

# Installation and Repair Instructions for AL107, AL109 & AL111 RotaSeal Swivels

Sept. 2003

Form FVC 058 - Rev 02

**KEEP THIS DOCUMENT WITH THE PRODUCT UNTIL IT REACHES THE END USER.**

## WARNING

Before installation or removal of RotaSeal Swivels, the system must be purged completely of all product. Use proper safety equipment at all times. An abundant supply of clean water must be readily available and easily accessible as a means of providing **IMMEDIATE** First Aid treatment for exposure to ANHYDROUS AMMONIA. For LP-Gas Service, follow **NFPA / ANSI 58 Standard** for the Storage and Handling of Liquefied Petroleum Gases, plus any and all Local and State Safety Regulations. **To insure long term safe operation, the manufacturer recommends that under normal service conditions, this product should be inspected at least once every five (5) years and be repaired or replaced as required.**

**USE PROPER SAFETY EQUIPMENT AT ALL TIMES. PURGE THE SYSTEM COMPLETELY OF ALL PRODUCT.**

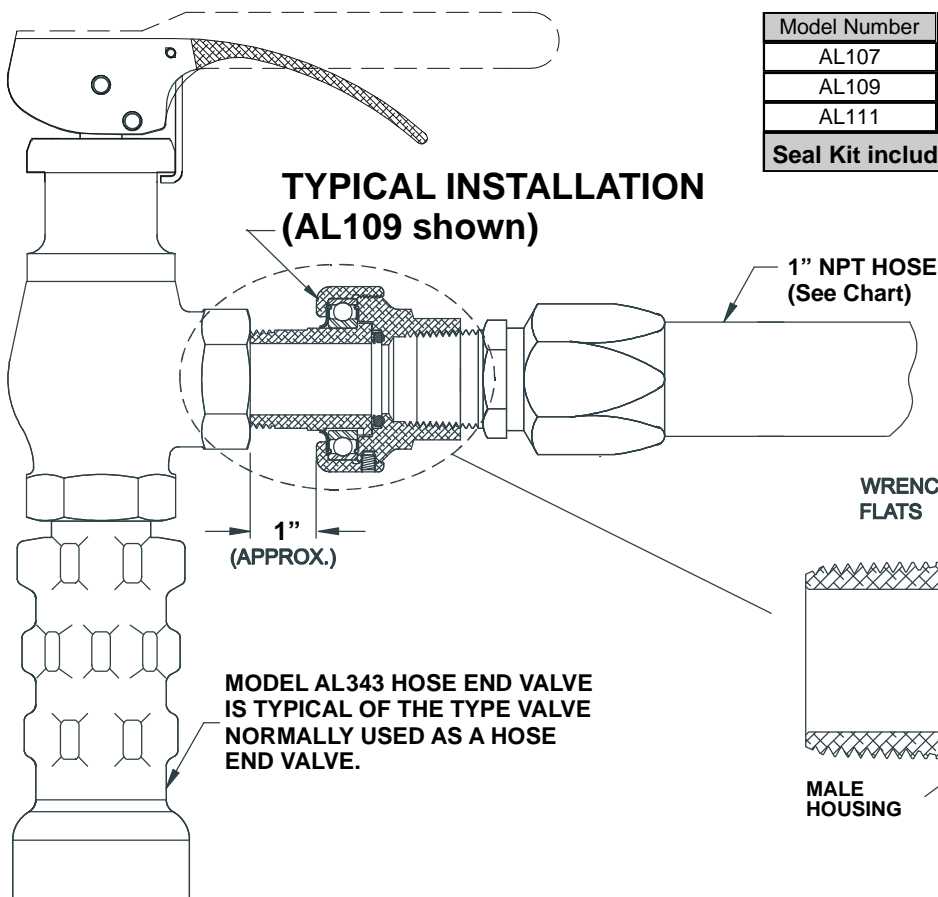
**CAUTION:** Contact with or inhalation of Liquid Anhydrous Ammonia or LP-Gas or their vapors can cause serious injury or death. Dispersment must be in accordance with local regulations. For the proper handling and storage of Anhydrous Ammonia, refer to ANSI Standard K61.1. For the proper handling and storage of Liquefied Petroleum Gas, refer to NFPA Pamphlet 58.

**TOOLS REQUIRED:** Safety Equipment (i.e. gloves, goggles, clothing, etc.), 3/32" Allen Wrench, 12" Crescent® Wrench, 14" Pipe Wrench.

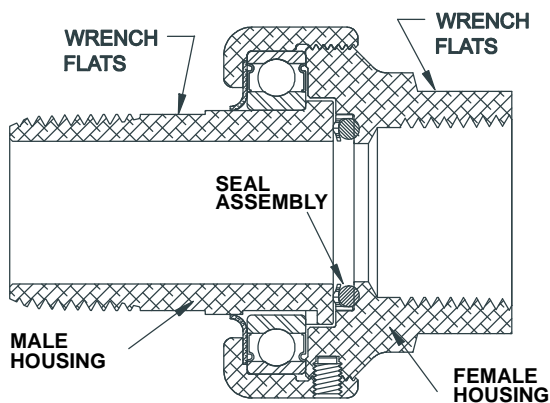
**NOTE:** The AL107, AL109 and AL111 are **WARRANTED** to be free from defects in material and/or workmanship and seal leaks for a period of two (2) years from the date stamped on the unit. This **WARRANTY** is valid only if the product has been used in normal propane or anhydrous ammonia operations. Should your RotaSeal leak during the Warranty Period, return it to any authorized distributor for replacement. If the warranty has expired, a seal kit may be purchased and the RotaSeal repaired as explained below.

