

## STAINLESS WETTED PARTS UNIDIRECTIONAL METAL SEATED KNIFE GATE VALVE

The figure 6701 is a stainless steel wetted parts by carbon steel and iron topworks. This configuration provides a more economical knife gate solution without sacrificing the ruggedness and corrosion resistance needed for harsh applications. It is designed 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
- Maximum Pressure: 150 PSI CWP (30" to 100 PSI CWP)
- Maximum Temperature: 446°F (230°C)
- Cast Stainless Steel Body and Packing Gland
- Zinc Plated Carbon Steel Hardware
- Machined Gland Pocket Area
- Bonnetless, Outside Screw & Yoke
- Rising Stem
- Smooth Flow, Non-Clogging Step Seat Design
- Cast Iron Hand Wheel
- Gear-Operator Standard on 30" Valve
- Available in sizes 3" to 30"
- Standard design accommodates locking device

### Standards

- Design: MSS SP-81
- Flange Drilling: ANSI B16.5 (30" to MSS SP-44 Flanges)
- Seat/Shell Test: MSS SP-81
- Material: ASME B16.34

### Figure Number Matrix

FNW 6701 <u>Seat Size</u>			
<u>SEAT CODE</u>	<u>SIZE CODE</u>		
Stainless Steel = S (Integral)	3 = M	10 = 10	18 = 18
	4 = P	12 = 12	20 = 20
	6 = U	14 = 14	24 = 24
	8 = X	16 = 16	30 = 30

### Cv & Weight

Size	Cv	Wt (Lbs)	Size	Cv	Wt (Lbs)
3	565	20	14	12,500	243
4	1,040	31	16	16,500	309
6	2,440	51	18	21,400	386
8	4,460	75	20	27,000	463
10	6,250	128	24	39,700	540
12	9,400	163	30	60,000	992

Weights are for general reference only.



## FEATURES

Hand wheel is heavy cast iron, with a rounded grip and epoxy coated hand wheel.

Double set screws prevent threaded-on hand wheel from backing off or coming loose.

Aluminum-Bronze thrust components for anti-galling operation.

Grease fitting for maintaining smooth drive sleeve operation.

Carbon steel plate yoke arms provide economy without sacrificing strength and are epoxy coated.

All nuts and bolts are carbon steel grade B7 or 2H.

Stem-to-gate clevis is deliberately loose to allow play in gate to minimize binding.

Horizontal clevis bolts provide flexibility of the gate during travel.

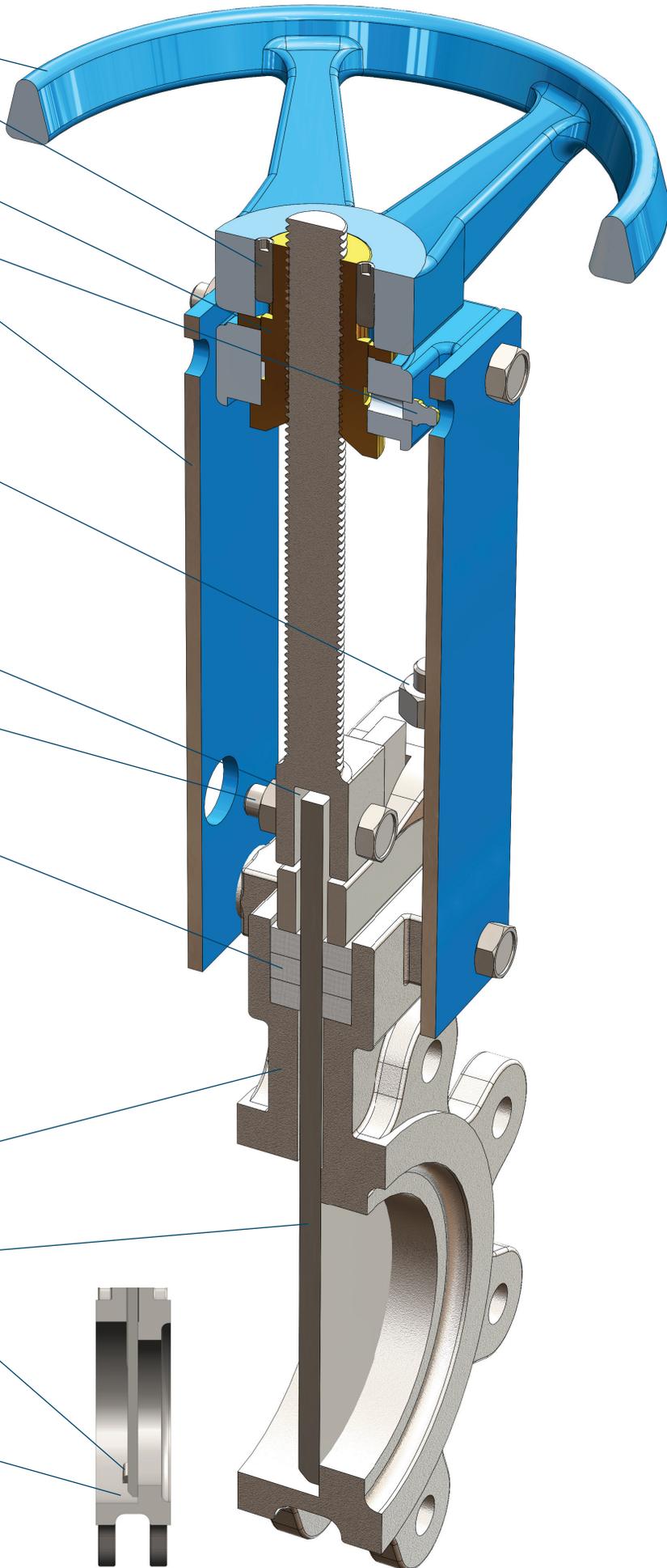
Multiple layers of PTFE impregnated square braid packing provides excellent gland sealing at full valve pressure differential.

