

Figure 65B **KNIFE GATE VALVES**

FNW™

STAINLESS STEEL METAL SEATED KNIFE GATE VALVE

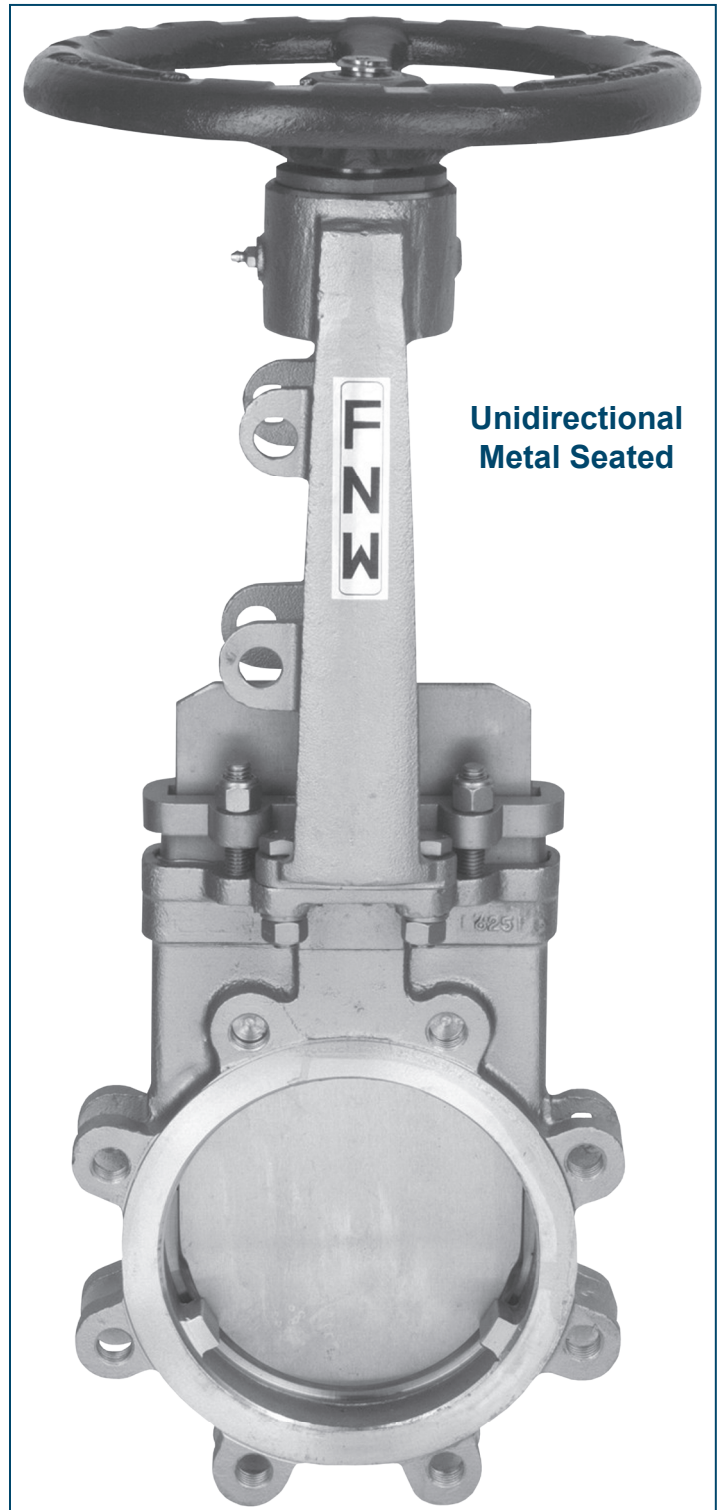
The figure 65B is an all cast stainless steel body and yoke with investment cast packing follower. The 65B is designed and engineered for the pulp and paper, chemical, mining, power, petroleum, and food process industries, as well as municipal water and waste treatment plants. It is ideal for handling dense mixtures of stock and slurries with unidirectional shut off. The shearing action of the knife gate cuts through solids and cleans the seat as it closes.

Features:

- Unidirectional Shut off
- Cast Stainless Steel Body, Yoke and Packing Gland
- Thrust Ball Bearing Yoke Bushing (6" & Larger)
- Ductile Iron Handwheel
- Bonnetless, Outside Screw & Yoke
- Rising Stem
- Meets MSS SP-81 Specification for 150 PSI CWP
- Cast Lugs in Yoke for Lockout in Closed Position or Optional Open Position (Lock Bar is Optional)
- Smooth Flow, Non-clogging Step Seat Design
- Available in sizes from 2" to 24"

Standards:

- Design: MSS SP-81
- Flange Drilling: ANSI B16.5
- Seat/Shell Test: MSS SP-81
- Material: ASME B16.34



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.

