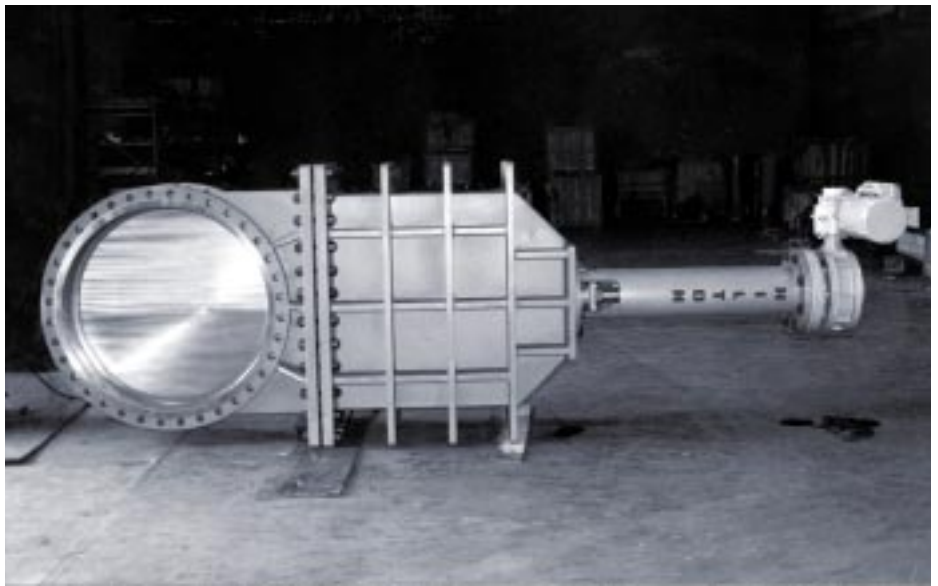


HILTON

VALVE, INCORPORATED



	Page
KNIFE GATE VALVES	
Bonnetless (Cast SS)	3
Bonnetless (Fabricated)	5
Bonneted	6
Material Handling	7
Abrasive Service	8
Square Port	8
Titanium	9
Transmitter Isolation	9
Thru Port	10
Diverter	10
HYDRO VALVES	
Throttling Knife Gate	11
Jet Flow	11
MISC. VALVES	
Tank Drain	12
Sluice Gate	12
WEDGE GATE VALVES	
Standard	13
Narrow Face-to-Face	13
CHECK VALVES	
Vertical	14
Vertical Vent	14
Angle Disk	14
Wafer Swing	15
Wafer Tilting Disk	15
Swing	15
VALVE SHOWCASE	16
OPERATORS	18
ORDERING INFORMATION	
Seating Options	20
Materials of Construction ...	20
Abrasive Service	21
Pressure Rating	21
Flange Drilling	21
Power Operators	22
Cylinder Sizing Chart	22
RFQ FORM	23



About Hilton Valve

Hilton has been designing and manufacturing high quality valves for over 40 years for a wide variety of industries, including pulp and paper, sewage treatment, power generation, petrochemical and marine.

Fabricated construction allows our engineering staff to incorporate Stainless Steel, Hastelloy, Titanium and other costly alloys for the interior of the valve while utilizing lower cost materials (such as carbon steel) for the exterior flanges and stiffeners, resulting in a superior product at a very competitive price.

Another advantage of fabricated construction is that any of our standard valve designs can be modified for special applications. If a modified valve still does not meet all of your requirements, we can design and build a special valve that will.

Hilton valves are available with a wide variety of manual and powered operators. Control systems can also be provided, such as fail-safe systems and positioners for flow control.



Hilton Valve was founded by Harold S. Hilton, Sr. (1921-1986), in 1952.

HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080
 sales@hiltonvalve.com • www.hiltonvalve.com

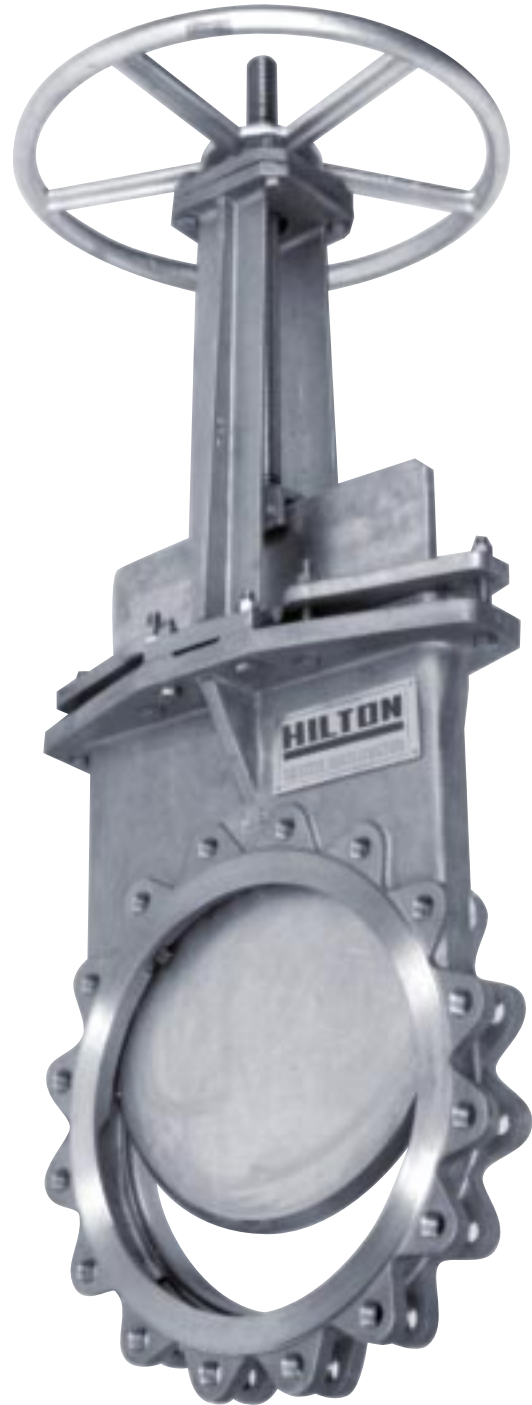
Bonnetless Knife Gate Valve Solid Cast Stainless

H-200-SC-ST316 **Metal Seat**

H-201-SC-ST316 **Resilient Seat**

Features

- Heavy duty one piece 316 SS body; ANSI 150 lb. raised face flanges with serrated gasket surface for leak-free sealing.
- Tapered inlet is designed to create turbulence and keep solids in suspension.
- Deep 316 SS stuffing box is integral with the body and filled with high-efficiency braided Teflon-acrylic packing.
- 316 SS gate is ground and polished and utilizes a sharp leading edge for non-clogging shut-off.
- Wedge blocks are positioned to force the gate against the seat for a positive seal.
- Heavy duty one piece cast 304 SS yoke.
- Stainless steel stem provides excellent corrosion resistance while the single lead thread allows easy handwheel operation.
- Acid resistant bronze stem nut has engineered grease passages to allow proper lubrication of the stem and stem nut.
- Rugged ductile iron handwheel is standard; available with lever, bevel gear, cylinder, motor or other operators.
- Stainless steel bolting on packing gland, yoke and gate clevis.
- Viton is standard resilient seat material; other elastomers are available.
- Face-to-face dimensions conform to MSS SP-81 and TAPPI TIS 405-8.

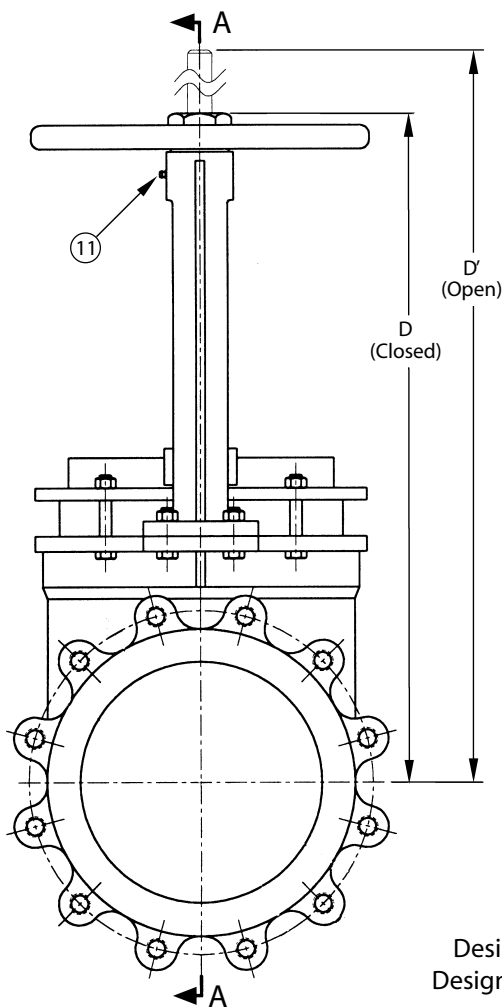


HILTON VALVE, INC.

