

# Crane

**Brochure**



FLUID SYSTEMS



## 33XU-F

### Cast Steel Gate Valve Rising Stem

Class 300

33XU-F

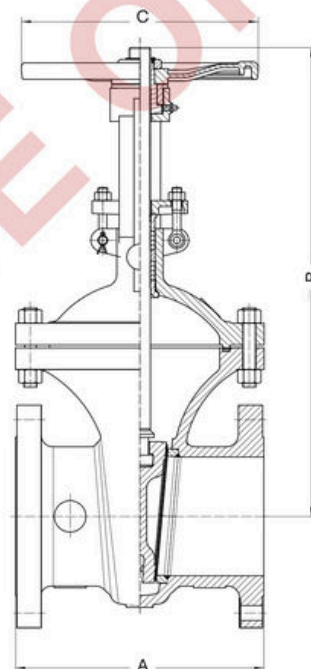
#### Features & Benefits

- Efficient stop valves with flow in either direction
- Commonly used where a minimum pressure drop is important
- Flexible wedge disc compensates for deformation of body due to pipe stress
- Outside screw & yoke
- Flanged
- Seat ring is seal welded to eliminate leak paths

#### Materials

PART	MATERIAL
Body	A216 WCB
Bonnet	A216 WCB
Seat Rings	Trim1 - 13% Cr Overlay Trim8 - Hard Faced
Disc	CA-15 or 13% CR Overlay
Stem	ASTM A182 F6a Cl. 2. This is equivalent to SS410
Packing	Graphite
Bonnet Gasket	ASTM A276 304 + Graphite
Back Seat	410 SS
Yoke	ASTM A216 WCB
Retaining Nut	Malleable or Steel
Disc Washer	Carbon Steel
Gland	Steel
Gland Flange	Steel
Eye Bolt	Steel
Eye Bolt Nuts	Steel
Pins	Steel
Bonnet Studs	A193 Gr. B7
Bonnet Nuts	A194 Gr. 2H
Handwheel	Malleable, Ductile or Steel
Handwheel Nut	Ductile or Steel
ID Tags	SS
ID Pins	Steel
Spacer	Steel
Grease Fittings	Steel

#### Dimensional Drawing



#### Dimensions & Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B VALVE OPEN (mm)	C (mm)
2	24.42	216	408	200
2 1/2	32.93	241	460	200
3	46.08	282	530	240
4	72.83	305	619	280
6	141.17	403	826	360
8	216.67	419	1038	400
10	322	457	1247	450
12	480	502	1436	560

#### Industry Standards

STEEL VALVES	ANSI B16.34
FACE-TO-FACE/END-TO-END	ANSI B16.10
FLANGE DIMENSIONS	ANSI B16.5
BASIC DESIGN	API 600
TESTING	API 598
ACCEPTANCE	API RP591

Intermediate pressure ratings shall be determined by interpolation.

SIZE RANGE: 2 -12 inches

PRESSURE TEMPERATURE RATING: Class 300

Carbon Steel

ASTM A216 Grade WCB

51.1 Bar / -29 to 38°C

28.8 Bar / 425°C



## 47XU-F

Cast Steel Gate Valve  
Rising Stem

Class 150

## Features &amp; Benefits

- Efficient stop valves with flow in either direction
- Commonly used where a minimum pressure drop is important
- Flexible wedge disc compensates for deformation of body due to pipe stress
- Outside screw and yoke
- Flanged
- Seat ring is seal welded to eliminate leak paths

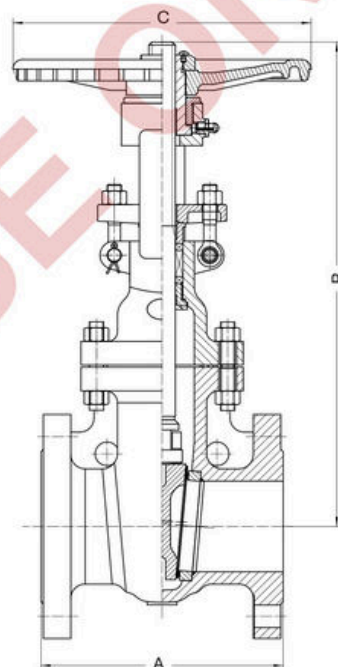
## Materials

PART	MATERIAL
Body	A216 WCB
Bonnet	A216 WCB
Seat Rings	Trim1 - 13% Cr Overlay Trim8 - Hard Faced
Disc	CA-15 or 13% CR Overlay
Stem	ASTM A182 F6a Cl. 2. This is equivalent to SS410
Packing	Graphite
Bonnet Gasket	ASTM A276 304 + Graphite
Back Seat	410 SS
Yoke	ASTM A216 WCB
Retaining Nut	Malleable or Steel
Gland	Steel
Gland Flange	Steel
Eye Bolt	Steel
Eye Bolt Nuts	Steel
Pins	Steel
Bonnet Studs	A193 Gr. B7
Bonnet Nuts	A194 Gr. 2H
Handwheel	Malleable, Ductile or Steel
Handwheel Nut	Ductile or Steel
ID Tags	SS
ID Pins	Steel
Spacer	Steel
Grease Fittings	Steel



47XU-F

## Dimensional Drawing



## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B VALVE OPEN (mm)	C (mm)
2	17.5	178	387	200
2.1/2	24.8	190	435	200
3	31.85	203	510	240
4	45.65	229	580	280
6	79.3	267	775	320
8	117.87	292	960	360
10	180.2	330	1165	400
12	267.85	356	1367	450
14	360	381	1545	560
16	458	406	1744	560
18	579	432	1930	640
20	732	457	2135	640
24	1083	508	2531	720

## Industry Standards

PRESSURE/TEMPERATURE	ANSI B16.34
FACE-TO-FACE/END-TO-END	ANSI B16.10
FLANGE DIMENSIONS	ANSI B16.5
BASIC DESIGN	API 600
TESTING	API 598

Intermediate pressure ratings shall be determined by interpolation.

**SIZE RANGE:** 2 - 24 inches **PRESSURE TEMPERATURE RATING:** Class 150

Carbon Steel  
ASTM A216 Grade WCB  
19.6 Bar / -29 to 38°C  
5.5 Bar / 425°C

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## 143XU

## Cast Steel Globe Valve

Class 150

## Features &amp; Benefits

- Ideal for throttling service
- Flow characteristics permit accurate and repeatable flow control
- Seat ring is seal welded to eliminate leak paths
- Outside screw & yoke
- Bolted bonnet

## Materials

PART	MATERIAL
Body	A216 WCB
Bonnet	A216 WCB
Seat Rings	Trim1 - 13% Cr Overlay Trim8 - Hard Faced
Disc	ASTM A105 + STL
Stem	ASTM A182 F6a Cl. 2. This is equivalent to SS410
Packing	ASTM A276 304 + Graphite
Bonnet Gasket	ASTM A276 304 + Graphite
Back Seat	410 SS
Disc Stem Nut	Steel
Disc Washer	Carbon Steel
Gland	410 SS
Gland Flange	WCB
Eye Bolt	Steel
Eye Bolt Nuts	Steel
Pins	-
Bonnet Studs	A193 Gr. B7
Bonnet Nuts	A194 Gr. 2H
Handwheel	ASTM A536 65-45-12
Handwheel Nut	A194 Gr. 2H
ID Tags	SS
ID Pins	Steel

## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B VALVE OPEN (mm)	C (mm)
2	17.4	203	327	200
2½	24	216	366	240
3	31.8	241	418	240
4	44.6	292	446	280
6	88	406	590	400
8	143	495	702	450
10	233	622	983	440
12	268	698	1190	540

SIZE RANGE: 2 - 12 inches

PRESSURE TEMPERATURE RATING: Class 150

Sizes 10" and 12" are

Carbon Steel

Gearbox operated

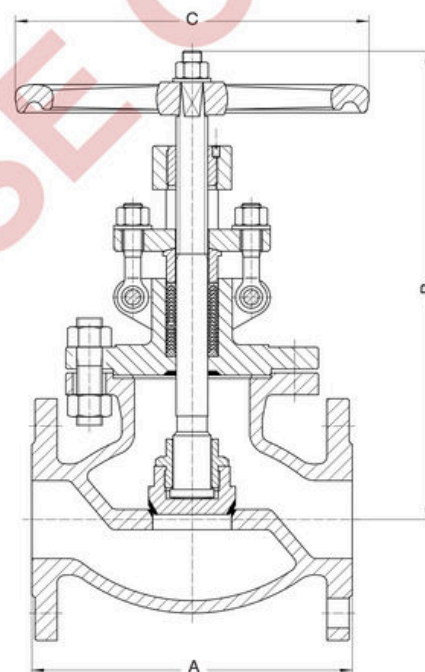
ASTM A216 Grade WCB

19.6 Bar / -29 to 38°C

5.5 Bar / 425°C



## Dimensional Drawing



## Industry Standards

PRESSURE/TEMPERATURE	ANSI B16.34
FACE-TO-FACE/END-TO-END	ANSI B16.10
FLANGE DIMENSIONS	ANSI B16.5
TESTING	API 598
DESIGN	API 623

Intermediate pressure ratings shall be determined by interpolation.

