

Series 725S Diverter Valve



WARNING

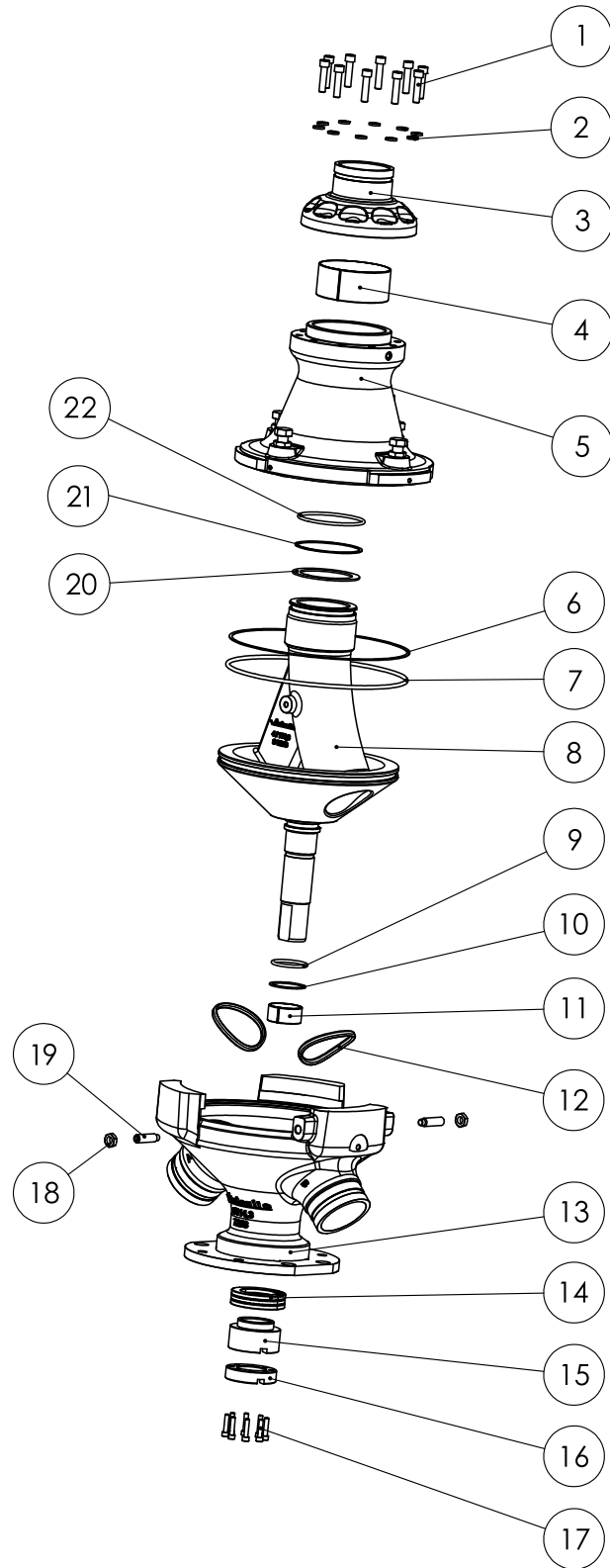


- Read and understand all instructions before attempting to install any Victaulic products.
- Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Wear safety glasses, hardhat, foot protection, and hearing protection.

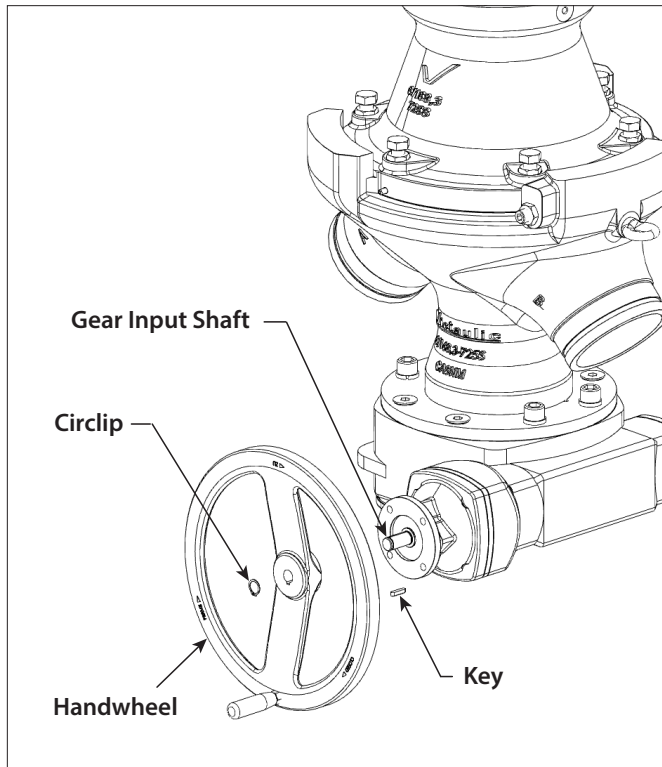
Failure to follow these instructions could result in death or serious personal injury and property damage.