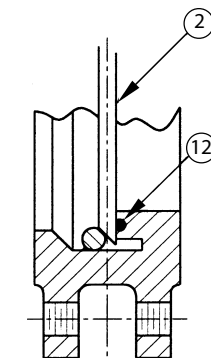
425-883-7000 • Fax 425-883-8080
sales@hiltonvalve.com • www.hiltonvalve.com

Bonnetless Knife Gate Valve Solid Cast Stainless

H-200-SC-ST316 Metal Seat H-201-SC-ST316 Resilient Seat

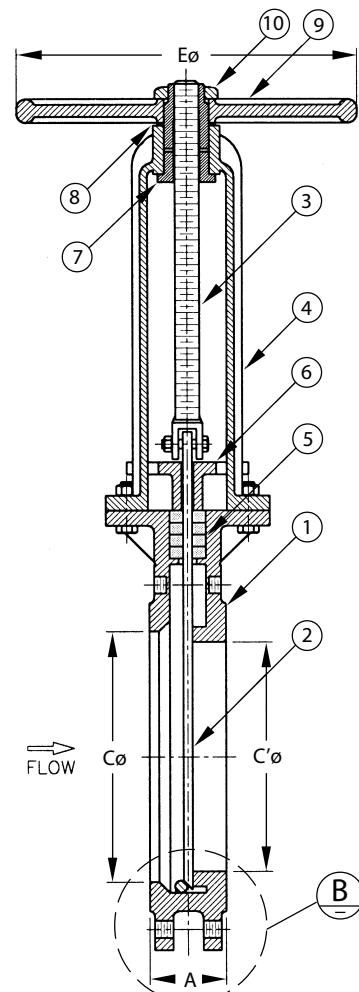


Options and flange drilling are shown in "Ordering Information" section (page 20).



Detail B
Optional Resilient Seat

Design temperature: 400° F
Design pressure: 150 PSIG CWP



Section A-A

Size	A	C	C'	D	D'	E	Weight (lbs.)
2"	1 ⁷ / ₈	2	1 ³ / ₄	11 ¹ / ₂	13 ³ / ₄	8	18
3"	2	3	2 ³ / ₄	14 ¹ / ₂	17 ³ / ₄	10	28
4"	2	4	3 ³ / ₄	16 ¹ / ₂	20 ³ / ₄	10	34
6"	2 ¹ / ₄	6	5 ¹ / ₂	20 ³ / ₄	27	12	58
8"	2 ³ / ₄	8	7 ¹ / ₂	23 ¹ / ₂	31 ³ / ₄	14	86
10"	2 ³ / ₄	10	9 ¹ / ₂	28 ¹ / ₂	38 ³ / ₄	14	132
12"	3	12	11 ¹ / ₂	31 ³ / ₄	44	16	172
14"	3	14	13 ¹ / ₂	36 ¹ / ₂	50 ³ / ₄	18	250
16"	3 ¹ / ₂	16	15 ¹ / ₄	40 ¹ / ₂	56 ³ / ₄	18	366
18"	3 ¹ / ₂	18	17 ¹ / ₄	46	64 ¹ / ₄	24	452
20"	4 ¹ / ₂	20	19 ¹ / ₄	52	72 ¹ / ₄	24	679
24"	4 ¹ / ₂	24	23	61	85 ¹ / ₄	24	837

Item No.	Qty.	Description	Material
1	1	Valve Body	316 SS
2	1	Gate	316 SS
3	1	Stem	304 SS
4	1	Yoke	304 SS
5	Set	Packing	TFE/Syn Fiber
6	1	Packing Follower	316 SS
7	1	Stem Nut	A.R. Bronze
8	1	Thrust Washer	A.R. Bronze
9	1	Handwheel	Ductile Iron
10	1	Handwheel Nut	Steel/Nylock
11	1	Grease Fitting	Brass
12	1	Seal Ring	Viton*

*Viton is standard; other materials available.

HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080

sales@hiltonvalve.com • www.hiltonvalve.com

Bonnetless Knife Gate Valves

Suitable for pulp stock, sewage, slurries and bulk material handling. Tapered inlet creates turbulence, keeping solids in suspension. Beveled gate insures non-clogging shut-off. Optional resilient seat for tight shut-off on liquid service. Available with a variety of manual and powered operators.

Options and flange drilling are shown in "Ordering Information" section (page 20).

H-200 Series **Wafer Body** (Fabricated)

Fabricated construction, available in any weldable alloy.

Valves conform to MSS SP-81 and TAPPI TIS 405-8

	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"
Face-to-Face	1 ⁷ / ₈	2	2	2 ¹ / ₄	2 ¹ / ₄	2 ³ / ₄	2 ³ / ₄	3	3	3 ¹ / ₂
Centerline to Top, closed	16	19	21	22	23	30	32	35	39	43
Centerline to Top, open	18	22	25	27	29	38	42	47	53	59
Handwheel Diameter	8	10	10	12	12	14	14	16	18	18
Weight	25	35	50	61	70	110	145	215	270	340

	18"	20"	24"	30"	36"	42"	48"	54"	60"	72"
Face-to-Face	3 ¹ / ₂	4 ¹ / ₂	4 ¹ / ₂	4 ¹ / ₂	5	5	5 ¹ / ₂	6	6	6
Centerline to Top, closed	48	52	60	72	86	103	112	126	142	166
Centerline to Top, open	66	72	84	102	122	145	160	180	202	238
Handwheel Diameter	24	24	24	•	•	•	•	•	•	•
Weight	415	495	740	1300	1750	2500	3500	4700	6000	9000



H-240/H-260 Series **Extended Flange**

H-240: Narrow face-to-face (Canadian standard) H-260: ANSI face-to-face
Fabricated construction, available in any weldable alloy.

Available with special face-to-face dimensions for replacement of existing valves.

	2"	3"	4"	6"	8"	10"	12"
Face-to-Face (H-240)	5 ¹ / ₂	6	6 ¹ / ₄	6 ³ / ₄	7	7 ³ / ₈	8
Face-to-Face (H-260)	7	8	9	10 ¹ / ₂	11 ¹ / ₂	13	14
Centerline to Top, closed	16	19	21	23	30	32	35
Centerline to Top, open	18	22	25	29	38	42	47
Handwheel Diameter	8	10	10	12	14	14	16
Weight	32	38	52	76	125	182	231

	14"	16"	18"	20"	24"	30"	36"
Face-to-Face (H-240)	8 ¹ / ₂	9	10	10 ¹ / ₂	11	14	•
Face-to-Face (H-260)	15	16	17	18	20	24	28
Centerline to Top, closed	39	43	48	52	60	72	86
Centerline to Top, open	53	59	66	72	84	102	122
Handwheel Diameter	18	18	24	24	24	•	•
Weight	318	415	550	725	940	1750	2400

HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080

sales@hiltonvalve.com • www.hiltonvalve.com

Bonneted Knife Gate Valves

Fully enclosed bonnet prevents packing gland leakage. Optional resilient seat for tight shut-off on liquid service. Available with a variety of manual and powered operators. Furnished with backseating ring so valve can be repacked under pressure.

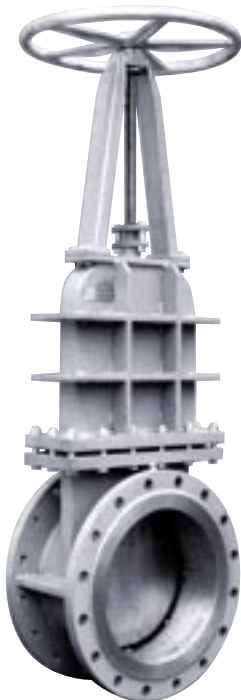
Options and flange drilling are shown in "Ordering Information" section (page 20).

