



# VALVES

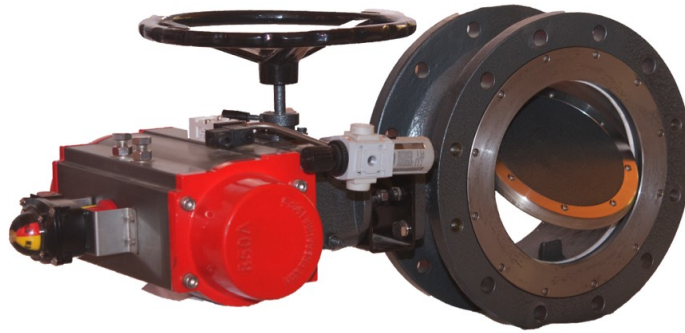
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**FLAT / RM A09 3F CHEUNG KONG FACTORY BUILDING  
5 CHEUNG SHUN STREET, CHEUNG SHA WAN  
HONG KONG TEL: (852) 5689-7629**

## Butterfly Valves



Butterfly valves are quarter-turn rotary motion valves used as throttling valves to control flow through a system. They can be used with many different media. Butterfly valves offer several advantages including quarter-turn, openness for less plugging, and good control capabilities. They may be used in a wide variety of chemical services, are available with small dimensions allowing for use in areas where space is limited, and allow a high coefficient of flow. Disadvantages include difficulty cleaning internal parts; therefore they should be avoided in situations that call for sterile, medical or food processing applications. Additionally, some styles may have difficulty dispensing slurries.

### Wafer Butterfly Valve



Standard: EN 593/ API 609/  
MSS SP-67 Size:  
DN40~DN1200 Working  
Temperature: -20° C to 150°  
C Working Pressure: ≤25bar

Body: CI / DI / WCB / SS / Bronze  
Disc: DI / SS / Bronze  
Seat: EPDM / NBR / FPM / PTFE

### Lug Butterfly Valve



Standard: EN 593/ API  
609/ MSS SP-67 Size:  
DN40~DN700 Working  
Temperature: -20° C to  
150° C Working  
Pressure: ≤25bar

Body: CI / DI / WCB / SS / Bronze  
Disc: DI / SS / Bronze  
Seat: EPDM / NBR / FPM / PTFE

### U-Type Butterfly Valve



Standard: EN 593/ API 609/  
MSS SP-67 Size:  
DN150~DN1200 Working  
Temperature: -20° C to 150°  
C Working Pressure: ≤16bar

Body: DI / WCB  
Disc: DI / SS / Bronze  
Seat: EPDM / NBR / FPM / PTFE

### AWWA C504 Double Flanged Butterfly Valve



Standard: AWWA C504 Size:  
DN80~DN1500 Working  
Temperature: -20° C to 120° C  
Working Pressure: ≤300psi

Body: Ductile\_Iron  
Disc: DI / SS  
Seat: EPDM / NBR

### Doubled Flanged Butterfly Valve



Standard: EN593 Size:  
DN50~DN3000 Working  
Temperature: -20° C to 150° C  
Working Pressure: ≤16bar

Body: DI  
Disc: DI / SS / Bronze  
Seat: EPDM / NBR / FPM

### Double Eccentric Butterfly Valve



Standard: EN593 Size:  
DN100~DN2000 Working  
Temperature: -10° C to 120° C  
Working Pressure: ≤25bar

Body: DI  
Disc: DI / SS  
Seat: SS 304 Rubber Seals: EPDM / NBR

### Triple Eccentric Butterfly Valve



Standard: EN 593 Size:  
DN50~DN2800 Working  
Temperature: -196° C to 550°  
C Working Pressure: ≤63bar

Body: WCB / CF8M / WC6 / LCB  
Disc: WCB / CF8M / WC6 / LCB  
Disc Seal: SS304+Graphite

### Cast Iron Ball Valve



Standard: MSS SP-72 Size:  
DN50~DN200 Working  
Temperature: -20° C to 120°  
C Working Pressure: ≤16bar

Body: CI  
Ball: SS 304  
Seat: PTFE





## High Performance Butterfly Valves



High Performance Butterfly Valves (BHP) are designed for critical applications in chemical, hydrocarbon processing, pulp & paper, water/wastewater and HVAC industries. They provide exceptionally long and trouble-free service life, reducing total cost of ownership.

### **HIGH PERFORMANCE BUTTERFLY VALVES (BHP) SPECIFICATIONS**

#### **SIZE RANGE:**

2-60" (50-1500mm)

#### **TEMPERATURE RANGE:**

to 700°F (370°C). On application, -320°F (-196°C) to 1000°F (540°C)

#### **ANSI CLASS RATING:**

150, 300

#### **PRESSURE RATING:**

150 to 275 psi (1890 kPa)

300 to 740 psi (5100 kPa)

#### **SPECIAL APPLICATION:**

Tail Gas High Performance Butterfly Valve to meet the rigorous requirements of services where polymerization or solidification of media can prevent valve operation, including:

- Tail Gas in refinery sulfur recovery units
- Polymer processing
- Asphalt service
- Adhesive manufacturing

#### **ANSI B16.104 SHUTOFF CLASS:**

PTFE Seat Class VI (Bubble Tight)

Metal Seat Class IV or optional Class V.

#### **BODY MATERIAL:**

Carbon Steel, 316 or 317 stainless Steel

## Gate Valves



Gate valves are advantageous in applications involving slurries, as their “gates” can cut right through the slurry. They are also used in applications that involve viscous liquids such as heavy oils, light grease, varnish, molasses, honey, cream and other non-flammable viscous liquids. They are available in large sizes to better handle thick flow. They are excellent for use anywhere a shutoff valve is needed. When needed, they can also be used where throttling capabilities are desired, although this is not generally recommended as erosion of the seat and disc occurs due to the vibrations of the disk in throttling applications.