SIZE RANGE: 2 - 12 inches

PRESSURE TEMPERATURE RATING: Class 150

Sizes 10" and 12" are

Carbon Steel

Gearbox operated

ASTM A216 Grade WCB

19.6 Bar / -29 to 38°C

5.5 Bar / 425°C

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## 147XU

## Cast Steel Swing Check Valve

Class 150

## Features &amp; Benefits

- Cast Steel, bolted cap and flanged
- Swing check valves prevent reversal of flow through the pipeline
- Can be installed in horizontal or vertical, upward flow piping
- Offer low resistance to flow and are particularly suited to low velocity service
- Seat ring is seal welded to eliminate leak paths

## Materials

PART	MATERIAL
Body	A216 WCB
Cap	A216 WCB
Seat Ring	Trim1 - 13% Cr Overlay Trim8 - Hard Faced
Disc	13% CR Overlay
Hinge	WCB
Pins, Hinge	410 SS
Disc Washer	Steel
Cap Gasket	ASTM A276 304 + Graphite
Cap Studs	A193 Gr. B7
Cap Nuts	A194 Gr. 2H
ID Tags	SS
ID Pins	Steel

## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B VALVE OPEN (mm)
2	15	203	150
2½	21	216	167
3	28	241	178
4	41	292	233
6	72	356	297
8	122	495	334
10	179	622	395
12	282	698	451
14	401	787	477
16	510	864	545
18	638	978	582
20	717	978	627
24	1162	1295	980

SIZE RANGE: 2 - 24 inches

PRESSURE RATING: Class 150

Carbon Steel

ASTM A216 Grade WCB

19.6 Bar / -29 to 38°C

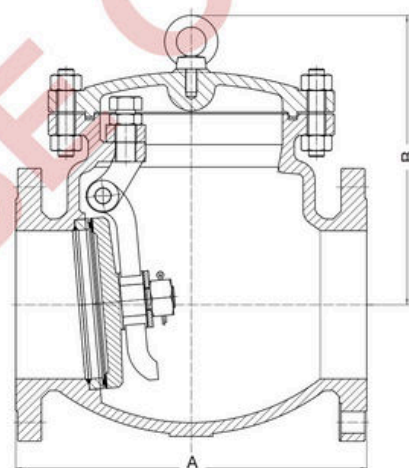
5.5 Bar / 425°C



147XU

GENERAL VALVES

## Dimensional Drawing



## Industry Standards

PRESSURE/TEMPERATURE	ANSI B16.34
FACE-TO-FACE/END-TO-END	ANSI B16.10
FLANGE DIMENSIONS	ANSI B16.5
TESTING	API 598
DESIGN	API 594

Intermediate pressure ratings shall be determined by interpolation.

**SPECIFICATION:** Swing check valves prevent reversal of flow through pipelines.

Most Crane FS swing check valves can be installed in horizontal or vertical upward flow piping. They offer low resistance to flow and are particularly suited to low velocity service.

## 151XU

## Cast Steel Globe Valve

Class 300

151XU

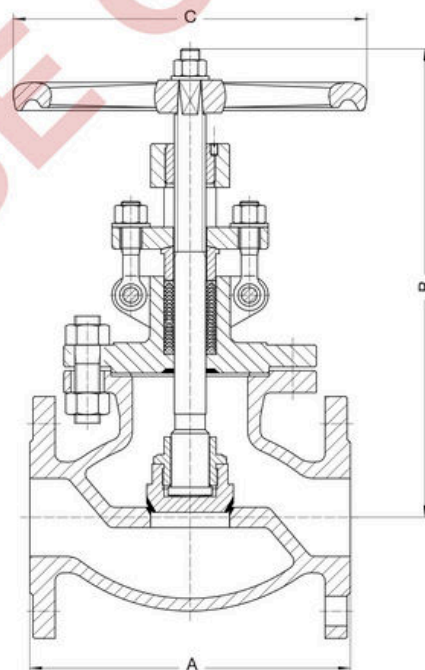
## Features &amp; Benefits

- Ideal for throttling service
- Flow characteristics permit accurate and repeatable flow control
- Seat ring is seal welded to eliminate leak paths
- Outside screw & yoke
- Bolted Bonnet

## Materials

PART	MATERIAL
Body	A216 WCB
Bonnet	A216 WCB
Seat Rings	Trim1 - 13% Cr Overlay Trim8 - Hard Faced
Disc	ASTM A105 + STL
Stem	ASTM A182 F6a Cl. 2. This is equivalent to SS410
Packing	ASTM A276 304 + Graphite
Bonnet Gasket	ASTM A276 304 + Graphite
Back Seat	410 SS
Disc Stem Nut	Steel
Disc Washer	Carbon Steel
Gland	410 SS
Gland Flange	WCB
Eye Bolt	Steel
Eye Bolt Nuts	Steel
Pins	-
Bonnet Studs	A193 Gr. B7
Bonnet Nuts	A194 Gr. 2H
Handwheel	ASTM A536 65-45-12
Handwheel Nut	A194 Gr. 2H
ID Tags	SS
ID Pins	Steel

## Dimensional Drawing



## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B VALVE OPEN (mm)	C (mm)
2	23.55	267	362	240
2 1/2	33	292	432	280
3	47.5	318	457	280
4	65.9	356	504	320
6	132.5	444	671	400
8	217	559	1170	440
10	322	622	1283	540
12	480	711	1488	540

## Industry Standards

PRESSURE/TEMPERATURE	ANSI B16.34
FACE-TO-FACE/END-TO-END	ANSI B16.10
FLANGE DIMENSIONS	ANSI B16.5
TESTING	API 598
DESIGN	API 623

Intermediate pressure ratings shall be determined by interpolation.

**SIZE RANGE:** 2 - 12 inches **PRESSURE TEMPERATURE RATING:** Class 300

Sizes 8", 10" and 12" are  
Gearbox operated  
Carbon Steel  
ASTM A216 Grade WCB  
51.1 Bar / -29 to 38°C  
28.8 Bar / 425°C

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## 159XU

## Swing Check Valve

Class 300

159XU

## Features &amp; Benefits

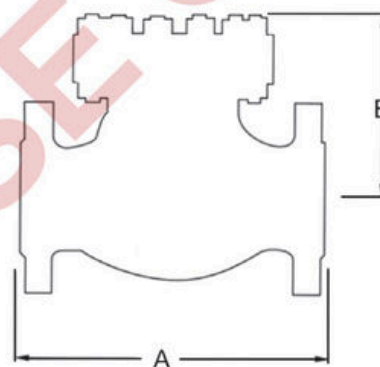
- Cast Steel, bolted cap and flanged
- Swing check valves prevent reversal of flow through the pipeline
- Can be installed in horizontal or vertical, upward flow piping
- Offer low resistance to flow and are particularly suited to low velocity service
- Seat ring is seal welded to eliminate leak paths



## Materials

PART	MATERIAL
Body	A216 WCB
Bonnet	A216 WCB
Seat Ring	Trim1 - 13% Cr Overlay Trim8 - Hard Faced
Disc	13% CR Overlay
Hinge	WCB
Pins, Hinge	410 SS
Cap Screw	A307 Gr. B
Cap Gasket	Spiral Wound
Cap Studs	A193 Gr. B7
Cap Nuts	A194 Gr. 2H
ID Tags	SS
ID Pins	Steel

## Dimensional Drawing



## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (lbs)	A (inch)	B VALVE OPEN (inch)
2	23	267	177
2 1/2	31	292	190
3	40	318	203
4	62.7	356	283
6	89	400	310
8	122.6	444	331
10	199	533	411
12	298.5	622	456

## Industry Standards

PRESSURE/TEMPERATURE	ANSI B16.34
FACE-TO-FACE/END-TO-END	ANSI B16.10
FLANGE DIMENSIONS	ANSI B16.5
TESTING	API 598
DESIGN	API 594

Intermediate pressure ratings shall be determined by interpolation.

**SIZE RANGE:** 2 - 12 inches

**PRESSURE RATING:** Class 300

Carbon Steel

ASTM A216 Grade WCB

51.1 Bar / -29 to 38°C

28.8 Bar / 425°C

**SPECIFICATION:** Swing check valves prevent reversal of flow through pipelines.

Most Crane FS swing check valves can be installed in horizontal or vertical upward flow piping. They offer low resistance to flow and are particularly suited to low velocity service.

## D4

## Bronze Globe Valve - Series B



PN20

D4

## Features &amp; Benefits

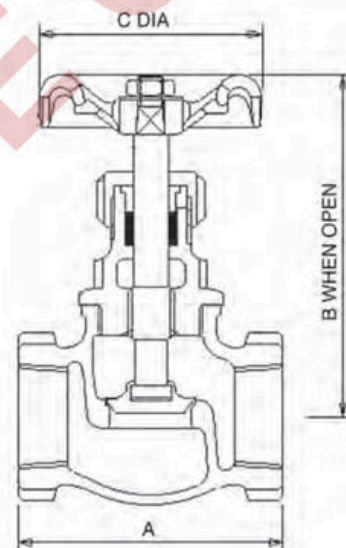
- Crane bronze globe valves are highly efficient for throttling because seat and disc designs provide flow characteristics with proportionate relationships between valve lift and flow rate
- This valve carries the British Standards Institution kitemark – your assurance of exacting quality
- Conforms with BS 5154:1991 and generally conforms with MSS SP 80.



## Materials

PART	MATERIAL	SIZES
Body	Bronze BS EN 1982 CC491K	All
Bonnet	Bronze BS EN 1982 CC491K	All
Disc	Brass BS EN 12164 CW614N	1/4 - 1 1/2
Disc	Bronze BS EN 1982 CC491K	2"
Stem	Brass BS EN 12164 CW614N	All
Packing	Asbestos Free	All
Gland	Brass BS EN 12164 CW614N	All
Packing Nut	Brass BS EN 12164 CW614N	All
Disc Stem Ring	Manganese Bronze BS EN 12164 CW721R	2" only
Handwheel	Aluminium	All
Handwheel Nut	Brass BS EN 12164 CW614N	All
ID Plate	Aluminium	All

## Dimensional Drawing



## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B (mm)	C (mm)
1/4	0.23	44	75	52
3/8	0.22	44	75	52
1/2	0.31	55	82	52
3/4	0.42	63	89	52
1	0.71	77	102	65
1 1/4	1.12	91	118	70
1 1/2	1.5	98	134	78
2	2.48	118	171	103

## Pressure/Temperature Ratings

TEMPERATURE (°C)	-10 to 100	80
PRESSURE (BAR)	20	9

Intermediate pressure ratings shall be determined by interpolation.

