

# **Wey Knife Gate Valve Model DB**

## Double Block and Bleed Valve



### Wey Knife Gate Valve Model DB

The unique Wey Knife Gate Valve Model DB serves as both a Double Block & Bleed valve and a Line Blind. This unique design has two gates operated by one actuator. The gates seal against a combination metal and resilient seat for bi-directional bubble-tight shut-off. The chest and seating areas of the valve are self cleaning. The top "transverse" seal is re-packable while in service under full pressure.\* The valve is tested and rated for zero leakage (liquid or gas) downstream and to atmosphere.



#### Characteristics

- Solid 316 SS cast lugged body
- 316 SS hard chrome finished gate
- Aflas® seals standard
- 3"-30" size
- 150 psi CWP design
- 3"-12" 150 psi shut-off
- 14"-30" 90 psi shut-off
- Other body, gate, scraper and seal materials available
- All styles of actuators available

The Model DB reduces the number of valves required for a traditional double block and bleed application. Reducing the number of valves required eliminates additional leak paths due to multiple flange connections and costs associated with extra valves and piping requirements. The illustration below compares a typical double block and bleed installation with one utilizing a Model DB.

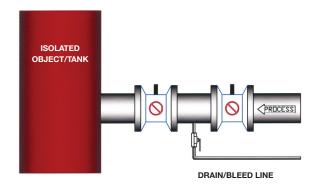
ISO 9001: 2008/PED Annex III (Mod H)

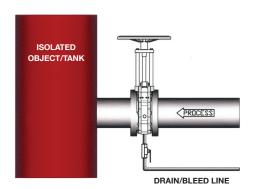


See live demonstration

## **Typical DB Installation**

## **Wey Model DB Installation**





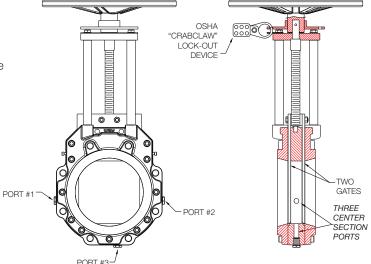
### **Three Methods of Protection**

Vent center section to atmosphere.

Connect center section to flush or purge.

Pressurize center section to pressure higher than either side of the valve.

Note: Leak detector ("sniffer") can be used with any of the protection options.



## **Typical Applications**

#### **Fuel Terminal Storage Tanks**

The Model DB is used to isolate product from the main trunk lines. The valve allows the operator to check for leakage all in a single valve with a relatively narrow face-to-face. The double block & bleed feature ensures no cross contamination of fuels. A small amount of contamination can ruin a tank of fuel, resulting in the loss of hundreds of thousands of dollars for a single tank.

#### **Reclaim Water Chest Isolation**

The Model DB is used to isolate the main mill water to the paper machine. The Model DB was selected to avoid cutting pipe and welding in additional flanges for multiple valves. They also avoided the need to shut down the system and disassemble piping to insert a line blind.

#### **Lime Kiln Filter Isolation**

The Model DB was selected for this application for safety reasons. It was critical to have positive isolation during the process of acid cleaning the pressure filter. Time and money were saved by eliminating the need for using line blinds, reducing the isolation time for the cleaning process.

#### **Confined Space Entry**

OSHA requirements dictate the use of a double block and bleed set-up in these applications for safety reasons. The Model DB meets this requirement with a small package that allows the valve to be installed in cramped piping systems, eliminating the need for additional valves, flanges and spool pieces.



## **Sizes and Dimensions**

For optional Cylinder sizes and dimensions, consult the factory.

K = Purge port size (NPT)

N = Cylinder diameter not actual outside dimension

Note: Standard Cylinders are shown (other sizes are available)

O = Depth of Blind Tapped Holes in Chest Area of Valve

P = Number of Blind Tapped Holes in Chest Area of Valve

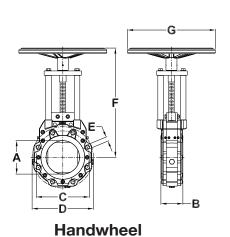
Note:

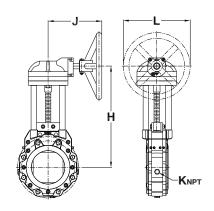
Bevel Gears (3:1) are recommended for 6"-10" Valves

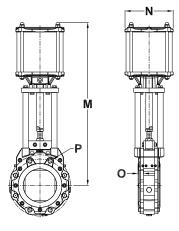
Bevel Gears (4:1) are recommended for 12"-20" Valves

Bevel Gears (6:1) are recommended for 24" and larger Valves

Consult factory for special applications.







**Bevel Gear** 

**Pneumatic Cylinder** 

Valve	А	В	С	D	Е	F	G	Н	J	Knpt	L	М	N	0	Р
3"	3.15	3.23	6.00	7.50	5/8"	12.44	7.87	-	-	3/8"	-	18.42	6"	-	-
4"	3.94	3.42	7.50	9.00	5/8"	15.47	11.81	-	_	3/8"	_	22.44	8"	0.86	4
6"	5.90	3.93	9.50	11.00	3/4"	19.57	15.75	18.15	11.50	1/2"	12	28.93	10"	0.94	4
8"	7.87	4.45	11.75	13.50	3/4"	22.72	15.75	21.29	11.50	1/2"	12	34.05	10"	1.12	4
10"	9.84	4.72	14.25	16.00	7/8"	26.65	15.75	24.84	11.50	1/2"	16	41.06	12"	0.75	8
12"	11.81	5.03	17.00	19.00	7/8"	29.80	19.69	28.93	14.75	1/2"	16	46.37	12"	0.83	8
14"	13.78	5.31	18.75	21.00	1"	-	-	33.42	14.75	1/2"	18	52.99	14"	0.78	8
16"	15.75	5.82	21.25	23.50	1"	-	-	35.74	14.75	1/2"	18	58.18	16"	0.94	8
18"	17.72	6.18	22.75	25.00	1-1/8"	-	-	40.75	14.75	1/2"	18	63.81	18"	0.98	12
20"	19.65	7.24	25.00	27.50	1-1/8"	_	_	44.66	16.75	1/2"	24	74.25	20"	1.37	12
24"	23.62	7.55	29.50	32.00	1-1/4"	-	-	53.75	23.50	1/2"	24	86.25	24"	1.22	12
30"	29.52	8.79	36.00	38.70	1-1/4"	-	-	63.77	23.50	1/2"	24	97.50	26"	0.98	20

Your contact