



Bellow Seal Globe Valve Manufacturer in USA

SVR Global is a proud [Bellow Seal Globe Valve Manufacturer in USA](#) that offers a wide range of Bellow Seal Globe Valves. Our designs are specially made to give a high degree of reliability, sustainability, durability, and the highest standards in the entire production process. We also offer customized Bellow Seal Globe Valves that are tailored to specific industrial demands.

What is a Bellow Seal Valve?

Pipelines are getting progressively congested with combustible, dangerous, severely poisonous, and toxic media as new industries emerge, such as the chemical and nuclear industries. As a result, there is a significant risk of leakage, explosion, and health concerns. As a result, the valves that are utilized in these pipes and systems must meet specific leakage and sealing requirements.

A Bellow Sealed Valve, also known as a 'Zero-Leak Valve' or an 'Emission Free Valve,' is a specially engineered industrial valve that was developed in response to the need for a completely new way to provide the necessary sealing for use in industries that deal with toxic media, where even minor leaks can be disastrous.

A metallic bellow cartridge is attached to the valve bonnet on one end and the stem on the other end of these valves and it adds to the usual gland packing. A bellow is a metal tube that looks like an accordion. The bellow cartridge contains a number of convolutions, which are compressed or expanded depending on the movement of the valve stem. When the valve is in the open position, the bellow is compressed, and when the valve is in the closed position, the bellow is expanded. The process fluid cannot pass through any sliding or rotating seals. The fluid will enter the valve through the seat of the valve and make contact with the bellow, but not with the stem.

How does a Bellow Seal Globe Valve work?

The key part of a Bellow Seal Globe valve is the metal bellows.

A Bellow Seal Globe Valve is a control valve with a compact structure that uses bellow to seal the valve stem components. It has a bellow within and the lower end of the stainless-steel bellows is welded to the stem to keep the system fluid from eroding it. To produce a permanent seal, the other end is positioned between the body of the valve and the cover of the valve. This double seal construction ensures zero leakage, as the stem packaging will prevent additional leakage even if the bellows collapse. The bellows are welded to the valve stem to guarantee consistent working efficiency and to avoid valve stem vibration caused by valve insert movement.



What is a Globe Valve?

A globe valve is most commonly used in systems to open, close or throttle flow.

It is named after its globular body. A globe valve has two halves of the body being separated by an internal baffle. It has a disc (ball, composition or plug) attached to a stem that swings up and down to control flow and a seat. The flow line is either parallel to or inclined towards the seats. It stops the flow of fluid by moving the disc against the flow stream.

A globe valve is bi-directional, meaning the fluid can flow in either direction within the valve. It can be used both manually as well as automatically.

Advantages of Bellow Seal Globe Valve:

1. It is designed with a double seal (bellows + packing). As a result, even if the bellows fail, the stem packing will prevent any leakage and ensure that the seal meets international standards.
2. It reduces medium fluid loss and promotes safety and environmental protection.
3. It has the potential to be an energy saver because it helps to reduce energy losses due to leakage.
4. It has a good valve life.
5. The cost of operation and maintenance is significantly decreased.
6. It ensures that there is no leaking from the valve stem, allowing for maintenance-free operation.

Applications of Bellow Seal Globe Valve:

SVR Global is a proud [Bellow Seal Globe Valve Manufacturer in USA](#) that has the following applications-

- Services for high-temperature environments
- Switching and high-cycle services
- Valves for emergency shutoff
- Pressure protection system with high integrity
- Oxygen, nitrogen, or hydrogen at high pressure
- Handling solids (powders, fines, dust, and catalysts)
- Polyethylene or polypropylene is a type of plastic.
- Gasification and coal conversion
- Thermodynamic fluids
- Systems for separating, filtering, and drying
- Stations for compressors
- Isolation service with on/off switch
- Manifolds for oil and gas

- Heat Transfer media.. hot oil is commonly used in industries such as synthetic fibers / POY (Partially Oriented Yarn). However, there is always a risk of fire due to hot oil spillage on highly inflammable chemicals. Here, bellow seal Valves can stop the leakage.
- Vacuum/ultra high vacuum.. some applications require a vacuum pump to continually extract air from a pipeline. Any conventional Valves installed on the pipeline can allow external air to enter the pipeline through the Valve stuffing box. Hence the bellow seal Valve is the only solution to prevent air from passing through the stuffing box.
- Highly hazardous fluids.. for media such as chlorine, hydrogen, ammonia and phosgene, the bellow seal Valve is an ideal design as leakage through the gland is totally eliminated.
- Nuclear plant, heavy water plant.. in instances where radiation leakage is to be prevented at all times, the bellow seal Valve is the ultimate choice.
- Costly fluids.. in some applications leaks need to be avoided simply because of the high cost of the fluid. Here, an economic assessment often favors the use of bellow seal Valves.
- Environmental standards.. around the world, standards regarding emissions and the environment are getting more stringent day by day. It can therefore be difficult for companies to expand within existing premises. With the use of bellow seal Valves, expansion without additional environmental damage is possible.

Industries that use Bellow Seal Globe Valve:

Bellows seal globe valve is highly used in

- Petrochemical industry
- Electronics industry
- Vacuum industry

Description of Bellow Seal Globe Valve:

SVR Global is a proud [Bellow Seal Globe Valve Manufacturer in USA](#) providing an extensive range of valves, in numerous sizes, styles, and designs. Material: WCB, WC6, SS304, SS316, F11, F51, F91, LCC, LCB, WC

Ends: Flanged, Buttweld, Socketweld, Threaded

Class: 150 to 2500

Nominal Pressure: PN25 to PN450

Size: ½" to 24"

Know more about various valves provided by SVR Global -

<https://svrglobal.net/products/bellow-seal-globe-valve/>