Gate valves are designed to minimize pressure drop across the valve in the fully opened position and stop the flow of fluid completely. The direction of fluid flow does not change, and the diameter through which the process fluid passes is essentially equal to that of the pipe. Hence, they tend to have minimal pressure drop when opened fully.

Gate valves are used in many industrial applications including the oil and gas industry, pharmaceuticals, manufacturing, automotive, and marine.

Non-rising stem gate valves are very popular on ships, in underground applications, or where vertical space is limited because they don't take up extra space. Gate valves can be used in demanding environments such as high temperature and high pressure environments. They are often seen in power plants, water treatments, mining, and offshore applications.

### BS/MSS OS & Y Metal Seated Gate Valve



Standard: EN 1171 (BS 5150)  
MSS SP-70  
Size: DN50~DN600  
Working Temperature: -10°C to 120°C  
Working Pressure: ≤16bar

Body: Cast Iron  
Disc: Cast Iron  
Seat: Bronze

### BS/MSS OS & Y Metal Seated Gate Valve



Standard: EN 1171 (BS 5150)  
MSS SP-70  
Size: DN50~DN300  
Working Temperature: -10°C to 120°C  
Working Pressure: ≤25bar

Body: Cast Iron  
Disc: Cast Iron  
Seat: Bronze

### BS/MSS NRS Metal Seated Gate Valve



Standard: EN 1171 (BS 5150)  
MSS SP-70  
Size: DN50~DN600  
Working Temperature: -10°C to 120°C  
Working Pressure: ≤16bar

Body: Cast Iron  
Disc: Cast Iron  
Seat: Bronze

### BS 3464 NRS Metal Seated Gate Valve



Standard: BS 3464  
Size: DN40~DN300  
Working Temperature: -10°C to 120°C  
Working Pressure: 10bar

Body: Cast Iron  
Disc: Cast Iron  
Seat: Bronze

### DIN F4 OS & Y Metal Seated Gate Valve



Standard: EN 1171 (BS 5150)  
MSS SP-70  
Size: DN50~DN600  
Working Temperature: -10°C to 120°C  
Working Pressure: ≤16bar

Body: Cast Iron  
Disc: Cast Iron  
Seat: Bronze

### DIN F4 NRS Metal Seated Gate Valve



Standard: EN 1171 (BS 5150)  
MSS SP-70  
Size: DN50~DN600  
Working Temperature: -10°C to 120°C  
Working Pressure: ≤16bar

Body: Cast Iron  
Disc: Cast Iron  
Seat: Bronze

### DIN F4 NRS Metal Seated Gate Valve



Standard: EN 1171 (BS 5150) MSS  
SP-70  
Size: DN50~DN600  
Working Temperature: -10°C to 120°C  
Working Pressure: 10bar

Body: Cast Iron  
Disc: Cast Iron  
Seat: Bronze

### DIN F5 NRS Metal Seated Gate Valve



Standard: EN 1171 (BS 5150) MSS SP-70  
Size: DN50~DN600  
Working Temperature: -10°C to 120°C  
Working Pressure: ≤16bar

Body: Cast Iron  
Disc: Cast Iron  
Seat: Bronze

**BS NRS Metal Seated Gate Valve (Heavy Pattern, Vertical)**



Standard: BS 5163 / BS 5150  
 Size: DN300~DN1400  
 Working Temperature: -10°C to 120°C  
 Working Pressure: 16bar

Body: Iron  
 Disc: Iron  
 Seat: SS316 / Bronze

**BS NRS Metal Seated Gate Valve (Heavy Pattern, Horizontal)**



Standard: BS 5163 / BS 5150  
 Size: DN300~DN1400

Working Temperature: -10°C to 120°C  
 Working Pressure: 16bar

Body: Ductile Iron  
 Disc: Ductile Iron  
 Seat: SS316 / Bronze

**AWWA C509 NRS Resilent Seat Gate Valve**



Standard: AWWA C509  
 Size: DN50~DN300  
 Working Temperature: -4°F to 230°F  
 Working Pressure: 200psi

Body: Ductile Iron  
 Disc: EPDM Coated DI

**BS OS&Y Resilent Seat Gate Valve**



Standard: BS 5163  
 Size: DN50~DN400  
 Working Temperature: -20°C to 120°C  
 Working Pressure: 16bar

Body: Ductile Iron  
 Disc: EPDM Coated DI

### BS NRS Resilient Seat Gate Valve



Standard: BS 5163  
Size: DN50~DN600  
Working Temperature: -20°C to 120°C  
Working Pressure: 16bar

Body: Ductile Iron  
Disc: EPDM Coated DI

### BS NRS Resilient Seat Gate Valve



Standard: BS 5163  
Size: DN50~DN600  
Working Temperature: -20°C to 120°C  
Working Pressure: 16bar

Body: Ductile Iron  
Disc: EPDM Coated DI

### DIN F4 NRS Resilient Seat Gate Valve



Standard: DIN 3352 F4  
Size: DN50~DN600  
Working Temperature: -10°C to 120°C  
Working Pressure: 16bar  
Body: Ductile Iron  
Disc: EPDM Coated DI

## Valves UL/FM

### Resilient Seated NRS Type-Flanged Ends



Standard: AWWA  
C515/BS5163  
Size: DN50~DN300  
Working Pressure:  
200/250/300psi  
Body: Ductile Iron

### Resilient Seated OS&Y Type-Flanged Ends



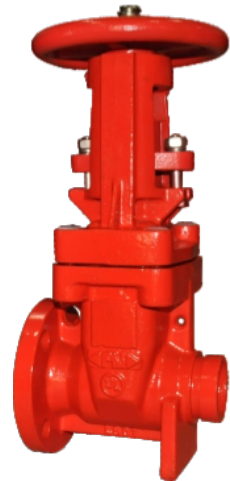
Standard: AWWA C515/BS5163  
Size: DN50~DN300  
Working Pressure:  
200/250/300psi  
Body: Ductile Iron

