

# STAINLESS STEEL LINED METAL SEATED KNIFE GATE VALVE

The figure 61B is a lined valve with the economy of a ductile iron body and the corrosion resistance of all stainless steel wetted parts. The 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.

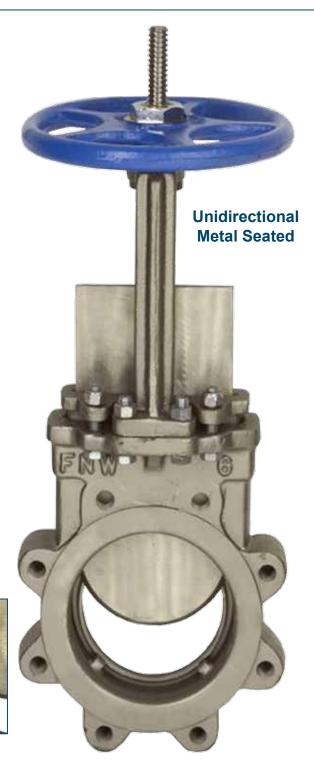
#### Features:

- Unidirectional Shutoff
- · Stainless Steel Lined Ductile Iron Body
- Thrust Ball Bearing Yoke Bushing (18" & Larger)
- · Cast Iron Handwheel
- Bonnetless, Outside Screw & 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" to 24"

#### Standards:

Design: MSS SP-81

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





Stainless Steel Lined

### **Options**

FNW Valve Company 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.

## **Packing Options**

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

#### **Standard Materials**

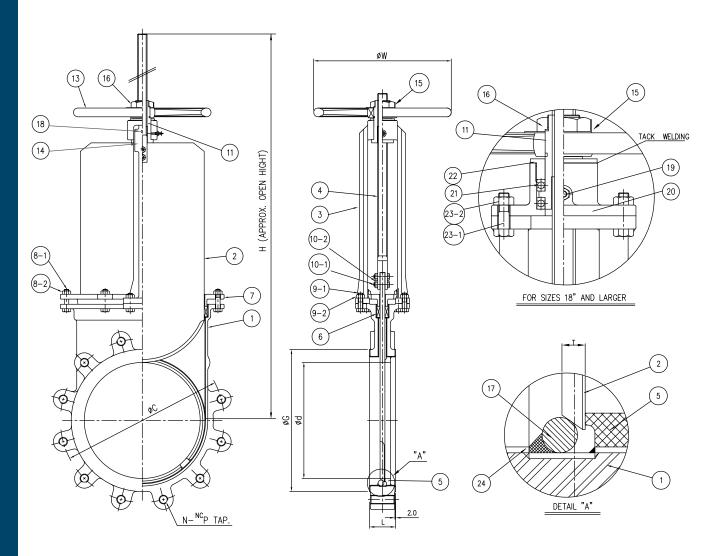
Staridard materials						
Ref. No.	Description	scription Material		Remarks		
1	Body	Ductile Iron	1			
2	Knife	A240 316	1			
3	Yoke	A216 WCB	1			
4	Stem	A276 410	1			
5	Body Seat Ring	A240 316	1	Welding		
6	Packing	PTFE Impregnated Fiber	1 Set	Non-Asbestos		
7	Packing Gland	A216 WCB	1			
8-1	Gland Bolt	STEEL	1 Set			
8-2	Gland Nut	and Nut STEEL		Nylon Lock Nut		
9-1	Yoke Bolt	STEEL	4			
9-2	Yoke Nut	STEEL	4			
10-1	Clevis Bolt	A193 B8	2			
10-2	Clevis Nut	A194 8	2	Nylon Lock Nut		
11	Yoke Sleeve	BRASS	1			
12	Thrust Washer	BRASS	1			
13	Hand Wheel	A338	1			
14	Name Plate	ALUMINUM	1			
15	Lock Washer	A240 304	1			
16	Wheel Nut	BRASS, STEEL	1			
17	Bottom Stopper	A240 316	2	Welding		
18	Rivet	ALUMINUM	2			
19	Grease Nipple ASS'Y		1			
20	Bearing Housing A216 WCB		1			
21	Thrust Ball Bearing	ASS'Y	2	18" And Larger		
22	Bearing Gland	A216 WCB	1	Tack Weld		
23-1	Bearing Housing Bolt	STEEL	4			
23-2	Bearing Housing Nut	STEEL	4			
24	Body Liner	A240 316	1 Set	Welding		

#### **Torque**

Size	DN	Torque
3	80	39
4	100	52
6	150	78
8	200	91
10	250	104
12	300	117
14	350	136
16	400	156
18	450	208
20	500	234
24	600	273

### Flow Coefficients, Port Areas, & Weights

Size	Cv	Port Area (in²)	Wt. (Lbs)
3	240	5.64	24
4	430	9.84	35
6	1,010	23.15	57
8	1,830	42.06	86
10	2,890	66.59	128
12	4,200	96.72	169
14	5,510	127.01	223
16	6,920	159.4	295
18	8,960	206.52	363
20	11,270	259.74	557
24	16,270	374.78	671



# **Dimensions (inches)**

Billionolone (money)									
Size	L	Ød	ØG	ØС	N	исР	Т	ØW	Н
3	2.00	2.68	5.00	6.00	4	5/8"-11	0.236	7.09	15.75
4	2.00	3.54	6.18	7.50	8	5/8"-11	0.276	7.87	18.90
6	2.25	5.43	8.50	9.50	8	3/4"-10	0.315	9.84	24.41
8	2.75	7.32	10.63	11.75	8	3/4"-10	0.315	11.81	31.50
10	2.75	9.21	12.76	14.25	12	7/8"-9	0.394	13.78	37.80
12	3.00	11.10	15.00	17.00	12	7/8"-9	0.394	15.75	43.31
14	3.00	12.72	16.26	18.75	12	1"-8	0.472	17.72	48.82
16	3.50	14.25	18.50	21.25	16	1"-8	0.472	19.69	53.94
18	3.50	16.22	20.98	22.75	16	1-1/8"-7	0.472	19.69	60.24
20	4.50	18.19	22.99	25.00	20	1-1/8"-7	0.591	21.65	67.72
24	4.50	21.85	27.24	29.50	20	1-1/4"-7	0.591	21.65	79.13

# **Figure Number Matrix**

FNW 61 B Size				
	SIZE CODE	•		
3 = M	10 = 10	18 = 18		
4 = P	12 = 12	20 = 20		
6 = U	14 = 14	24 = 24		
8 = X	16 = 16			



# Figure 61B KNIFE GATE VALVES

# STAINLESS STEEL LINED METAL SEATED KNIFE GATE VALVE

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