31803 (Duplex Stainless Steel, 22% Cr 5% Ni)
- A240 S32750 (Super Duplex Stainless, 25% Cr 7% Ni)
- A693 S17400 H900

Top Structure

- Carbon Steel

Seat Materials

- | | | |
|---------|--------|--------|
| • AFLAS | • EPDM | • FFKM |
| • FKM | • GFLT | • HNBR |
| • NBR | • PU | |

Coatings

- Xylan, Black
- Xylan, Clear

Cavity Seal

- AFLAS/Phenolic/Teflon Packing
- EPDM/Phenolic/Teflon Packing
- FFKM/Phenolic/Teflon Packing
- FKM/Phenolic/Teflon Packing
- GFLT/Phenolic/Teflon Packing
- HNBR/Phenolic/Teflon Packing
- NBR/Phenolic/Teflon Packing
- PU/Phenolic/Teflon Packing

Actuators

- Hand Wheel 2–18 inch (50–450 mm)
- Bevel Gear 10–36 inch (250–900 mm)
- Pneumatic Cylinder
- Hydraulic Cylinder
- Electric Actuator

Face to Face Dimensions

- MSS-SP-81 and SP-148

Pressure Rating

2–28 inch (50–700 mm)

- 150psig / 10.3 Barg at -20°F to 100°F (-28°C to 38°C)

30–36 inch (750–900 mm)

- 100psig / 6.9 Barg at -20°F to 100° (-28°C to 38°C)

DSS VALVES

General Service 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 GSKGV is equipped with the Guided Shear Gate design to cut through scale, fiber and solids found within the pipeline.

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.

American Made

We've found a simple solution to make sure our valves exceed the highest global industry standards and it's pretty darn simple—we don't take chances and we don't cut corners. Our valves are made from start to finish entirely in the US and that's something we're very proud of.

Bidirectional Zero-Leakage

The General Service Knife Gate Valve (GSKGV) is a cost-effective alternative to our line of Severe Service Valves. Based on our Guided Shear Gate Design, it provides bidirectional, zero-leakage performance with the ability to shear through solids and slurries.

The lightweight and simplified design of this valve makes it an appropriate choice for low pressure applications. By reducing the options available, we're reducing CapEx for our customers, while still providing industry leading technology.

The Lowest Cost of Ownership

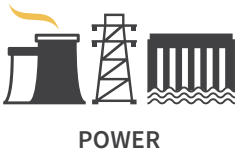
Shutting down operations to replace a faulty valve is expensive, time consuming and detrimental to your bottom line. While no valve lasts forever, we guarantee our revolutionary Guided Shear Gate design will outperform the competition while being easier and less costly to maintain.



MINING



OIL & GAS



POWER



CHEMICAL



MUNICIPAL



PULP & PAPER



STEEL



WASTE WATER

General Service Knife Gate Valve

Features and Benefits | Valve sizes 2"-12"



General Service Knife Gate Valve

Features and Benefits | Valve sizes 14"-24"

