

USER MANUAL

- INSTALLATION
- OPERATION
- MAINTENANCE

ORIFICE GATE TYPE FLOW CONTROL VALVE

SIZE - 1-25 LPM Capacity





These instructions must be read thoroughly prior to Installing, Operating and Maintaining of this equipment.

Designed to Meet Your Specifications!

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'Chemlin' Orifice Gate type Sulphur Flow Control Valve

1. Introduction:

Chemlin Valves are developed and manufactured with state-of-the-art manufacturing facility. The products are committed to continuous quality control and improvements using modern quality techniques, inspection procedures and instruments.

The reference standards used for designing, dimensioning and testing of the Orifice Gate valves are BS -10, ANSI-B 16.10, ANSI-B 16.5 and ASA Standards.

Proper care in Installation and Operation of Chemlin Valves will give trouble free performance over long periods of operation.

Chemlin Valves are designed to handle various types of volatile liquids and gasses in different Chemical, Steel, Fertilizer, Process & Allied Industries.

2. Inspection:

On receipt of the consignment, the Valves must be checked immediately against the necessary Dispatch/Shipping Documents and that there has been no damage in transportation. Check Packing list and contents of the Packing. Any shortage and damage must be informed in writing to 'Chemlin' immediately within seven Days on receipt of the consignment and the matter to be taken up with the transporter/Insurance agency.

3. Storage and Handling:

The Boxes or Cartons may be unloaded using Forklifts or suitable handling devices and stored in position with no strains applied on any part of the Valve.

- 1. Do no lift the Valve by its handle. Make sure no excessive weight is put on the valve while in storage.
- 2. Avoid standing below any suspended valve.
- 3. Make sure there is enough space for maintenance and inspection of the valve before its installation.
- 4. Store them in corrugated boxes and avoid contact of direct sunlight, moisture or dust.
- 5. Keep the openings of the valve covered while not in use and remove the same before installation.
- 6. Take care not to damage the flanges with any kind of sharp objects while handling it.

 Once the flange surfaces are damaged it will affect the performance of the valve.

4. Safety and Precautions:

> To avoid serious injuries do not insert hands or any other objects in the valve body.



- > While inspection/maintenance of the valve, make sure there is no leakage.
- > Do not disassemble with bare hands. Use proper instruments and gloves while doing so.
- > Avoid standing below a vertically suspended valve.

Failure to observe safety precautions can result in personal injury, equipment damage or malfunction.

5. Installation:-

- 1. Clean-machined surfaces of Valve Flanges and Check for any foreign materials entered in the Valve. Check whether Shaft (07) is freely moving after loosening Lock Clamp. (01)
- 2. Install the Valve after properly checking the in-let and out-let 'Arrow Mark' on the Valve Body. Connect the Steam Inlet and Outlet to respective Steam Connection. Mount Valve with the Outlet flange pointing upwards or in either Horizontal direction with Shaft (P.No.7) always in Horizontal Plane.
- 3. Do not install the Valve with Outlet pointing downwards. This is to prevent air from being trapped within the body of Valve, which would interfere with the transfer of heat to the stuffing box housing. If stuffing box is not heated sufficiently, the shaft may freeze in position.
- 4. Do not tighten the bolts excessively as it may damage the threads.
- 5. One must ensure that the mating flanges are of the same standards.

6. Operation and Maintenance:-

- ➤ To set the Sulphur control Valve, loosen the lock clamp (P.No.1) and move the handle of the indicator (P.No.2). Turning the handle counter clockwise from 'O' increases the flow through the Valve. When the desired flow is obtained, tighten the lock clamp to maintain the setting.
- > To clean the control Valve Orifice, loosen the Lock Clamp and turn the Valve handle back and forth over the entire range of the scale. When this is done the pin which is mounted in the Orifice Gate (P.No.9) will wipe the Orifice slot, freeing it of trapped foreign matter.
- ➤ Do not turn the Valve indicator (P.No.2) beyond the maximum settings of 'O' to '12', and do not force the Valve handle if there is any resistance. This could shear off the pin. When orifice slot has been cleaned, reset the pointer to its original position and tighten the lock clamp.



- > Sometimes dirt or foreign particles get entrapped between Orifice Gate (09) and Orifice Plate (08). Due to this even if the lock clamp (01) is tightened there is leakage observed through the Valve on the Outlet side. This is due to lack of proper seating between Orifice Gate and Orifice Plate.
- > The Valve is to be removed and cleaned periodically i.e. once in 12 months and the metal to metal lapped surfaces between Orifice Plate and Orifice Gate checked.

7. Recommended Spares:

Spares to be maintained for trouble free operation of Valve are as under:

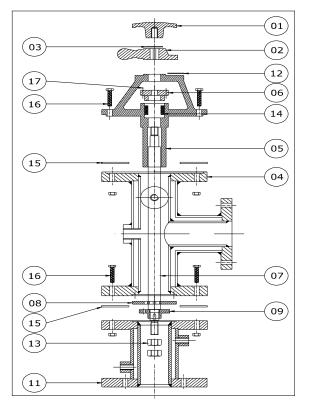
Sr.	Part	мос	Qty.
1.	Shaft with Nuts (Part No.07, 13)	SS-316	1 Set
2.	Orifice Plate (Part No.08)	SS-316	1 No.
3.	Orifice Gate (Part No.09)	SS-316	1 No.
4.	S.B. Gland (Part No.06)	C.I.	1 Set

8. Part List & Exploded Views of Orifice Gate Valve:-

8.1. Part List of Standard Construction:-

Part Name	Part No.
Lock Clamp	01
Indicator	02
Washer	03
Body	04
Bracket	05
S. B. Gland	06
Shaft	07
Orifice Plate	08
Orifice Gate	09
Pins	10
Adaptor	11
Number Plate	12
Lock Nut	13
Gland Packing	14
Gasket	15
Nuts & Bolts	16
Studs & Nuts	17
Keys	18

8.2 Exploded view of orifice gate valve:-





9. **CONTACT DETAILS:**

For any clarifications / complaints regarding Valve please contact our nearest representative or Fax your queries to Our Head Office.

Head Office:-

Chemlin Pumps & Valves Pvt. Ltd.,

F-5, "Atharva Estate", 268/2,

"E" Ward Tarabai Park,

Kolhapur: 416 003, (Maharashtra) India

Tel: (0231) 2653123, 2651964.

Fax: (0231) 2655389.

E-Mail : sales@chemlinindia.com, info@chemlinindia.com

Website : www.chemlinindia.com

Works/Factory:-

Chemlin Pumps & Valves Pvt. Ltd.,

235/6, Poona-Bangalore Road

Kagal: 416 216, (Maharashtra) India

Tel: (02325) 244108

E-Mail : works@chemlinindia.com

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