**PRESSURE RATING:** PN20

**TEMPERATURE OPERATING RANGE:** -10 to 180°C

**UK END CONNECTION:**

Taper threaded to BS EN 10226-2 (ISO 7-1) formerly BS 21

**US END CONNECTION:** ANSI B1.20.1

**OPERATOR:** Handwheel.

**SPECIFICATION:** Bronze Globe Valve, Rising Stem, Screwed Bonnet, in accordance with BS 5154:1991, PN20 rated. Integral narrow contact angled body seat. Valve Body & Bonnet to Bronze to BS EN 1982 CC491K. Bronze disc on size 2". Brass Stem and Disc to CW614N. PTFE packing ring complete with Brass packing gland and nut design. BSI Kitemark approved.

**MSS SP80 CONFORMANCE:** D4 meets the essential requirements of the Standard such as pressure temperature rating, functional attributes, material of construction, wall thickness and thread depth. D4.AT complies with end connections as well.

The Valve is suitable for use in group 2 gases, group 1 and group 2 liquids, as defined by the Pressure Equipment Directive 2014/68/EU.\*

\* See page 159 for more information



# D16

## Bronze Globe Valve – Series A

PN32\*

### Features & Benefits

- Crane Bronze globe valves are highly efficient for throttling because seat and disc designs provide flow characteristics with proportionate relationships between valve lift and flow rate
- \*Please note Sizes 2½" and 3" are rated at PN25

### Materials

PART	MATERIAL	SIZES
Body	Bronze BS EN 1982 CC491K	All
Bonnet	Bronze BS EN 1982 CC491K	All
Body Seat Ring	13% Cr.Steel BS970 Pt.1 410S21 or 431S29	All
Disc Stem Ring	Brass BS EN 12163 CW721R	All
Disc	13% Cr.Steel BS970 Pt.1 410S21 or 431S29	1/2 - 2
Disc	Nickel Alloy	1/4, 3/8, 2 1/2 & 3
Stem	Manganese Bronze BS EN 12163 CW721R	All
Gland	Brass BS EN 12164 CW614N	All
Packing	Asbestos Free	All
Packing Nut	Brass BS EN 12164 CW614N	1/4 - 2 1/2
Packing Nut	Bronze BS EN 1982 CC491K	3" only
Handwheel	Aluminium	1/4 - 2 1/2
Handwheel	Malleable Iron BS EN 1562 GJMB-300-6	3" only
Handwheel Nut	Brass BS EN 12164 CW614N	All
ID Plate	Aluminium	All
Gasket	Asbestos Free	2 1/2 - 3

### Dimensions & Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B (mm)	C (mm)
1/4	0.33	52	100	52
3/8	0.31	52	100	52
1/2	0.8	62	101	52
3/4	1.24	74	115	52
1	1.5	90	125	70
1 1/4	1.7	100	150	70
1 1/2	2.16	115	159	92
2	3.67	136	191	103
2 1/2	6	166	220	121
3	10.9	190	255	178

**PRESSURE RATING:** PN32

**TEMPERATURE OPERATING RANGE:** -10 to 260°C

**UK END CONNECTION:** Taper threaded to BS EN 10226-2 (ISO 7-1) formerly BS 21

**US END CONNECTION:** ANSI B1.20.1

**OPERATOR:** Handwheel

**SPECIFICATION:** Valves are manufactured in accordance with BS 5154: 1991 Series A, PN32 for sizes 1/4" to 2" and PN25 for sizes 2 1/2" and 3".

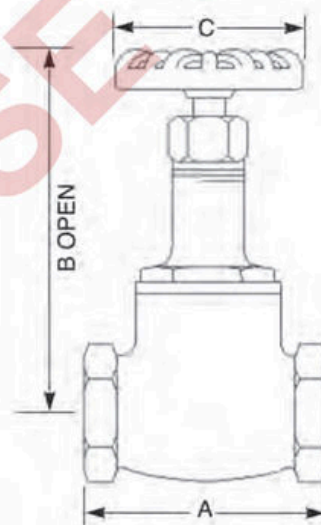
Design incorporates a nickel alloy plug type disc retained on the stem by a threaded ring; body seat is a screwed-in stainless steel ring.

This valve is not suitable for use on group 1 gases or unstable fluids, as defined by the Pressure Equipment Directive 2014/68/EU.\*

\* See page 159 for more information



### Dimensional Drawing



### Pressure/Temperature Ratings

TEMPERATURE (°C)	-10 to 100	260
PRESSURE (BAR)	32	14

Intermediate pressure ratings shall be determined by interpolation.

## D52

## Bronze Globe Valve

PN64

D52

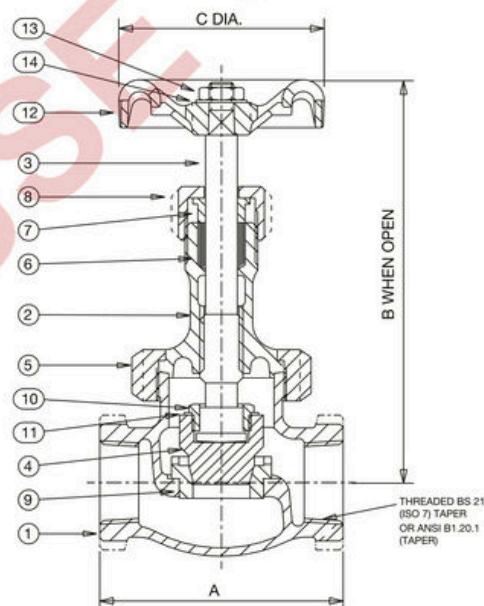
## Features &amp; Benefits

- Crane bronze globe valves are highly efficient for throttling because seat and disc designs provide flow characteristics with proportionate relationships between valve lift and flow rate.
- This valve features a renewable nickel alloy plug disc and a stainless steel seat.

## Materials

NO.	PART	MATERIAL	SIZES
1	Body	Bronze BS EN 1982 CC491K	All
2	Bonnet	Bronze BS EN 1982 CC491K	All
3	Stem	Aluminium Bronze NES 834 Pt.2	All
4	Disc	Duplex Stainless Steel S32205	All
5	Union Ring	Bronze BS EN 1982 CC491K	All
5	Disc Holder	Brass BS EN 12165 CW617N	1/2 - 1
6	Packing	Asbestos Free	All
7	Gland	Brass BS EN 12164 CW614N	All
8	Packing Nut	Bronze BS EN 1982 CC491K	1 1/2 & 2
8	Packing Nut	Brass BS EN 12164 CW614N	1/2 - 1 1/4
9	Body Seat Ring	13% Cr.Steel BS 970 Pt.1 410S21	All
10	Disc Stem Ring	Aluminium Bronze NES 834 Pt.2	All
11	Disc Retaining Unit	Brass BS EN 12164 CW614N	1/2 - 2
11	Lockwasher	Brass BS EN 1652 CuZn 40Pb	All
12	Handwheel	Aluminium	1/2 - 1 1/2
12	Handwheel	Malleable Iron BS EN 1562 GJMB-300-6	2" only
13	Handwheel Nut	Brass BS EN 12164 CW614N	All
14	ID Plate	Aluminium	All

## Dimensional Drawing



## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B (mm)	C (mm)
1/2	1	75	134	70
3/4	1.51	89	159	78
1	2.25	105	177	92
1 1/4	3.59	121	200	103
1 1/2	5.05	133	228	121
2	8.5	162	262	152

PRESSURE RATING: PN64

TEMPERATURE OPERATING RANGE:  
-10 to 288°C

UK END CONNECTION: BS 21 Taper

US END CONNECTION: Not Specified

OPERATOR: Handwheel

AVAILABLE OPTIONS:

P150 Locking Device

SPECIFICATION: Valves having PN64 ratings are not specified in BS 5154.

D52 valves meet the requirements of BS 5154 in respect to materials design and method of manufacture as far as applicable.

Design incorporates a Duplex Stainless Steel S32205 plug type disc retained on the stem by a threaded ring. The body seat is a screwed-in stainless steel ring.

Valves having ANSI threads also generally conform to MSS SP-80.

Not suitable for use on unstable fluids as defined by the Pressure Equipment Directive 2014/68/EU.\*

\*see Quality Assurance page for more information



**D71****Globe Valve****PN32****D71****Features & Benefits**

- Crane bronze globe valves are highly efficient for throttling because seat and disc designs provide flow characteristics with proportionate relationships between valve lift and flow rate.

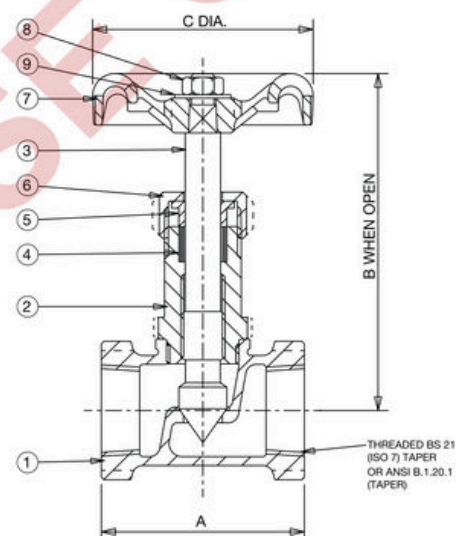
**Materials**

NO.	PART	MATERIAL	SIZES
1	Body	Bronze BS EN 1982 CC491K	-
2	Bonnet	Sil. Al. Bronze BS EN 12163 CW301G	1/8 - 3/8
2	Bonnet	Brass BS EN 12164 CW614N	3/4
3	Stem	Sil. Al. Bronze BS EN 12163 CW301G	-
4	Packing*	Asbestos Free	-
5	Gland	Brass BS EN 12164 CW614N	-
6	Packing Nut	Brass BS EN 12164 CW614N	-
7	Handwheel	Aluminium	-
8	Handwheel Nut	Brass BS EN 12164 CW614N	-
9	Identity Plate	Aluminium	-

\*Recommended spares

**Dimensions & Weights**

SIZE (inch)	WEIGHT (kg)	A (mm)	B (mm)	C (mm)
1/8	0.13	29	74	44
1/4	0.15	39	73	44
3/8	0.21	45	77	44
1/2	0.29	51	91	52
3/4	0.46	58	104	65

**Dimensional Drawing****PRESSURE RATING:** PN32**TEMPERATURE OPERATING RANGE:**

32 Bar at -10 to 100°C

14 Bar at 198°C

**END CONNECTION:** Threaded BS 21 or ANSI B1.20.1**SPECIFICATION:** Valve are manufactured in accordance with BS 5154 PN32 for Series B ratings. The needle disk is an integral part of the stem, and body seat is integral.