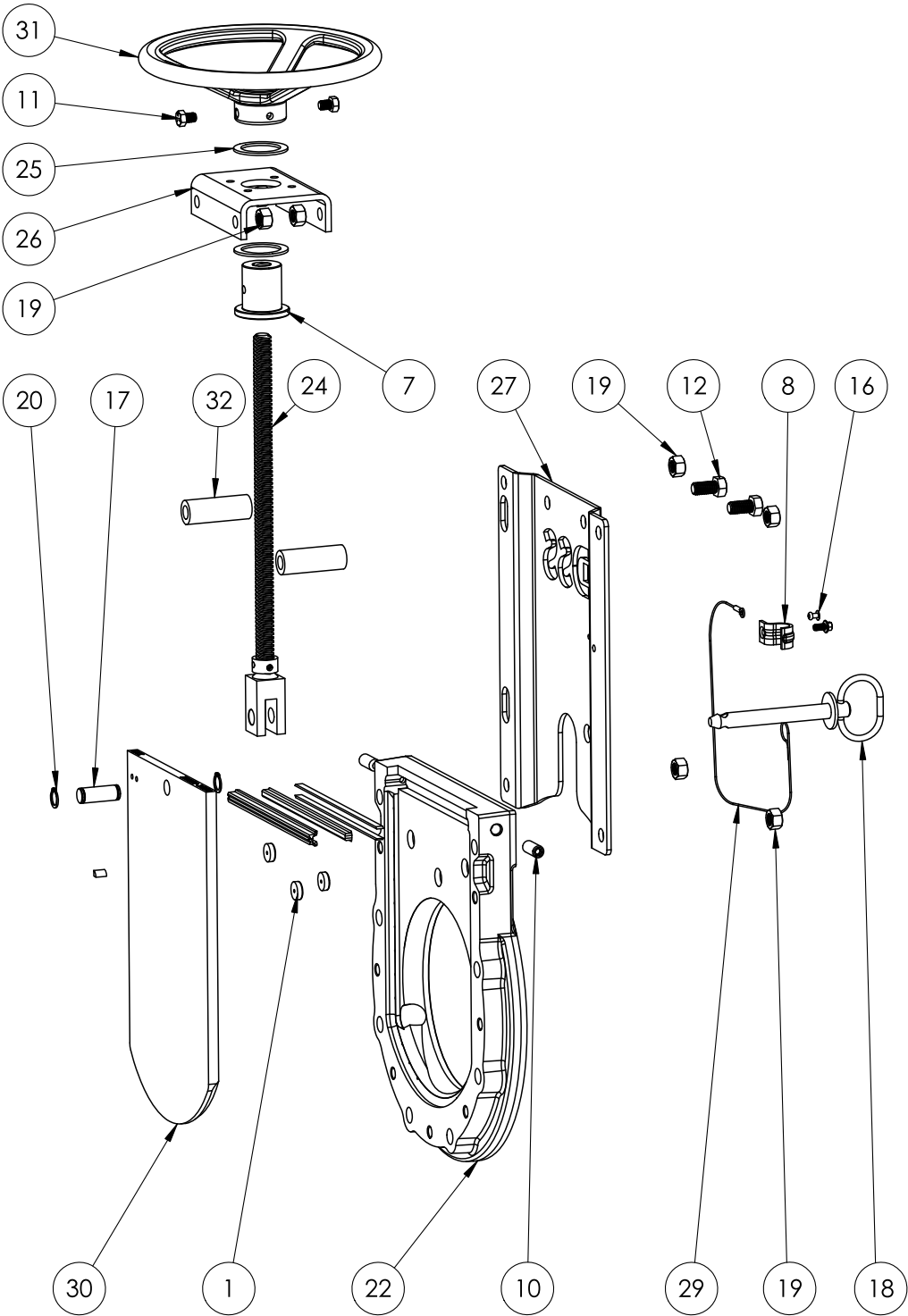
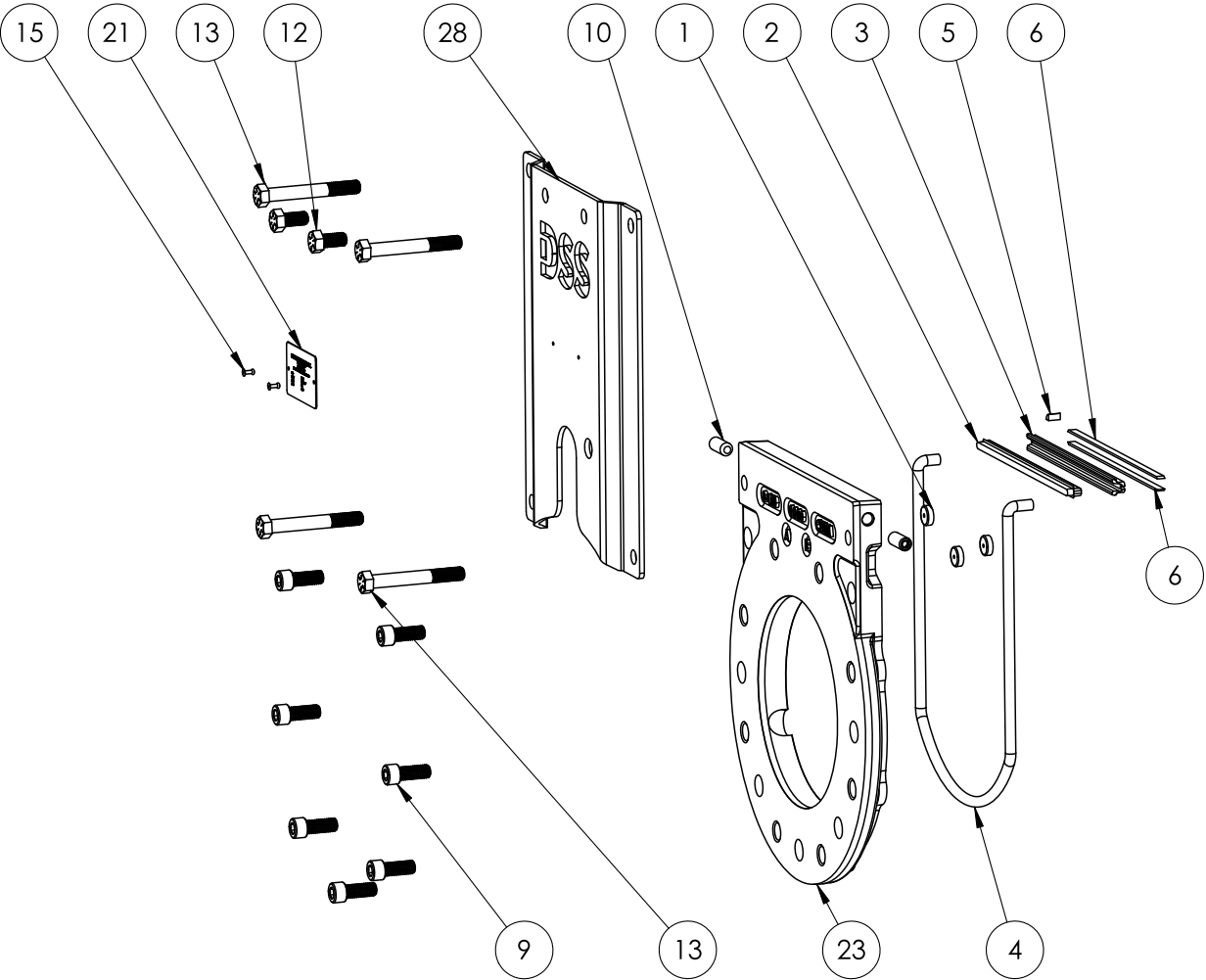