H-200-B Series Wafer Body

Wafer face-to-face conforms to MSS SP-81 and TAPPI TIS 405-8.
Fabricated construction, available in any weldable alloy.

	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"
Face-to-Face	1 ⁷ / ₈	2	2	2 ¹ / ₄	2 ³ / ₄	2 ³ / ₄	3	3	3 ¹ / ₂	3 ¹ / ₂
Centerline to Top, closed	19 ¹ / ₂	22 ¹ / ₂	25 ¹ / ₂	31	36 ¹ / ₂	42	48	54	60	66
Centerline to Top, open	21 ¹ / ₂	25 ¹ / ₂	29 ¹ / ₂	37	44 ¹ / ₂	52	60	68	76	84
Handwheel Diameter	8	10	10	12	14	14	16	18	18	24
Weight	44	60	74	112	200	272	388	462	625	720

	20"	24"	30"	36"	42"	48"	54"	60"	72"
Face-to-Face	4 ¹ / ₂	4 ¹ / ₂	4 ¹ / ₂	5	5	5 ¹ / ₂	6	6	6
Centerline to Top, closed	72	82	98	114	130	146	161	176	207
Centerline to Top, open	92	106	128	150	172	194	215	236	279
Handwheel Diameter	24	24	•	•	•	•	•	•	•
Weight	865	1325	2100	2900	3800	5250	6600	8500	12000



H-240-B / H-260-B Series Extended Flange

H-240-B: Narrow face-to-face (Canadian standard) H-260-B: ANSI face-to-face
Fabricated construction, available in any weldable alloy.

Available with special face-to-face dimensions for replacement of existing valves.

	2"	3"	4"	6"	8"	10"	12"
Face-to-Face (H-240-B)	5 ¹ / ₂	6	6 ¹ / ₄	6 ³ / ₄	7	7 ³ / ₈	8
Face-to-Face (H-260-B)	7	8	9	10 ¹ / ₂	11 ¹ / ₂	13	14
Centerline to Top, closed	19 ¹ / ₂	22 ¹ / ₂	25 ¹ / ₂	31	36 ¹ / ₂	42	48
Centerline to Top, open	21 ¹ / ₂	25 ¹ / ₂	29 ¹ / ₂	37	44 ¹ / ₂	52	60
Handwheel Diameter	8	10	10	12	14	14	16
Weight	51	63	76	118	215	310	405

	14"	16"	18"	20"	24"	30"	36"
Face-to-Face (H-240-B)	8 ¹ / ₂	9	10	10 ¹ / ₂	11	14	•
Face-to-Face (H-260-B)	15	16	17	18	20	24	28
Centerline to Top, closed	54	60	66	72	82	98	114
Centerline to Top, open	68	76	84	92	106	128	150
Handwheel Diameter	18	18	24	24	24	•	•
Weight	510	700	865	1095	1525	2550	3550

HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080

sales@hiltonvalve.com • www.hiltonvalve.com

Material Handling Valves

These valves are specifically designed to be used on dry bulk materials and heavy slurries, where the valve is installed horizontally in a vertical pipe. A displacement pocket is provided which enables the valve to close through a standing column of densely packed material (column-cutting service).

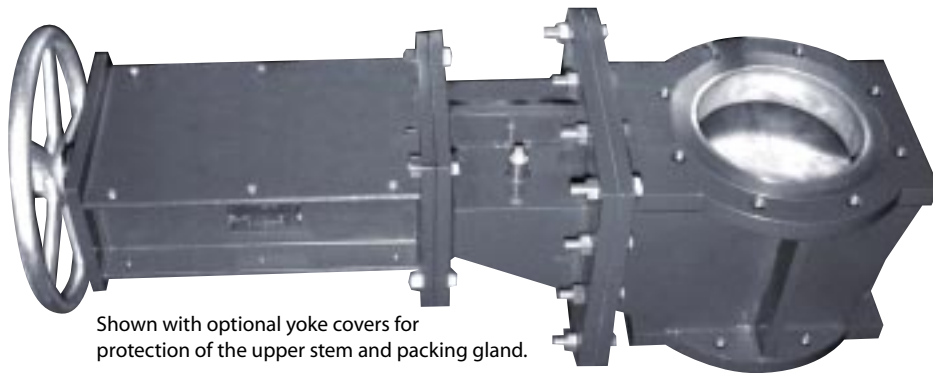
Available with round, square, or rectangular ports. Can also be supplied with a round port on one side and a square or rectangular port on the other side, eliminating the need for a transition piece.

High temperature alloys, hardfacing, and abrasion-resistant materials are available for severe service applications.

Options and flange drilling are shown in "Ordering Information" section (page 20).

H-290-B Series **Bonneted Knife Gate Valve**

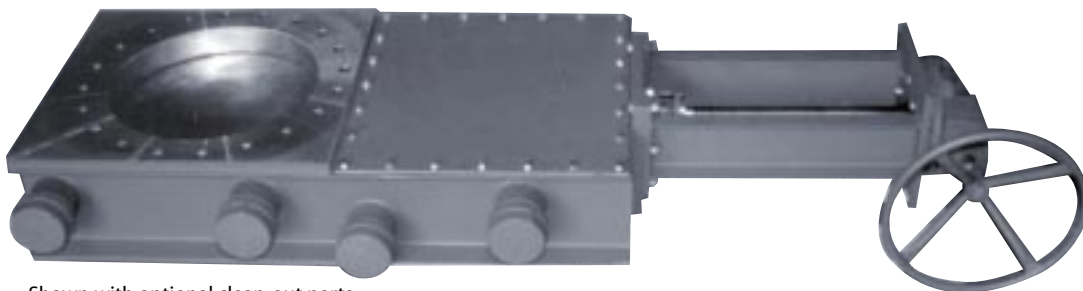
Features displacement pocket and tapered body for column-cutting service. Tapered bonnet eliminates material build-up that can occur with a standard bonneted knife gate valve. Heavy duty construction is suitable for high temperature and/or high pressure operating conditions. Extra deep packing gland with bronze scraper ring, bronze lantern ring and purge air connection prevents leakage to the atmosphere.



Shown with optional yoke covers for protection of the upper stem and packing gland.

H-500-B Series **Bonneted Slide Gate Valve**

Light weight construction for low pressure systems, with displacement pocket and tapered body for column-cutting service. A baffle is used to keep material out of the bonnet, which is provided with a bolted access cover (the cover is gasketed for a dust-tight seal).



Shown with optional clean-out ports.

HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080

sales@hiltonvalve.com • www.hiltonvalve.com

Abrasive Service Knife Gate Valve



H-400-B Series **Bonneted**

Extra heavy construction for highly abrasive slurry service (coal slurry, boiler bottom ash, etc.)

Stellite hardfacing on flow surfaces for superior abrasion resistance.

Available with replaceable seat ring.

Handwheel operator standard, other manual or powered operators available.

Options and flange drilling are shown in "Ordering Information" section (page 20).

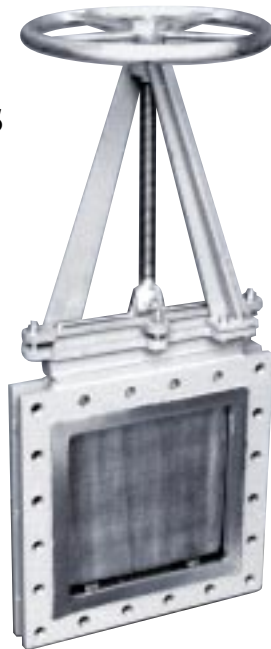
	6"	8"	10"	12"	14"
Face-to-Face	4 ¹ / ₄	4 ¹ / ₄	5	5 ⁵ / ₈	5 ⁵ / ₈
Centerline to Top, closed (H-400)	23 ¹ / ₂	30 ¹ / ₂	32 ⁵ / ₈	35 ³ / ₄	39 ³ / ₄
Centerline to Top, open (H-400)	29 ¹ / ₂	38 ¹ / ₂	42 ⁵ / ₈	47 ³ / ₄	53 ³ / ₄
Centerline to Top, closed (H-400-B)	31 ¹ / ₂	37	42 ⁵ / ₈	48 ³ / ₄	54 ³ / ₄
Centerline to Top, open (H-400-B)	31 ¹ / ₂	45	52 ⁵ / ₈	60 ³ / ₄	68 ³ / ₄
Handwheel Diameter	12	14	14	16	18

H-400-B with optional cylinder operator

Square Port Knife Gate Valves

Square port and rectangular port knife gate valves are custom manufactured for each specific application. Available with resilient seat for tight shut-off.