### Resilient Seated NRS Type-Flanged-Groove Ends



Standard: AWWA  
C515/BS5163  
Size: DN50~DN300  
Working Pressure:  
200/250/300psi  
Body: Ductile Iron

### Resilient Seated NRS Type-Flanged-Groove Ends



Standard: AWWA C515/BS5163  
Size: DN50~DN300  
Working Pressure:  
200/250/300psi  
Body: Ductile Iron



### Resilient Seated NRS Type-Groove-Groove Ends



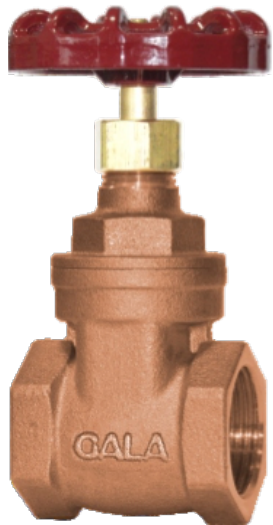
Standard: AWWA  
C515/BS5163  
Size: DN50~DN300  
Working Pressure:  
200/250/300psi  
Body: Ductile Iron

### Resilient Seated OS&Y Type-Groove-Groove Ends



Standard: AWWA C515/BS5163  
Size: DN50~DN300  
Working Pressure:  
200/250/300psi  
Body: Ductile Iron

### Bronze NRS Gate Valve



Standard: MSS SP-80  
Size: DN15~DN100  
Working Pressure: PN 20/Class  
150  
Body: Bronze  
Disc: Bronze

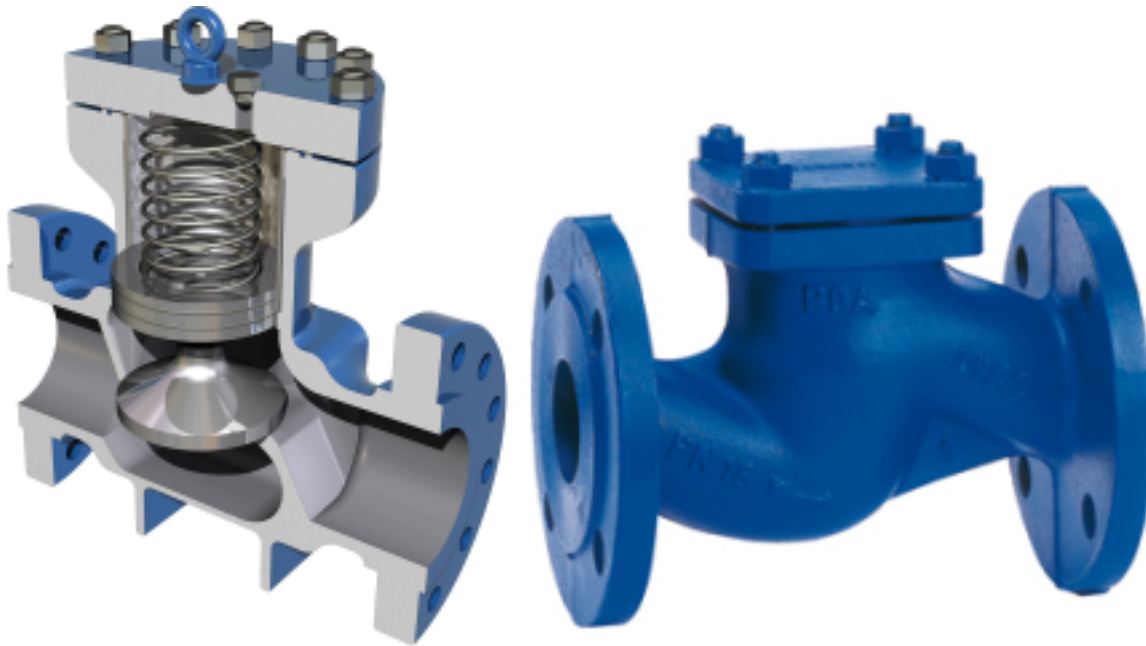
### Bronze RS Gate Valve



Standard: MSS SP-80  
Size: DN15~DN50  
Working Pressure: PN 20/Class 150  
Body: Bronze  
Disc: Bronze



## CHECK VALVE



Check valves are self-activating safety valves that permit gases and liquids to flow in only one direction. The purpose of a check valve is to prevent process flow from reversing in the system which could damage equipment or upset the process. They are classified as one-way directional valves. Check valves are commonly found protecting pumps in liquid applications or compressors in gas systems where backflow could cause the pump or compressor to shut down. They are also applied in process systems that have varying pressures, which must be kept separate. They do not need an outside power supply to operate since they use the pressure drop created by the media flow.

Check valves are used to prevent backflow and maintain pressure. They are commonly used as: a backup in case a pump fails, to help compressors and reciprocating pumps function, and when the system pressure exceeds the primary equipment capabilities. Check valves can be seen in industries such as refining, petrochemical, chemical, etc., oilfield production, water, steam, refining petro, and viscous fluids. Check valves are also commonly found in waste-water management systems and in manufacturing.

