

STAINLESS STEEL METAL SEATED KNIFE GATE VALVE

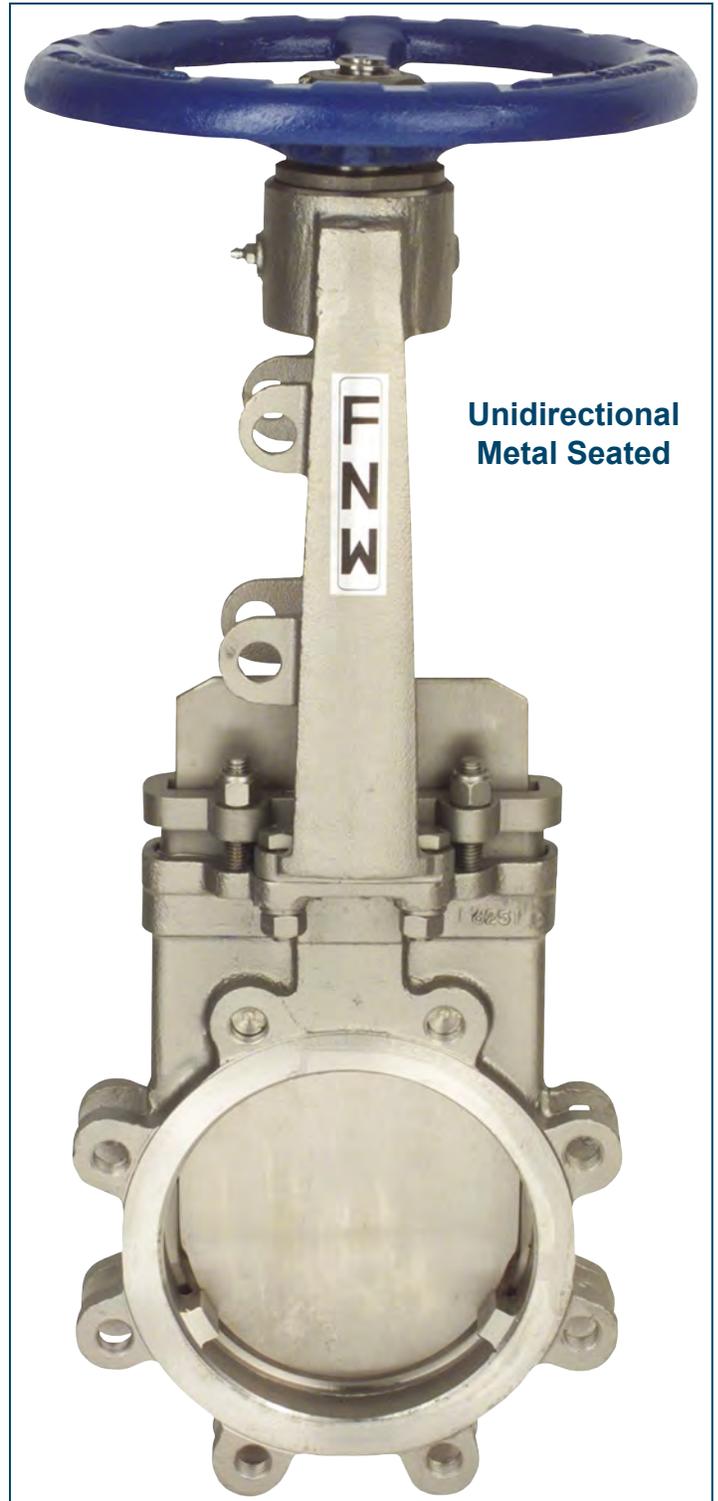
The figure 65B is an all cast stainless steel body and yoke with investment cast packing follower. The 65B is designed and engineered for the pulp and paper, chemical, mining, power, petroleum, and food process industries, as well as municipal water and waste treatment plants. It is ideal for handling 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 Shutoff
- 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

