

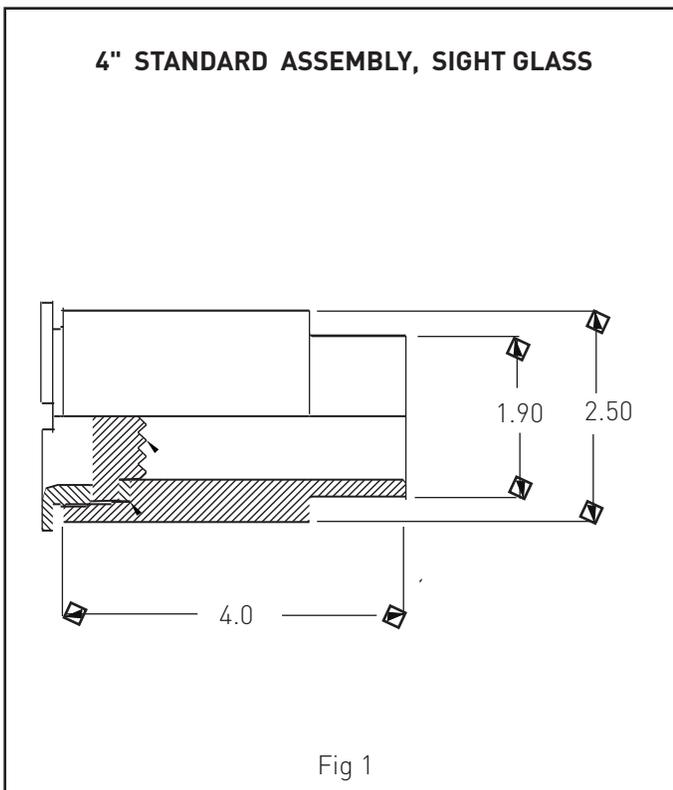
# Liquid Level Sight Glass

## Type SG1

For Ammonia, R22, R134a R404a, R507 and other common refrigerants.

### Features:

- Suitable for ASME Applications
- Design Pressure (MRP): 400 psig (27 bar)
- Min Fluid Temperature: -60°F (-50°C)
- Max Fluid Temperature: 240°F (115°C)
- Reflex lens
- Housing comes in saddle milled or straight version
- 2" or 4" long housing available
- Frost Shield available



## BULLETIN 65-00B



April 2007  
Installation Information

### Purpose

The Refrigerating Specialties liquid level sight glass SG1 provides a clear indication of liquid levels in industrial and commercial refrigeration systems. As the liquid level rises in the viewing area of the lens, the color of the lens will turn dark.

### Safe Operation (See also Bulletin RSB)

People doing any work on a refrigeration system must be qualified and completely familiar with the system and the Refrigerating Specialties Division valves involved, or all other precautions will be meaningless. This includes reading and understanding pertinent Refrigerating Specialties Division product Bulletins and Safety Bulletin RSB prior to installation or servicing work.

### Installation

Planning for the installation of sight glasses should consider the immediate needs of unobstructed access to the lens. The potential for interference with material and components yet to be installed such as insulation, electrical equipment, and structural additions for maintenance access or equipment protection needs to be considered. Finally, the completed overall construction should be arranged to preclude the potential for contacting moving machinery, material handling equipment, and other similar equipment.

Remove reflex lens and gasket before welding. Welding procedures for all steel pipe and fittings need to conform to all requirements of the ASME IX, VIII, API, and other Pressure Pipe welding standards.

To prevent distortion of housing and protect threads from welding sparks and damage, leave retainer ring (less glass lens and gasket) in housing during welding. After welding, remove retainer ring and then insert (in order) neoprene gasket, reflex lens and fiber gasket into housing. Lubricate threads and screw retainer ring into housing and torque to 30 ft/lbs (41 m/kgf). R/S recommends against the use of compressed air for leak testing. While many successful installations have employed compressed air, the effects of moisture and oxygen, both short and long term, on system interior condition, integrity and performance is too significant to make it preferable to a dry nitrogen test. It has been established by investigation of failure modes that certain chemicals will infiltrate the disruptions in a chilled weld and reside there, setting up corrosion products. Oxygen entrapped in such notch sites, combined with the presence of ammonia, will promote stress corrosion cracking in a relatively short period. R/S recommends that leak testing be applied with dry nitrogen and that the elevated pressure be reduced to near atmospheric only shortly before the evacuation process is started.