Valid as of 190321

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**D138****Bronze Swing Check Valve with Metal Disc**

PN25

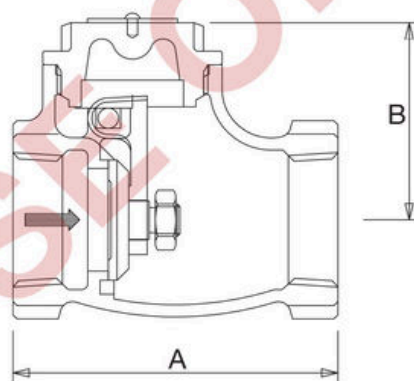
D138

**Features & Benefits**

- Check valves permit flow in one direction only and close automatically if flow reverses.
- Bronze material of construction and robust design ensuring longevity
- Integral Bronze seats
- Full bore ensuring least resistance to flow

**Materials**

NO.	MATERIAL	SIZES
Body	Bronze BS EN 1982 CC491K	All
Cap	Bronze BS EN 1982 CC491K	All
Disc	Brass BS EN 12164 CW614N	$\frac{3}{8}$ - 1
Disc	Brass BS EN 12164 CW617N	$1\frac{1}{4}$ - 2
Disc	Bronze BS EN 1982 CC491K	$2\frac{1}{2}$ - 3
Hinge	Bronze BS EN 1982 CC491K	$2\frac{1}{2}$ - 3
Hinge	Brass BS EN 12164 CW617N	$\frac{1}{2}$ - 2
Hinge Pin	Stainless Steel SS316	$\frac{3}{8}$ - 2
Hinge Pin	Brass BS EN 12164 CW614N	$2\frac{1}{2}$ & 3
Hinge Nut	Brass BS EN 12164 CW614N	All
ID Plate	Aluminium	All
Drive Pin	Steel - Electro Brassed	All
Hinge Pin Plug	Brass BS EN 12164 CW614N	$2\frac{1}{2}$ & 3

**Dimensional Drawing****Dimensions & Weights**

SIZE (inch)	WEIGHT (kg)	A (mm)	B (mm)	Kv
$\frac{3}{8}$	0.19	50	33	-
$\frac{1}{2}$	0.32	59	38	8.53
$\frac{3}{4}$	0.43	68	42	15.55
1	0.61	81.5	49	26.27
$1\frac{1}{4}$	1.01	93.2	56	46.49
$1\frac{1}{2}$	1.34	98.3	65	64.77
2	2.12	110.6	76	112.24
$2\frac{1}{2}$	4.08	155.6	98	164.53
3	5.76	190	99	254.05

**Pressure/Temperature Ratings**

TEMPERATURE (°C)	-10 to 100	110	120	186
PRESSURE (BAR)	25.0	23.4	21.8	10.5

Intermediate pressure ratings shall be determined by interpolation.

**PRESSURE RATING:** PN25**TEMPERATURE OPERATING RANGE:** -10 to 186**UK END CONNECTION:** Taper threaded to BS EN 10226-2 (ISO 7-1) formerly BS 21**US END CONNECTION:** ANSI B1.20.1

(please add suffix AT to denote American Thread)

**SPECIFICATION:** Bronze Check Valves, Swing type, Full Bore, Bronze Cap & Seat. BSI Kitemark approved.

Valves are manufactured in accordance with BS5154:1991 PN25 for Series B ratings.

This valve is not suitable for use on Group 1 gases or unstable fluids, as defined by the Pressure Equipment Directive 2014/68/EU.\*

**LEAKAGE RATE:** Rate B in accordance with BS EN 12266-1.

\*see Quality Assurance page for more information

Every effort has been made to ensure that the information contained in this publication is accurate at the time of publishing. Crane Ltd assumes no responsibility or liability for typographical errors or omissions or for any misinterpretation of the information within the publication and reserves the right to change without notice.



## D142

## Bronze Swing Check Valve

D142

PN32

## Features &amp; Benefits

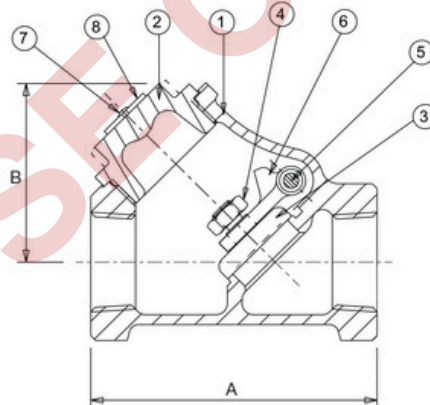
- Check valves permit flow in one direction only and close automatically if flow reverses
- D142 is a Bronze Swing Check Valve with disc seat at 45 Deg inclination to the flow path
- Conforms with BS EN12288:2010 and generally conforms with MSS SP 80.



## Materials

NO.	MATERIAL	SIZES
Body	Bronze BS EN 1982 CC491K	
Cap	Bronze BS EN 1982 CC491K	
Disc	Brass BS EN 12164 CW721R	1/4 - 3/4"
Disc	Bronze BS EN 1982 CC491K	1 - 3"
Hinge	Nut Brass BS 2874 CZ121	
Hinge	Pin/Plug DZR Brass BS EN 12164 CW602N	
Hinge	Bronze BS EN 1982 CC491K	
Drive Pin	Steel-Electro Brass	
ID Plate	Aluminium	

## Dimensional Drawing



## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B (mm)
1/4	0.26	54	37
3/8	0.25	54	37
1/2	0.39	62	43
3/4	0.62	76	52
1	1.07	94	65
1 1/4	1.65	110	76
1 1/2	2.56	126	89
2	4.05	152	108
2 1/2	6.4	186	134
3	9.3	218	160

## Pressure/Temperature Ratings

TEMPERATURE (°C)	-10 to 120	260
PRESSURE (BAR)	32	14

Intermediate pressure ratings shall be determined by interpolation.

**PRESSURE RATING:** PN32

**TEMPERATURE OPERATING RANGE:** -10 to 260°C

**UK END CONNECTION:** BS 21 Taper

**US END CONNECTION:** ANSI B1.20.1

**OPERATOR:** Swing Check, Screwed in Cap. Can be mounted vertically as long as flow is upwards

**SPECIFICATION:** Bronze Swing Check Valve, Screwed Cap, in accordance with BS 5154:1991, PN32 rated. Valve Body, Cap and hinge to Bronze to BS EN 1982 CC491K. Bronze disc to CC491K up to 3/4" and Manganese Bronze disc 1" to 3".

**MSS SP80 CONFORMANCE:** D142 meets the essential requirements of the Standard such as pressure temperature rating, functional attributes, material of construction, wall thickness and thread depth. D142.AT complies with end connections as well.

The Valve is suitable for use in group 2 gases, group 1 and group 2 liquids, as defined by the Pressure Equipment Directive 2014/68/EU.\*

\* See page 159 for more information

# D151X

Bronze Gate Valve  
Non rising stem

PN25

D151X

## Features & Benefits

The D151X bronze gate valve offers a dependable and long service life across a wide variety of applications by virtue of its design and material composition.

- Non-rising stem design to minimise installation height
- Full bore design to ensure minimal pressure drop
- Adjustable gland packing for ease of maintenance
- Material selection results in superior dezincification (DZR) and corrosion resistance properties
- Body, bonnet and disc are made from low lead content bronze, typically 4-6%
- Conforms with BS EN12288:2010 and generally conforms with MSS SP 80.

## Materials

PART	MATERIAL	SPECIFICATION	SIZES
Body	Bronze	BS EN 1982 (CC491K)	ALL
Bonnet	Bronze	BS EN 1982 (CC491K)	ALL
Stem	DZR Brass	BS EN 12164 CW602N	ALL
Disc	Bronze	BS EN 1982 (CC491K)	ALL
Stem Retainer	DZR Brass	BS EN 12164 CW602N	1/2 - 2
Stuffing Box	DZR Brass	BS EN 12164 CW602N	1/4 - 3/8, 2 1/2 - 3
Packing Ring	PTFE	-	ALL
Packing Nut	Brass	BS EN 12164 CW614N	ALL
Packing Gland	Brass	BS EN 12164 CW614N	1/4 - 3/8, 1 - 3
Handwheel	Aluminium	-	ALL
Identification Plate	Aluminium	-	ALL
Handwheel Nut	Brass	BS EN 12164 CW614N	ALL
Gasket	Asbestos Free	-	3

## Dimensions & Weights

SIZE (inch)	A (mm)	B (mm)	C (mm)	D (mm)	WEIGHT (kg)	KV
1/4	46	75	45	86.7	0.27	-
3/8	46	75	45	86.7	0.26	-
1/2	50	78	52.3	93.0	0.27	21
3/4	54	84	60	103	0.38	39
1	62	105	65	127	0.59	66
1 1/4	71	111	70	139	0.89	116
1 1/2	77.5	130	78	163	1.31	162
2	87.5	153	92	193	2.09	281
2 1/2	106	235	103	286.2	5.62	411
3	113	251	121	310.3	7.89	635

**PRESSURE RATING:** PN25

**TEMPERATURE OPERATING RANGE:**  
-10 to 186°C

**UK END CONNECTION:**

FIG. D151X: Taper threaded to BS EN 10226-2 (ISO 7-1) formerly BS 21

**US END CONNECTION:**

FIG. D151X.AT: ANSI B1.20.1

**OPERATOR:** Handwheel.

Gate valves are best for services that require infrequent valve operation, and where the disc is kept either fully opened or fully closed. They are not practical for throttling.