Standard Materials

Ref. No.	Description	Material	Qty	Remarks
1	Body	A351 CF8M	1	
5	Yoke	A351 CF8	1	
6	Knife	A240 316	1	
8	Gland Flange	A351 CF8M	1	
12	Sleeve Gland	A351 CF8	1	
14	Wheel Nut	A351 CF8	1	
15	Handwheel	A536 65-45-12	1	
16	Yoke Sleeve	A439 D2C	1	
18	Stem	A182 F304	1	
38	Sleeve Box	A351 CF8	1	12 - 24" Sizes Only
56	Yoke Bolt	A193 B8	1 Set	
57	Yoke Nut	A194 8	1 Set	
58	Gland Bolt	A193 B8	1 Set	
59	Gland Nut	A194 8	1 Set	
64	Washer	A276 304	1 Set	
64-1	Washer	A240 430	1	2 - 4" Sizes Only
69	Grease Nipple	A307 Gr. B	1	Cr. Plating
70	Set Screw	A193 B8	1	
71	Name Plate	A240 304	1	
73	Bearing	ASS'Y	2	6 - 24" Sizes Only
74	Key	A108 1045	2	
84	Pin Bolt	A193 B8	1	
85	Pin Nut	A194 8	1	
86	Sleeve Box Bolt	A193 B8	1 Set	12 - 24" Sizes Only
87	Sleeve Box Nut	A194 8	1 Set	12 - 24" Sizes Only
97	Packing	PTFE	1 Set	PTFE Impregnated Fiber
97-1	Packing / Wiper Seal	EPDM	1	

Packing Options

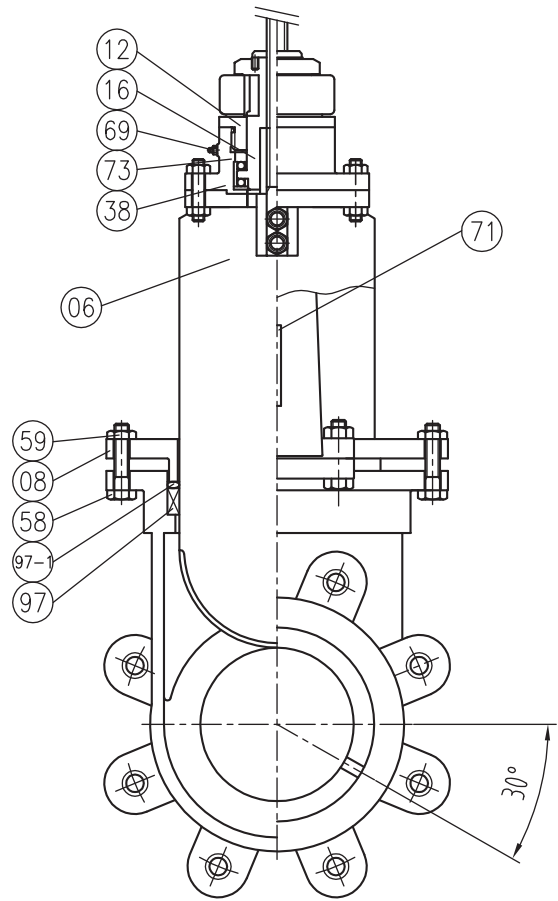
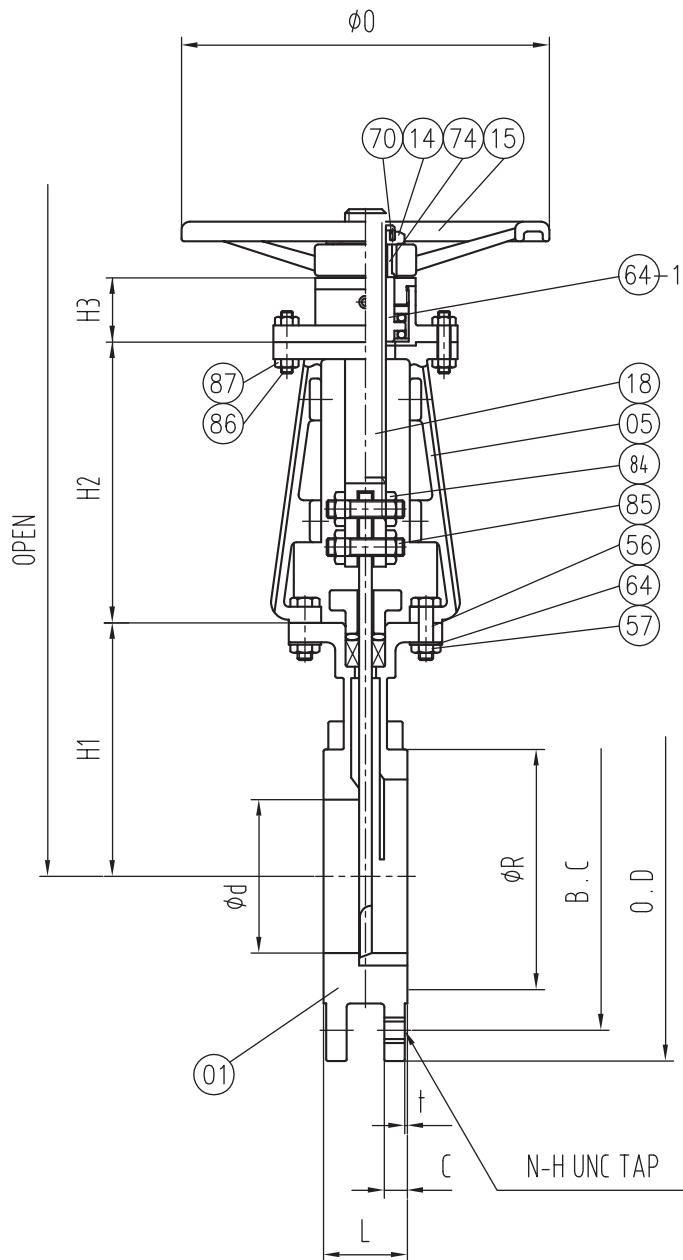
Type	Temperature Limit
PTFE Impregnated Fiber (Standard)	425°F
Pure TFE	425°F
TFE Fiber (Ultra)	500°F
Graphite Filament Yarn	1000°F

