# **METAL SEATED GATE VALVE**

EN 558-1 SERIES 14 (DIN 3202 - F4)

**Description:** Dismantling Joints prove to be pivotal elements in the conceptualization and planning of pipeline and valve systems, providing critical support during the processes of installation and detachment of pipe sections and valves. With their variable dimensions, they facilitate seamless valve integration into pipelines, consequently reducing the duration of operations. They are particularly effective in streamlining the processes involved in the installation and removal of a multitude of valve types and flanged pipe fittings.

### **Material Specification**

Parts	Main Materials	<b>Optional Materials</b>				
Long Body Bonnet Wedge	Ductile Iron	Carbon Steel Stainless Steel Nickel Aluminum Bronze				
Stem	X20Cr13	SS 304, SS 316, NAB				
Nuts	Bronze	Brass, SS 304, SS 316, NAB				
Rings	Bronze	Brass, SS 304, SS 316, NAB				
Seals	EPDM	NBR				
Fasteners	8:8 (Galv.)	SS 304, SS 316				
Handwheel	Cast Iron	Ductile Iron				

#### Notes:

APPROVED

- 1. Different flange drillings are available, including ISO, EN, ANSI, and others.
- 2. The standard operating temperature range is 10°C to +80°C.
- **3.** All RAL Colors are available.
- Potable water certified coating is available.
  Both thermoset and thermoplastic coatin
- 5. Both thermoset and thermoplastic coatings are available.

### **Application:**

Gate Valves are used for isolation purposes and provide drip tight sealing once they are closed. When open, they provide undisturbed water flow. Gate Valves are not suitable for regulation purposes.

### **Features:**

- **Smooth Operation:** Rolled stem design for low operating torque.
- **Ring Alternatives:** Options for pressed in, threaded, or welded rings.
- Accessory Availability: Gearbox and actuator accessories can be provided upon request.
- Installation Flexibility: Suitable for both above-ground and underground installations,

supplemented by handwheel, chainwheel, fixed, and telescopic extension spindle, and surface box accessories.

- **Optional Extras:** Upon request, a wedge guide, jacking screw, wedge stop, or drain plug can be made available for specific sizes.
- Additional Option for Large Sizes: A bypass valve can be requested for larger sizes.





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### Versatility of Gate Valves:

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Valves initiated its operations with the production of Metal Seated Gate Valves. This tried-and-tested design has been utilized in diverse applications worldwide including potable water distribution, shipping industry, HVAC systems, fire protection, industrial cooling, seawater intake, and main transmission lines. Due to their suitability for high pressure and large-scale applications, Metal Seated Gate Valves remain a top choice for professionals. They can accommodate up to PN63 in F5 face-to-face design and up to DN1200 in both F5 and BS face-to-face designs.

### **Customization and Precision in Design:**

Metal Seated Gate Valves feature two body rings and two wedge rings, ensuring leak-free sealing. The matching of body and wedge rings facilitates sealing, though the metal-to-metal seal necessitates high expertise and superior production quality. Our proficiency in providing this leak-free seal hinges on the excellence of design, materials, machining, and ring installation in the valve body. Depending on size, pressure rating, and application, the rings can be installed on the body through press-fitting, threading, or welding. Additionally, we offer a range of ring materials such as brass, bronze, nickel aluminum bronze, and stainless steel 304, 316, to cater to diverse needs.

#### **Mechanism of Gate Valve Operation:**

The Gate Valves incorporate a rotating, non-rising, rolled, mono-block stem that conveys the handwheel's rotation to the wedge. The stem, rotating within the bonnet nut, links to the wedge via the wedge nut. The bonnet nut, threaded to the bonnet, secures the stem against axial movement. The wedge moves in a precast groove in the body, allowing unimpeded water flow when fully open. Both the body and the wedge possess pressed-in, threaded, or welded sealing seats to ensure leak-free sealing when the valve is closed.

### **DIMENSIONS (mm)**

DN	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
D1	160	160	160	200	250	250	315	315	315	400	400	500	500	500	500
Height	250	255	270	280	295	385	430	510	570	655	875	985	1065	1145	1340
Width	160	165	185	200	220	250	285	340	416	470	560	616	670	730	850
Length	140	150	170	180	190	200	210	230	250	270	290	310	330	350	390
Weight (kg)	12	12	16	21	24	35	49	83	117	157	250	315	450	455	700