**SPECIFICATION:** Bronze Gate Valve, Non-Rising Stem, Solid Wedge, Screwed Bonnet, in accordance with BS EN 12288:2010, PN25 rated. Body, Bonnet and disc to Bronze to BS EN 1982 CC491K. DZR Brass Stem to CW602N. PTFE packing ring complete with Brass packing gland and nut design.

**MSS SP80 CONFORMANCE:** D151X meets the essential requirements of the Standard such as pressure temperature rating, functional attributes, material of construction, wall thickness and thread depth. D151X.AT complies with end connections as well.

Suitable for use on Group 2 Gas, Group 1 and Group 2 Liquids as defined by Pressure Equipment Directive 2014/68/EU, and Pressure Equipment (Safety) Regulations 2016, as amended.\*

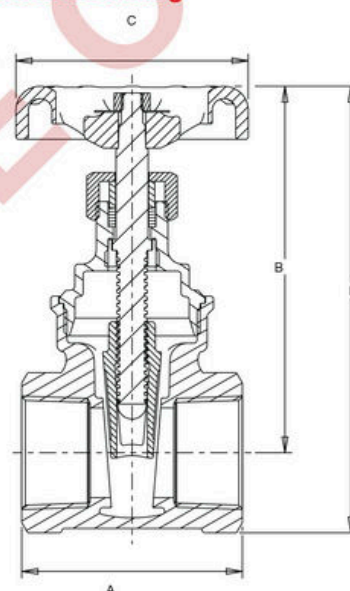
Not suitable for use on Group 1 Gases or unstable liquids.

\*see Quality Assurance page for more information



Please note: the photograph & dimensional drawing denotes sizes 1/2" - 2" only.

## Dimensional Drawing



## Pressure/Temperature Ratings

TEMPERATURE (°C)	-10 to 66	120	170	186
PRESSURE (BAR)	25.0	21.8	12.8	10.5

Intermediate pressure ratings shall be determined by interpolation.



## D156

Brass Gate Valve  
Non rising stem

PN16

D156

## Features &amp; Benefits

- Crane gate valves offer the ultimate in dependable service wherever minimum pressure drop is important



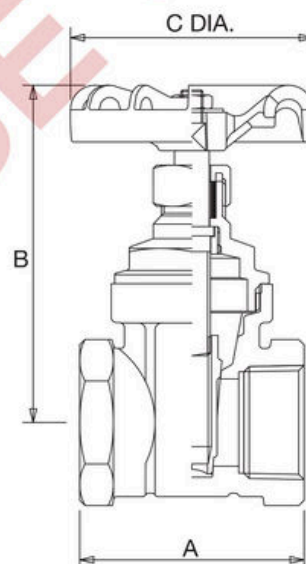
## Materials

PART	MATERIAL	SIZES
Body	Brass BS EN 12164 CW617N	All
Bonnet	Brass BS EN 12164 CW617N	All
Stem	Brass BS EN 12165 CW617N	All
Packing Nut	Brass BS EN 12165 CW617N	All
Packing	Asbestos Free	All
Stem Bush	Brass BS EN 12165 CW617N	All
Disc	Brass BS EN 12164 CW617N	All
Handwheel	Aluminium	All
Handwheel Nut	Steel (Zinc Plated)	All

## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B (mm)	C (mm)
1/4	0.2	41	69	44
3/8	0.2	41	69	44
1/2	0.22	48	69	44
3/4	0.35	54	79	52
1	0.52	62	92	52
1 1/4	0.77	68	108	65
1 1/2	1.02	72	125	70
2	1.75	82	150	92
2 1/2	2.77	97	176	103
3	3.9	111	204	120
4	6.35	131	262	152

## Dimensional Drawing



## Pressure/Temperature Ratings

TEMPERATURE (°C)	-10 to 100	170
PRESSURE (BAR)	16	7

Intermediate pressure ratings shall be determined by interpolation.

**PRESSURE RATING:** PN16

**TEMPERATURE OPERATING RANGE:** -10 to 170°C

**UK END CONNECTION:** Taper threaded to BS EN 10226-2 (ISO 7-1) formerly BS 21

**US END CONNECTION:** ANSI B1.20.1

**OPERATOR:** Handwheel.

Gate valves are best for services that require infrequent valve operation, and where the disc is kept either fully opened or fully closed. They are not practical for throttling.

**SPECIFICATION:** Valves 1/4" to 2" are manufactured in accordance with BS EN 12288: 2010 PN16 for Series B ratings. Non-Rising Stem.

Suitable for use on Group 2 Gas, Group 1 and Group 2 Liquids as defined by Pressure Equipment Directive 2014/68/EU, and Pressure Equipment (Safety) Regulations 2016, as amended.\*

Not suitable for use on Group 1 Gases or unstable liquids.

\*see Quality Assurance page for more information

## D159

Bronze Gate Valve  
Non rising stem

PN32

D159

## Features &amp; Benefits

The D159 bronze gate valve offers a dependable and long service life across a wide variety of applications by virtue of its design and material composition.

- Non-rising stem design to minimise installation height
- Full bore design to ensure minimal pressure drop
- Adjustable gland packing for ease of maintenance
- Material selection results in superior dezincification (DZR) and corrosion resistance properties
- Body, bonnet and disc are made from low lead content bronze, typically 4-6%



Please note: the photograph & dimensional drawing denotes sizes 1/2" - 2" only.

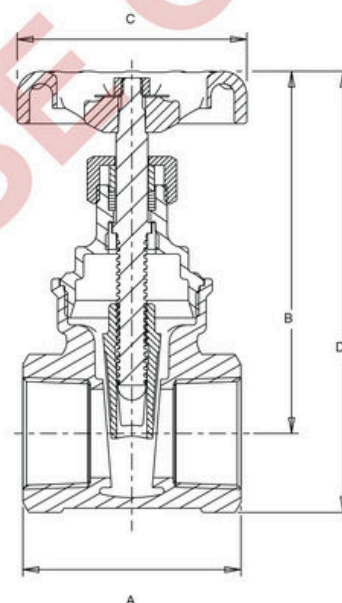
## Materials

PART	MATERIAL	SPECIFICATION	SIZES
Body	Bronze	BS EN 1982 (CC491K)	ALL
Bonnet	Bronze	BS EN 1982 (CC491K)	ALL
Stem	DZR Brass	BS EN 12164 CW602N	ALL
Disc	Bronze	BS EN 1982 (CC491K)	ALL
Stem Retainer	DZR Brass	BS EN 12164 CW602N	1/2 - 2
Stuffing Box	DZR Brass	BS EN 12164 CW602N	1/4 - 3/8, 2 1/2 - 3
Packing Ring	PTFE	-	ALL
Packing Nut	Brass	BS EN 12164 CW614N	ALL
Packing Gland	Brass	BS EN 12164 CW614N	1/4, 3/8, 1/2, 1 - 3
Handwheel	Aluminium	-	ALL
Identification Plate	Aluminium	-	ALL
Handwheel Nut	Brass	BS EN 12164 CW614N	ALL
Gasket	Asbestos Free	-	3

## Dimensions &amp; Weights

SIZE (inch)	A (mm)	B (mm)	C (mm)	D (mm)	WEIGHT (kg)	KV
1/4	46	75	45	86.7	0.36	-
3/8	46	75	45	86.7	0.36	-
1/2	50	78	52.3	93	0.27	21
3/4	54	84	60	103	0.38	39
1	62	105	65	127	0.59	66
1 1/4	71	111	70	139	0.84	116
1 1/2	77.5	130	78	163	1.31	162
2	87.5	153	92	193	2.09	281
2 1/2	105	232	103	283.2	5.62	411
3	111	264	121	323.3	7.89	635

## Dimensional Drawing



## Pressure/Temperature Ratings

TEMPERATURE (°C)	-10 to 100	198
PRESSURE (BAR)	32	14

Intermediate pressure ratings shall be determined by interpolation.

**PRESSURE RATING:** PN32

**TEMPERATURE OPERATING RANGE:** -10 to 198°C

**UK END CONNECTION:** FIG. D159:  
Taper threaded to BS EN 10226-2  
(ISO 7-1) formerly BS 21

**US END CONNECTION:**  
FIG. D159.AT: ANSI B1.20.1

**OPERATOR:** Handwheel.

Gate valves are best for services that require infrequent valve operation, and where the disc is kept either fully opened or fully closed. They are not practical for throttling.

**SPECIFICATION:** The valve body, bonnet and disc shall be of Bronze to BS EN 1982 CC491K. The stem shall be of DZR Brass to BS EN 12164 CW602N. Operation shall be by hand wheel. Ends to be threaded to BS EN 10226-2. The valve is to be rated at PN32 and manufactured in accordance with BS EN 12288: 2010.

Suitable for use on Group 2 Gas, Group 1 and Group 2 Liquids as defined by Pressure Equipment Directive 2014/68/EU, and Pressure Equipment (Safety) Regulations 2016, as amended.\*

Not suitable for use on Group 1 Gases or unstable liquids.