### Wafer Type Single Door Check Valve



Size: DN32~DN300  
Working Temperature: -20°C to 120°C  
Working Pressure: 16bar

Body: Carbon Steel  
Disc: Carbon Steel  
Seat: EPDM / NBR

### Wafer Type Double Door Check Valve



Standard: 5306 DIN3202  
5307 API 594  
Size: DN40~DN900  
Working Temperature: -20°C to 150°C  
Working Pressure: ≤25bar

Body: CI /DI /WCB /SS  
Disc: DI /Bronze /SS  
Seat Ring: EPDM / NBR / FPM

### Wafer Type Silent Check Valve



Size: DN50~DN350  
Working Temperature: -20°C to 120°C  
Working Pressure: ≤25bar

Body: Bronze / SS  
Seat: EPDM / NBR

### Globe Type Silent Check Valve



Size: DN50~DN600  
Working Temperature: -20°C to 120°C  
Working Pressure: ≤25bar

Body: Cast Iron / Ductile Iron  
Disc: Bronze / SS  
Seat: EPDM / NBR

## BS / MSS Metal Seated Flange Type Swing Check Valve



Standard: 5101 EN 12334  
(BS 5153)  
5102 MSS SP-71  
Size: DN50~DN600  
Working Temperature: -  
10°C to 120°C

Working Pressure: 5101 PN 16 & Class 125  
5102 Class 250

Body: Cast Iron  
Disc: Cast Iron  
Seat: Ring: Bronze

## DIN Standard Flange Type Swing Check Valve



Standard: DIN3202 F6  
Size: DN40~DN300  
Working Temperature: -10°C  
to 120°C  
Working Pressure: 16bar

Body: Cast Iron  
Disc: Cast Iron  
Seat: 5201 Bronze  
5202 EPDM

## Flange Type Lifting Check Valve



Standard: F-F to DIN 3201 F1  
Size: DN15~DN300  
Working Temperature: -10°C to 120°C  
Working Pressure: 16bar

Body: Cast Iron  
Disc: Cast Iron  
Seat: SS420

### Bronze Swing Check Valve



Standard: MSS SP-80  
Size: DN15~DN100  
Working Pressure:  
PN 20/Class 150  
Body: Bronze  
Disc: Bronze

### Bronze Vertical Lift Check Valve (Threaded)



Standard: MSS SP-80  
Size: DN15~DN50  
Working Pressure: PN 20/Class  
150  
Body: Bronze  
Disc: Bronze

### Brass Vertical Lift Check Valve



Size: DN15~DN100  
Working Pressure: PN 16/Class 125  
Body: Brass  
Disc: Brass

## High Pressure Knife Gate Valves



The HP Knife gate valve, this valve is designed for high pressure and abrasive slurries work in mining, oil sand power, chemical processing.

### Typical User Industries

- Mining.
- Pulp & Paper.
- Thermal Power Generation.
- Cement
- Carbon Black
- Pneumatic Conveying System.

### Typical Applications

- Hopper isolation.
- Abrasive slurry handling.
- On-off and control duties for pulp stock.
- Sludge and high viscous media handling.
- High temperature gas lines.
- High temperatures solids handling.

## General Features for SBC High Pressure Knife Gate Valves:

SBC HP KGV are pressure / temperature rated to ASME

B16.34 Class 150 through 600.

These valves are available in sizes 3" through 60" for class 300.

For Class 600, 3" through 24" sizes are available

The rigid and one piece body is in cast carbon steel, CF8M stainless, 2205 Duplex stainless, NI-RESIST

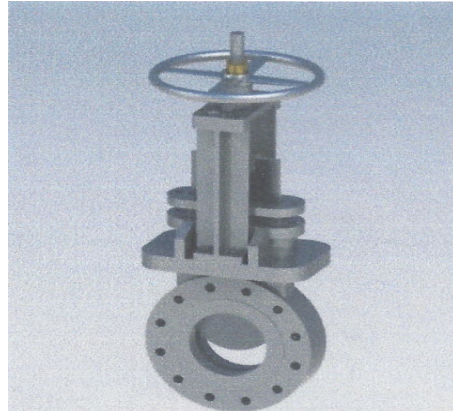
ASTM A439 TYPE-2

The packing is multiple rows of expanded PTFE with Graphite braided packing and urethane liner.

The gate with a hardened nickel-based non-stick overlay and tungsten provide extra protection against abrasion

The various materials for seats  
Retained seat provide Uni & Bi-directional  
Resilient seats are available in a variety of materials for services up to 450F (230q

Wide Range of Accessories  
Actuator options are variety such as Bevel Gear handwheel, Pneumatic Cylinder, Electric Motor Lever.



## Specifications

<b>VALVE SIZE</b>	3"-24" CL 600 3"-60" CL 300
Body Style	Knife Gate
Pressure Rating	CLASS 300, 600
Shutoff	MSS SP-135

## Materials

<b>Body</b>	CS, CF8, CF8M, CG3M Stainless Steel, 2205 Duplex stainless, special alloy, <b>NI-RESIST</b> <b>ASTM A439 TYPE-2</b>
<b>Gate</b>	CF8, CF8M, CG3M Stainless Steel, special alloy Nickel-based non-stick overlay
<b>Packing Gland</b>	CF8, CF8M, CG3M Stainless Steel, special alloy
<b>Yoke</b>	CF8 or CF8M
<b>Retainer</b>	CF8, CF8M, WCB
<b>Stem</b>	304, 316L OR 410
<b>Stem Nut</b>	Bronze
<b>Lubrication Fitting</b>	Bronze
<b>Packing</b>	PTFE w/ Graphite
<b>Hand Wheel</b>	FC or DCI
<b>Hand Wheel Nut</b>	Plated Steel
<b>Actuators</b>	Bevel, Cylinder, etc.
<b>Fasteners</b>	CF8

### Cylinder Selection Chart

Valve Size	Cylinder Bore
50mm	100
65mm	100
80mm	160
100mm	160
150mm	160
200mm	200
250mm	250
300mm	300
350mm	350
400mm	400
450mm	400
500mm	400
600mm	450



## Urethane Lined Bi-directional Knife Gate Valve

### General Features for SBC Urethane Lined Bi-Directional Knife Gate Valve

HEAVY DUTY cast stainless steel body and yoke for the most rugged service such as Fly ash handling plant, Mining, Oil sand processing, Coal power, Pellet, Chemical Plants.