H-200 Series **Bonnetless**



H-200-B Series **Bonneted**



Titanium Knife Gate Valve

Titanium wetted parts combined with a carbon steel body provides an economical solution for highly corrosive service; available with Stainless Steel or other alloy body.

Solid Titanium construction for corrosive atmospheres.

Bonneted construction available.

Available with resilient seat for tight shut-off.

Can be furnished with a variety of manual and powered operators.

Options and flange drilling are shown in "Ordering Information" section (page 20).

H-200-TI



Titanium wetted parts with optional bevel gear operator.

H-200-STI



Solid Titanium construction.

Transmitter Isolation Valve



H-201-SC/TIV-ST316

Used to isolate pulp stock consistency transmitter for repair. Special drilling on inlet flange allows valve to remain in position on the stock line while the transmitter is removed.

Standard ANSI 150# drilling on valve outlet flange.

3" size is standard, other sizes are available.

316 Stainless Steel is standard; other alloys are available.

Furnished with narrow yoke and ratchet operator, allowing valve to be installed without interference; other operators are available.

Beveled gate insures non-clogging shut-off.

Optional metal seat. (H-200-SC/TIV-ST316)

Standard dimensions:

Size	3"	Centerline to Top, Closed ...	14 1/4"
Face-to-Face	2"	Centerline to Top, Open	18"

HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080

sales@hiltonvalve.com • www.hiltonvalve.com

Thru Port Knife Gate Valve

Round Port: Provides unobstructed flow; can be used to shut off granular material — when valve is closed the material in the port opening is carried with the gate.

Diamond Port: Port opening is always diamond shaped providing precise flow control over entire range of travel.

Wafer face-to-face standard, per MSS SP-81; available with narrow (H-1540) or ANSI (H-1560) face-to-face.

Available with powered actuator for automatic flow control.

Fabricated construction, available in any weldable alloy.

Available with resilient seat.

Options and flange drilling are shown in "Ordering Information" section (page 20).

	2"	3"	4"	5"	6"	8"	10"
Face-to-Face	1 ⁷ / ₈	2	2	2 ¹ / ₄	2 ¹ / ₄	2 ³ / ₄	2 ³ / ₄
Centerline to Top, closed	15 ¹ / ₂	17 ¹ / ₄	19	20 ³ / ₄	22 ³ / ₄	26	29 ¹ / ₄
Centerline to Top, open	18	20 ³ / ₄	23 ¹ / ₂	26 ¹ / ₄	29 ¹ / ₄	34 ¹ / ₂	39 ³ / ₄
Centerline to Bottom, closed	10 ¹ / ₄	12 ³ / ₄	15 ¹ / ₄	18	20 ¹ / ₄	25 ¹ / ₄	30 ¹ / ₄
Handwheel Diameter	10	10	12	12	14	14	16
Weight	45	60	90	115	130	200	275

	12"	14"	16"	18"	20"	24"
Face-to-Face	3	3	3 ¹ / ₂	3 ¹ / ₂	4 ¹ / ₂	4 ¹ / ₂
Centerline to Top, closed	33 ¹ / ₂	37 ¹ / ₂	40 ³ / ₄	44 ¹ / ₂	47 ³ / ₄	54
Centerline to Top, open	46	52	57 ¹ / ₄	63	68 ¹ / ₄	78 ¹ / ₂
Centerline to Bottom, closed	36	41 ¹ / ₂	46 ¹ / ₂	52	57	67
Handwheel Diameter	18	18	24	24	24	24
Weight	360	465	615	750	975	1320

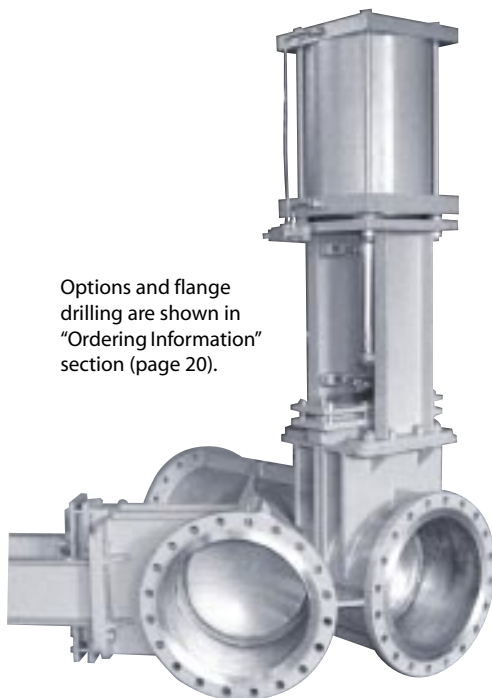
H-1500-V
Diamond port



H-1500
Round port



Diverter Valve



Options and flange drilling are shown in "Ordering Information" section (page 20).

H-2200 Series

Available in true-wye, branch-wye, tee or special configurations. Valve gates are located close to intersection to reduce dead space. Orientation of valve gates can be rotated to suit the application.

Available either bonnetless (as shown) or bonneted (H-2200-B).

Fabricated construction, available in any weldable alloy.

	3"	4"	6"	8"	10"	12"
Intersection to Face*	5 ¹ / ₂	6 ¹ / ₂	8	9	11	12
Centerline to Top, closed	19	21	23	30	32	35
Centerline to Top, open	22	25	29	38	42	47
Handwheel Diameter	10	10	12	14	14	16
Weight	107	148	195	290	375	535

	14"	16"	18"	20"	24"
Intersection to Face*	14	15	16 ¹ / ₂	18	22
Centerline to Top, closed	39	43	48	52	60
Centerline to Top, open	53	59	66	72	84
Handwheel Diameter	18	18	24	24	24
Weight	660	815	975	1140	1650

*For True-Wye configuration

HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080

sales@hiltonvalve.com • www.hiltonvalve.com

Hydro Valves

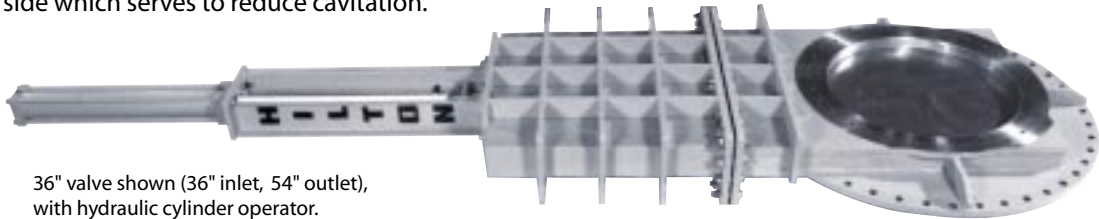
These valves are used primarily for water discharge and flow control on dams and reservoirs. Their unique design permits them to open smoothly in free discharge conditions, where there is high pressure on the upstream side and zero pressure on the downstream side. Standard knife gate valves and wedge gate valves are not suitable for this type of service - they are susceptible to damaged from cavitation and vibration.

Options and flange drilling are shown in "Ordering Information" section (page 20).

H-300-B Series Throttling Knife Gate Valve

This valve is similar to our standard bonneted knife gate valve, but it has been modified to include some of the features of a jet flow valve and is an economical alternative in low pressure applications (typically under 100 psig).

UHMW guides are located on the downstream side of the gate to provide full support throughout the entire length of travel. Downstream side of valve is larger than the upstream side which serves to reduce cavitation.



36" valve shown (36" inlet, 54" outlet), with hydraulic cylinder operator.

