

INNOVATIVE SOLUTIONS DRIVEN TO PROVIDE VALUE



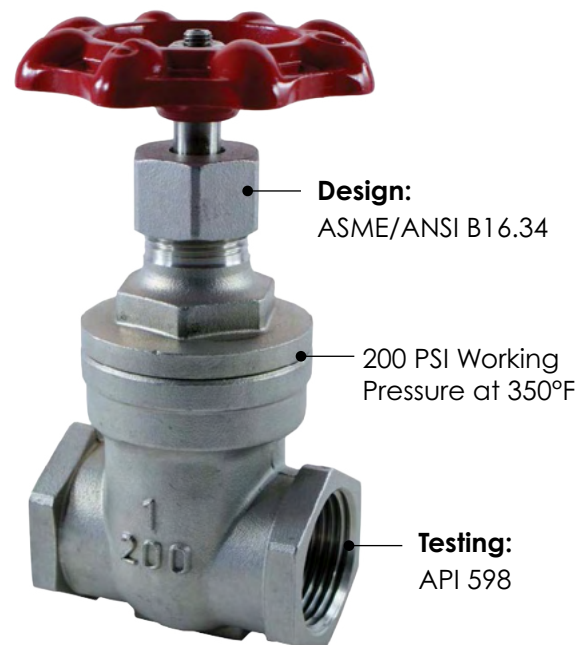
MERIT'S COMPREHENSIVE PACKAGE

- Housing conforms to ASTM A351 CF8M (316 SS)
- PTFE Seals securing a stainless steel (SUS316) gate
- 2 Piece Full Port in Size Range: 1/2" - 2" NPT Threaded Ends
- Non-Rising Stem

GATE VALVE

Class 200 WOG Stainless Steel Gate "V" Series

Stainless steel gate valves offer several benefits due to their material and design, making them suitable for various industrial and commercial applications.



Learn more. www.meritbrass.com/valves

GATE VALVE KEY ADVANTAGES



Corrosion Resistance

Stainless steel is highly resistant to rust and corrosion, especially in harsh environments involving water, chemicals, or high humidity. This makes these valves ideal for industries like oil and gas, chemical processing, and marine applications.



Durability and Longevity

The robust nature of stainless steel ensures that gate valves can withstand high pressure, temperature extremes, and mechanical stress, leading to a longer service life with minimal maintenance.



Versatility

Stainless steel gate valves are compatible with a wide range of fluids, including water, oil, gas, and corrosive substances, making them suitable for diverse applications such as plumbing, wastewater treatment, and food processing.



Low Flow Resistance

Gate valves provide minimal obstruction to flow when fully open, resulting in low pressure drop and efficient fluid flow, which is critical in systems requiring high flow rates.



Tight Sealing

These valves offer excellent shut-off capabilities, ensuring a tight seal when closed, which prevents leaks and is essential for controlling hazardous or expensive fluids.



High Temperature and Pressure Tolerance

Stainless steel gate valves can operate effectively in extreme conditions, handling high-pressure and high-temperature fluids without deforming or failing.



Hygienic Properties

In pharmaceutical and food processing industries, stainless steel's non-porous surface prevents contamination, as it does not harbor bacteria or impurities.



Aesthetic and Clean Appearance

Stainless steel has a polished, professional look and is easy to clean, which is beneficial in applications where appearance or cleanliness is important.



Resistance to Scaling and Pitting

Stainless steel resists scaling and pitting, even in aggressive chemical environments, ensuring consistent performance over time.



Recyclability

Stainless steel is environmentally friendly, as it is fully recyclable, reducing the environmental impact of valve replacement or disposal.

GATE VALVE APPLICATIONS

Gate valves are widely used in piping, valves, and fittings (PVF) installations across various industries due to their ability to provide reliable on/off flow control with minimal pressure drop. Below are the key applications of gate valves in PVF systems, particularly focusing on their use in different sectors:



Water Supply and Distribution Systems

Application

Gate valves are used in municipal water supply networks, irrigation systems, and water treatment plants to control the flow of potable water or wastewater.

Reason

Their ability to provide a tight seal and low flow resistance makes them ideal for isolating sections of pipelines during maintenance or emergencies.



Oil and Gas Industry

Application

Employed in upstream (exploration and drilling), midstream (transportation pipelines), and downstream (refining) operations to regulate the flow of crude oil, natural gas, and refined products.

