PRODUCT DESCRIPTION

- Protects analyzers from damage and contamination by removing liquids from gas samples and preventing liquid flow to the analyzer.
- Combines the Welker® LE Liquid Eliminator and Welker® ALS Analyzer Liquid Shutoff.
- The LE separates liquids from the sample stream by centripetal force, a filter cartridge, and a screen, while gravity drains separated liquids away from the analyzer.
- Gas flows through the ALS, but its internal floating ball seals if liquids are present, shutting off flow to the analyzer.

SPECIFICATIONS

Products Sampled

Gases Compatible With the Materials of Construction

Materials of Construction

304 Stainless Steel, 316/316L Stainless Steel, Aluminum, Glass, Polycarbonate, PTFE, FKM

Others Available

Maximum Allowable Operating Pressure

1000 psig (*68.9 barg*) @-20 °F to 290 °F (*-28.8 °C to 143.3 °C*)

Connections

Drain: ¼" FNPT **Inlet:** ¼" FNPT

Outlet: ¼" FNPT or ⅛" FNPT (Standard)

Filtration

Nominal 25-Micron Internodal Distance

Approximate Dimensions

4½" x 2¼" x 2¼" (L x W x H)

Approximate Weight

3 lb

Features

Sight Port

Welker® ALS Analyzer Liquid Shutoff

Welker® LE Liquid Eliminator

Option

High Capacity

Maintenance Schedule

Welker® recommends that the unit have standard maintenance every six (6) months under normal operating conditions, anytime liquid is present in the filter cartridge, and anytime flow to the analyzer is shut off. In cases of severe service, dirty conditions, excessive usage, or other unique applications that might lead to excess wear on the unit, a more frequent maintenance schedule might be appropriate.

The following procedures have been written for use with standard Welker® parts and equipment. Assemblies that have been modified might have additional requirements and specifications not listed in this document.

If you received a damaged ALSLE Guardian, please contact a Welker® representative immediately.

For all product inquiries, please contact our Service Department: 281.207.1887

INSTALLATION, OPERATION, AND MAINTENANCE MANUAL
WELKER® ALSLE GUARDIAN
IOM-279 | REV. 0 | 03/06/2025

The installation, operation, and maintenance liability for this equipment becomes that of the purchaser at the time of receipt. Reading the instructions that comprise IOM-279 prior to installation and operation of this equipment is required for a full understanding of its application and performance prior to use.

ALSLE: INSTALLATION AND OPERATION

- The Guardian MUST be installed vertically, with the drain pointing down.
- When installing fittings to the outlet port, firmly grip the body to prevent it from being overtightened.
- If the drain port has no collection device connected to it, thread a valve into the port.

1. Mount the Guardian as close to the sample point as possible.
2. Connect the product supply to the Guardian's inlet port (*Figure 2*).
3. Connect the outlet port of the Guardian to the analyzer (*Figure 2*).
4. Connect a device to the drain port (*Figure 2*) to collect any liquids separated from the sample stream. This device should be compatible with the unit's MAOP (maximum allowable operating pressure).
5. Begin product flow to the Guardian to put it into service.
6. The presence of liquid can usually be observed by noting the position of the ball through the Guardian's window.
7. As necessary, periodically open the drain valve and allow separated liquids to drain. If liquids drain from the Guardian, the Guardian should be cleaned. See *Maintenance* for instructions on cleaning the Guardian.
8. Maintenance is required when liquid reaches the Guardian and flow to the analyzer is shut off.

ALSLE: MAINTENANCE

1. Halt product flow to the Guardian.
2. Depressurize the Guardian. As necessary, open the drain valve to drain any separated liquids.
3. Disconnect all tubing from the Guardian.
4. Unscrew the body from the cap (*Figure 1*).
5. Carefully remove the seat, taking care not to scratch the glass. Then replace the O-rings on the seat (*Figure 1*).
6. Remove the glass.
7. Remove the guide from the body. Then replace the O-rings on the guide (*Figure 1*).
8. Inspect the ball for scratches or wear. Replace as necessary.
9. Return the ball to the guide (*Figure 1*).
10. Unscrew the bolts from the separator body. Then separate the cap from the separator body (*Figure 1*).
11. Using a solvent, clean the screen and the inside of the separator body. Welker® recommends using a solvent such as rubbing alcohol that does not leave a film when dry and will not adversely affect analytical instrument results.
12. Replace the copolymer filter element.
13. Replace the O-ring.
14. Return the cleaned screen to the top of the copolymer filter element (*Figure 1*).