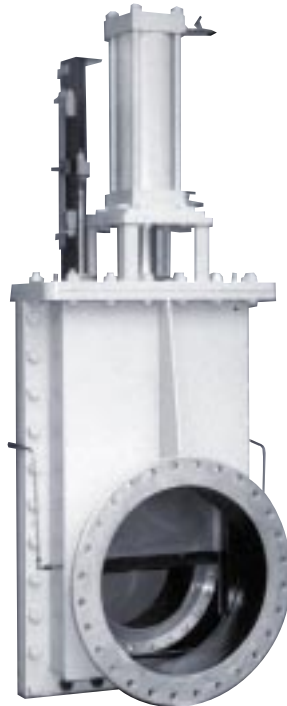
H-2500 Series Jet Flow Valve

Precision manufactured throttling valve, designed for high pressure service (up to 400 psig, or higher). Built to U.S. Bureau of Reclamation specifications, or designed for your application.

Split-body design with stainless steel gate, bronze gate guides and bronze seat ring; all components are fully machined for precise alignment. The bronze seat ring is tapered to direct the flow inward and prevent cavitation on the downstream side of the valve. Downstream side of valve is larger than the upstream side for additional protection from cavitation.



20" valve shown (24" inlet, 30" outlet), with optional hydraulic cylinder operator and hydraulic power unit. The power unit includes a hand pump which is used for precise positioning of the gate, and it can also be used to operate the valve in case of power failure.



HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080
sales@hiltonvalve.com • www.hiltonvalve.com

Miscellaneous Valves

H-1100 Series Tank Drain

Valve is installed flush with the bottom of the tank, eliminating dead space and allowing the tank to drain completely.

Furnished with grout-in mounting for use in concrete tanks, or with flanged mounting for use in fabricated tanks.

Fabricated construction, available in any weldable alloy.

90° elbow design for minimum installed height.

Optional resilient seat for tight shut-off on liquid service.

Standard flange drilling on outlet flange.

Available with a variety of manual and powered actuators.



H-20 Series Sluice Gate

Fabricated construction, available in any weldable alloy for special applications where a standard cast iron or cast steel sluice gate is not suitable.

Can be furnished with square, rectangular or round bolt patterns.

Optional resilient seat for tight shut-off.

Available with stem extensions, wall brackets, floor stands, and other hardware to meet your installation needs.

Available with a variety of manual and powered actuators.



HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080

sales@hiltonvalve.com • www.hiltonvalve.com

Wedge Gate Valves

Solid wedge design. Available with resilient seat for drip-tight shut-off. Standard pressure rating is 150 lb. CWP for valves 24" and smaller; 50 lb. CWP for valves larger than 24"; valves are available with other pressure ratings, including ANSI and API.

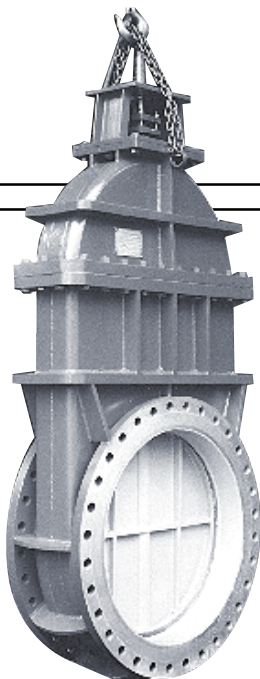
Options and flange drilling are shown in "Ordering Information" section (page 20).

H-110 Series Wedge Gate Valve

Fabricated construction, available in any weldable alloy. ANSI face-to-face is standard. Gate is fully guided for precise alignment between gate and seats. Furnished with backseating ring on stem so valve can be repacked under pressure. Available with a variety of manual and powered actuators.

	3"	4"	6"	8"	10"	12"	14"	16"	18"
Face-to-Face	8	9	10 ¹ / ₂	11 ¹ / ₂	13	14	15	16	17
Centerline to Top, closed	16 ¹ / ₂	19 ¹ / ₂	25	32 ¹ / ₂	37	43	47	51	61
Centerline to Top, open	19 ¹ / ₂	23 ¹ / ₂	31	40 ¹ / ₂	47	55	61	67	79
Handwheel Diameter	10	10	12	14	14	16	18	18	24
Weight	60	80	140	195	260	360	450	610	720

	20"	24"	30"	36"	42"	48"	54"	60"
Face-to-Face	18	20	24	28	33	36	39	42
Centerline to Top, closed	66 ¹ / ₂	75 ¹ / ₂	91	106	121	138	153	170
Centerline to Top, open	86 ¹ / ₂	99 ¹ / ₂	121	142	163	186	207	230
Handwheel Diameter	24	24	•	•	•	•	•	•
Weight	830	1300	2400	3500	4700	6200	8100	10700



H-110-N Series Narrow Face-to-Face Wedge Gate Valve

Narrow face-to-face design for replacement of existing valves; other dimensions and construction features are the same as standard wedge gate valve shown above.

Valves for marine applications can be furnished with Monel wetted parts or with Monel trim and epoxy coated interior.

HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080

sales@hiltonvalve.com • www.hiltonvalve.com

Check Valves

Fabricated construction, available in any weldable alloy. Optional resilient seat for tight shut-off. Larger sizes available — consult factory. Valves are clearly marked to show direction of flow.

Options and flange drilling are shown in "Ordering Information" section (page 20).

H-700 Series Vertical Check Valve

Designed for vertical flow (not suitable for down-flow applications). Disk shaft is fully guided to insure proper alignment between disk and seat. Disk and seat are accurately machined for precise seating. Tapered body design provides full flow area. Two-piece body to facilitate maintenance.



	3"	4"	6"	8"	10"	12"	14"
Face-to-Face	9½	11½	14	19½	24½	27½	31
Weight	38	55	82	131	174	242	305

	16"	18"	20"	24"	30"	36"
Face-to-Face	36	36	40	48	60	60
Weight	390	470	580	710	970	1400



H-750 Series Vertical Vent Valve

Used to exhaust air from a pipeline while it is being filled, and to prevent a vacuum from forming when the line is drained. Ball shaft is fully guided to insure proper alignment between ball and seat. Seat is accurately machined for precise seating. Two-piece body to facilitate maintenance.

	3"	4"	6"	8"	10"	12"
Face-to-Face	9½	11½	14	19½	24½	27½
Weight	38	55	82	131	170	294

H-900 Series Angle Disk Check Valve

Designed for horizontal or vertical flow (not suitable for down-flow applications). Large flow area. Angled seat reduces disk travel from full closed to full open. Shaft pivot is located slightly above centerline; pressure on disk area above pivot partially balances pressure on area below pivot to reduce slamming. Available with external counterweight and dampener.

	3"	4"	6"	8"	10"	12"
Face-to-Face	9½	11½	14	19½	24½	27½
Weight	44	65	98	150	218	294

	14"	16"	18"	20"	24"
Face-to-Face	31	36	36	40	48
Weight	363	460	550	690	950



HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080

sales@hiltonvalve.com • www.hiltonvalve.com

Check Valves

Options and flange drilling are shown in "Ordering Information" section (page 20).

H-920 Series Wafer Swing Check Valve

Designed for horizontal flow.
 Narrow face-to-face saves room in piping systems.
 Available with wafer-style body (as shown) or with full flange with threaded bolt holes.
 Disk stop prevents interference between disk and downstream piping.
 Available with external spring, counterweight or dampener.



H-940 Series Tilting Disk Check Valve

Similar to H-920 Wafer Swing Check, except shaft is closer to valve centerline; this balances the disk so that the valve will open at a low pressure differential.
 Available with O-ring shaft seals to reduce friction.
 Available with wafer-style body (as shown) or with full flange with threaded bolt holes.
 Available with external counterweight or spring.

H-950 Series Swing Check Valve

Designed for horizontal or vertical flow (not suitable for down-flow applications).
 When fully open the valve disk is out of the flow area.
 Bolted cover—disk can be removed while valve is in the line.
 Available with dampener to reduce slamming.
 Available with external counterweight or spring.