Model Number	Seal Kit Number	Inlet/Outlet Size
AL107	109-0022	3/4" MNPT x 3/4" FNPT
AL109	109-0022	1" MNPT x 1" FNPT
AL111	111-0022	1-1/4" MNPT x 1-1/4" FNPT

**Seal Kit includes Seal Assembly, Lubricant & Set Screw.**



**Maximum Pressure** 400 p.s.i.  
**Chemical Compatibility** •NH3  
 •LP GAS

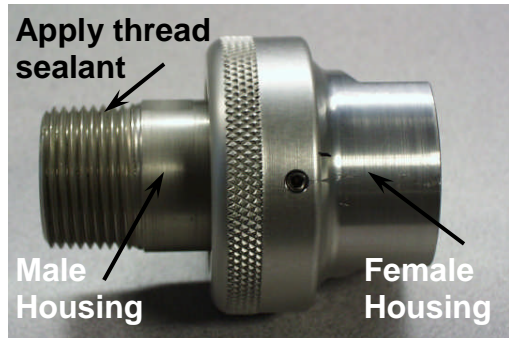


## Installation of New RotaSeal Swivel

**Note:** Safety Equipment (i.e. gloves, goggles, and clothing) must be worn before continuing with the next step.

**Step 1:** Apply Teflon tape or other thread sealant on the male pipe threads of the Male Housing. Avoid excessive use of thread sealant.

**Step 2:** Install the Male Housing to the hose end valve. Place the 12" Crescent® wrench on the wrench flats on the Male Housing to tighten. Do not over-tighten.



**Step 3:** Apply Teflon tape or other thread sealant to the 1" NPT that will be mated with the Female Housing. Avoid excessive use of thread sealant.

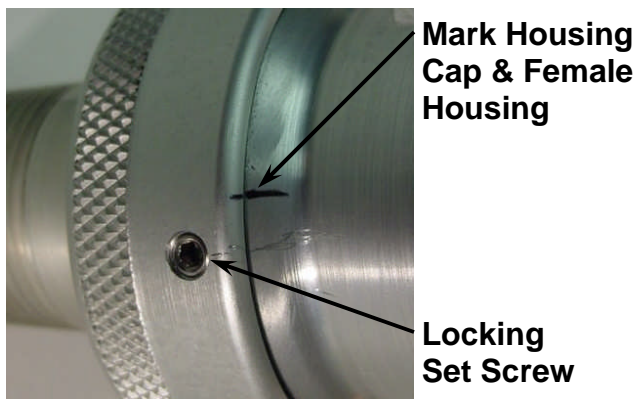
**Step 4:** Install the 1" NPT hose to the Female Housing. Hold the RotaSeal from turning with the 14" pipe wrench and place the 12" Crescent® wrench on the hose fitting to tighten. Do not over-tighten.

## Replacing the Seal Assembly

**Note:** Safety Equipment (i.e. gloves, goggles, and clothing) must be worn before continuing with the next step.

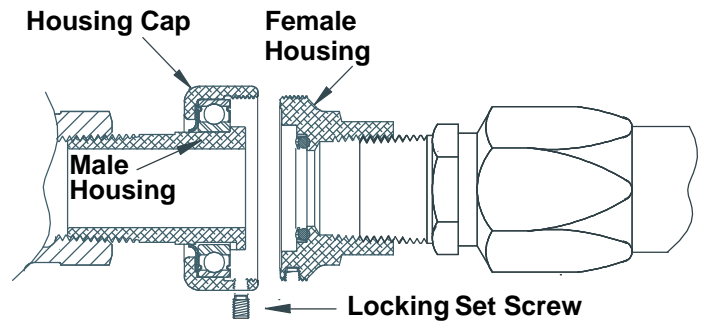
**Step 1:** Before performing maintenance on the RotaSeal Swivel, ensure that all pressure is bled from the system.

**Step 2:** Mark the Housing Cap and the Female Housing with a permanent marker, as shown below. These marks will be used to re-align the components during re-assembly.



**Step 3:** Using a 3/32" Allen wrench, remove the Set Screw COMPLETELY from the Housing Cap.

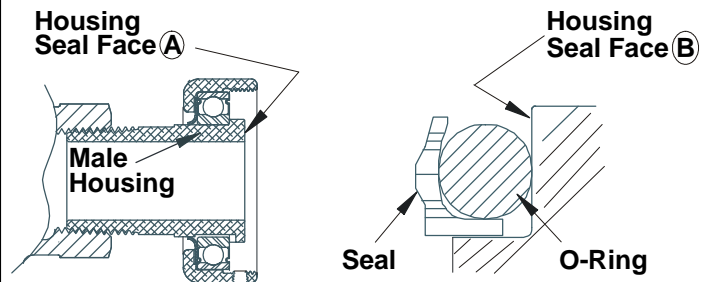
**Step 4:** Remove the Female Housing by loosening the Housing Cap with the 14" Pipe Wrench. **DO NOT REMOVE ANTI-SEIZE COMPOUND FROM THREADS.**



**Step 5:** Remove the Seal and O-Ring from the Female Housing.



**Step 6:** Wipe debris from Housing Seal face A and B. Inspect seal face A. If surface A is not smooth, the RotaSeal assembly should be replaced.



**Step 7:** Lightly lubricate the replacement O-Ring only with Dow 111 lubricant (provided when Seal Kit is ordered).

**Step 8:** Place the new Seal and O-Ring in the Female Housing, as depicted in step 5.

**Step 9:** Re-install the Female Housing to the Housing Cap. **Note:** When the Housing Cap is tightened to approximately 60 ft. lbs., the marks on the two components should be re-aligned and the Set Screw may be re-installed.

**Step 10:** Reinstall the Set Screw and test pressurize the system.