\*see Quality Assurance page for more information



## D166

Bronze Gate Valve  
Rising stem

PN32

D166

## Features &amp; Benefits

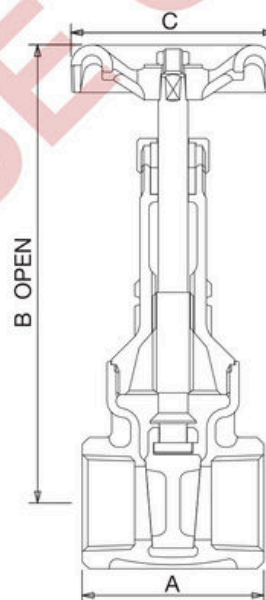
- Crane gate valves offer the ultimate in dependable service wherever minimum pressure drop is important



## Materials

PART	MATERIAL	SIZES
Body	Bronze BS EN 1982 CC491K	All
Bonnet	Bronze BS EN 1982 CC491K	All
Stem	Bronze BS EN 1982 CC491K	1/4 - 2
Stem	Bronze BS EN 1982 CC491K	All
Disc	Bronze BS EN 1982 CC491K	All
Packing	Asbestos Free	All
Gland	Brass BS EN 12164 CW614N	All
Packing Nut	Brass BS EN 12164 CW614N	1/4 - 2
Packing Nut	Bronze BS EN 1982 CC491K	2 1/2 & 3
Handwheel	Aluminium	All
ID Plate	Aluminium	All
Handwheel Nut	Brass BS EN 12164 CW614N	All

## Dimensional Drawing



## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B (mm)	C (mm)
1/4	0.32	46	126	45
3/8	0.31	46	126	45
1/2	0.46	51	129	52
3/4	0.72	55	159	65
1	1.1	63	189	70
1 1/4	1.5	71	219	78
1 1/2	2.25	73	246	92
2	3.2	84	301	92
2 1/2	5.8	105	369	134
3	8.52	111	416	134

## Pressure/Temperature Ratings

TEMPERATURE (°C)	-10 to 100	198
PRESSURE (BAR)	32	14

Intermediate pressure ratings shall be determined by interpolation.

**PRESSURE RATING:** PN32

**TEMPERATURE OPERATING RANGE:**  
-10 to 198°C

**UK END CONNECTION:** Taper threaded to BS EN 10226-2 (ISO 7-1) formerly BS 21

**US END CONNECTION:** ANSI B1.20.1

**OPERATOR:** Handwheel.

Gate valves are best for services that require infrequent valve operation, and where the disc is kept either fully opened or fully closed. They are not practical for throttling.

**SPECIFICATION:** Valves are manufactured in accordance with BS EN 12288: 2010 PN32 for Series B ratings. Rising Stem.

This valves is suitable for use on Group 2 Gas, Group 1 and Group 2 Liquids as defined by Pressure Equipment Directive 2014/68/EU, and Pressure Equipment (Safety) Regulations 2016, as amended. \* Not suitable for use on Group 1 Gases or unstable liquids.

\*see Quality Assurance page for more information

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# D180

Bronze Gate Valve  
Rising stem

PN32

D180

## Features & Benefits

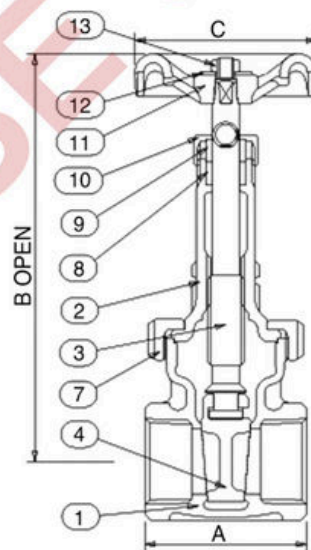
- Crane gate valves offer the ultimate in dependable service wherever minimum pressure drop is important
- Conforms with BS EN12288:2010 and generally conforms with MSS SP 80.



## Materials

PART	MATERIAL	SIZES
Body	Bronze BS EN 1982 CC491K	All
Bonnet	Bronze BS EN 1982 CC491K	All
Stem	Bronze BS EN 1982 CC491K	1/4 - 2
Stem	Bronze BS EN 12164 CW602N	2 1/2 & 3
Disc	Bronze BS EN 1982 CC491K	All
Union Ring	Bronze BS EN 1982 CC491K	1/4 - 2 only
Packing	Asbestos Free	All
Gland	Brass BS EN 12164 CW614N	All
Packing Nut	Brass BS EN 12164 CW614N	1/4 - 2
Packing Nut	Bronze BS EN 1982 CC491K	2 1/2 & 3
Handwheel	Aluminium	1/4 - 2
Handwheel	Malleable Iron BS EN 1562 GJMB-300-6	2 1/2 & 3
ID Plate	Aluminium	All
Handwheel Nut	Brass BS EN 12164 CW614N	All
Stud	Steel BS 970 070M20	2 1/2 & 3" only
Stud Nut	Steel BS 4190 Gr.4	2 1/2 & 3" only
Gasket	Asbestos Free	2 1/2 & 3" only

## Dimensional Drawing



## Dimensions & Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B (mm)	C (mm)
1/4	0.32	46	126	45
3/8	0.31	46	126	45
1/2	0.46	51	129	52
3/4	0.72	55	159	65
1	1.1	63	189	70
1 1/4	1.5	71	219	78
1 1/2	2.3	73	246	92
2	3.2	83	301	92
2 1/2	5.8	120	369	134
3	8.5	134	416	134

## Pressure/Temperature Ratings

TEMPERATURE (°C)	-10 to 120	260
PRESSURE (BAR)	32	14

Intermediate pressure ratings shall be determined by interpolation.

**PRESSURE RATING:** PN32

**TEMPERATURE OPERATING RANGE:**  
-10 to 260°C

**UK END CONNECTION:** Taper threaded to BS EN 10226-2 (ISO 7-1) formerly BS 21

**US END CONNECTION:** ANSI B1.20.1

**OPERATOR:** Handwheel.

Gate valves are best for services that require infrequent valve operation, and where the disc is kept either fully opened or fully closed. They are not practical for throttling.

**SPECIFICATION:** Bronze Gate Valves Rising Stem, Solid Wedge, Union Bonnet, in accordance with BS EN 12288:2010 PN32 rated complete with Backseating feature. Valve Body, Bonnet and disc to Bronze to BS EN 1982 CC491K. Bronze Stem up to 2" and DZR Brass Stem for sizes 2 1/2" & 3". PTFE packing ring complete with Brass packing gland and nut design.

**MSS SP80 CONFORMANCE:** D180 complies with MSS SP 80, however, valve markings and threaded ends confirms with BS EN 12288:2010 only. D180.AT complies with threaded ends as well.

This valve is suitable for use on Group 2 Gas, Group 1 and Group 2 Liquids as defined by Pressure Equipment Directive 2014/68/EU, and Pressure Equipment (Safety) Regulations 2016, as amended.\*

Not suitable for use on Group 1 Gases or unstable liquids.

\*see Quality Assurance page for more information

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**D297****Strainer****PN32****D297****Features & Benefits**

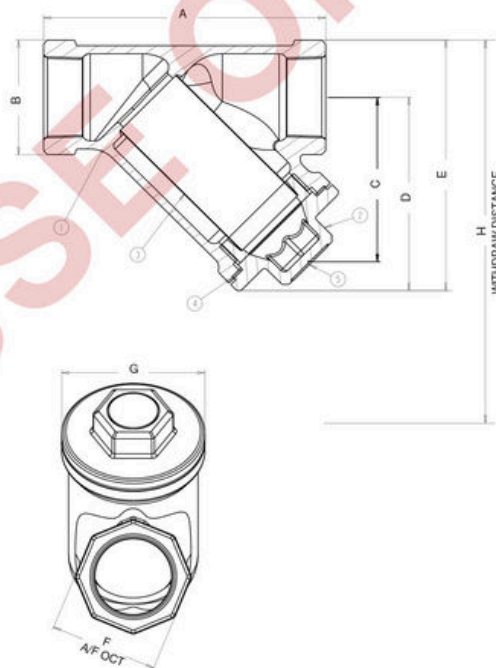
- Eliminate the problems caused by foreign matter within piping systems
- Perforated stainless steel screen with robust design, low flow resistance and high quality materials
- WRAS approved for use on hot and cold water systems up to 85°C
- 0.75mm screen perforations

**Materials**

PART	MATERIAL	SPECIFICATION
Body	Bronze	BS EN 1982 CC491K
Cap	Bronze	BS EN 1982 CC491K
Strainer Mesh	Stainless Steel	Type 304
Gasket	Klingersil	C4430
ID Plate	Anodised Aluminium	

**Dimensions & Weights**

SIZE (inch)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (Rc)	Kv	WEIGHT (kg)
1/2	71	29	42	49	63	27	35	144	4.4	0.27
3/4	86	35	51	60	77	33	44	176	9.5	0.44
1	101	45	55	67	90	42	54	202	16.5	0.78
1 1/4	134	54	80	93	120	50	63	294	24.5	1.30
1 1/2	148	63	87	103	134	58	73	322	30.8	1.81
2	176	77	98	119	157	71	93	367	55.6	3.10

**Dimensional Drawing****Pressure/Temperature Ratings**

TEMPERATURE (°C)	-10 to 100	130	15	180	200
PRESSURE (BAR)	32	26.5	22.8	17.4	14

Intermediate pressure ratings shall be determined by interpolation.

**PRESSURE RATING:** PN32**TEMPERATURE OPERATING RANGE:** -10 to 200°C**UK END CONNECTION:**

Taper threaded to BS EN 10226-2

**US END CONNECTION:** ANSI B1.20.1

**SPECIFICATION:** Strainers fitted with stainless steel perforated strainer element with 0.75mm diameter holes. Screens fitted into Crane Strainers conform to the high standards of materials and workmanship associated with all Crane products.

