

Application

The 3A-VL Sight Glass assembly can be installed anywhere in a process where it is desirable to view an internal portion of your process without having to open the system and expose it to outside elements. Typical placements can include, but are not limited to, strainers, process piping, tanks, and other equipment.

Each Sight Glass assembly is 3-A authorized and can be disassembled for easy inspection.



Operating Parameters

Table 1: Maximum Operating Pressures and Temperatures ("Standard" 13MHHM Clamp)

Sight Glass Connection Size	Max. Pressure @ 250 °F
1.5 / 2.0" TC	250
2.5" TC	200
3.0" TC	150
4.0" TC	125

Safety Precautions

1. Do not exceed temperature or pressure rating of the sight glass assembly.
2. Do not loosen or remove any clamps while the sight glass is under pressure.
3. Lockout supply pump(s) and other equipment in-line with the sight glass during servicing to prevent accidental operation when the sight glass is removed.
4. Use only Sani-Matic replacement parts.

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Installation & Operation

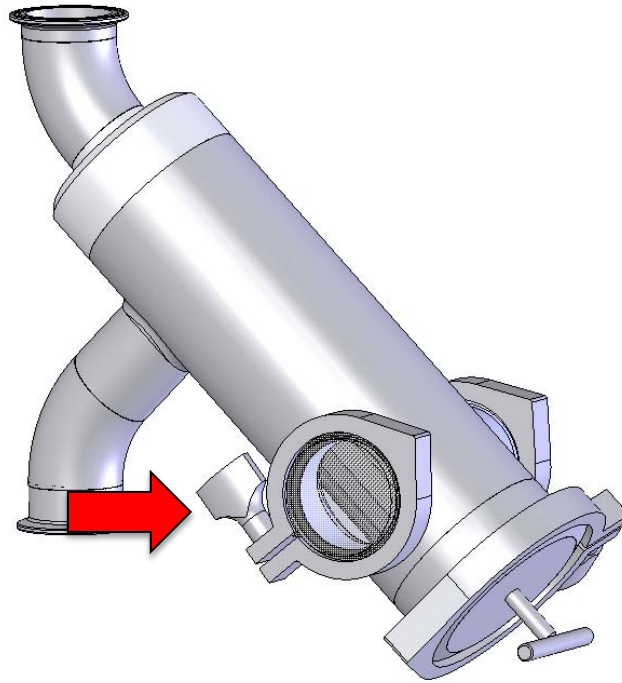


Figure 1: Example Installation of Sight Glass

An example Sight Glass assembly installation is shown in Figure 1 – on both sides of a Y-Strainer, allowing for a visual inspection of the strainer element. Ideally the Sight Glass assembly is installed in a horizontal position, as shown in Figure 1, or in a vertical (looking down into the sight glass) such that any fluid will be able to be completely drained out of the line. Figure 2 shows an assembled sight glass with tri-clamp.



Figure 2: Assembled VL-3A Sight Glass

Assembly

The assembly contains six (6) sub-components:

1. Short Weld Tri-Clamp Ferrule
2. Tri-clamp Gasket
3. Sight Glass Lens
4. Sight Glass EPDM Gasket
5. Sight Glass Ferrule
6. Tri-clamp

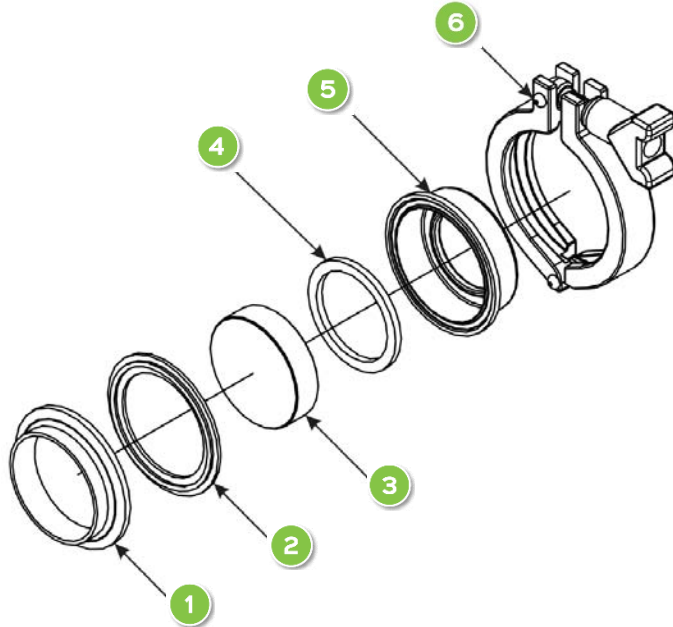


Figure 3: Exploded View

Install the **4** sight glass gasket into the **5** sight glass ferrule, followed by the **3** sight glass lens. The **2** tri-clamp gasket can then be placed on top of the **5** sight glass ferrule such that it seats in the ferrule groove. This assembled portion can then be placed onto a tri-clamp ferrule, ensuring that the **2** tri-clamp gasket is seated in both grooves. The two ferrules are then clamped together using the **6** tri-clamp.

The **6** tri-clamp should be tightened to 25 in-lbs of torque. Be careful not to under tighten or over tighten the **6** tri-clamp as either can result in unwanted conditions including a leaking connection or gasket intrusion.

The Sight Glass assembly includes a **1** tri-clamp weld ferrule to use if an existing tri-clamp connection does not exist. If the ferrule is not needed for the application, discard, or re-use as needed. Due to the number of unique situations where a **1** tri-clamp weld ferrule could be added, it is highly recommended to consult a fabrication and welding specialist for the welding operation.

Cleaning

The VL-3A sight gauge can be Cleaned-In-Place (CIP'd); however, it will also require periodic inspection to ensure the gaskets maintain a proper seal and no leaks are present.

Maintenance

Gaskets will require periodic replacement. The frequency of gasket replacement will depend on the gasket material, operating conditions, and cleaning/CIP conditions – it is recommended to change them at least annually. Sight glass lens, ferrule, and clamp may require replacement if damaged or lost.

Troubleshooting

Table 2: Troubleshooting

Problems	Solutions
Leakage occurring at clamp connections	1. Tighten clamp to specifications, making sure the gaskets are aligned when assembling 2. If leakage is still occurring replace gasket. 3. Check the system pressure to ensure the pressure is not exceeding the pressure ratings of the assembly.
Unit is not being cleaned during CIP	1. Make sure that sufficient flow (CIP in process piping) or sufficient spray coverage (CIP in process tanks or equipment) is being fed 2. Other CIP variables such as temperature, contact time, chemical, etc. need to be sufficient for the application

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