General Service Knife Gate Valve

Parts Diagram and List—Handwheel

Diagram is representative of valves 2–12 inch

ITEM #	QTY	DESCRIPTION	ITEM #	QTY	DESCRIPTION	ITEM #	QTY	DESCRIPTION
1	6	Disc, Gate Glide	12	4	Bolts, Top Plate	23	1	Body, Back
2	2	Packing	13	4	Bolts, Yoke	24	1	Stem, Rising
3	2	Seal, Cavity	14	1	Screw, Retainer Holder	25	2	Bearing, Thrust
4	1	Seal, Primary	15	2	Pop-Rivet, Tag	26	1	Plate, Top
5	2	Seal, Quarter	16	1	Pop-Rivet, Lanyard	27	1	Yoke, Front
6	4	Blade, Seal Scraper	17	1	Pin, Clevis	28	1	Yoke, Back
7	1	Hub, Drive — Handwheel	18	1	Pin, Locating	29	1	Lanyard
8	1	Retainer Holder, Locator Pin	19	8	Hex Nuts, Yoke & Top Plate	30	1	Gate
9	7	Bolts, Body	20	2	Ring, Retaining	31	1	Handwheel
10	4	Screws, Packing	21	1	Tag, Identification	32	2	Tubing, Spacer
11	2	Bolts, Drive Hub	22	1	Body, Front			



General Service Knife Gate Valve

Parts Diagram and List—Pneumatic Cylinder

ITEM #	QTY	DESCRIPTION
1	2	Packing
2	2	Seal, Cavity
3	1	Seal, Primary
4	2	Seal, Quarter
5	4	Blade, Seal Scraper
6	1	Retainer Holder, Locator Pin
7	12	Inserts, Threaded
8	2	Bolts, Body
9	4	Screw, Packing
10	4	Bolts, Cylinder Mounting

ITEM #	QTY	DESCRIPTION
11	8	Bolts, Top Plate
12	4	Bolts, Yoke
13	1	Screw, Retainer Holder
14	2	Pop-Rivet, Tag
15	1	Pop-Rivet, Lanyard
16	1	Pin, Clevis
17	1	Pin, Locating
18	2	Hex Nuts, Body Bolts
19	4	Hex Nuts, Yoke
20	2	Ring, Retaining

ITEM #	QTY	DESCRIPTION
21	1	Tag, Identification
22	1	Body, Front
23	1	Body, Back
24	1	Plate, Top
25	1	Yoke, Front
26	1	Yoke, Back
27	1	Lanyard
28	1	Gate
29	1	Cylinder, Pneumatic