DIVERTER VALVE COMPONENTS

| Item # | Description |
|--------|---------------------------|
| 1 | Hex Socket Head Cap Screw |
| 2 | Spring Lock Washer |
| 3 | Inlet Cap |
| 4 | Upper Shaft Bearing |
| 5 | Cover |
| 6 | O-Ring |
| 7 | Backup Ring |
| 8 | Plug |
| 9 | O-Ring |
| 10 | Backup Ring |
| 11 | Lower Shaft Bearing |
| 12 | Body Seal |
| 13 | Body |
| 14 | Thrust Bearing |
| 15 | Adjusting Nut |
| 16 | Counter Nut |
| 17 | Hex Socket Head Cap Screw |
| 18 | Hex Nut |
| 19 | Set Screw |
| 20 | Top Seal |
| 21 | Backup Ring |
| 22 | O-Ring |



ASSEMBLY OF THE HANDWHEEL



1. Place the key onto the gear input shaft.
2. Install the handwheel over the gear input shaft.
3. Attach circlip in front of the handwheel, onto the gear input shaft.

NOTICE

- Drawings and/or pictures in this manual may be exaggerated for clarity.
- The product, along with these installation and maintenance instructions, contains trademarks, copyrights, and/or patented features that are the exclusive property of Victaulic.



INSTALLATION INFORMATION

Series 725S Diverter Valves are available with three different types of pipe preparation, for use with three types of Victaulic products.

- Cut grooved pipe ends, for use with Victaulic EndSeal™ couplings
- Double grooved pipe ends, for use with Victaulic Style 808 couplings
- Pipe prepared with rings, for use with Victaulic Style 809 couplings

Series 725S Diverter Valves can be installed in horizontal or vertical positions, or in any intermediate position that allows for access to the actuator or gear operator.

Series 725S Diverter Valves and connecting piping must be supported to prevent the joints from being subjected to bending loads, shear loads, or any other external loads.

- Using both lifting lugs, support the valve to ensure balanced loading. In addition, a cradle or cribbing can be used to provide increased support.
- **WELDING TO SERIES 725S DIVERTER VALVES AND COUPLINGS IS NOT PERMITTED.**

ACTUATOR SETUP

Always refer to the actuator manufacturer's manual for complete setup and operating requirements.

Actuators are designed to operate within the parameters specified in the table below. Additional information will be required to determine appropriate specifications for your system.

SERIES 725S HELPFUL INFORMATION

| Operator/Actuator Performance | | | | | | | | | | |
|-------------------------------|---|--|----------------------|------------------------|--------------------------|-----------------|------------------------|-------------------------|-----------------------|-----|
| Size | Manual (Gear Operator) | | | Pneumatic | | | Hydraulic | | Electric [†] | |
| Nominal inches DN | Number of Turns from Flow Position A to Flow Position B | Hand Wheel Dimensions inches mm | Rim Pull lbf N | Supply Air | | RPM | Supply Fluid | | RPM | RPM |
| | | | | Pressure psi bar | Flow Rate SFPM l/s | | Pressure psi bar | Flow Rate gpm l/s | | |
| 4 DN100 | 80 | 24.80 630 | 51 69 | 92 6.3 | 32 15 | 109 | 2500 172 | 30 1.84 | 2000 | 90 |
| 6 DN150 | 80 | 24.80 630 | 67 91 | 92 6.3 | 42 20 | 100 | 2500 172 | 30 1.84 | 2000 | 90 |
| 8 DN200 | 109 | 24.80 630 | 77 104 | 92 6.3 | 85 40* | 90 [§] | 2500 172 | 30 1.84 | 2000 | 90 |

NOTE: For additional actuation requirements, contact Victaulic.