Urethane seated SBC Stainless Steel Knife Gate Valves features a unique, perimeter seal which provides bi- directional shutoff.

URETHAN LINER is a one piece molded in place full Body.

Designed to overcome the problems with existing perimeter seal designs, eliminates seal pull out and eliminates grooves that collect material.

SEAT IS FLUSH with the bottom of the port eliminating any pockets in the bottom of the Valve to collect material in media such as slurries, petter or powders.

They feature a cast, Corrosion Resistant stainless steel and Carbon steel. SBC Urethane lined Valves are available in sizes 2" - 24" (50mm - 600 mm)

#### ***Round port design for High Flow Capacity***

SBC-ULB KGV designed per MSS-SP-81 requirements allows high flow capacity

#### ***The various sealing Packing***

A variety of packing materials are offered to assure a tight seal with minimum packing gland pressure.

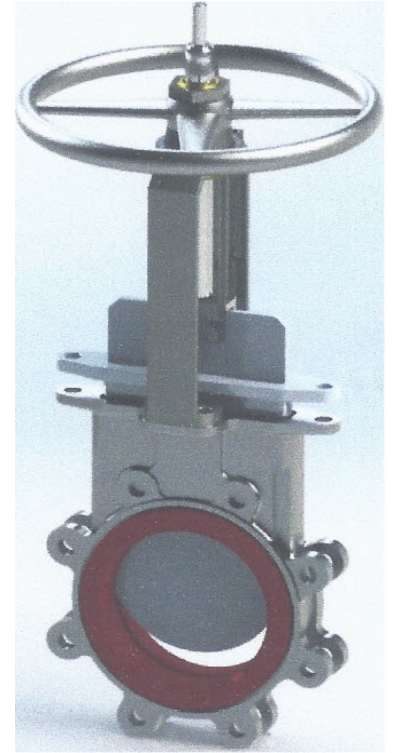
#### ***Standard Packing***

Maximum Temperature on Standard PTFE impregnated syntax is 450F (230C)

#### ***Cored Power Packing***

Provides superior packing life with fewer adjustments, available in many different configurations.

#### **Wide Range of Accessories**





Actuator options are variety such as Hand Wheel, Bevel Gear, Pneumatic Cylinder, Electric Motor Lever, Ratchet and Chain Wheel.

### **Offer as Standard**

One Piece Cast, Corrosion Resistant Integral Lug Body per MSS SP-81 and Raised face body tapped lugs in accordance with ANSI150, JIS10K, DIN PN10 and AS 2129 Table D & E

### **Internal Testing & Inspection**

Every SBC Urethane Lined valve is fully tested prior to shipment, this testing includes a body shell test, seat test and a functional test of proper cycling of moving parts. Standard shell test 1.5 times the rated CWP Standard Resilient Seat Test: Hydro test at 50psi(10bar).

## **Specifications**

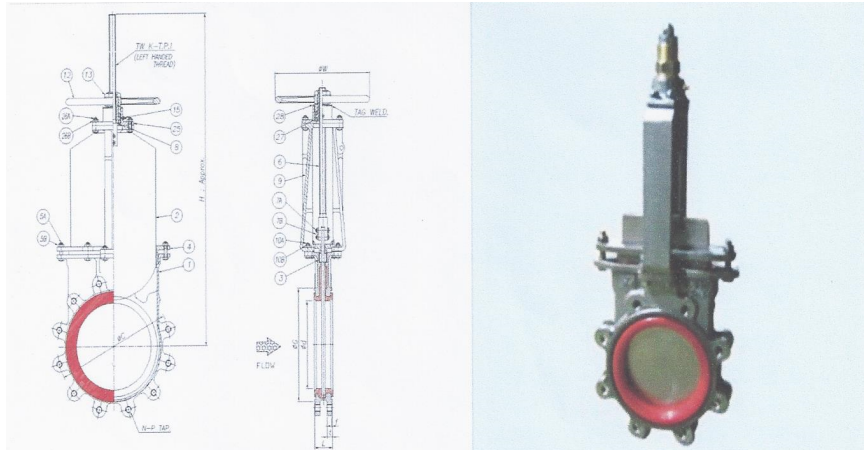
<b>VALVE SIZE</b>	<b>2"-24"</b>
Body Style	Knife Gate
Pressure Rating	150psi(10.3bar) CWP
Shutoff	MSS SP-81

## Materials

<b>Body</b>	CF8, CF8M, CG3M STAINLESS STEEL, SPECIAL ALLOY AND WCB
<b>Gate</b>	CF8, CF8M, CG3M Stainless Steel, special alloy
<b>Packing Gland</b>	CF8, CF8M, CG3M Stainless Steel, special alloy
<b>Yoke</b>	CF8 or CF8M
<b>Retainer</b>	CF8, CF8M, WCB
<b>Stem</b>	304, 316L OR 410
<b>Stem Nut</b>	Bronze
<b>Lubrication Fitting</b>	Bronze
<b>Packing</b>	PTFE
<b>Hand Wheel</b>	FC or DCI
<b>Hand Wheel Nut</b>	Plated Steel
<b>Actuators</b>	Bevel, Cylinder, etc.
<b>Fasteners</b>	CF8

## Cylinder Selection Chart

Valve Size	Cylinder Bore
50mm	100
65mm	100
80mm	160
100mm	160
150mm	160
200mm	200
250mm	250
300mm	300
350mm	350
400mm	400
450mm	400
500mm	400
600mm	450