This strainer is not suitable for use on Group 1 gases, Group 2 gases or unstable fluids, as defined by the Pressure Equipment Directive 2014/68/EU.\*

## F53

Cast Iron Gate Valve  
Non rising Stem

Class 125

F53

## Features &amp; Benefits

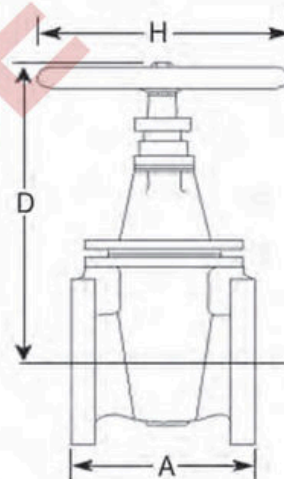
- Crane cast iron gate valves offer the ultimate in dependable service wherever minimum pressure drop is important

## Materials

PART	MATERIAL	SIZES
Body	Cast Iron BS EN 1561 GJL-250	All
Bonnet	Cast Iron BS EN 1561 GJL-250	All
Bonnet Gasket	Asbestos Free	All
Disc	Cast Iron BS EN 1561 GJL-250	All
Stem	Brass BS EN 12164: CW603N	2-10
Stem	Stainless Steel BS EN 10088-3 1.4006 (SS410) / Brass BS EN 12164: CW603N	12
Stuffing Box	Cast Iron BS EN 1561 GJL-250	All
Gland	Cast Iron BS EN 1561 GJL-250	All
Stuffing Box Gasket	Asbestos Free	All
Packing	Asbestos Free	All
Handwheel	Cast Iron	All
Body Seat Ring	Bronze BS EN 1982 CC491K	All
Disc Stem Nut	Bronze BS EN 1982 CC491K	All
Disc Ring	Bronze BS EN 1982 CC491K	All



## Dimensional Drawing



## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	D (mm)	H (mm)
2	12.7	178	277	140
2½	15.8	190	296	140
3	19.5	203	337	152
4	29.3	229	369	203
5	39.5	254	429	229
6	45.8	267	470	229
8	84	292	600	305
10	148	330	722	356
12	198	356	818	406

## Pressure/Temperature Ratings

TEMPERATURE (°C)	-10 to 65	230
PRESSURE (BAR)	13.8	8.6

Intermediate pressure ratings shall be determined by interpolation.

**PRESSURE RATING:** Class 125

**TEMPERATURE OPERATING RANGE:** -10 to 230°C

**US END CONNECTION:** ANSI Class 125

**OPERATOR:** Handwheel.

Gate valves are best for services that require infrequent valve operation, and where the disc is kept either fully opened or fully closed. They are not practical for throttling.

**SPECIFICATION:** Valves are manufactured in accordance with BS 5150:1990. End flanges conform to BS 1560 Section 3.2/ANSI B16.1 Class 125 with flat face and are normally supplied drilled.

Wedge Disc, Non-Rising Stem, Inside Screw, Bronze Trim. This valve is not suitable for use on group 1 gases or unstable fluids, as defined by the Pressure Equipment Directive 2014/68/EU.\*

**AVAILABLE OPTIONS:** Flanges Undrilled

\* See page 159 for more information

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F58

## F58

Cast Iron Gate Valve  
Rising Stem

Class 125

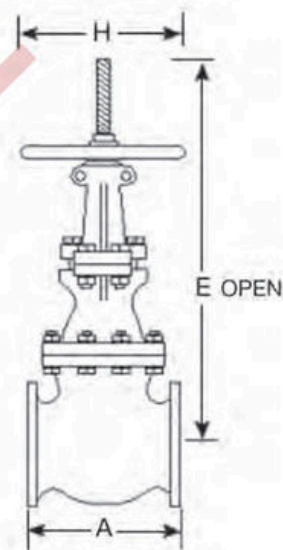
## Features &amp; Benefits

- Crane cast iron gate valves offer the ultimate in dependable service wherever minimum pressure drop is important
- Rising stem gives visual indication of valve open position

## Materials

PART	MATERIAL	SIZES
Body	Cast Iron BS EN 1561 GJL-250	All
Bonnet	Cast Iron BS EN 1561 GJL-250	All
Disc	Cast Iron BS EN 1561 GJL-250	All
Stem	13% Cr.Steel BS 970 Pt.1 410S21 or 431S29	All
Body Seat Ring	Bronze BS EN 1982 CC491K	All
Disc Ring	Bronze BS EN 1982 CC491K	All
Yokesleeve	Bronze BS EN 1982 CC491K	All
Yokesleeve Nut	Ductile Iron ASTM A536 65-45-12	2, 3, 5, 8 & 10
Yokesleeve Nut	Cast Iron BS EN 1561 GJL-250	2 1/2, 4, 6 & 12
Yokesleeve Ret'g Nut	Ductile Iron ASTM A536 65-45-12	2, 3, & 5
Yokesleeve Ret'g Nut	Cast Iron BS EN 1561 GJL-250	2 1/2, 4, 6 & 12
Disc Stem Nut	Bronze BS EN 1982 CC491K	All
Gland	Cast Iron BS EN 1561 GJL-250	All
Packing	Asbestos Free	All
Gasket	Asbestos Free	All
Yoke	Cast Iron BS EN 1561 GJL-250	8, 10 & 12
Handwheel	Malleable Iron BS EN 1562 GJMB-300-6	All

## Dimensional Drawing



## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	E (mm)	H (mm)
2	17	178	365	152
2 1/2	20	190	448	152
3	28	203	481	203
4	38	229	622	229
5	56	254	672	254
6	60	267	835	254
8	112	292	989	305
10	185	330	1208	356
12	242	356	1469	406

## Pressure/Temperature Ratings

TEMPERATURE (°C)	-10 to 65	230
PRESSURE (BAR)	13.8	8.6

Intermediate pressure ratings shall be determined by interpolation.

**PRESSURE RATING:** Class 125

**TEMPERATURE OPERATING RANGE:** -10 to 230°C

**US END CONNECTION:** ANSI Class 125

**OPERATOR:** Handwheel.

Gate valves are best for services that require infrequent valve operation, and where the disc is kept either fully opened or fully closed. They are not practical for throttling.

**SPECIFICATION:** Valves are manufactured in accordance with BS 5150: 1990. End flanges conform to BS 1560 section 3.2/ANSI B16.1 Class 125 with flat face and are normally supplied drilled. Wedge Disc, Rising Stem, Outside Screw and Yoke.

This valve is not suitable for use on group 1 gases or unstable fluids, as defined by the Pressure Equipment Directive 2014/68/EU.\*

**AVAILABLE OPTIONS:** Flanges Undrilled, P50 Locking Device

\* See page 159 for more information

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## F84

Cast Iron Gate Valve  
Rising Stem

Class 125

F84

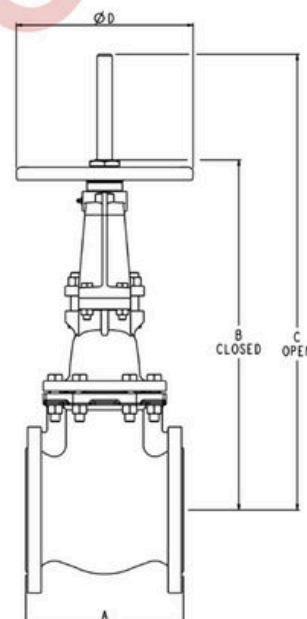
## Features &amp; Benefits

- Crane cast iron gate valves offer the ultimate in dependable service wherever minimum pressure drop is important
- Manufactured in accordance with BS 5150:1990 and generally compliant with MSS SP 70.
- Rising stem gives visual indication of valve open position

## Materials

PART	MATERIAL	SIZES
Body	Cast Iron BS EN 1561 EN-GJL-250	2 - 8
Body	Ductile Iron BS EN 1563 EN-GJS-450-10 (ASTM A536 65-45-12)	10 - 12
Bonnet	Cast Iron BS EN 1561 EN-GJL-250	2 - 8
Bonnet	Ductile Iron BS EN 1563 EN-GJS-450-10 (ASTM A536 65-45-12)	10 - 12
Disc	Cast Iron BS EN 1561 EN-GJL-250	2 - 8
Disc	Ductile Iron BS EN 1563 EN-GJS-450-10 (ASTM A536 65-45-12)	10 - 12
Stem	ASTM B16 - C36000	2 - 12
Body Seat Ring	Bronze BS EN 1982 CC491K	2 - 12
Disc Seat Ring	Bronze BS EN 1982 CC491K	2 - 12
Yoke	Cast Iron BS EN 1561 EN-GJL-250	6 - 10
Yoke	Ductile Iron BS EN 1563 EN-GJS-450-10 (ASTM A536 65-45-12)	12
Yoke Hub Bolts / Nuts	Steel Grade 8 / 8.8	2 - 12
Yoke Pad Bolts / Nuts	Steel Grade 8 / 8.8	6 - 12
Yoke Sleeve	Bronze BS EN 1982 CC491K	2 - 12
Yoke Sleeve H/W Nut	Ductile Iron BS EN 1563 EN-GJS-450-10 (ASTM A536 65-45-12)	2 - 12
Yoke Sleeve Ret. Nut	Ductile Iron BS EN 1563 EN-GJS-450-10 (ASTM A536 65-45-12)	8 - 12
Gland Flange / Gland	Ductile Iron BS EN 1563 EN-GJS-450-10 (ASTM A536 65-45-12)	2 - 12
Gland Bolts	Steel Grade 8 / 8.8	2 - 12
Packing	Asbestos Free	2 - 12
Gasket (Body/Bonnet)	Asbestos Free	2 - 12
Bonnet Bolts / Nuts	Steel Grade 8 / 8.8	2 - 12
Handwheel	Cast Iron BS EN 1561 EN-GJL-250	2 - 10
Handwheel	Ductile Iron BS EN 1563 EN-GJS-450-10 (ASTM A536 65-45-12)	12
Body Plate	Anodised Aluminium	2 - 12

## Dimensional Drawing



## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B (mm)	C (mm)	D (mm)
2	16	178	300	363	152
2½	20	190	322	394	152
3	26	203	384	473	203
4	37	229	450	562	229
5	50	254	523	664	254
6	61	267	608	761	254
8	102	292	757	981	305
10	168	330	921	1199	356
12	230	356	993	1303	400

## Pressure/Temperature Ratings

TEMPERATURE (°C)	-10 to 65	230
PRESSURE (BAR)	13.8	8.6

Intermediate pressure ratings shall be determined by interpolation.