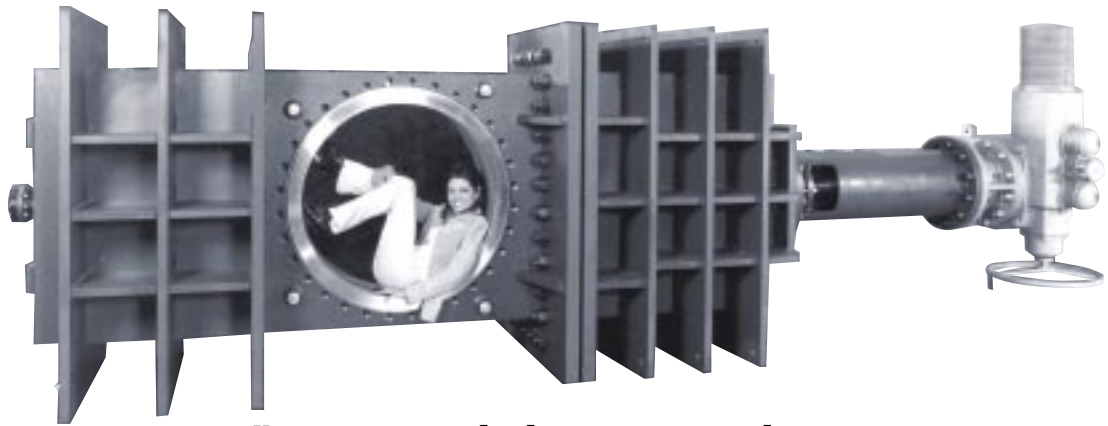
	3"	4"	6"	8"	10"	12"
Face-to-Face	9½	11½	14	19½	24½	27½
Weight	45	72	110	176	262	368

	14"	16"	18"	20"	24"
Face-to-Face	31	36	36	40	48
Weight	465	650	800	1020	1350



HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080
 sales@hiltonvalve.com • www.hiltonvalve.com

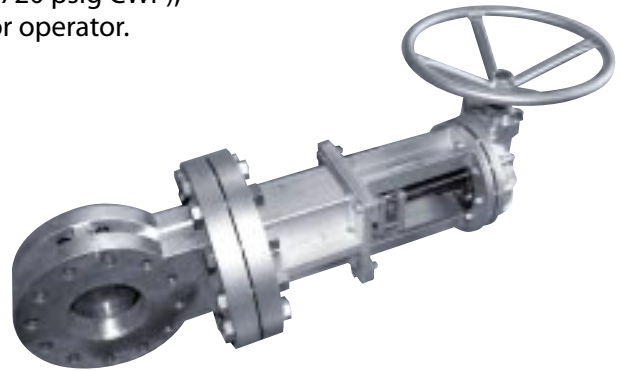


40" Bonneted Thru Port Valve

ANSI 300# rating (720 psig CWP),
with electric motor operator.

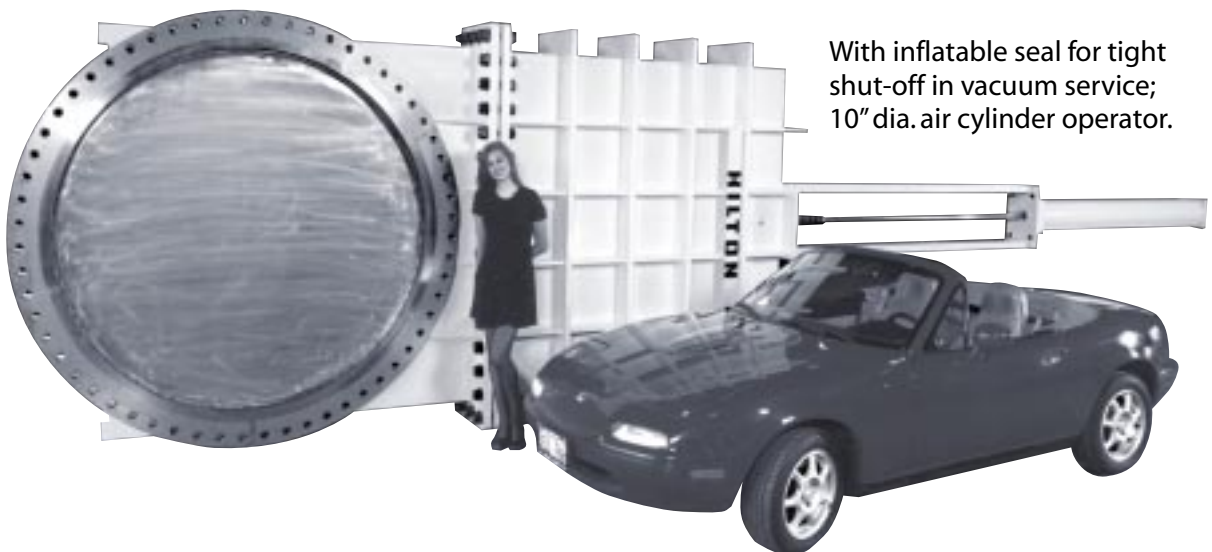
6" Bonneted Knife Gate Valve

ANSI 600# rating (1,440 psig CWP),
solid 316 Stainless Steel construction



78" Bonneted Knife Gate Valve

With inflatable seal for tight shut-off in vacuum service;
10" dia. air cylinder operator.



HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080

sales@hiltonvalve.com • www.hiltonvalve.com

SHOWCASE

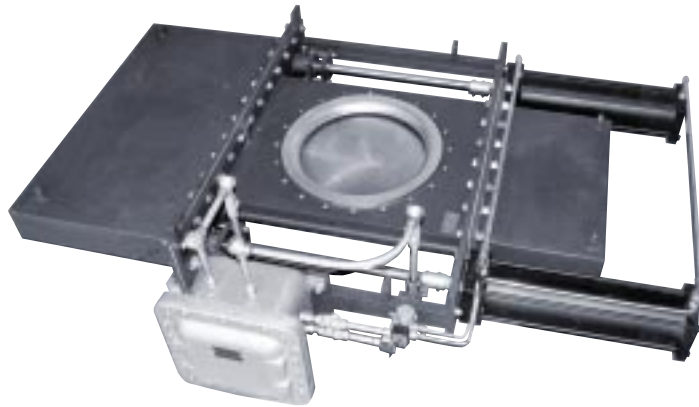


24" Bonneted Knife Gate Valve

Inconel 625 wetted parts, 800 psig design pressure, with hydraulic cylinder operator.

16" Bonnetless Knife Gate Valve

With dual side-mounted cylinder operators and manual override.



20" Bonneted Thru Port Valve

With dual side-mounted cylinder operators to reduce overall length.



HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080
sales@hiltonvalve.com • www.hiltonvalve.com

Operators

Handwheel operators are furnished as standard, except as noted. A wide variety of manual and powered operators are available, as shown on these pages.

Handwheel



Bevel Gear



Lever



Chainwheel



2" Square Nut



Ratchet

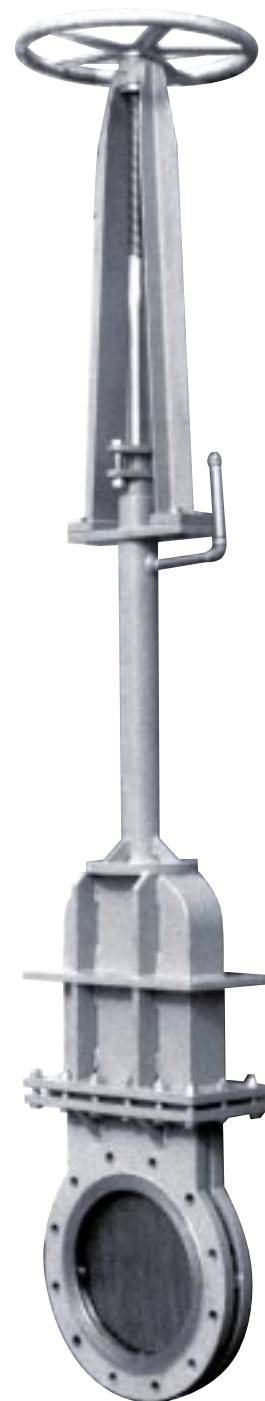


Extended

Extended operators are available in many configurations.

Operators can be self-contained with a fully enclosed stem extension, as shown. This arrangement is used when the valve will be buried, or in other applications where the stem extension needs to be protected. For longer lengths support bushings are provided in the extension pipe; for very long lengths the extension can be furnished in sections.

The operator can also be mounted on a separate floor stand that is supported independently of the valve. With this arrangement the stem is exposed and, depending on the extension length, may require wall-mounted support brackets.