SIZE	L	D	G	C	N - P	T	F	K - T.P.I.	W	H
2"	47.6	51.0	92.0	120.5	4 - 5/8	13.6	1.6	TW 16.0 - 8	200.0	390.0
	(1.87)	(2.00)	(3.62)	(4.75)		(0.54)	(0.06)	(TW 0.63 - 8)	(8.00)	(15.35)
2-1/2"	51.0	64.0	105.0	139.5	4 - 5/8	15.0	1.6	TW 20.0 - 6	200.0	460.0
	(2.0)	(2.50)	(4.13)	(5.49)		(0.59)	(0.06)	(TW 0.79 - 6)	(8.00)	(18.11)
3"	51.0	76.0	127.0	152.5	4 - 5/8	15.0	1.6	TW 20.0 - 6	200.0	490.0
	(2.0)	(3.0)	(5.0)	(6.0)		(0.59)	(0.06)	(TW 0.79 - 6)	(8.00)	(19.29)
4"	51.0	102.0	157.0	190.5	8 - 5/8	15.0	1.6	TW 20.0 - 6	200.00	540.0
	(2.0)	(4.0)	(6.18)	(7.50)		(0.59)	(0.06)	(TW 0.79 - 6)	(8.00)	(21.26)
5"	57.0	127.0	186.0	216.0	8 - 3/4	17.0	1.6	TW 25.4 - 5	300.0	615.0
	(2.25)	(5.0)	(7.32)	(8.50)		(0.67)	(0.06)	(TW 1 - 5)	(12.00)	(24.21)
6"	57.0	152.0	216.0	241.5	8 - 3/4	17.0	1.6	TW 25.4 - 5	300.0	715.0
	(2.25)	(6.0)	(8.50)	(9.50)		(0.67)	(0.06)	(TW 1 - 5)	(12.00)	(28.15)
8"	70.0	203.0	270.0	298.5	8 - 3/4	19.0	1.6	TW 25.4 - 5	300.0	860.0
	(2.75)	(8.0)	(10.63)	(11.75)		(0.75)	(0.06)	(TW 1 - 5)	(12.00)	(33.86)
10"	70.0	254.0	324.0	362.0	12 - 7/8	22.0	1.6	TW 25.4 - 5	400.0	1075.0
	(2.75)	(10.0)	(12.75)	(14.25)		(0.87)	(0.06)	(TW 1 - 5)	(16.00)	(42.32)
12"	76.0	305.0	381.0	432.0	12 - 7/8	22.0	1.6	TW 25.4 - 5	400.0	1245.0
	(3.0)	(12.0)	(15.0)	(17.00)		(0.87)	(0.06)	(TW 1 - 5)	(16.00)	(49.02)
14"	76.0	337.0	413.0	476.0	12 - 1	22.5	3.0	TW 32.0 - 4	450.0	1370.0
	(3.0)	(13.25)	(16.25)	(18.75)		(0.89)	(0.12)	(TW 1.25 - 4)	(18.00)	(53.94)
16"	89.0	387.0	470.0	539.5	16 - 1	28.0	3.0	TW 32.0 - 4	450.0	1580.0
	(3.50)	(15.25)	(18.50)	(21.25)		(1.10)	(0.12)	(TW 1.25 - 4)	(18.00)	(62.21)
18"	89.0	438.0	533.0	578.0	16 - 11/8	28.0	3.0	TW 38.0 - 4	500.0	1750.0
	(3.50)	(17.25)	(21.0)	(22.75)		(1.10)	(0.12)	(TW 1.50 - 4)	(20.00)	(68.90)
20"	114.0	489.0	584.0	635.0	20 - 11/8	31.0	3.0	TW 38.0 - 4	600.0	1930.0
	(4.50)	(19.25)	(23.0)	(25.00)		(1.22)	(0.12)	(TW 1.50 - 4)	(24.00)	(75.98)
24"	114.0	591.0	692.0	749.5	20 - 1 1/4	31.0	3.0	TW 38.0 - 4	600.0	2250.0
	(4.50)	(23.25)	(27.25)	(29.50)		(1.22)	(0.12)	(TW 1.50 - 4)	(24.00)	(88.58)

## Resilient seated Bi-directional Knife Gate Valve

### General Features for SBCII Knife Gate Valve with resilient seated

Rubber seated SBCII Stainless Steel Knife Gate Valves features a unique, perimeter 93a1 which provides bi-directional shutoff. The seal is retained in the valve body by its trapezoidal (Dove Tail) shape with screwed ring designed to overcome the problems with existing perimeter seal designs, eliminates seal pull out and eliminates grooves that collect material. They feature a cast, Corrosion Resistant stainless steel and Carbon steel.

This valve have EPDM as standard, Viton, Hycar, Neoprene HNBR as options.

SBCIIR Valves are available in sizes 2" - 24" (50mm - 600mm)

### Round port design for High Flow Capacity

SBCII designed per MSS-SP-81 requirements allows high flow capacity

### The various sealing Packing

A variety of packing materials are offered to assure a tight seal with minimum packing gland pressure.

### Standard Packing

Maximum Temperature on standard PTFE impregnated syntax is 450F (230c)

### Cored Power Packing

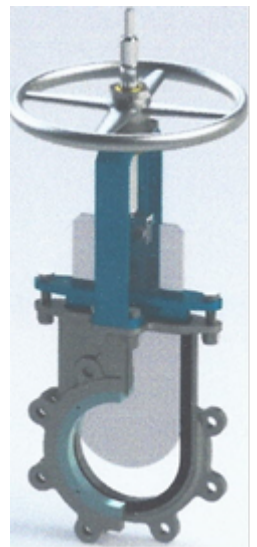
Provides superior packing life with fewer adjustments, available in many different configurations.

### Wide Range of Accessories

Actuator options are variety such as Hand Wheel, Bevel Gear, Pneumatic Cylinder, Electric Motor Lever, Ratchet and Chain Wheel.

### Offer as Standard

One Piece Cast, Corrosion Resistant Integral Lug Body per MSS SP-81 and Raised face body tapped lugs in accordance with ANSI150, JIS10K, DIN PN10 and AS2129 Table D&E.