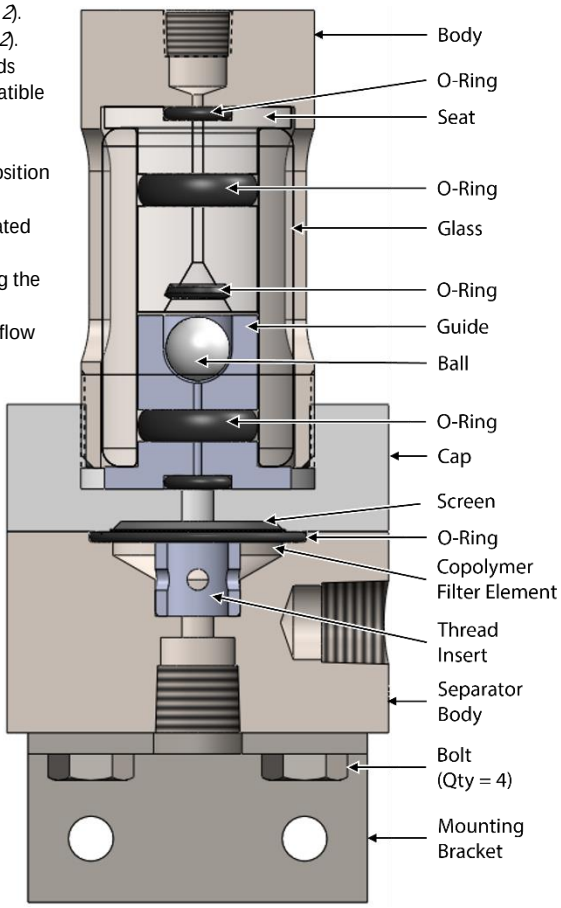

Figure 1: Welker® ALSLE Guardian

- DO NOT lubricate the O-ring on which the ball seals (i.e., the O-ring just above the ball in *Figure 1*).
- The remaining new seals should be lightly lubricated before being installed to ease the seals' installation. Wipe excess lubricant from the seals because it might adversely affect analytical instrument results.

Reassembly

When reassembling the Guardian, HAND-TIGHTEN ONLY.

1. Align the bolt holes in the cap with the separator body's bolt holes. Then reinstall the bolts following a cross-bolting sequence.
2. Carefully install the guide to the cap. Then carefully install the glass over the guide.
3. Carefully insert the seat into the glass, taking care not to scratch the glass.
4. Return the body to the cap and hand-tighten. The unit is now ready for reinstallation according to the instructions above.

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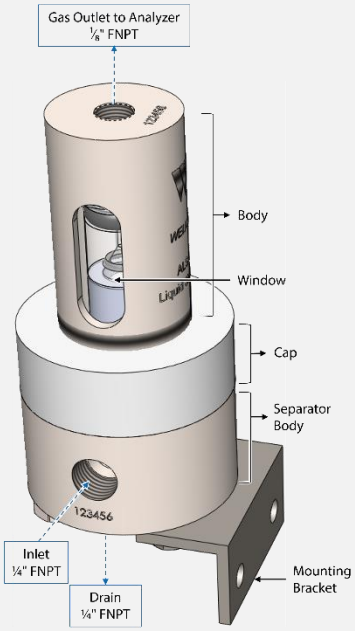
Welker® ALSLE Guardian: Figure 2



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WELKER

IMPORTANT SAFETY INSTRUCTIONS
WELKER® ALSLE GUARDIAN
IOM-279 | REV. 0 | 03/06/2025

BEFORE YOU BEGIN

Read These Instructions Completely and Carefully

NOTES emphasize information and/or provide additional information to assist the user.

CAUTION messages appear before procedures that could result in damage to equipment if not observed.

STOP

WARNING messages appear before procedures that could result in personal injury if not observed.

The instructions that comprise IOM-279 are intended to be used as basic setup and installation guidelines for the Welker® Guardian, Model ALSLE. The information in IOM-279 has been carefully checked for accuracy and is intended to be used as guidelines for the setup and installation of the Welker® equipment described in IOM-279. Correct setup, installation, and operation, however, are the responsibility of the end user. Welker® reserves the right to make changes to IOM-279 and all products in order to improve performance and reliability.

SAVE INSTRUCTIONS

Save these Safety instructions and the instructions that comprise IOM-279 for local inspectors' use.

OBSERVE

Observe all governing codes and ordinances.

NOTE TO INSTALLER

Leave these Safety instructions and the instructions that comprise IOM-279 with the end user.

NOTE TO END USER

Keep these Safety instructions and the instructions that comprise IOM-279 for future reference.

NATURE OF INSTALLATION

Installation of this ALSLE Guardian is of a mechanical nature.

INSTALLATION RESPONSIBILITY

Proper installation is the responsibility of the installer. Product failure due to improper installation is not covered under the warranty.

WELKER

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