* for Australia only: 61 l/s

[§] for Australia only: 192 RPM

[†] electrical requirements vary based on voltage

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VALVE OPERATION

WARNING

- DO NOT actuate or operate the Series 725S Diverter Valve while backfill is actively flowing through the system. To prevent permanent damage to internal valve components, the valve shall not be used to divert flowing backfill. See “Diversion Service”, “Flush Service”, and “Dump Service” operational instructions for proper valve usage.

Failure to follow these instructions may cause valve damage, resulting in serious personal injury and property damage.

DIVERSION SERVICE

For a directional change of backfill flow to stopes, complete the following steps.

1. Shut down backfill pump/gravity feed system.
2. Flush piping system with clean water to remove build up on pipes and valve.
3. Once flushing is complete, rotate the diverter plug from outlet “A” to outlet “B”. (Refer to the “Series 725S Helpful Information” table for actuation input requirements. Also, refer to the actuation manufacturer’s manual provided with the valve.)
Alternatively, follow the method shown in the “Flush Service” section of these instructions.
4. At operator’s option, flush the system prior to introducing backfill to identify and clear flow path blockages as well as providing confirmation the backfill will be transported to the desired location.

CAUTION

- The Series 725S Diverter Valve should only be used when the diverting plug is fully aligned with either outlet port. The valve should never be used in a partially open position, or with the diverting plug rotated 90 degrees in an attempt to shut off flow.

Failure to follow these instructions will cause premature valve wear and leakage, resulting in property damage and voiding any Victaulic warranty.

5. Resume backfill operation.

FLUSH SERVICE

When using one outlet for backfill service and one outlet for flush water dump to a sump collection area, complete the following steps.

1. Shut down backfill pump/gravity feed system.
2. Flush piping system with clean water to remove build up on pipes and valve.
3. Operate the valve from backfill service direction to the opposing port, allowing the flush water to enter a sump collection area. (Refer to the “Series 725S Helpful Information” table for actuation input requirements. Also, refer to the actuation manufacturer’s manual provided with the valve.)

CAUTION

- The Series 725S Diverter Valve should only be used when the diverting plug is fully aligned with either outlet port. The valve should never be used in a partially open position, or with the diverting plug rotated 90 degrees in an attempt to shut off flow.

Failure to follow these instructions will cause premature valve wear and leakage, resulting in property damage and voiding any Victaulic warranty.

4. Once flushing is complete, return valve to backfill service location and resume backfill operation.

DUMP SERVICE

To evacuate backfill from the borehole and piping upstream of the valve in the event of a system blockage downstream of the valve, complete the following steps.

1. Shut down backfill pump/gravity feed system.
2. Operate the valve from the backfill service direction to the opposing port, allowing upstream backfill to flow to a safe disposal area. (Refer to the “Series 725S Helpful Information” table for actuation input requirements. Also, refer to the actuation manufacturer’s manual provided with the valve.)
3. Flush remaining backfill from the upstream borehole piping with clean water to remove build up on pipes and valves.

To recondition the valve for service after a dump event, complete the following steps.

- 4a. If rotating the diverter plug back to the backfill blockage side, only do so when clean flush water remains in the valve. Do not attempt to rotate the diverter back while dry. After downstream blockage is cleared, rotate the diverter plug through several full cycles with low pressure water inside the valve to clear any internal debris that may have accumulated during the dump event.

CAUTION

- After using the Victaulic Series 725S Diverter Valve to dump upstream backfill due to a downstream blockage, the diverter plug may be rotated back to the original position only with clean flush water remaining in the valve. Rotating the valve while dry will result in damage to seals and excessive operating torque.

Failure to follow these instructions will cause premature valve wear and leakage, resulting in property damage and voiding any Victaulic warranty.

- 4b. If the backfill has solidified in the downstream piping, the diverter valve must be visually inspected to verify that there is no solidified backfill in the outlet where the blockage occurred. This will require removal of the coupling at the outlet port where the blockage occurred, and may require removal of the entire valve from the system. Any debris must be fully removed, and the valve must be flushed with water prior to returning the valve to service.
5. Resume backfill operation only after the valve has been thoroughly cleaned and inspected.