### Internal Testing & Inspection

Every SBCIIR valve is fully tested prior to shipment. Testing includes a body shell test, seat test and functional test of proper cycling of moving parts. Standard shell test 1.5 times the rated CWP Standard Resilient Seat Test: Hydro test at 150psi (10 bar)

### Specification

<b>VALVE SIZE</b>	<b>2"-24"</b>
Body Style	Knife Gate
Pressure Rating	150psi(10.3bar) CWP
Shutoff	MSS SP-81

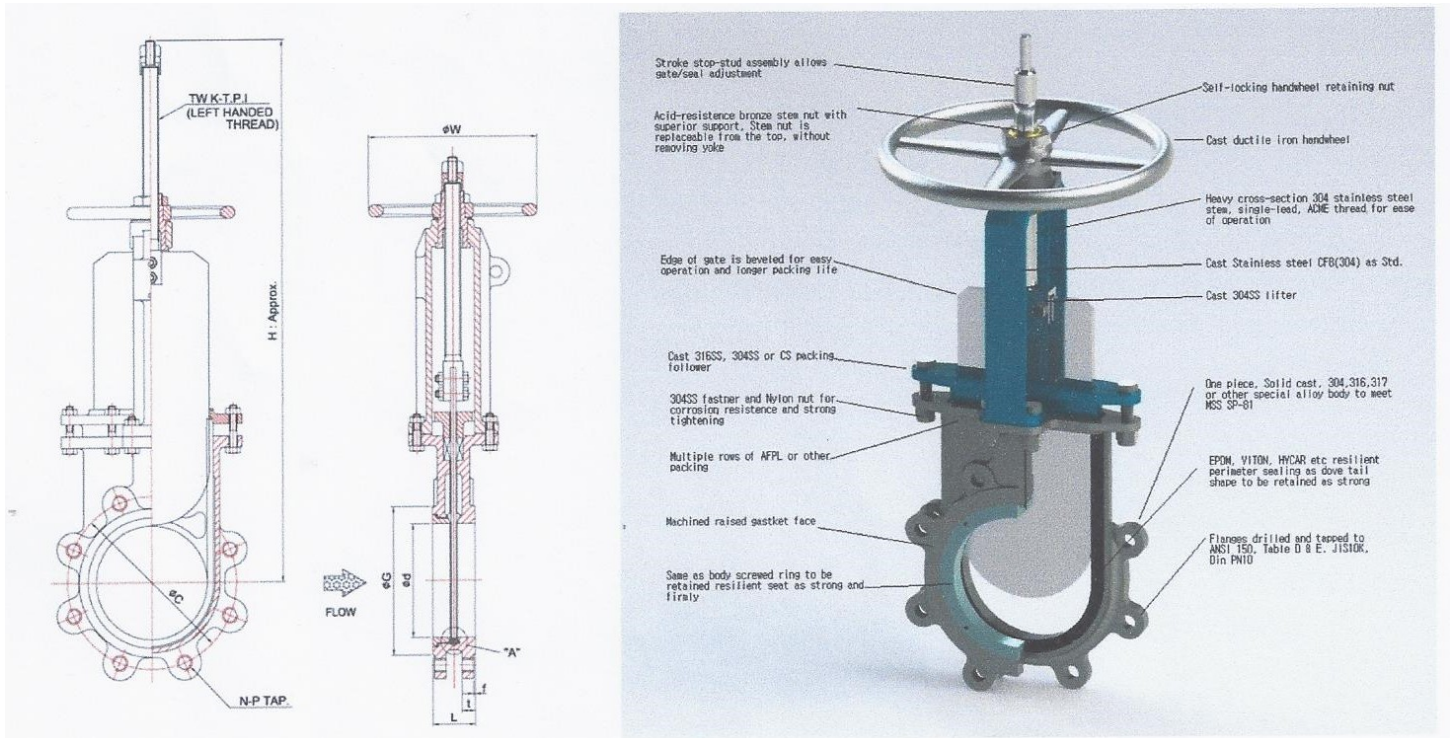
### Materials

<b>Body</b>	<b>CF8, CF8M, CG3M STAINLESS STEEL, SPECIAL ALLOY AND WCB</b>
<b>Gate</b>	CF8, CF8M, CG3M Stainless Steel, special alloy
<b>Packing Gland</b>	CF8, CF8M, CG3M Stainless Steel, special alloy
<b>Yoke</b>	CF8 or CF8M
<b>Retainer</b>	CF8, CF8M, WCB
<b>Stem</b>	304, 316L OR 410
<b>Stem Nut</b>	Bronze
<b>Lubrication Fitting</b>	Bronze
<b>Packing</b>	PTFE
<b>Hand Wheel</b>	FC or DCI
<b>Hand Wheel Nut</b>	Plated Steel
<b>Actuators</b>	Bevel, Cylinder, etc.
<b>Fasteners</b>	CF8



## Cylinder Selection

Valve Size	Cylinder Bore
50mm	100
65mm	100
80mm	160
100mm	160
150mm	160
200mm	200
250mm	250
300mm	300
350mm	350
400mm	400
450mm	400
500mm	400
600mm	450





