

SPECIFICATIONS

FIGURE 61B

KNIFE GATE VALVES



STAINLESS STEEL LINED METAL SEATED KNIFE GATE VALVE

Figure 61B is a lined valve with the economy of a ductile iron body and the corrosion resistance of all stainless steel wetted parts. Figure 61B is designed for pulp and paper, chemicals, mining and petroleum industries to handle dense mixtures of stock and slurries. The shearing action of the knife gate cuts through solids and cleans the seat as it closes.

FEATURES

- Unidirectional shutoff
- Stainless steel lined ductile iron body
- Thrust ball bearing yoke bushing (18" and larger)
- Cast iron handwheel
- Bonnetless, outside screw and yoke
- Rising stem
- Corrosion-resistant stainless impregnated coating
- Meets MSS SP-81 specification for 150 psi CWP
- Smooth flow, non-clogging step seat design
- Available in sizes from 3"–24"

PRODUCT SPECIFICATIONS

Standards

- Design: MSS SP-81
- Flange Drilling: ANSI B16.5
- Seat/Shell Test: MSS SP-81

Options

FNW offers many options and modifications for valves. These include, but are not limited to:

- Actuation including ratchets, chain wheels, AWWA nuts, gear-operators, pneumatic & hydraulic cylinders, and electric actuators
- Packing options for pH and temperature requirements
- Back seat stops for low ΔP or reverse operation applications, or to prevent knife blade deflection
- V-ports for reduced plugging in metering applications
- Stem extensions in carbon and stainless steel
- Conversion to non-rising stem (NRS)
- Deflection cones in Ni-Hard and HDPE for added seat and gate protection in abrasive services
- Flush ports to clear suspended matter from the valve chest or seat pocket area
- Quick opening levers
- Gate scraper

Contact FNW for knife gate valve options.

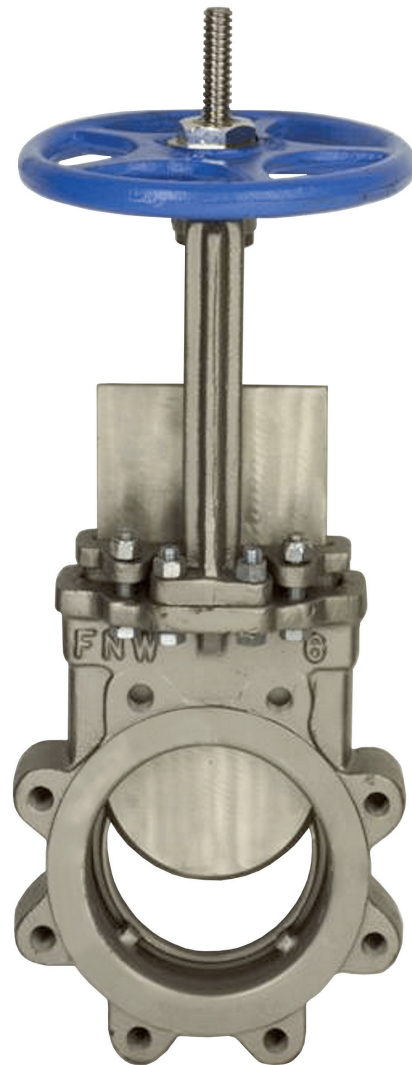


FIGURE NUMBER MATRIX

FNW 61B		
SIZE CODE (IN.)		
3 = M	10 = 10	18 = 18
4 = P	12 = 12	20 = 20
6 = U	14 = 14	24 = 24
8 = X	16 = 16	

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FIGURE 61B
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STAINLESS STEEL LINED
METAL SEATED KNIFE GATE VALVE

TORQUE

Size (in.)	Torque (in.-lbs)
3	39
4	52
6	78
8	91
10	104
12	117
14	136
16	156
18	208
20	234
24	273

FLOW COEFFICIENTS, PORT AREAS & WEIGHTS

Size (in.)	Cv	Port Area (in ²)	Wt (lbs)
3	240	5.64	24
4	430	9.84	35
6	1010	23.15	57
8	1830	42.06	86
10	2890	66.59	128
12	4200	96.72	169
14	5510	127.01	223
16	6920	159.4	295
18	8960	206.52	363
20	11270	259.74	557
24	16270	374.78	671

PACKING OPTIONS

Type	Temperature Limit
PTFE Impregnated Fiber (Standard)	425°F
Pure TFE	425°F
TFE Fiber (Ultra)	500°F
Graphite Filament Yarn	1000°F