The single piece cast all stainless steel body is rugged and compact. It offers better leak tightness than fabricated or two-piece designs.

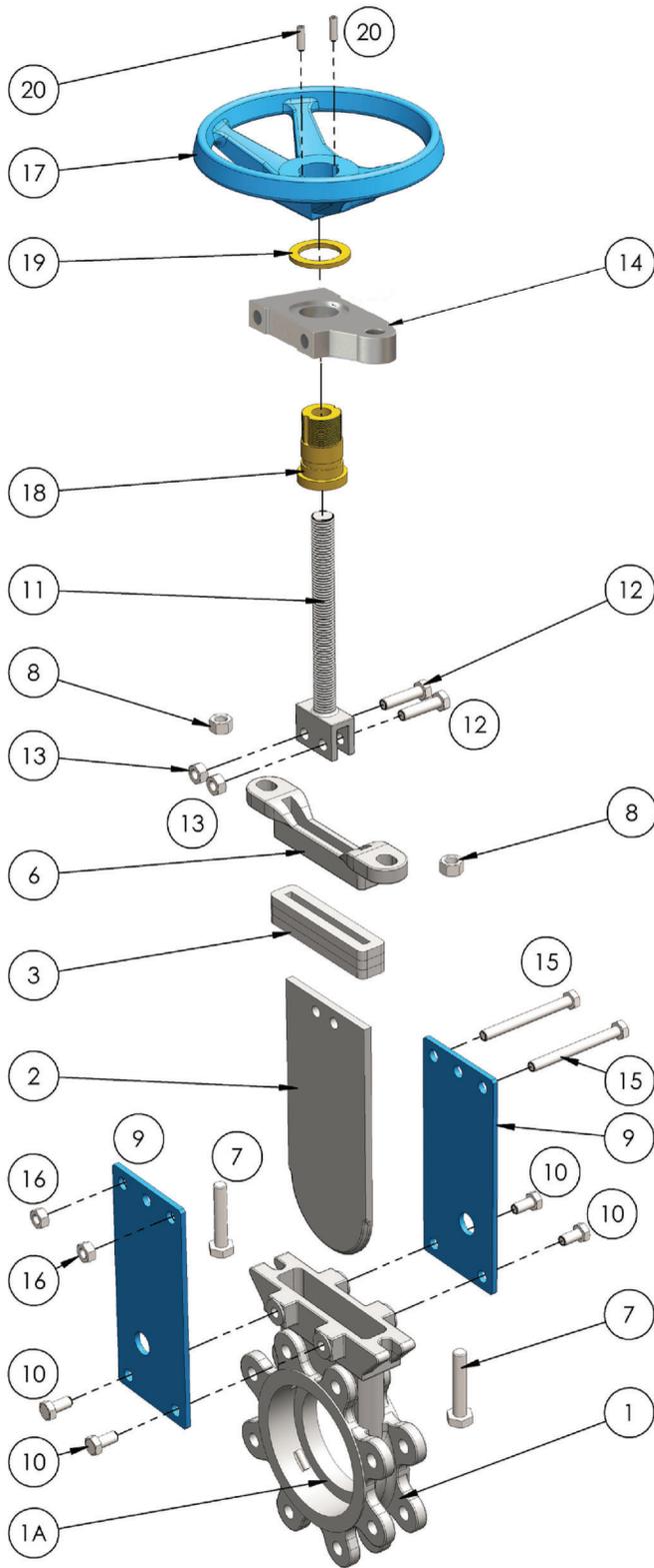
The gate is high-quality, ground-finished stainless steel. A generous gate thickness, well supported by the packing, resists distortion or deflection and is less likely to bend in severe conditions.