SIZE	L	D	G	C	N - P	T	F	K - T.P.I.	W	H
2"	47.6	51.0	92.0	120.5	4 - 5/8	13.6	1.6	TW 16.0 - 8	200.0	390.0
	(1.87)	(2.00)	(3.62)	(4.75)		(0.54)	(0.06)	(TW 0.63 - 8)	(8.00)	(15.35)
2-1/2"	51.0	64.0	105.0	139.5	4 - 5/8	15.0	1.6	TW 20.0 - 6	200.0	460.0
	(2.0)	(2.50)	(4.13)	(5.49)		(0.59)	(0.06)	(TW) 0.79 - 6)	(8.00)	(18.11)
3"	51.0	76.0	127.0	152.5	4 - 5/8	15.0	1.6	TW 20.0 - 6	200.0	490.0
	(2.0)	(3.0)	(5.0)	(6.0)		(0.59)	(0.06)	(TW) 0.79 - 6)	(8.00)	(19.29)
4"	51.0	102.0	157.0	190.5	8 - 5/8	15.0	1.6	TW 20.0 - 6	200.00	540.0
	(2.0)	(4.0)	(6.18)	(7.50)		(0.59)	(0.06)	(TW) 0.79 - 6)	(8.00)	(21.26)
5"	57.0	127.0	186.0	216.0	8 - 3/4	17.0	1.6	TW 25.4 - 5	300.0	615.0
	(2.25)	(5.0)	(7.32)	(8.50)		(0.67)	(0.06)	(TW 1 - 5 )	(12.00)	(24.21)
6"	57.0	152.0	216.0	241.5	8 - 3/4	17.0	1.6	TW 25.4 - 5	300.0	715.0
	(2.25)	(6.0)	(8.50)	(9.50)		(0.67)	(0.06)	(TW 1 - 5 )	(12.00)	(28.15)
8"	70.0	203.0	270.0	298.5	8 - 3/4	19.0	1.6	TW 25.4 - 5	300.0	860.0
	(2.75)	(8.0)	(10.63)	(11.75)		(0.75)	(0.06)	(TW 1 - 5 )	(12.00)	(33.86)
10"	70.0	254.0	324.0	362.0	12 - 7/8	22.0	1.6	TW 25.4 - 5	400.0	1075.0
	(2.75)	(10.0)	(12.75)	(14.25)		(0.87)	(0.06)	(TW 1 - 5 )	(16.00)	(42.32)
12"	76.0	305.0	381.0	432.0	12 - 7/8	22.0	1.6	TW 25.4 - 5	400.0	1245.0
	(3.0)	(12.0)	(15.0)	(17.00)		(0.87)	(0.06)	(TW 1 - 5 )	(16.00)	(49.02)
14"	76.0	337.0	413.0	476.0	12 - 1	22.5	3.0	TW 32.0 - 4	450.0	1370.0
	(3.0)	(13.25)	(16.25)	(18.75)		(0.89)	(0.12)	(TW 1.25 - 4 )	(18.00)	(53.94)
16"	89.0	387.0	470.0	539.5	16 - 1	28.0	3.0	TW 32.0 - 4	450.0	1580.0
	(3.50)	(15.25)	(18.50)	(21.25)		(1.10)	(0.12)	(TW 1.25 - 4 )	(18.00)	(62.21)
18"	89.0	438.0	533.0	578.0	16 - 11/8	28.0	3.0	TW 38.0 - 4	500.0	1750.0
	(3.50)	(17.25)	(21.0)	(22.75)		(1.10)	(0.12)	(TW 1.50 - 4 )	(20.00)	(68.90)
20"	114.0	489.0	584.0	635.0	20 - 11/8	31.0	3.0	TW 38.0 - 4	600.0	1930.0
	(4.50)	(19.25)	(23.0)	(25.00)		(1.22)	(0.12)	(TW 1.50 - 4 )	(24.00)	(75.98)
24"	114.0	591.0	692.0	749.5	20 - 1 1/4	31.0	3.0	TW 38.0 - 4	600.0	2250.0
	(4.50)	(23.25)	(27.25)	(29.50)		(1.22)	(0.12)	(TW 1.50 - 4 )	(24.00)	(88.58)



### Guide to Chemical Resistance for resilient seats

Common Name	ASTM COSE	MAX. TEMP.	Abrasion	Aging	Sunlight Resistance	Water Resistance	Oil Resistance	Solvent	Strong Acid	Weak Acid	Strong Alkali	Weak Alkali
NUNA-N	NBR	200 °F	⊙	⊙	○	⊙	⊙	△	X	○	○	⊙
NEOPRENE	CR	200 °F	⊙	⊙	⊙	⊙	⊙	X	X	○	○	⊙
NATURAL RUBBER	NR	150 °F	⊙	○	○	⊙	X	X	X	○	○	⊙
EPT.	EPDM	250 °F	○	⊙	⊙	⊙	X	X	○	⊙	⊙	⊙
SILICON	Si	300 °F	○	⊙	⊙	○	X~○	△	X	○	○	⊙
VITON	FKM	300 °F	○	⊙	⊙	⊙	⊙	○	○	⊙	⊙	⊙
PTFE	D-1457	500 °F	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙

Note : ⊙ excellent, ○ Good, △ fair, X poor

### Unit Weight in kg

SIZE	Bare Shaft	with H/W	with B/G
2"	8	12	18
3"	12	18	22
4"	15	22	26
6"	24	33	36
8"	38	49	51
10"	60	72	74
12"	80	97	99
14"	100	132	131
16"	150	185	184
18"	200	256	246
20"	263	321	311
24"	329	392	382

Bare Shaft : No Top works (No Stem, No H/W, Yoke)

### Flow Parameters

SKII-RSB					
Cv Ratings, Port Diameter					
SIZE		STANDARD PORT			
IN	DN	Cv	Kv	Port I.D Inches	Port Area Sq. In.
2	50	288	336	2.00	3.1
3	75	648	756	2.99	7.0
4	100	1,152	1,344	3.90	11.9
6	150	2,592	3,025	5.83	26.7
8	200	4,608	5,378	7.87	48.6
10	250	7,208	8,412	9.84	76.0
12	300	10,400	12,137	11.89	111.0
14	350	12,650	14,763	13.27	138.2
16	400	16,750	19,547	15.24	182.3
18	450	21,450	25,032	17.24	233.3
20	500	26,700	31,159	19.25	290.9
24	600	38,900	45,396	23.27	425.1