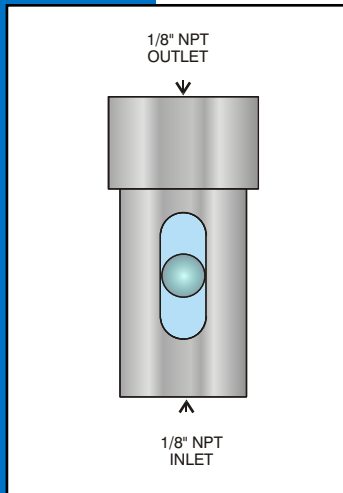


WELKER®

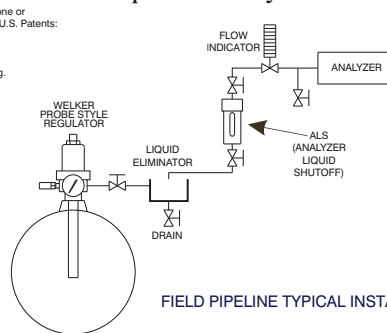
Engineering Company

ISO-9001
CERTIFIED
SINCE 1992

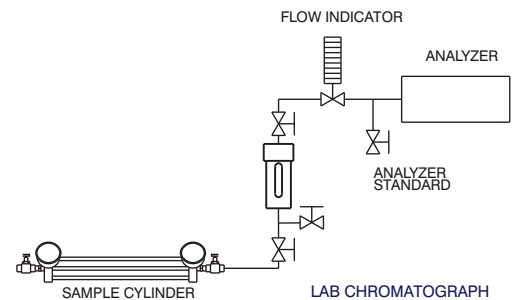


ALS-1 (316 S.S.) = 1000 MAOP
ALS-2 (6061 AL) = 300 MAOP

Manufactured under one or more of the following U.S. Patents:
5,579,803
Other patents pending.



FIELD PIPELINE TYPICAL INSTALLATION

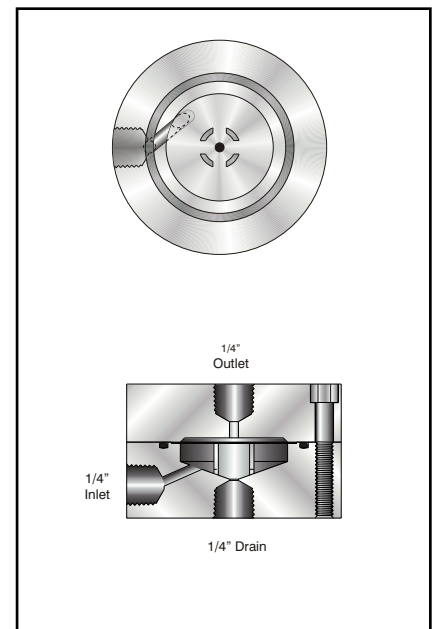


Welker Analyzer Liquid Shut-Off

Our new Analyzer Liquid Shutoff (ALS) prevents liquid of any kind from entering your gas chromatograph, keeping the analyzer columns safe from damage and saving you expensive repairs or column replacement. The ALS installs quickly and easily to both field and laboratory gas chromatographs and features a see-through sight window for instant visual confirmation of flow status. The ALS is equipped with a shut-off ball that floats on the free liquid and moves up to shut off the flow of liquid slugs that will flood the analyzer. The ALS should be used on chromatographs, portable and permanently mounted, calorimeters, moisture analyzers and stack sampling systems. The ALS is another **Welker Patented Product** designed to improve your company's profitability.

Welker Liquid Eliminator Membrane Filter

The Welker Liquid Eliminator (LE-2) is designed to protect analyzers from damage and contamination by removing liquids and particulates in gas samples. The gas sample enters the housing and flows through the membrane, effectively eliminating any free liquids from entering the analyzer columns. The LE-2 is mounted horizontally, allowing the liquid droplets or slugs to drop off of the membrane and drain out through the bottom valve. The replaceable membrane is supported by a stainless steel retaining screen that allows the filter to be back purged without damage to the membrane. The Welker Liquid Eliminator is available in Delrin (w.p. 300psi), Aluminum (w.p. 1000psi) and Stainless Steel (w.p. 1440psi) allowing you to choose the model that is correct for your pressure needs.



Welker Analyzer Liquid Shut-Off & Liquid Eliminator

Technical Data

Welker Analyzer Liquid Shut-Off

Purpose

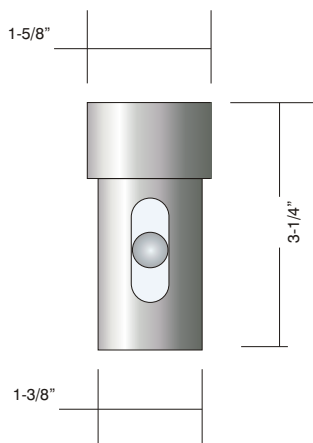
The purpose of the ALS is to prevent liquids from getting into analytical instruments.

Installation

The ALS is installed vertically in the analyzer flow line between the supply source and the analyzer. Purging of liquids from the line should be considered at this time.

Operation

In normal operation, the conditioned sample flows from the probe regulator through the sampling system to the analyzer. When liquids reach the ALS, the ball will float to the top and shut off flow to the analyzer. This can be visually observed by noting the position of the ball in the sight glass. When the ALS shuts off the flow of gas to the analyzer, the sample line must be purged (blown out) to eliminate accumulated liquid from causing further interruptions. The line may be purged with N₂, H₂ or Natural Gas from the pipeline, if you can insure that the gas will be dry and not add to the contamination. The most effective purge is completed with dry gas, such as



ALS-1 Stainless Steel Construction, 1/8" inlet and outlet
1000 psi w.p. Weight ... 15.5 oz

ALS-2 Aluminum Construction, 1/8" inlet and outlet
300 psi w.p. Weight ... 6.70 oz

Welker Liquid Eliminator Membrane

The Welker Liquid Eliminator Membrane Filter is designed to be installed in analyzer sample lines to effectively eliminate free liquids from entering gas analyzers.

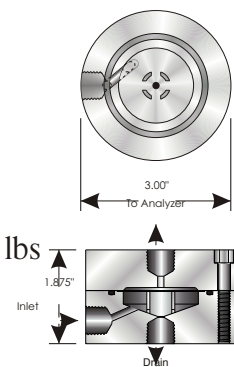
LE-2D Delrin construction, w.p. 300 psi, 1/4" inlet and outlets, weight ... 12oz

LE-2A Aluminum construction, w.p. 1000 psi, 1/4" inlet and outlets, weight ... 1.50 lbs

LE-2S Stainless Steel construction, w.p. 1440 psi, 1/4" inlet and outlets, weight ... 3.10 lbs

FE09000 ... Replacement Membrane, 25 micron

Specifications subject to change without notice.
Drawings/Photos may be shown with optional equipment.



Haldatec

Phone: +61-3-9872-5822 Fax: +61-3-9872-5129
Email: sales@haldatec.com.au Web Site: www.haldatec.com.au

Welker Engineering Company manufactures a complete line of filter, dehydration filter and dehydration assemblies, instrument regulators, relief valves and other pneumatic instrument supply devices. These designs are primarily engineered for instrument supply systems working with Welker designed equipment and for low capacity and low flow pneumatic controllers. Check the compatibility of the Welker equipment specifications with those of additional manufacturer's equipment prior to incorporating them into system packages. Modifications to Welker products can be quoted and supplied at the customer's request, if the standard