

CRANE



IRON VALVES

Gate Valves

Globe Valves

Check Valves

Iron Gate Valve Features

Crane gate valves offer the ultimate in dependable service wherever minimum pressure drop is important. They serve as efficient stop valves with fluid flow in either direction.

The straight through design offers little resistance to flow and reduces pressure drop to a minimum. A disc actuated by a stem and handwheel that moves up and down at right angles to the path of flow, and seats against two seat faces to shut off flow.

Gate valves are best for services that require infrequent valve operation, and where disc is kept either fully opened or closed. They are not recommended for throttling. With the usual type of gate valve, close flow regulation is impossible. Velocity of flow against a partly opened disc may cause vibration and chattering and result in damage to the seating surfaces. Also, when throttled, the disc is subjected to severe wire-drawing erosive effects.

Each valve in this section is classified by its pressure rating. All valves, except clamp gate valves, designated as Class 125 and 250 comply with MSS SP-70 Standard Practice.

Bronze trim valves are recommended for steam, water, air and non-corrosive oil or gas. All have bronze screwed-in seat rings and the discs are solid bronze in sizes 3" (80 mm) and smaller. In larger sizes,

bronze rings are rolled into cast iron discs.

All-iron valves have integral seats, some valves have screwed in seat rings (discs are cast iron) and nickel-plated steel stems. They are recommended for oil, gas, gasoline, or fluids that corrode bronze but not iron or steel.

Features

Face-to-Face Dimensions of flanged end valves comply with MSS SP-70, conform to ANSI/ASME B16.10 in their pressure class.

Flanged End Valves adhere to ASME Specification B16.1 for their pressure class.

Body and Bonnet Components are cast with rigorous control to ASTM A126 Class B Specification for cast-iron. Malleable iron, Ni-resist and 3% nickel iron are also available.

Handwheels are furnished on all valves. Manual gear, hydraulic or motor operators and chainwheels can be supplied when specified.

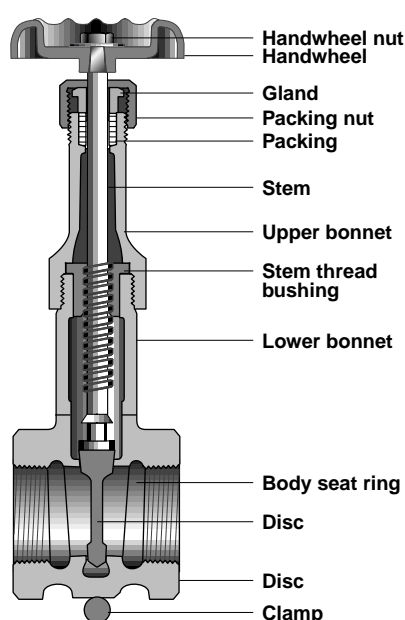
Backseating - Rising stem valves are equipped with backseats. It is recommended that the backseat be used as a means for determining the full open valve

position. For normal operation in the open position, the stem should be backed off so that the backseat is not in contact. This permits the stem packing to assume its intended sealing function and not conceal unsatisfactory stem packing. In the event of stem packing leakage, the backseat can be used to stop stem leakage until circumstances permit a system shutdown and time for packing replacement. Stem packing replacement with the valve under pressure and backseated represents a hazard and should not be undertaken. The hazard is magnified as fluid pressure or temperature increases or when the fluid is toxic.

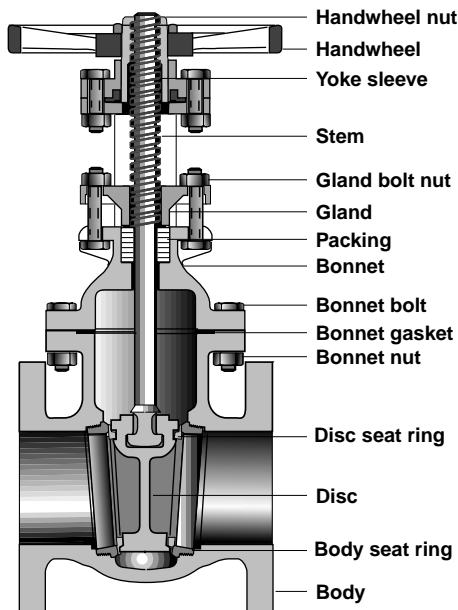
Solid Wedge Gate Valve Discs - The strong, simple, single piece design with long disc guides is a proven performer for all service conditions, particularly suitable for conditions of severe turbulence and stem vibration. Seat and disc surfaces are accurately machined and tapered for shut-off without undue strain.

Threaded End Valves have precision cut threads in accordance with ANSI/ASME B1.20.1.

