

***Installation,
Operation
&
Maintenance
Manual***

Welker[®] Guardian

***Model
ALSLE***

The information in this manual has been carefully checked for accuracy and is intended to be used as a guide to operations. Correct operating and/or installation techniques, however, are the responsibility of the end user. Welker reserves the right to make changes to this and all products to improve performance and reliability.

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1. GENERAL

1.1 Introduction

We appreciate your business and your choice of Welker products. The Installation, Operation, and Maintenance liability for this product becomes that of the purchaser at the time of receipt. Reading the applicable IO&M Manual prior to installation and operation of this equipment is required so that you have a full understanding of its application and performance prior to commencement of use. If you have any questions, please call 1-800-776-7267 or 1-281-491-2331 in the USA.

The Welker Guardian (ALSLE series) is designed to both shed and ultimately prevent the flow of liquids into a system that is designed for gas only such as a gas chromatograph.

1.2 Specifications

Materials of Construction:	Aluminum, delrin, glass, lexan, PTFE, and stainless steel
Temperature Range:	-20°F to 400°F (-29°C to 204°C)
Maximum Line Pressure:	1,000 psi (69bar) for stainless steel and 600psi (41bar) for aluminum

Options

- Materials of construction
- Pressure rating

2. INSTALLATION INSTRUCTIONS

2.1 After unpacking the unit, check it for compliance and any damages that may have occurred during shipment.

NOTE: Claims for damages caused during shipment must be initiated by the receiver to the carrier. Welker is not responsible for any damages caused from mishandling by the shipping company.

NOTE: When sealing fittings with PTFE tape, refer to the proper sealing instructions for the tape used.

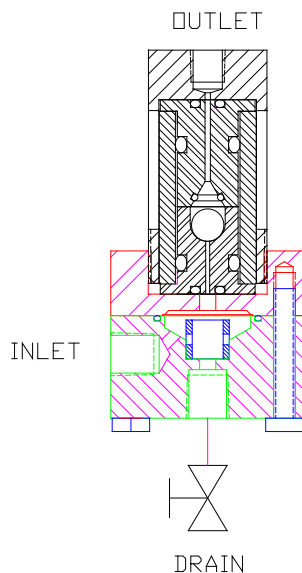


FIGURE 1

2.2 The Guardian must be mounted vertically with the product outlet facing up (see Figure 1). **This is very important as the unit will not work properly in any other position.**

2.3 Connect the product inlet to the tubing of the gas stream that is sampled upstream of the point where the shed of liquids is required.