**PRESSURE RATING:** Class 125

**TEMPERATURE OPERATING RANGE:**  
-10 to 230°C

**US END CONNECTION:** ANSI Flanged  
**OPERATOR:** Handwheel.

**SPECIFICATION:** Iron Gate Valves, with IBBM - Iron Body, Bronze Mounted, with Iron Bonnet, Disc, Bronze CC491K Seat Ring, Bronze Yoke-Sleeve, Brass Stem, designed to BS 5150 and generally compliant with MSS SP-70. End Flanges conform to BS 1560 Section 3.2/ANSI B16.1 Class 125 with flat face.

This valve is not suitable for use on group 1 gases or unstable fluids, as defined by the Pressure Equipment Directive 2014/68/EU.\* Valves tested in accordance with BS EN 12266-1: 2003.

\*see Quality Assurance page for more information

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## F372

## Cast Iron Globe Valve

Class 125

F372

## Features &amp; Benefits

- Crane cast iron globe valves are highly efficient for throttling because seat and disc designs provide flow characteristics with proportionate relationships between valve lift and flow rate

## Materials

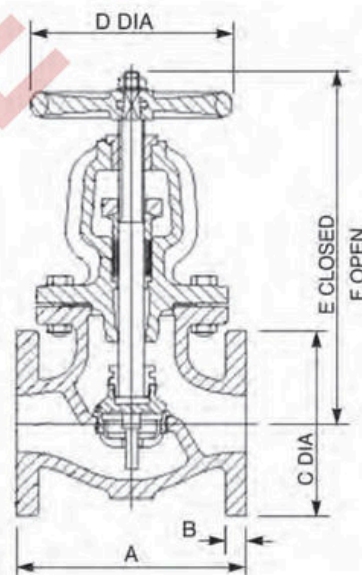
PART	MATERIAL	SIZES
Body	Cast Iron BS EN 1561 GJL-250	All
Bonnet	Cast Iron BS EN 1561 GJL-250	All
Disc Guide Pin	Brass BS EN 12164 CW721R	5 & 6
Gland	Brass BS EN 12164 CW614N	All
Gland Flange	Malleable Iron BS EN 1562 GJMB-300-6	All
Gasket	Asbestos Free	All
Disc Stem Ring	Brass BS EN 12164 CW721R	All
Lockwasher	Brass BS EN 1652	All
Disc	Bronze BS EN 1982 CC491K	All
Body Seat Ring	Bronze BS EN 1982 CC491K	All
Stem	Brass BS EN 12164 CW721R	All
Packing	Asbestos Free	All
Yoke Bushing	Brass BS EN 12164 CW721R	All
Handwheel	Malleable Iron BS EN 1562 GJMB-300-6	All

## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
2	23.1	203	16	152	203	310	335
2 1/2	27.2	216	17	178	203	330	356
3	34.5	241	19	191	229	362	392
4	54.4	292	24	229	254	416	446
5	70.8	330	24	254	305	457	489
6	95.3	356	25	279	305	476	516



## Dimensional Drawing



## Pressure/Temperature Ratings

TEMPERATURE (°C)	-10 to 65	150	230
PRESSURE (BAR)	13.8	11.4	8.6

Intermediate pressure ratings shall be determined by interpolation.

**PRESSURE RATING:** Class 125

**TEMPERATURE OPERATING RANGE:** -10 to 230°C

**US END CONNECTION:** ANSI Class 125

**OPERATOR:** Handwheel

**AVAILABLE OPTIOS:** Flanges Undrilled

**SPECIFICATION:** Valves are manufactured in accordance with BS 5152: 1974 and also meet the requirements of MSS.SP-85: 2002.

End flanges conform to BS 1560 Section 3.2/ANSI B16.1 Class 125 with Flat Face and are normally supplied drilled.

Valves detailed on this page are dimensioned in metric terms.

This valve is not suitable for use on Group 1 gases or unstable fluids, as defined by the Pressure Equipment Directive 2014/68/EU.\*

\* See page 159 for more information

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Valid as of 290719

## F493

## Cast Iron Swing Check Valve

Class 125

F493

## Features &amp; Benefits

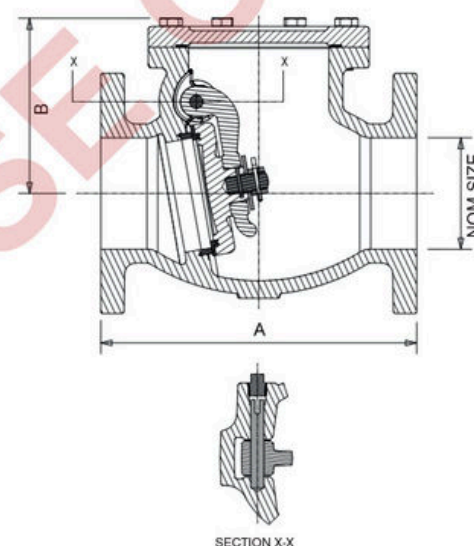
- Check valves permit flow in one direction only and close automatically if the flow reverses.
- Entirely automatic in action, depending upon pressure and velocity of flow within the line to perform their functions of opening and closing
- The F493 is a swing check valve with a Bronze trim
- Manufactured to BS EN 16767
- Fusion Bonded Epoxy coating suitable for C3 environment



## Materials

PART	MATERIAL	SIZES
Body	Cast Iron BS EN 1561 GJL-250	All
Cap	Cast Iron BS EN 1561 GJL-250	All
Disc	Cast Iron BS EN 1561 GJL-250	All
Body Seat Ring	Bronze BS EN 1982 CC491K	All
Disc Ring	Bronze BS EN 1982 CC491K	All
Hinge	Ductile Iron BSEN1563 EN-GJS-450-10	All
Hinge Pin Plug	Brass BS2874 C2122	All
Hinge Pin	Stainless Steel Type 304	All
Cap Bolts	Steel BS970 43A	All
Gasket	Asbestos Free	All
Body Plate	Aluminium	All

## Dimensional Drawing



## Dimensions &amp; Weights

SIZE (inch)	WEIGHT (kg)	A (mm)	B (mm)	Kv
2	10.4	203	103	123.70
2 1/2	14.2	216	120	208.90
3	19.0	241	141	316.40
4	33.3	292	162	494
5	49.0	330	187	772
6	63.6	356	211	1111.80
8	112.0	495	270	1976.50
10	189.5	622	316	3088.30
12	247.0	698	357	4447.10

## Pressure/Temperature Ratings

TEMPERATURE (°C)	-10 to 65	150	230
PRESSURE (BAR)	13.8	11.4	8.6

Intermediate pressure ratings shall be determined by interpolation.

**PRESSURE RATING:** Class 125

**TEMPERATURE OPERATING RANGE:** -10 to 230°C

**US END CONNECTION:** ANSI Class 125

**OPERATOR:** Swing Check Valve

**SPECIFICATION:** Swing check valve with cast Iron body and bonnet to BS EN 1561 GJL-250, cast iron disk to BS EN 1561 GJL-250 with bronze disk facing and bronze seat to BS EN 1982 CC491K. Valve is full bore and manufactured in accordance with BS EN 16767 and rated PN16 with -10 to 65°C temperature range. Gasket material shall be graphite-based. Valve is supplied with drilled flanges in accordance with BS EN 1092-2 PN16. Valve has C3 corrosion level epoxy coating and shall be categorized in accordance with the Pressure Equipment Directive 2014/68/EU and EU and the Pressure Equipment (Safety) Regulations 2016.

FIG NO.	MATERIAL	PED CATEGORY BY VALVE SIZE (DN)			PRODUCT APPLICATIONS			
		SEP	1	2	Group 1 Gas	Group 2 Gas	Group 1 Liquid	Group 2 Liquid
F493	Cast Iron	50-65	80-125	150-300	-	✓	✓	✓

\*see Quality Assurance page for more information

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# VALVES WE OFFER

CRANE

FLUID SYSTEMS



**GATE**



**CHECK**



**BALL**



**Y-STRAINER**



**GLOBE**

## SPECIFICATIONS:

### STANDARDS:

ASTM A105 , API, ASME, AND ANSI B16.5

- size: 1/4" - 48"
- Thickness: Class 150 -2,500
- All Items will have an accompanying Mill Test Certificate upon request

## APPLICATIONS:

- Industrial
- Residential
- Petrochemical Plants
- Oil & Gas
- Refineries
- Sugar Mills
- Energy
- Construction & Infrastructure
- Chemicals
- Machineries
- Boilers
- Food & Beverage
- Shipping
- Desalination Plant
- Power Plants
- Automotive & Transport
- High-Pressure Vessel

## PICV (PRESSURE INDEPENDENT CONTROL VALVE)

CRANE

FLUID SYSTEMS



- SIZE: DN15-DN150
- PRESSURE (BAR) RATING: 16 - 25 BAR
- TEMPERATURE RATING: 0° - 90°
- FLOW RANGE: 0.008 - 0.850 L/S
- DIFFERENTIAL PRESSURE RANGE: 20 - 800 KPA

## DRV (DOUBLE REGULATING VALVE/BALANCING VALVE)

CRANE

FLUID SYSTEMS



- SIZE: DN15-DN150
- PRESSURE (BAR) RATING: 16 - 25 BAR
- TEMPERATURE RATING: -10° - 120°

## WHY SWITCH TO PICV IN YOUR HVAC SYSTEM?

- 5% - 35% more energy efficient
- Eliminates the need for separate Balancing Valves
- Lower maintenance cost
- Better temperature control
- Prevent excess or insufficient water flow

## APPLICATIONS FOR PCV & DRV:

- Data Centers & Tech Facilities
- Office Buildings
- Shopping Malls
- Hotels & Resorts
- Manufacturing Plants
- Hospitals
- Clinics
- Train Stations
- Bus Terminals
- LEED-certified buildings
- Smart buildings
- Military Facilities
- Laboratories
- Universities
- Schools
- Research Facilities
- Pharmaceutical Facilities
- Courthouses
- Municipal Buildings
- Food & Beverage Processing