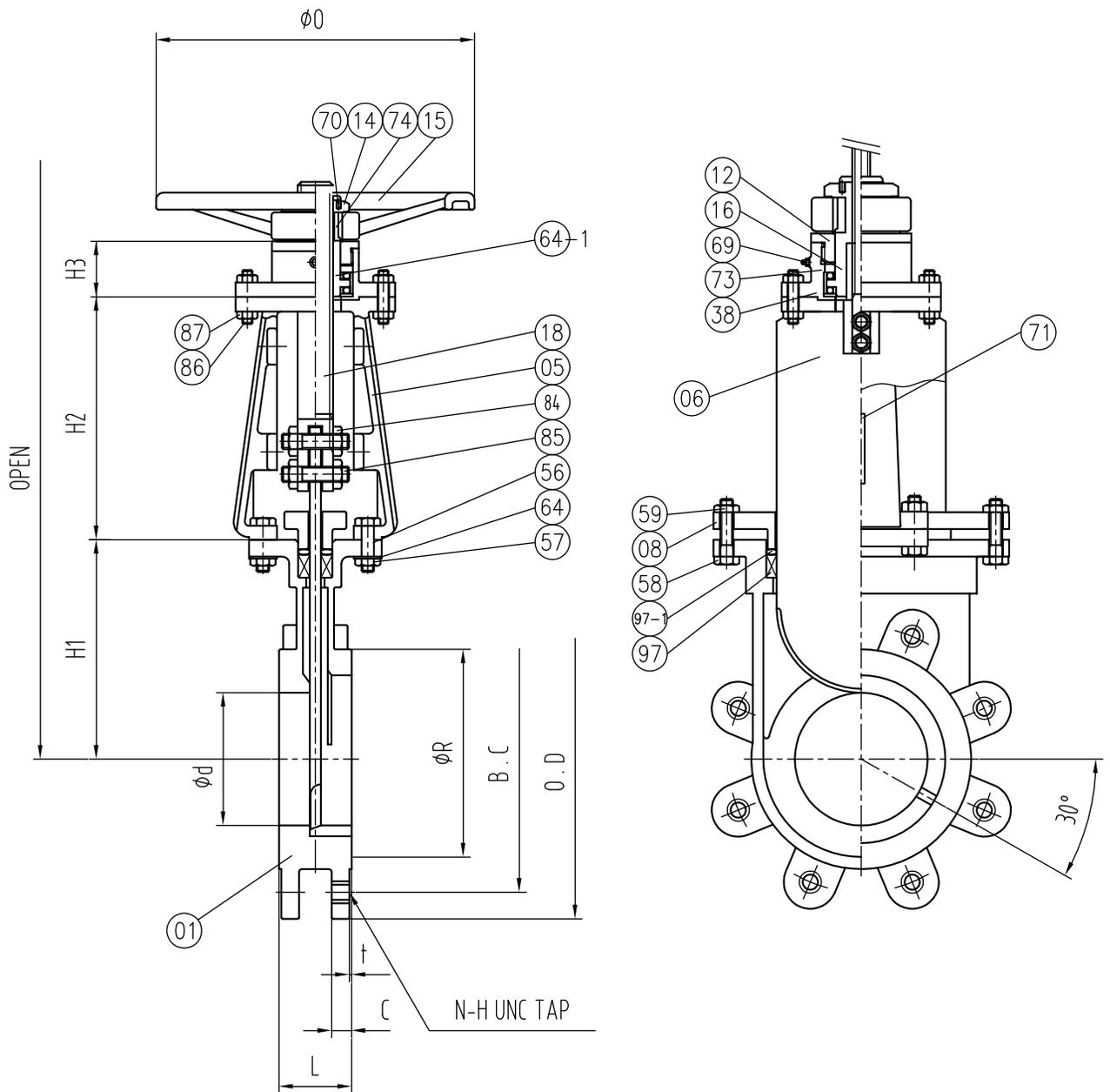
| Type | Temperature Limit |
|-----------------------------------|-------------------|
| PTFE Impregnated Fiber (Standard) | 425°F |
| Pure TFE | 425°F |
| TFE Fiber (Ultra) | 500°F |
| Graphite Filament Yarn | 1000°F |

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 |

**STAINLESS STEEL METAL SEATED
KNIFE GATE VALVE**

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