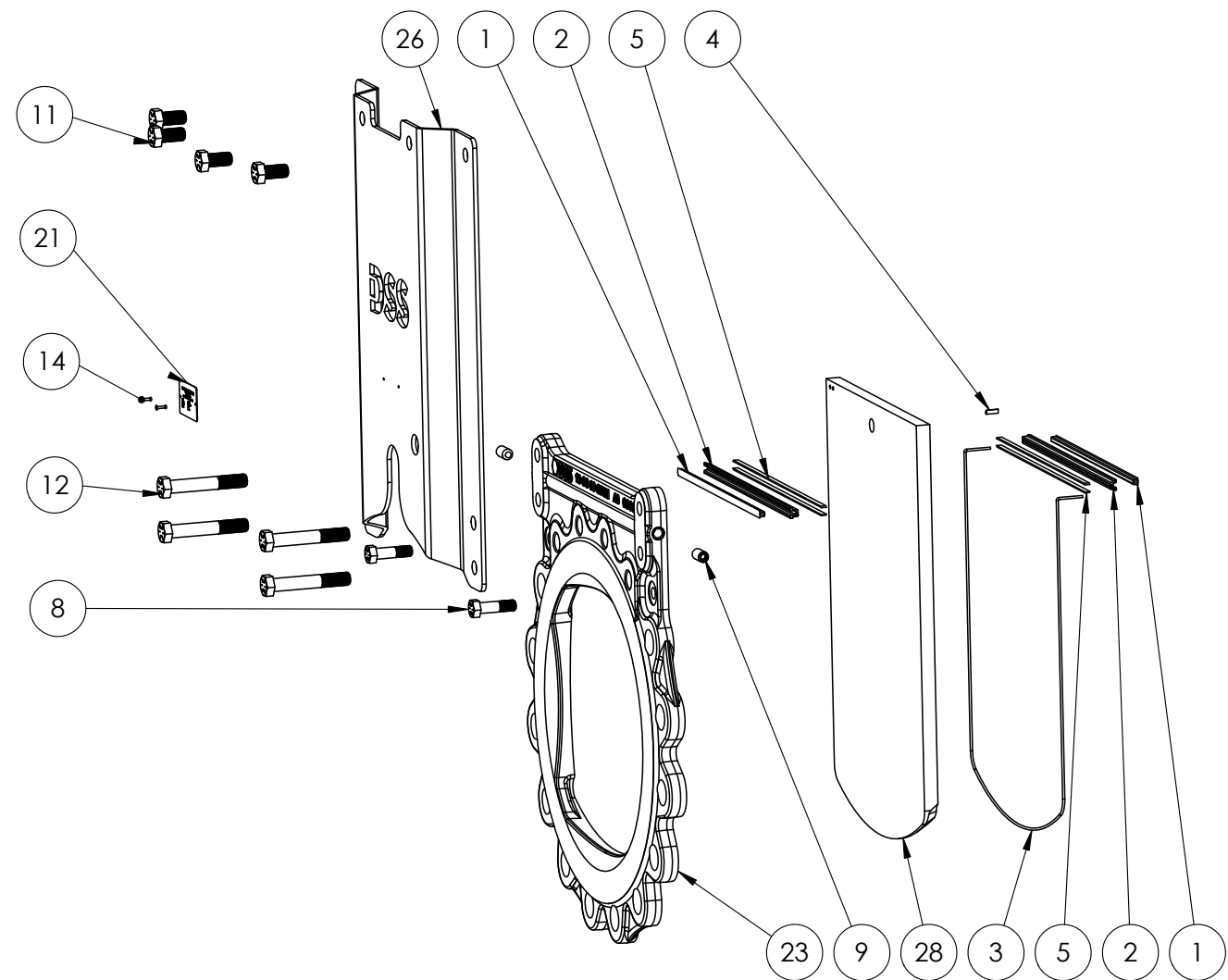