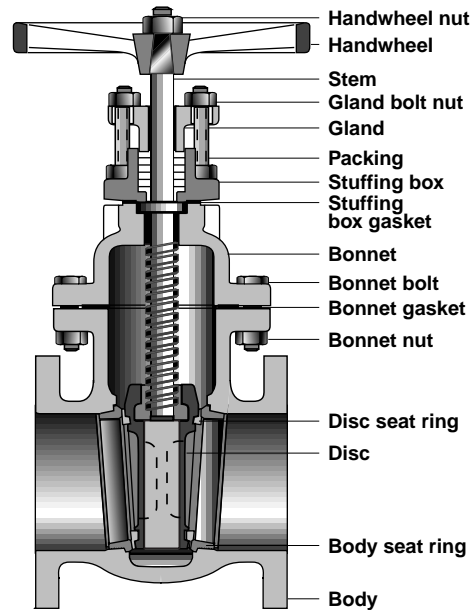
Crane Iron Gate Valves have an identification tag which indicates the valve catalog number and other pertinent data. It provides easy and accurate field reference.



Clamp Gate



O.S. & Y. Gate



NRS Gate

Class 125 • Outside Screw & Yoke • Rising Stem

Features

- Tapered Solid Wedge Disc
- Body Guide Ribs
- Renewable Bronze Seat Rings
- Stem provided with ACME Double Threads for 24" and smaller valves; ACME Single Thread for 30" and 36" valves.
- Non-Asbestos Packing and Gaskets
- MSS-SP-70 Type 1 and MSS-SP-25
- ANSI/ASME B16.10, ANSI/ASME B16.1,
- Valves can be equipped with by-passes when specified.

For more detailed features, refer to page 6.

Figure 465 1/2

Flanged with Bronze Trim

Size Range:

2 through 36 inches

Working Pressures Non-Shock

2" – 12"

125 psi Steam, Basic Rating

200 psi Cold Working Pressure

14" – 24"

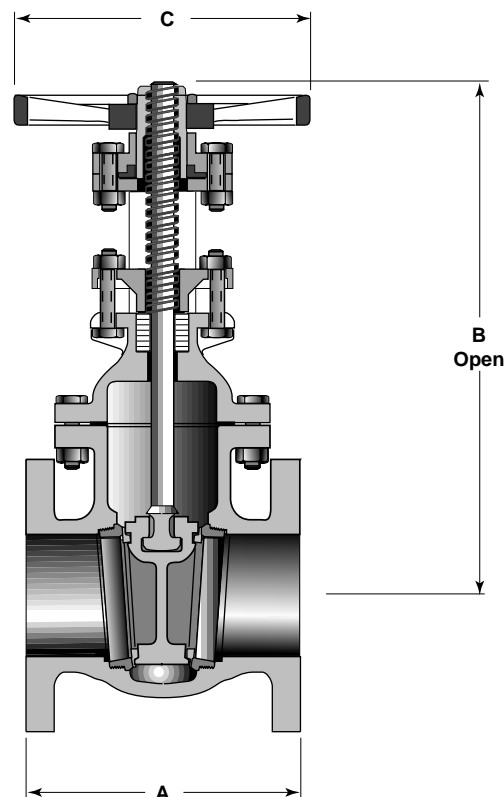
100 psi Steam, Basic Rating

150 psi Cold Working Pressure

30" – 36"

50 psi Steam, Basic Rating

150 psi Cold Working Pressure



Principal Parts & Materials

Fig. No.	Size	Stem	Seating	End Conn.
465 1/2	2" - 36"	Bronze	Bronze	Flanged

Dimensions and Weights

Inches (millimeters) - pounds (kilograms)

Valves	2 (50)	2 1/2 (65)	3 (80)	4 (100)	5 (125)	6 (150)	8 (200)	10 (250)	12 (300)	14 (350)	16 (400)	18 (450)	20 (500)	24 (600)	30 (750)	36 (900)
A	7.00 (178)	7.50 (191)	8.00 (203)	9.00 (229)	10.00 (254)	10.50 (267)	11.50 (292)	13.00 (330)	14.00 (356)	15.00 (381)	16.00 (406)	17.00 (432)	18.00 (457)	20.00 (508)	24.00 (610)	28.00 (711)
B	14.75 (375)	16.06 (408)	17.38 (441)	21.44 (545)	25.81 (656)	30.31 (770)	37.75 (959)	49.41 (1255)	56.81 (1443)	64.88 (1648)	75.19 (1910)	82.00 (2083)	90.19 (2291)	105.31 (2675)	129.62 (3292)	192.69 (4894)
C	8.00 (203)	8.00 (203)	8.00 (203)	10.00 (254)	10.00 (254)	12.00 (305)	14.00 (356)	18.00 (457)	18.00 (457)	20.00 (508)	22.00 (559)	22.00 (559)	24.00 (610)	30.00 (762)	30.00 (762)	30.00 (762)
Wt.	30 (13.6)	47 (21.3)	58 (26.3)	97 (44.0)	125 (56.7)	162 (73.6)	280 (127.2)	502 (228)	670 (304)	1093 (496)	1425 (646)	1738 (788)	2085 (946)	3183 (1444)	5795 (2629)	7622 (3457)