# Fabri-Valve®



ENGINEERED FOR LIFE

# C105 Polyurethane Knife Gate Valve

Abrasion resistance at its best with a unique one piece polyurethane liner throughout the body and chest. Stainless steel gate, with an option for special alloy gates. The patented, replaceable "pop-in" steel reinforced polyurethane seat is standard.

## **Pressure/Temperature Ratings**

Figure C105							
Pressure-Temperature Rating							
180°F max	150psi (10.3 bar)						

Consult Factory for Temperatures up to 220°F(104°C)

## **Flow Coefficients**

The Cv values below represent U.S. gallons per minute  $60^{\circ}F$  water through a 100% open valve at a pressure drop of 1 psi. The metric equivalent, Kv, is the flow of water at  $+16^{\circ}C$  through the valve in cubic meters per hour at a pressure drop of 1 kg/cm2. To convert Cv to Kv, multiply the Cv by 0.8569.

Figure 105 4"-12" Knife Gate Valves										
C <sub>v</sub> Ratings, Port Diameter and Area										
Valve	Size	Standard Port Replaceable Polyurethane								
ln.	DN	C <sub>v</sub>	Port I.D Inches	Port Area Sq. In.						
4	100	1,152	4.00	12.6						
6	150	2,592	6.00	28.3						
8	200	4,608	8.00	50.3						
10	250	7,208	10.00	78.5						
12	300	10,400	12.00	113.1						

# **Available Options**

- Bevel Gear
- Chainwheels
- Cylinder Actuators
- Electric Actuators
- E-Z Spin Handwheel
- Lever Operator
- Ratchet
- Epoxy Coating
- Extended Stems

- Hard Faced Gate Edge
- Hard Gate Material
- Nickel-TFE Coated Gate
- Live-Load Packing
- Locking Devices
- Rod Boots
- Self-Supporting Yokes
- Thru Drill Flanges

## **Specifications**

#### Size Range

4"-12"

#### **Pressure Rating**

150 psi (10.3 bar) CWP(cold working pressure)

#### **Temperature Rating**

180°F(82°C). Consult factory for temperatures up to 220°F(104°C)

#### Flange Drilling

Flat Face ANSI 125/150

## **Testing**

Every Fabri-Valve Figure C105 valve is fully tested prior to shipment. Testing includes a body shell test, a seat test, and a cycling test to insure proper functioning of moving parts. Additional testing is also available. Please let us know your requirements.

#### **Standard Shell test:**

 Hydro test at 1.5 times the rated CWP (cold working pressure) – Zero allowable leakage

#### Standard Seat test:

• Resilient Seat: Hydro test at 15 psi and rated CWP

### **Shutoff Performance**

• Resilient Seat: Polyurethane Zero leakage. All sizes.

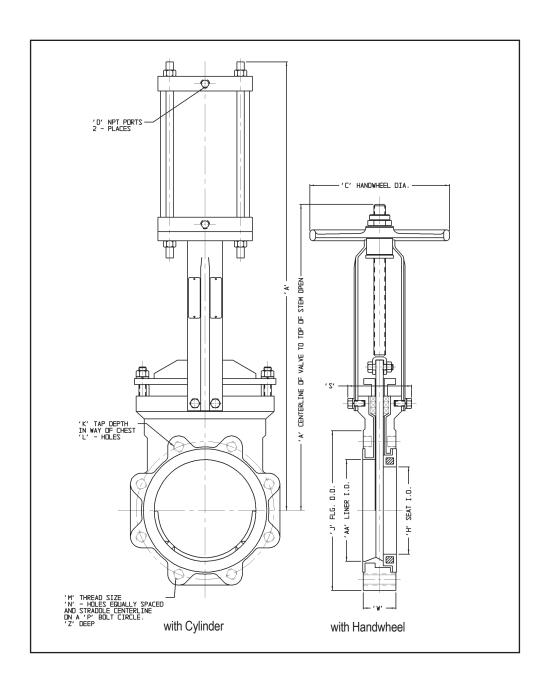
### **Materials of Construction**

Parts	Materials								
Body	Cast iron 4"-12"								
Body Liner	Molded Polyurethane, 180°F (82°C)								
Seat	Steel-reinforced Replaceable Polyurethane								
Gate	304 stainless steel								
Yoke	Carbon steel								
Yoke Fasteners	Plated steel								
Packing	TFE/Graphite								
Packing Follower	Carbon steel/Ductile Iron								
Follower Bolting	Plated steel								
Stem	304 stainless steel								
Stem Nut	Acid Resistant Bronze								
Lubrication Fitting	Plated steel								
Handwheel	Cast Iron								
Handwheel Retaining Nut	Malleable iron								
Tab Washer	Stainless steel								
Travel stop	Plated steel								
Glide Ring	304 stainless steel								

# **Dimensions**

Valve S	ize	DIMENSION Inches (mm) with HANDWHEEL OR CYLINDER																		
Inches	DN	A			С		D		Н	J	K	L	M	N	Р	S	W	Z	AA	
		HW	3-1/4 CYL	4 CYL	HW	3-1/4 CYL	4 CYL	3-1/4 CYL	4 CYL											
4	100	20-3/16 (513)	21-1/8 (537)	21-5/8 (5549)	8 (203)	4 (102)	4-1/2 (114)	1/4-18	3/8-18	4 (102)	9 (229)	5/8 (16)	2	5/8-11NC	8	7-1/2 (191)	4 (102)	2 (51)	3/4 (19)	4-5/8 (117)
		HW	4 CYL	6 CYL	HW	4 CYL	6 CYL	4 CYL	6 CYL											
6	150	26-11/16 (678)	28-5/8 (727)	29 (737)	10 (254)	4-1/2 (114)	6-1/2 (165)	3/8-18	3/8-18	6 (152)	11 (279)	5/8 (16)	2	3/4-10NC	8	9-1/2 (241)	4-3/4 (121)	2-1/4 (57)	7/8 (22)	6-3/4 (171)
		HW	6 CYL	8 CYL	HW	6 CYL	8 CYL	6 CYL	8 CYL											
8	200	35-15/16 (913)	36-5/8 (930)	37-1/8 (943)	12 (305)	6-1/2 (165)	8-5/8 (219)	3/8-18	3/8-18	8 (203)	13-1/2 (343)	3/4 (19)	2	3/4-10NC	8	11-3/4 (298)	5-3/8 (137)	2-3/4 (70)	1 (25)	9 (229)
		HW	8 CYL	10 CYL	HW	8 CYL	10 CYL	8 CYL	10 CYL											
10	250	41-13/16 (1062)	43-3/16 (1097)	43-15/16 (1116)	16 (406)	8-5/8 (219)	10-7/8 (276)	3/8-18	1/2-14	10 (254)	16 (406)	13/16 (21)	4	7/8-9NC	12	14-1/4 (362)	6-1/8 (156)	2-3/4 (70)	1 (25)	11 (279)
		HW	8 CYL	10 CYL	HW	8 CYL	10 CYL	8 CYL	10 CYL											
12	300	47-1/16 (1195)	49-1/8 (1248)	49-7/8 (1267)	16 (406)	8-5/8 (219)	10-7/8 (276)	3/8-18	1/2-14	12 (305)	19 (483)	3/4 (19)	4	7/8-9NC	12	17 (432)	6-1/8 (156)	3 (76)	1-1/4 (32)	13-1/2 (343)

Reference Dimensions in (parentheses)





Engineered Valves, LLC 1110 Bankhead Ave Amory, MS 38821 662.256.7185 www.engvalves.com © 2012 ITT Enginered Valves, LLC

Form C105