REFERENCE CHART

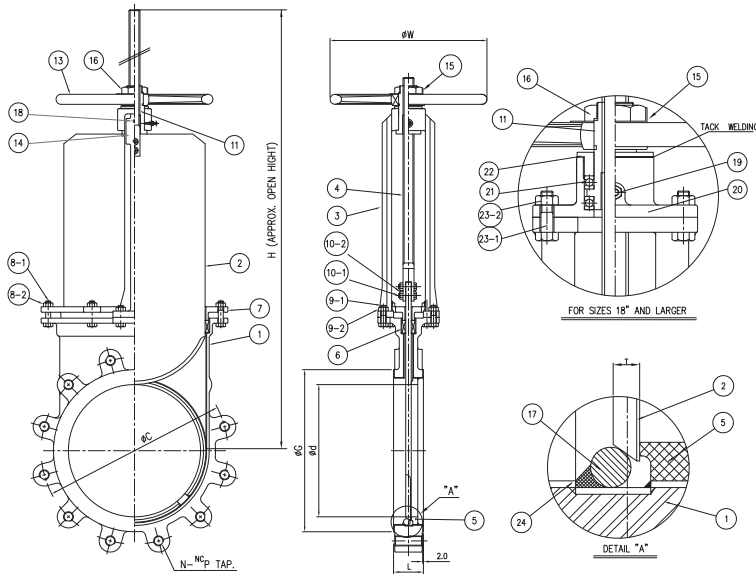
Item #	Size (in.)	Dimensions (in.)								
		L	Ød	ØG	ØC	N	^N C _P	T	ØW	H
FNW61BM	3	2.00	2.68	5.00	6.00	4	5/8"-11	0.236	7.09	15.75
FNW61BP	4	2.00	3.54	6.18	7.50	8	5/8"-11	0.276	7.87	18.90
FNW61BU	6	2.25	5.43	8.50	9.50	8	3/4"-10	0.315	9.84	24.41
FNW61BX	8	2.75	7.32	10.63	11.75	8	3/4"-10	0.315	11.81	31.50
FNW61B10	10	2.75	9.21	12.76	14.25	12	7/8"-9	0.394	13.78	37.80
FNW61B12	12	3.00	11.10	15.00	17.00	12	7/8"-9	0.394	15.75	43.31
FNW61B14	14	3.00	12.72	16.26	18.75	12	1"-8	0.472	17.72	48.82
FNW61B16	16	3.50	14.25	18.50	21.25	16	1"-8	0.472	19.69	53.94
FNW61B18	18	3.50	16.22	20.98	22.75	16	1-1/8"-7	0.472	19.69	60.24
FNW61B20	20	4.50	18.19	22.99	25.00	20	1-1/8"-7	0.591	21.65	67.72
FNW61B24	24	4.50	21.85	27.24	29.50	20	1-1/4"-7	0.591	21.65	79.13

FIGURE 61B

KNIFE GATE VALVES

STAINLESS STEEL LINED METAL SEATED KNIFE GATE VALVE

PARTS DIAGRAM



PART MATERIALS & QUANTITY

Ref #	Description	Material	Qty	Notes	Ref #	Description	Material	Qty	Notes
1	Body	Ductile Iron	1	-	12	Thrust Washer	Brass	1	-
2	Knife	A240 316	1	-	13	Hand Wheel	A338	1	-
3	Yoke	A216 WCB	1	-	14	Name Plate	Aluminum	1	-
4	Stem	A276 410	1	-	15	Lock Washer	A240 304	1	-
5	Body Seat Ring	A240 316	1	Welding	16	Wheel Nut	Brass, Steel	1	-
6	Packing	PTFE Impregnated Fiber	1 Set	Non-Asbestos	17	Bottom Stopper	A240 316	2	Welding
7	Packing Gland	A216 WCB	1	-	18	Rivet	Aluminum	2	-
8-1	Gland Bolt	Steel	1 Set	-	19	Grease Nipple	ASS'Y	1	-
8-2	Gland Nut	Steel	1 Set	Nylon Lock Nut	20	Bearing Housing	A216 WCB	1	-
9-1	Yoke Bolt	Steel	4	-	21	Thrust Ball Bearing	ASS'Y	2	18" and Larger
9-2	Yoke Nut	Steel	4	-	22	Bearing Gland	A216 WCB	1	Tack Weld
10-1	Clevis Bolt	A193 B8	2	-	23-1	Bearing Housing Bolt	Steel	4	-
10-2	Clevis Nut	A194 8	2	Nylon Lock Nut	23-2	Bearing Housing Nut	Steel	4	-
11	Yoke Sleeve	Brass	1	-	24	Body Liner	A240 316	1 Set	Welding