Reason

Stainless steel or corrosion-resistant gate valves withstand harsh, corrosive environments and high-pressure conditions.



Chemical and Petrochemical Plants

Application

Used to control the flow of aggressive chemicals, acids, and other corrosive fluids in processing plants and refineries.

Reason

Stainless steel gate valves resist corrosion and chemical degradation, ensuring safety and longevity in handling hazardous substances.



Power Generation

Application

Installed in steam, cooling water, and feedwater systems in power plants (thermal, nuclear, or renewable energy facilities).

Reason

Gate valves handle high-temperature and high-pressure fluids with minimal leakage, ensuring efficient system operation.



HVAC Systems

Application

Utilized in heating, ventilation, and air conditioning systems to control the flow of water or refrigerants in large commercial or industrial buildings.

Reason

Their full-flow design minimizes pressure loss, optimizing energy efficiency in HVAC operations.



Marine and Shipbuilding

Application

Used in shipboard piping systems for ballast water, cooling systems, and fuel lines.

Reason

Stainless steel gate valves resist corrosion from saltwater, ensuring reliability in marine environments.



Food and Beverage Industry

Application

Employed in processing lines for liquids like milk, juices, or syrups, where hygiene is critical.

Reason

Stainless steel gate valves are easy to clean, non-contaminating, and meet sanitary standards.



Pharmaceutical Industry

Application

Used in fluid control systems for purified water, sterile solutions, or chemical ingredients during drug manufacturing.

Reason

Their hygienic properties and corrosion resistance ensure compliance with strict regulatory standards.



Fire Protection Systems

Application

Installed in fire sprinkler systems or fire hydrant lines to control water flow for emergency response.

Reason

Gate valves provide reliable shut-off and full flow when needed, critical for fire safety systems.



Mining and Slurry Systems

Application

Used to control the flow of slurries, wastewater, or abrasive fluids in mining operations.

Reason

Robust gate valves, often with specialized designs (e.g., knife gate valves), handle abrasive materials without clogging.



Industrial Process Piping

Application

Found in various manufacturing plants to control gases, liquids, or steam in production processes.

Reason

Their versatility and durability make them suitable for isolating equipment or sections of piping during maintenance.



Wastewater Treatment

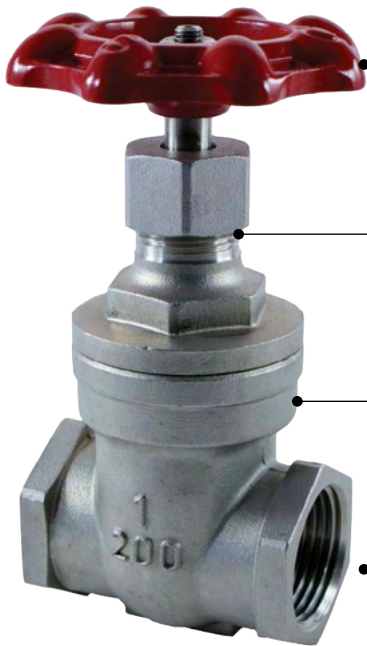
Application

Used in sewage treatment plants to regulate the flow of wastewater, sludge, or treated effluent.

Reason

Corrosion-resistant gate valves handle aggressive fluids and ensure reliable isolation.

KEY CONSIDERATIONS FOR **GATE VALVES** IN PVF INSTALLATIONS



On/Off Control

Gate valves are primarily used for fully open or fully closed positions, not for throttling, as partial opening can cause wear or damage.

Material Selection

Stainless steel, carbon steel, or bronze gate valves are chosen based on the fluid type, temperature, and corrosiveness.

Size and Pressure Rating

Gate valves are available in a wide range of sizes and pressure classes, making them adaptable to small-scale plumbing or large industrial pipelines.

Maintenance

Their simple design allows for easy maintenance, especially in systems requiring periodic isolation.

Gate valves are favored in PVF installations for their reliability, minimal flow restriction, and suitability for a wide range of fluids and operating conditions. If you have a specific application or need details on valve types (e.g., wedge gate, knife gate) or installation considerations, contact our sales team at contactus@meritbrass.com.

800.726.9800

Follow us on      

Merit Brass Headquarters Has An ISO 9001:2015 Registered Quality Management System

www.meritbrass.com

www.mbwebxpress.com

contactus@meritbrass.com