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

Product Introduction

The locked resilient seated gate valve is a specialized valve that combines the functions of flow control and anti-unauthorized operation. It mainly consists of a valve body, a gate, a valve stem, a resilient sealing seat, and a locking mechanism. The valve body is usually made of high-quality materials such as ductile iron or stainless steel, providing excellent strength and corrosion resistance.

The gate is precisely machined to ensure a tight fit with the resilient sealing seat. The resilient sealing seat, made of high-quality rubber or other elastic materials, can effectively prevent the leakage of the medium in the pipeline. The unique locking mechanism is the highlight of this valve, which can prevent unauthorized opening or closing of the valve, ensuring the safety and stability of the pipeline system.

This value is widely used in various pipeline systems, such as water supply and drainage systems, heating systems, and industrial pipelines. It is especially suitable for occasions where the value needs to be locked to prevent misoperation or unauthorized access, such as in public facilities, industrial production areas, and some key pipeline sections.

Typical Installation Schematic Diagram

- 1. **Installation Position**: The valve can be installed on a horizontal or vertical pipeline. When installing on a horizontal pipeline, ensure that the valve is in a stable state, and the direction of the medium flow should be consistent with the arrow marked on the valve body. When installed vertically, make sure that the gate can move freely up and down without any obstruction, and the valve stem should be in a vertical position.
- 2. **Connection Method**: Flange connection is commonly used for this valve. Before installation, accurately align the flanges of the valve and the pipeline, and install suitable gaskets between them to ensure a reliable seal. Use bolts to tighten the flanges evenly to prevent leakage.
- 3. **Surrounding Facilities**: 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, for the convenience of operation and maintenance, a certain amount of space should be reserved around the valve. If necessary, an operation box or a protective cover can be installed to protect the locking mechanism and the operation part of the valve.

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. Check the locking mechanism to ensure that it is in good working condition and can effectively lock and unlock the valve.

- **Lubrication**: Lubricate the valve stem regularly with a suitable lubricant to reduce friction and ensure smooth operation of the valve. When lubricating, pay attention to cleaning the valve stem to remove any dirt or debris.
- Cleaning: Keep the valve body and its surrounding area clean, and remove any debris or sediment that may accumulate on the surface or inside the valve. For valves used in pipelines with relatively poor media quality, more frequent cleaning may be required to prevent blockages and ensure the normal flow of the medium.
- 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, damage to the gate, or improper installation. In such cases, replace the damaged parts in a timely manner and ensure correct installation.
 - 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. If the locking mechanism fails to work properly, check whether there are any mechanical failures or damage to the locking parts and repair or replace them as needed.
 - **Malfunction of Monitoring Devices**: If the pressure gauges or flow meters installed around the valve malfunction, check the electrical connections, calibration status, and whether there are any blockages or damages to the sensing parts. Repair or replace the faulty devices as needed to ensure accurate monitoring of the pipeline system.

Performance Characteristics

- 1. **Excellent Sealing Performance**: The resilient sealing seat provides reliable sealing, effectively preventing the leakage of the medium, which is crucial for maintaining the normal operation of the pipeline system.
- 2. Anti-unauthorized Operation: The unique locking mechanism can prevent unauthorized opening or closing of the valve, enhancing the safety and security of the pipeline system, especially in some important or sensitive areas.
- 3. **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 and reducing the maintenance cost.
- 4. Low Flow Resistance: The design of the valve ensures a smooth flow passage, reducing the resistance to the flow of the medium, which is beneficial to energy saving and improving the efficiency of the pipeline system.
- 5. **Easy to Operate and Maintain**: Although equipped with a locking mechanism, the valve is still easy to operate and maintain. Regular maintenance tasks, such as inspection, lubrication, and cleaning, can be carried out conveniently, and the locking and unlocking operations of the locking mechanism are also relatively simple.
- 6. Wide Range of Applications: It can be applied to various pipeline systems with



different media and working conditions, showing strong adaptability and versatility.