Flow Coefficients, Port Areas, & Weights

Size	Cv	Port Area (in ²)	Wt. (Lbs)
2	210	3.14	18
2-1/2	360	4.91	20
3	560	7.07	24
4	1,200	12.56	35
6	3,500	28.26	63
8	5,700	50.24	91
10	8,600	78.50	141
12	11,700	113.04	214
14	14,700	137.81	241
16	18,000	182.56	355
18	21,600	233.59	393
20	25,400	290.89	571
24	32,800	424.34	735

Figure Number Matrix

FNW 65 B Size		
SIZE CODE		
2 = K	8 = X	18 = 18
2-1/2 = L	10 = 10	20 = 20
3 = M	12 = 12	24 = 24
4 = P	14 = 14	
6 = U	16 = 16	



Dimensions (inches)

Size	L	d	Open	H1	H2	H3	O	Flange						
								O.D.	B.C.	R	C	t	N	H
2	1.88	2.00	13.86	4.21	5.49	-	7.09	6.00	4.75	3.62	0.50	0.06	4	5/8 - 11
2-1/2	2.00	2.50	15.33	4.72	5.94	-	7.09	7.00	5.50	4.12	0.50	0.06	4	5/8 - 11
3	2.00	3.00	16.95	5.00	6.67	-	7.87	7.50	6.00	5.00	0.50	0.06	4	5/8 - 11
4	2.00	4.00	20.50	6.10	7.81	-	9.84	9.00	7.50	6.19	0.50	0.06	8	5/8 - 11
6	2.25	6.00	28.37	7.42	12.26	-	11.81	11.00	9.50	8.50	0.63	0.06	8	3/4 - 10
8	2.75	8.00	35.55	9.76	14.54	-	13.78	13.50	11.75	10.62	0.63	0.06	8	3/4 - 10
10	2.75	10.00	42.56	11.93	17.00	-	15.75	16.00	14.25	12.75	0.75	0.06	12	7/8 - 9
12	3.00	12.00	49.84	14.06	16.93	3.24	17.72	19.00	17.00	15.00	0.75	0.06	12	7/8 - 9
14	3.00	13.25	57.02	15.47	19.94	3.48	19.69	21.00	18.75	16.25	0.81	0.06	12	1 - 8
16	3.50	15.25	64.17	18.11	22.28	3.67	21.65	23.50	21.25	18.50	0.88	0.06	16	1 - 8
18	3.50	17.25	69.94	19.92	24.19	3.67	21.65	25.00	22.75	21.00	0.94	0.06	16	1-1/8 - 7
20	4.50	19.25	77.54	22.36	27.18	3.67	21.65	27.50	25.00	23.00	1.00	0.06	20	1-1/8 - 7
24	4.50	23.25	89.62	26.30	31.31	3.67	21.65	32.00	29.50	27.25	1.00	0.06	20	1-1/4 - 7