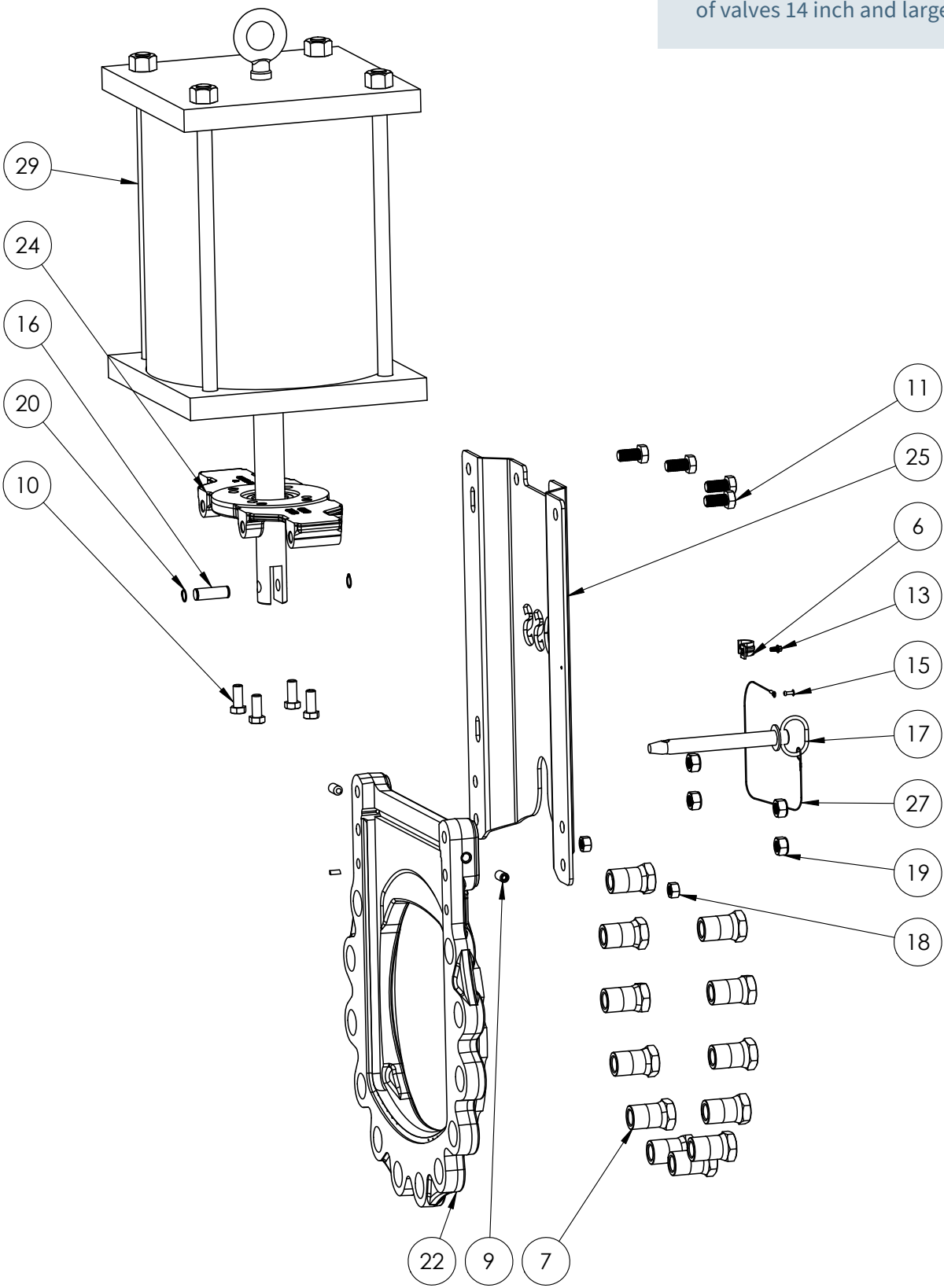