12" Fig. H-200-B
Bonneted Knife Gate Valve
with enclosed stem
extension for buried service

HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080

sales@hiltonvalve.com • www.hiltonvalve.com



Vee-port knife gate valve with spring return cylinder and positioner for throttling service

Cylinder Operators

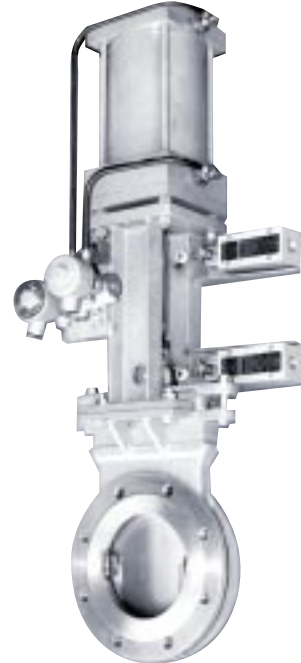
Available for operation on compressed air, hydraulic oil, water or inert gases.

To insure proper sizing of the cylinder operator please specify the following:

- Valve service conditions and media
- Maximum pressure differential across the valve
- Cylinder supply pressure

Options:

- Cylinder cushions
- Special seals for high temperature service
- Solenoid valve
- Speed controls
- Control system
- Limit switches
- Positioner for throttling service
- Position transmitter
- Hydraulic power unit
- Fail safe system (spring cylinder or air capacity tank)



Cylinder operated knife gate valve with solenoid valve and limit switches



Auxiliary Handwheel

Cylinder operated valves are available with an auxiliary handwheel for manual operation in case of power failure; can be furnished with interlock air valve to prevent operation of the cylinder while the handwheel is engaged.



Motor Operator

Available with electric, hydraulic or pneumatic motor.

To insure proper sizing of the motor operator please specify the following:

- Valve service conditions and media
- Maximum pressure differential across the valve
- Power supply (specify electrical voltage or pneumatic/hydraulic pressure)
- Gate travel speed (12 inches/minute is standard)

Options:

- Motor starter (integral or remote)
- Pushbutton station (integral or remote)
- Extra limit switch contacts
- Position control system for throttling service

HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080

sales@hiltonvalve.com • www.hiltonvalve.com

Ordering Information

SEATING OPTIONS

- **Metal Seated**

For heavy slurries, dry materials, or liquid service where tight shut-off is not required. For knife gate valves allowable leakage (per MSS SP-81) is 40 cc per minute per inch of diameter, at 40 psig pressure differential.

- **Resilient Seated**

For tight shut-off on liquid service. Viton is standard; Buna N, Neoprene, Polyurethane, Teflon or other elastomers are available. If the service pressure is under 10 psig special gate wedging may be required.

Standard Seating Options

Wafer knife gate valve shown as typical; available on most Hilton valves.



**METAL SEATED
(H-200)**

For slurry service (pulp stock, sewage, etc.) or dry bulk material; will not provide tight shut-off on liquid service.



**RESILIENT SEATED
(H-201)**

Drip tight shut-off on all liquids; will hold some back pressure (knife gate valves).

REVERSE FLOW: Knife gate valves that are in reverse flow applications should be so specified; in some applications special gate wedging may be required, or a bonneted valve may be recommended.

- **Removable Seat Ring**

Can be easily replaced, and the seating surface can be hardened and ground for improved shut off in abrasive service.

- **Inflatable Seal**

Used primarily on large diameter valves in either low pressure or vacuum service when bubble-tight shut off is required.

- **Grease Seal**

External fittings are used to inject grease into the valve seat to provide bubble-tight shut off in applications where the temperature is too high for standard elastomers.

MATERIALS OF CONSTRUCTION

Typical construction is either Stainless Steel wetted parts (304 or 316) with A-36 carbon steel flanges, or Solid Stainless Steel. Other stainless alloys are available, including 317 and 310. Valves are available in any weldable alloy, including Hastelloy, Inconel, Monel and Titanium.

HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080

sales@hiltonvalve.com • www.hiltonvalve.com

ABRASIVE SERVICE

Either hardfacing or abrasion-resistant materials can be used — Stellite and Tungsten Carbide are typical options for hardfacing; abrasion-resistant materials include 17-4 PH SS and 410 SS, which are stainless steel alloys that can be hardened.

PRESSURE RATING

- **Standard Pressure Ratings:**

150 psig for valves 24" and smaller
50 psig for valves larger than 24"

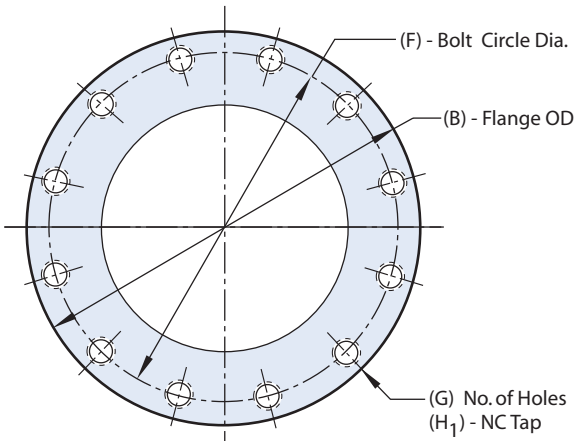
- **Alternate Pressure Ratings:**

Valves can be supplied with higher pressure ratings, either ANSI or CWP (Cold Working Pressure). Most valves can be furnished with ratings up to ANSI 600# (1,440 psig CWP), and in some cases higher pressure ratings are available.

FLANGE DRILLING

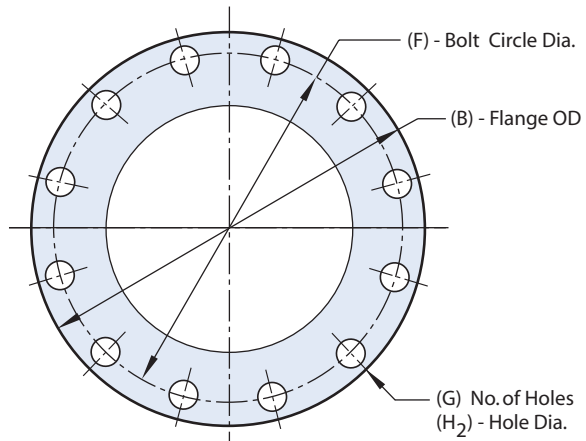
Standard flange drilling matches ANSI 125/150# standards. Other ANSI drilling is available, as well as API, AWWA, metric, and specials.

Standard Flange Drilling (ANSI 125/150#)



THREADED BOLT HOLES

Wafer knife gate valves and some narrow face-to-face wedge gate valves.



THRU BOLTING

Standard wedge gate valves and check valves, and extended face-to-face knife gate valves.

	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	54"	60"	72"
B	6	7 1/2	9	10	11	13 1/2	16	19	21	23 1/2	25	27 1/2	32	38 3/4	46	53	59 1/2	66 1/4	73	86 1/2
F	4 3/4	6	7 1/2	8 1/2	9 1/2	11 3/4	14 1/4	17	18 3/4	21 1/4	22 3/4	25	29 1/2	36	42 3/4	49 1/2	56	62 3/4	69 1/4	82 1/2
G	4	4	8	8	8	8	12	12	12	16	16	20	20	28	32	36	44	44	52	60
H1	5/8-11	3/8-11	5/8-11	3/4-10	3/4-10	3/4-10	7/8-9	7/8-9	1-8	1-8	1 1/8-7	1 1/8-7	1 1/4-7	1 1/4-7	1 1/2-6	1 1/2-6	1 1/2-6	1 3/4-5	1 3/4-5	1 3/4-5
H2	3/4	3/4	3/4	7/8	7/8	7/8	1	1	1 1/8	1 1/8	1 1/4	1 1/4	1 3/8	1 3/8	1 5/8	1 5/8	1 5/8	1 5/8	1 7/8	1 7/8

POWER OPERATORS

A variety of cylinder operators (pneumatic or hydraulic) and motor operators (electric, pneumatic or hydraulic) are available, and special operators can be provided if required.

When requesting a power operator please provide complete information regarding the service conditions, and the power and control requirements.