Test for leaks before inserting the optional frost shield. To install frost shield, lightly coat the frost shield o-ring with refrigerant oil. Place a piece of fine tag wire across

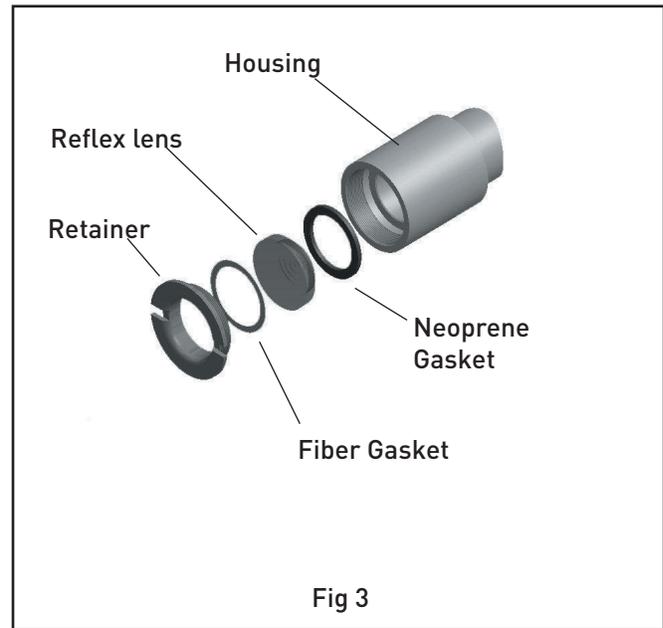


Fig 3

the front of the lens. This allows air to escape from between frost shield and assembly. Slowly withdraw wire once frost shield is fully inserted into assembly

### Warranty

All Refrigerating Specialties products are warranted against defects in workmanship and materials for a period of one year from date of shipment from originating factory. This warranty is in force only when products are properly installed, field assembled, maintained, and operated in use and service as specifically stated in Refrigerating Specialties Catalogs or Bulletins for normal refrigeration applications, unless otherwise approved in writing by Refrigerating Specialties Division. Defective products, or parts thereof returned to the factory with transportation charges prepaid and found to be defective by factory inspection will be replaced or repaired at Refrigerating Specialties option, free of charge F.O.B. factory. Warranty does not cover products that have been altered, or repaired in the field; damaged in transit, accidents, misuse, or abuse. Products disabled by dirt or other foreign substances will not be considered defective.

The express warranty above constitutes the only warranty of Refrigerating Specialties products, and is in lieu of all other warranties, expressed or implied, written or oral, including any warranty of merchantability or warranty of fitness for a particular purpose and in no event is Refrigerating Specialties responsible for any consequential damages of any nature whatsoever. No employee, agent, dealer or other person is authorized neither to give any warranties on behalf of Refrigerating Specialties nor to assume for Refrigerating Specialties any other liability in connection with any of its products.

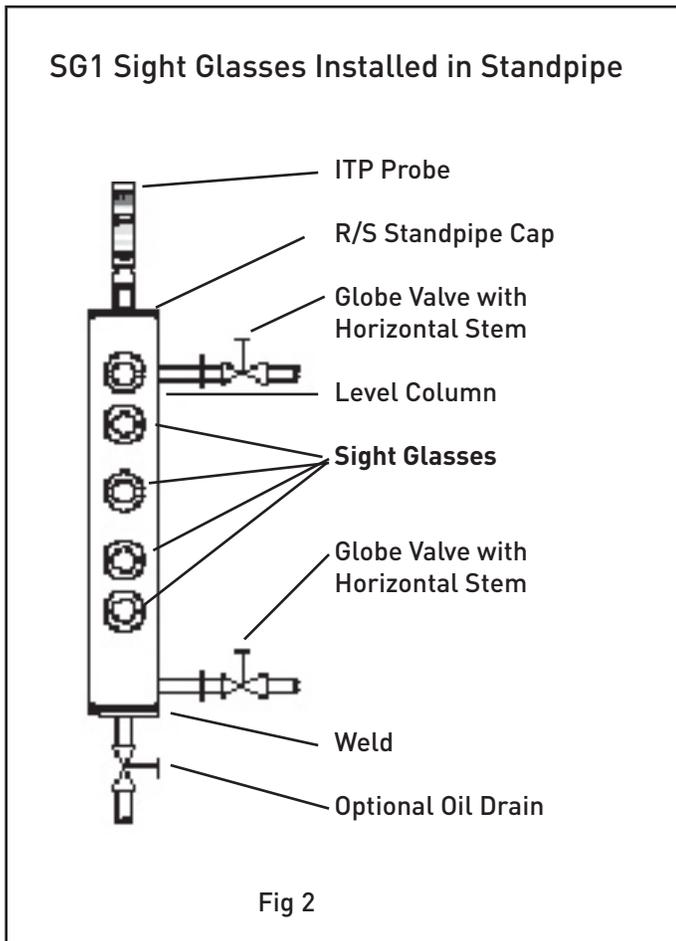


Fig 2