Gate wedges located in the body aid the final gate/seat sealing with a non-sliding motion.

A stepped seating design keeps the upstream area clear. There is no dead pocket space in the bottom of the body where suspended solids/media can collect.

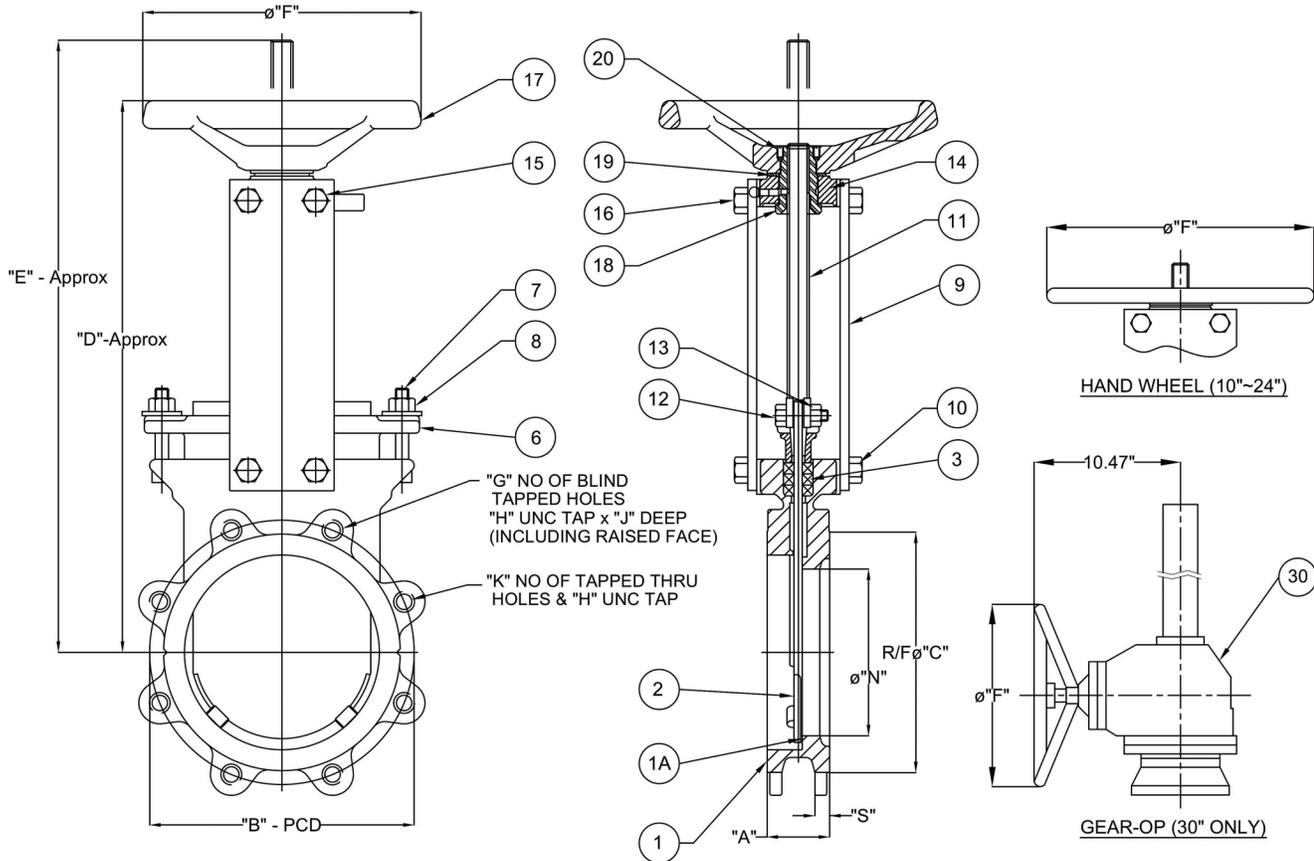


## Standard Materials



Ref. No.	Description	Material	Qty
1	Body	Stainless Steel, ASTM A351 Gr. CF8M	1
1A	Seat (Integral)	Stainless Steel, ASTM A351 Gr. CF8M	1
2	Gate	Stainless Steel, ASTM A240 Type 316	1
3	Packing	PTFE Impregnated Syntex Fiber	3 (3"~18") 3 (20" & 30")
6	Gland	Stainless Steel, ASTM A351 Gr. CF8	1
7	Gland Bolt	Zinc Plated Carbon Steel, ASTM A193 Gr. B7	2~10
8	Gland Nut	Zinc Plated Carbon Steel, ASTM A194 Gr. 2H	2~10
9	Yoke Arm	Carbon Steel, ASTM A36	2
10	Yoke Bolt	Zinc Plated Carbon Steel, ASTM A193 Gr. B7	4
11	Stem	Stainless Steel, ASTM A276 Type 304	1
12	Clevis Bolt	Zinc Plated Carbon Steel, ASTM A193 Gr. B7	2
13	Clevis Nut	Zinc Plated Carbon Steel, ASTM A194 Gr. 2H	2
14	Collar	Ductile Iron, ASTM A536 Gr. 65-45-12	1
15	Collar Bolt	Zinc Plated Carbon Steel, ASTM A193 Gr. B7	2 (2"~8") 4 (10"~24")
16	Collar Nut	Zinc Plated Carbon Steel, ASTM A194 Gr. 2H	2 (2"~8" only)
17	Hand Wheel	Cast Iron, ASTM A126 Gr. B	1
18	Yoke Sleeve	Aluminum Bronze, ASTM B148, UNS C95200	1
19	Thrust Washer	Aluminum Bronze, ASTM B150, UNS C62300	1
20	Set Screws	Stainless Steel, 304SS	2
30	Gear Operator	Enclosed Type, Model BG02 (Not shown)	1 (30" only)