Additional information on power operators can be found on page 19, and on the RFQ form on page 23.

CYLINDER SIZING CHART

For larger valves or special operating conditions, please contact the factory.

VALVE SIZE	AIR PRESS.	LINE PRESSURE DIFFERENTIAL (ΔP)					
		25 psig	50 psig	75 psig	100 psig	125 psig	150 psig
2"	80 psig	3 1/4"	3 1/4"	3 1/4"	3 1/4"	3 1/4"	3 1/4"
	60 psig	3 1/4"	3 1/4"	3 1/4"	3 1/4"	3 1/4"	3 1/4"
3"	80 psig	3 1/4"	3 1/4"	3 1/4"	3 1/4"	4"	4"
	60 psig	3 1/4"	3 1/4"	3 1/4"	4"	4"	4"
4"	80 psig	3 1/4"	3 1/4"	4"	4"	4"	5"
	60 psig	4"	4"	4"	5"	5"	5"
6"	80 psig	4"	4"	5"	5"	6"	6"
	60 psig	5"	6"	6"	6"	7"	7"
8"	80 psig	5"	6"	6"	7"	7"	8"
	60 psig	6"	6"	7"	8"	8"	8"
10"	80 psig	6"	6"	7"	8"	8"	10"
	60 psig	6"	7"	8"	8"	10"	10"
12"	80 psig	6"	7"	8"	10"	10"	12"
	60 psig	7"	8"	10"	10"	12"	12"
14"	80 psig	7"	8"	10"	10"	12"	12"
	60 psig	8"	10"	10"	12"	12"	14"
16"	80 psig	8"	10"	10"	12"	12"	14"
	60 psig	10"	10"	12"	14"	14"	16"
18"	80 psig	8"	10"	12"	12"	14"	16"
	60 psig	10"	12"	14"	14"	16"	18"
20"	80 psig	10"	12"	12"	14"	16"	16"
	60 psig	10"	12"	14"	16"	18"	20"
24"	80 psig	10"	12"	14"	16"	18"	20"
	60 psig	12"	14"	16"	18"	20"	22"

HILTON VALVE, INC.

425-883-7000 • Fax 425-883-8080

sales@hiltonvalve.com • www.hiltonvalve.com



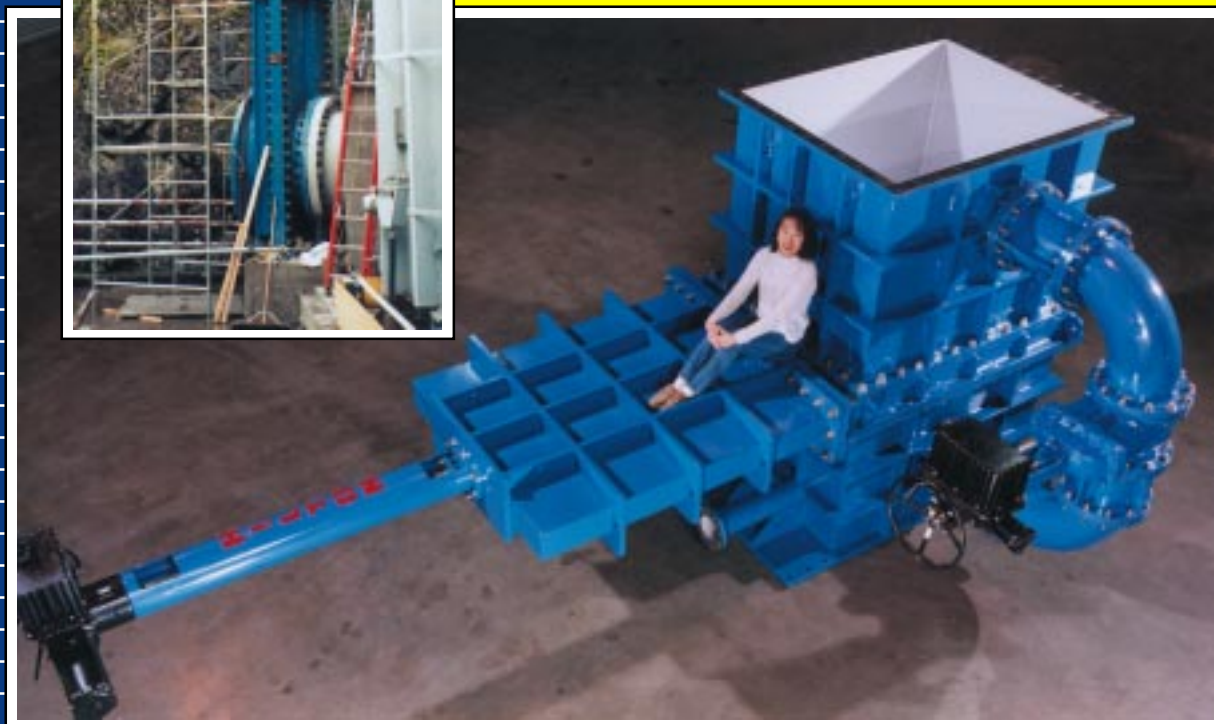
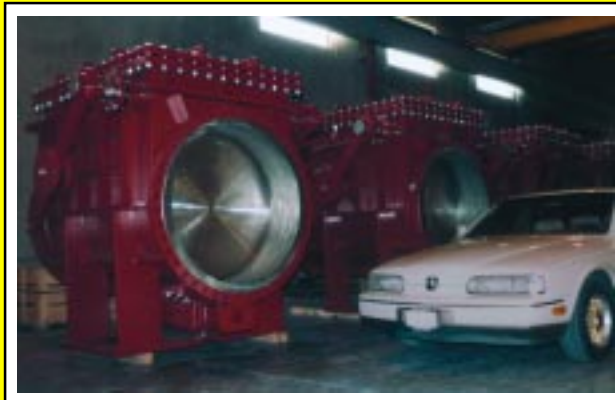
Request for Quotation

FROM:	DATE:
	RFQ NO:
	QUOTE DUE DATE:
CONTACT:	DELIVERY:
PROJECT:	PHONE:
	FAX:

TYPE OF VALVE: <input type="checkbox"/> Bonnetless Knife Gate Valve <input type="checkbox"/> Bonneted Knife Gate Valve <input type="checkbox"/> Slide Gate Valve <input type="checkbox"/> Check Valve (Type: _____) <input type="checkbox"/> Wedge Gate Valve <input type="checkbox"/> Other:	
QUAN & SIZE:	
DESIGN PRESS:	DESIGN TEMP:
OPERATING PRESS:	OPERATING TEMP:
FLANGE BOLTING:	
SERVICE:	

MATERIALS OF CONSTRUCTION	POWER OPERATOR
Wetted Parts:	<input type="checkbox"/> Air Cylinder (Supply Press: _____)
Gate:	<input type="checkbox"/> Hyd. Cylinder (Supply Press: _____)
Stem:	<input type="checkbox"/> Solenoid Valve (voltage: _____)
Flanges:	<input type="checkbox"/> Single Coil <input type="checkbox"/> Dual Coil
Yoke:	NEMA Class: _____
Seat:	<input type="checkbox"/> Limit Switches <input type="checkbox"/> Open <input type="checkbox"/> Closed
Gaskets:	<input type="checkbox"/> SPDT <input type="checkbox"/> DPDT
Packing:	NEMA Class: _____
Hardfacing:	<input type="checkbox"/> Positioner (Specify Input Signal)
Painting:	<input type="checkbox"/> 4-20 ma <input type="checkbox"/> 3-15 psi
Other:	<input type="checkbox"/> Other: _____
	<input type="checkbox"/> Motor Operator (Voltage: _____)
	NEMA Class: _____
	<input type="checkbox"/> Stater <input type="checkbox"/> Controls
	<input type="checkbox"/> Special:

MANUAL OPERATOR	
<input type="checkbox"/> Handwheel	<input type="checkbox"/> Lever <input type="checkbox"/> Ratchet
<input type="checkbox"/> Bevel Gear	<input type="checkbox"/> Chainwheel
<input type="checkbox"/> Other:	



HILTON
VALVE, INCORPORATED

14520 N.E. 91st Court • Redmond, WA 98052
425-883-7000 • Fax 425-883-8080