The following is the information about the resilient seated gate valve, including product introduction, typical installation schematic diagram, maintenance and troubleshooting, as well as performance characteristics:

#### **Product Introduction**

The resilient seated gate valve is a common type of valve widely used in various pipeline systems. It mainly consists of a valve body, a gate, a valve stem, a resilient sealing seat, and other components. The valve body is typically made of materials such as ductile iron or cast steel, providing high strength and durability. The gate, which is the key component for controlling the flow, is precisely manufactured to ensure a good fit with the resilient sealing seat. The resilient sealing seat is usually made of rubber or other elastic materials, which can achieve a tight seal and prevent leakage.

This value is suitable for a wide range of applications, including water supply and drainage systems, industrial pipelines, and heating systems. It can be used to control the flow of various media such as water, sewage, and air, playing an important role in ensuring the normal operation of the pipeline system.

### Typical Installation Schematic Diagram

- 1. **Installation on Horizontal Pipeline**: When installing on a horizontal pipeline, the valve should be placed in a stable position, and the direction of the medium flow should be consistent with the arrow marked on the valve body. Flanges are usually used for connection, and it is necessary to ensure that the flanges of the valve and the pipeline are aligned accurately, and appropriate gaskets are installed between them to ensure a tight seal.
- 2. **Installation on Vertical Pipeline**: If installed on a vertical pipeline, attention should be paid to ensuring that the gate can move up and down freely. The valve stem should be in a vertical state to avoid any obstruction during the opening and closing process. Similarly, proper alignment of flanges and installation of gaskets are essential.
- 3. **Surrounding Equipment**: It is advisable to install pressure gauges and flow meters before and after the valve to monitor the pressure and flow of the medium. In addition, a bypass pipeline can be installed in some cases to facilitate maintenance and replacement of the valve without interrupting the normal operation of the pipeline system.

### Maintenance and Troubleshooting

- Maintenance:
  - **Regular Inspection**: Regularly check the valve for any signs of leakage, especially at the connection between the gate and the resilient sealing seat and the flange joints. Inspect the valve stem for corrosion, wear, or deformation, and ensure that the threads are in good condition.
  - **Lubrication**: Lubricate the valve stem regularly to reduce friction and ensure smooth operation. Select appropriate lubricants according to the working conditions of the valve.
  - **Cleaning**: Keep the valve body clean and remove any debris or sediment that may accumulate on the surface or inside the valve. For valves used in dirty media pipelines, more frequent cleaning may be required.

# • Troubleshooting:

- **Leakage**: If leakage occurs at the flange joints, check whether the bolts are tightened evenly and whether the gaskets are damaged. If leakage occurs between the gate and the resilient sealing seat, it may be due to wear of the sealing seat or damage to the gate. In such cases, the damaged parts should be replaced in a timely manner.
- **Difficult Operation**: If the valve is difficult to open or close, it may be caused by insufficient lubrication of the valve stem, rust or debris blocking the movement of the gate, or deformation of the valve stem. Check and solve these problems according to the specific situation, such as adding lubricant, cleaning the valve, or replacing the damaged parts.

## **Performance Characteristics**

- 1. **Good Sealing Performance**: The resilient sealing seat provides excellent sealing performance, effectively preventing leakage of the medium and ensuring the stability and reliability of the pipeline system.
- 2. **Durability**: The valve body and other components are made of high-quality materials, which have strong corrosion resistance and wear resistance, enabling the valve to have a long service life.
- 3. **Low Flow Resistance**: The design of the valve ensures a smooth flow passage, reducing the resistance to the flow of the medium and saving energy.
- 4. **Easy to Operate**: The structure of the valve is simple, and the operation is convenient. Whether it is manual operation or equipped with an actuator for remote control, it can be easily achieved.
- 5. **Wide Range of Applications**: It can be applied to various pipeline systems with different media and working conditions, showing strong adaptability.