## STAINLESS WETTED PARTS UNIDIRECTIONAL METAL SEATED KNIFE GATE VALVE



### Dimensions (inches)

Size	A	B	C	D	E	F	G	H	J	K	N	S
3	2.00	6.00	5.00	15.55	17.72	7.99	2	5/8"	0.37	2	2.95	0.47
4	2.00	7.50	6.18	17.52	20.67	7.99	2	5/8"	0.37	6	4.00	0.47
6	2.25	9.50	8.50	20.87	25.98	10.00	2	3/4"	0.43	6	6.00	0.57
8	2.75	11.75	10.63	25.00	31.89	12.01	2	3/4"	0.43	6	8.00	0.57
10	2.75	14.25	12.76	27.56	37.40	15.98	4	7/8"	0.43	8	9.37	0.69
12	3.00	17.00	14.76	30.51	42.72	15.98	4	7/8"	0.43	8	11.42	0.69
14	3.00	18.75	16.26	32.68	47.05	20.00	4	1"	0.51	8	12.76	0.75
16	3.50	21.25	18.50	36.81	52.17	20.00	6	1"	0.67	10	14.57	0.87
18	3.50	22.75	21.00	41.34	59.25	20.00	6	1-1/8"	0.67	10	16.93	0.94
20	4.50	25.00	22.99	46.06	65.35	20.00	8	1-1/8"	0.91	12	18.50	0.98
24	4.50	29.50	27.24	53.54	77.17	20.00	8	1-1/4"	0.91	12	22.64	0.98
30	4.62	36.00	33.75	73.20*	100.40	19.68	10	1-1/4"	0.82	18	26.69	1.12

\* Dimension "D" for 30" valve is centerline of valve to centerline of gear-operator hand wheel shaft.

DOC: FNW670113 Ver. 8/2014

© 2014 - FNW. All rights reserved. 22038

The FNW logo is a trademark of Ferguson Enterprises, Inc., PL Sourcing, PO Box 2778, Newport News, VA 23609

The contents of this publication are presented for information purposes only, and while effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, expressed or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice. Always verify that you have the most recent product specifications or other documentation prior to the installation of these products.