Diagram is representative of valves 14 inch and larger.



Dimensions | Valve sizes 2"-12"



Dimensions | Valve sizes 14"-24"



Dimensions for 26–36 inch available upon request.

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Ordering Information

DSS Model Number:

TYPE	SERIES	FLANGE (Non Std.)	SIZE		BODY		GATE		VALVE SEAL		SCRAPERS	
GS	1	S	02	-	SS	-	SS	-	VI	/	1	-

Example Model Number:
GS1S02-SS-SS-VI/1-PC04S-S13-S19

PRESSURE RATING — MAWP		FLANGE DRILLING				FLANGE FACING	
2–28 inch	150psig at -20°F to 100°F (-28°C to 37°C)	2–12 inch	ASME Class 150	PN10	Table D Table E	2–12 inch	Full Flat Face
30–36 inch	100psig at -20°F to 100°F (-28°C to 37°C)	14–36 inch	ASME Class 150			14–36 inch	Raised Face

FLANGE	P/N
2"–12" ASME CL150	S
2"–12" DIN 2501 / ISO 7005 - PN10	T
2"–12" AS 2129 - Table D	D
2"–12" AS 2129 - Table E	E
14"–36" ASME CL150	S

BODY MATERIAL 2"–36"		P/N
Duplex 2205 [A995 Gr. 4A CD3MN]	22	B
Super Duplex 2507 [A995 GR. 5A CE3MN]	25	C
316 SS [A351 CF8M]	SS	D
Carbon Steel [A216 WCB]	CS	N
Carbon Steel [A352 LCC]	LC	W

ADDL. BODY MATERIAL 2"–12" ONLY		P/N
17.4 PH [A747 CB7Cu-1]	17	A
Hastelloy C-276 [A494 CW12MW]	HC	H
Ni-Resist 1 [A436 GR. 1]	NI	I
317SS	37	Q
Ductile Ni-Resist D2 [A439 D2]	DN	R
Carbon Steel [A216 WCC]	CC	U
316L SS [A351 CF3M]	3L	V

SIZE	P/N
2 inch	02
3 inch	03
4 inch	04
5 inch	05
6 inch	06
8 inch	08
10 inch	10
12 inch	12
14 inch	14
16 inch	16
18 inch	18
20 inch	20
24 inch	24
26 inch	26
28 inch	28
30 inch	30
32 inch	32
36 inch	36

GATE MATERIAL 2"–36"		P/N
17.4 PH [A693]	17	A
Duplex 2205 [A240]	22	B
Super Duplex 2507 [A240]	25	C
316/316L SS [A240]	SS	D
317/317L SS	37	Q

SEALS			P/N
Aflas	25°F to 450°F (-4°C to 232°C)	AF	1
NBR	-30°F to 250°F (-34°C to 121°C)	BN	2
FFKM	10°F to 630°F (-12°C to 332°C)	FF	3
EPDM	-65°F to 265°F (-54°C to 130°C)	EP	4
GFLT	-29°F to 437°F (-33°C to 225°C)	GF	5
PU	-30°F to 180°F (-34°C to 82°C)	PL	7
FKM	-15°F to 437°F (-26°C to 225°C)	VI	9
FKM White	-15°F to 437°F (-26°C to 225°C)	WVI	9W
HNBR	-40°F to 300°F (-40°C to 148°C)	HN	10
Special (Specify)		XX	0

ADDL. GATE MATERIAL 2"–12" ONLY		P/N
Hastelloy C-276 [B575]	HC	H

SCRAPERS		P/N
Phenolic	1	1
Stainless	2	2
Brass	3	3
Special (Specify)	X	X

ACTUATION	CYLINDER SIZE	ACT. SEALS		OPTION		OPTION		OPTION		OPTION		OPTION		OPTION		OPTION
PC	04	S	-	S13	-	S19	-		-		-		-		-	

ACTUATION		P/N
Handwheel	HW	A
Bevel Gear	BG	B
Hydraulic Cylinder	HC	H
Pneumatic Cylinder	PC	P
Electric Actuator	EA	E

VALVE SIZE	CYLINDER SIZE	
	PC BORE DIA.	HC BORE DIA.
2 inch	04	02
3 inch	04	02
4 inch	04	02
5 inch	06	02
6 inch	06	02
8 inch	08	03
10 inch	10	03
12 inch	12	03
14 inch	12	03
16 inch	14	03
18 inch	16	03
20 inch	18	04
24 inch	20	05
26 inch	22	05
28 inch	22	05
30 inch	24	06
32 inch	26	06
36 inch	28	07

ACTUATION SEALS	P/N
Standard -29°F to 200°F (-34°C to 93°C)	S
Low Temp -70°F to 200°F (-56°C to 93°C)	L
High Temp -20°F to 250°F (-16°C to 121°C)	H

OPTIONS			P/N
BUILD OPTIONS	Stainless Steel Bolts (316)	S13	D
	Xylan Body & Gate	S19	J
	Xylan Gate Only	S20	K
	Clear Xylan Body & Gate	S42	S
	Clear Xylan Gate Only	S43	T
ACCESSORY OPTIONS	Limit Switch (18mm Barrel Body Type)	S23	5
	Proximity Switch	S24	6
	Positioner (LVDT required — Transducer)	S25	7
	Solenoid Valve	S27	9
	Reed Switches [Cylinder]	S33	B
	Internal Transducer [Baluff]	S36	1
	Internal Transducer [ROTA]	S37	2
	SS Air Tubing & Fittings	S63	DD
	Filter Regulator	S64	EE
	Junction Box	S65	FF



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 directly. We look forward to working with you.

Contact Us

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