2.4 Connect the product outlet to the tubing that leads to the analytical instrument.

2.5 Place a valve and/or drain to the drain port.

2.6 The Guardian is now ready to be pressured up and put into service.

3. MAINTENANCE

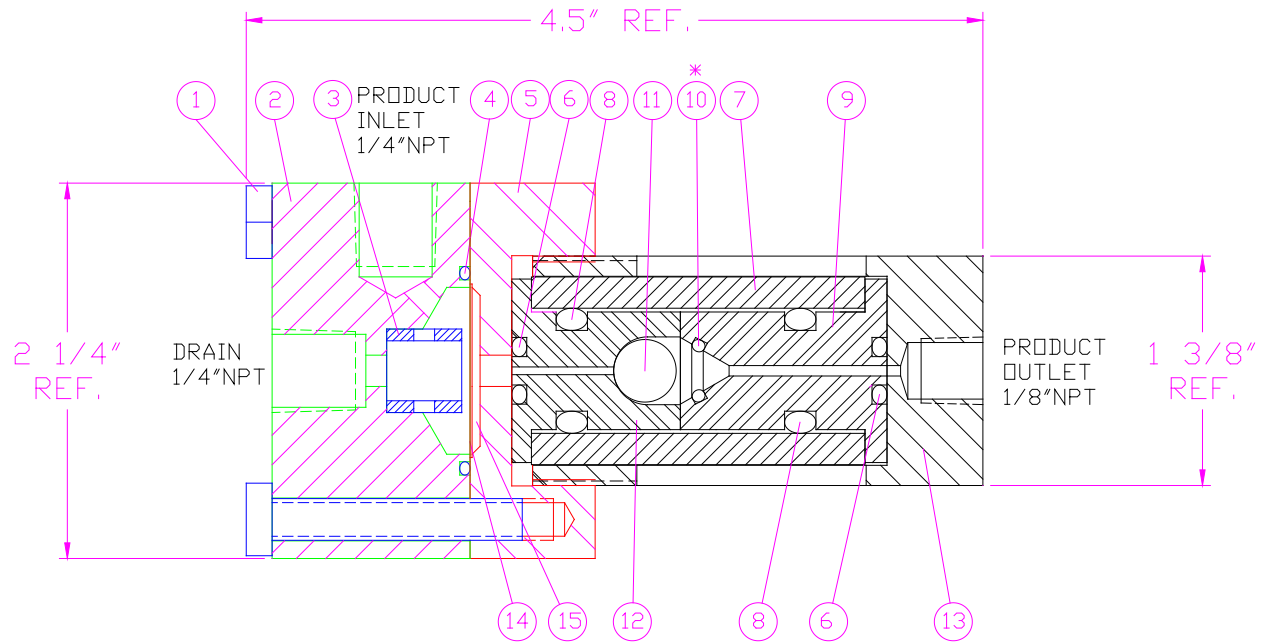


FIGURE 2

3.1 General

Prior to maintenance or disassembly of the unit, it is advisable to have a repair kit handy for the system in case of encountering unexpected wear or faulty seals.

We recommend that the unit have annual maintenance under normal operating conditions. In the case of severe service, dirty conditions, excessive cycling usage or other unique applications that may subject the equipment to unpredictable circumstances, a more frequent maintenance schedule may be appropriate.

New seals supplied in spare parts kits are not lubricated. They should be lightly coated with lubrication grease (silicone grease or other similar product) before they are installed into the equipment. This helps in the installation of the seals while reducing the risk of damage when positioning them on the parts. After the seals are installed, some additional

lubrication can be applied to shafts or cylinder inner diameters to allow smooth transition of parts.

3.2 Instructions

The following tools will be required for disassembly and maintenance:

- Two 6” crescent wrenches
- Small screwdriver

Refer to Figure 2.

3.2.1 Depressurize the Guardian.

3.2.2 Disconnect all tubing and drain equipment from the Guardian’s body.

3.2.3 Unscrew the liquid separator #2 and #5 from the automatic liquid shutoff body #13.

3.2.4 Set the liquid shutoff unit aside.

3.2.5 Unscrew the four hex head bolts #1 from the separator body #2.

3.2.6 Replace the filter element #14 and the seal #4 in the body.

IMPORTANT: Make sure that the seal is placed on top of the filter element.

3.2.7 Make sure that the screen #15 is flat. Replace if necessary.

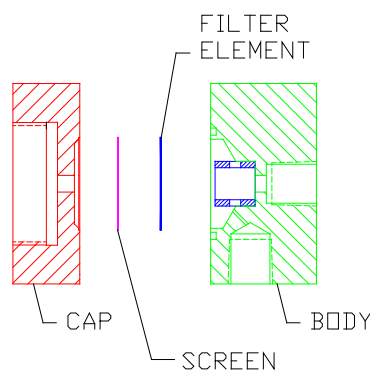


FIGURE 3

3.2.8 Put the separator body back together making sure that the filter element is on the body side of the screen (see Figure 3).

3.2.9 Put the separator body to the side.

3.2.10 Remove the liquid shutoff glass assembly #7, #9 and #12 from its body #13.

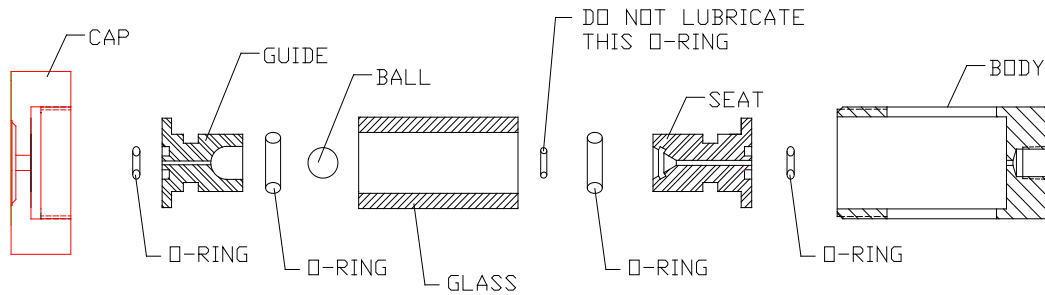


FIGURE 4

3.2.11 Replace all five seals #6 (2), #8 (2) and #10 in the assembly (see Figure 4).

IMPORTANT: Do not lubricate the seal #10 inside the glass assembly with the shut off ball #11.

3.2.12 Make sure that the ball has no dings or scratches. Replace if necessary.

3.2.13 Reinstall the glass assembly inside the liquid shutoff body.

3.2.14 Hand tighten the separator body to the automatic liquid shutoff body.

3.2.15 The Guardian is now ready for service.