

3170 Wasson Road • Cincinnati, OH 45209 USA Phone 513-533-5600 • Fax 513-871-0105 steriflow@richardsind.com • www.steriflowvalve.com

# I & M In-Line Sight Glasses

Installations and Maintenance Instructions for In-Line Sight Glasses

**Warning:** Steriflow Sanitary Valves & Accessories must only be used, installed and repaired in accordance with these Installation & Maintenance Instructions. Observe all applicable public and company codes and regulations. In the event of leakage or other malfunction, call a qualified service person; continued operation may cause system failure or a general hazard. Before servicing any valve, disconnect, shut off, or bypass all pressurized fluid. Before disassembling a valve, be sure to release all spring tension.

## Overview

The in-line sight glass range is suitable for use in systems operating up to a maximum of 145 psig (10 barg). For units with EPDM seats, the maximum operating temperature is 275°F (135°C). Units fitted with Viton, Silicone or FEP-Silicone seals have a maximum operating temperature of 392°F (200°C).

## Installation

Units may be installed in any orientation, with the flow in either direction.

## Maintenance

The in-line sight glass is easily disassembled for cleaning or maintenance. Replacement seats and glass are available for all sizes. Disassembly/assembly instructions are as follows:

- 1. Holding the body (1), unscrew the end fitting (2) in an counter-clockwise direction. Tightening/loosening can be achieved by adding a bolt to a solid cap and then fitting one cap on each end of the sight glass using standard seats and clamps. Such fittings are available from Steriflow. Once loosened, the end fitting (2), glass (3), and seals (4) can be removed.
- 2. Ensure that all components are clean prior to re-assembly. Inspect seals and glass before re-assembly, replacing if required.
- 3. Locate seal (4) in groove of body (1).
- 4. Slide glass (3) into body (1).
- 5. Apply coating of anti-seize compound to end fitting thread (consult Steriflow Valve for suitable compound specification if required).
- 6. Locate seal (4) in groove of end fitting (2).
- 7. Screw end fitting into body, ensuring that the seals are correctly located in the seal grooves and that the glass is central before tightening.



9. Pressure test units to a maximum of 218 psig (15 barg) with air or nitrogen under water, checking to ensure a bubble-tight seal has been formed between the glass, body and end fitting.



Parts List

1	Body
2	End Fitting
3	Glass
4	O-Ring Seal (2 off)

## **Available Spares**

Glass (3) and O-ring seals (4)\*. \* Specify EPDM, Silcione or FEP material when ordering.

<b>Tightening Torques</b>		
Size 1/2" 3/4" 1" 1-1/2"	Fep O-Rings - in/lbs (Nm) 26,5 - 35,4 (3-4) 35,4 - 53,1 (4-6) 78,7 - 97,3 (9-11) 115 - 133 (13-15)	
2"	177 - 221(20-25)	





3170 Wasson Road • Cincinnati, OH 45209 USA Phone 513-533-5600 • Fax 513-871-0105 steriflow@richardsind.com • www.steriflowvalve.com

## I & M In-Line Sight Glass Addendum: Knock Shield Assembly

Installation and Maintenance Instructions for Knock Shield of In Line Sight Glasses

**Warning:** Steriflow Sanitary Valves & Accessories must only be used, installed and repaired in accordance with these Installation & Maintenance Instructions. Observe all applicable public and company codes and regulations. In the event of leakage or other malfunction, call a qualified service person; continued operation may cause system failure or a general hazard. Before servicing any valve, disconnect, shut off, or bypass all pressurized fluid. Before disassembling a valve, be sure to release all spring tension.

### Installation

Use the Polycarbonate Knock Shield where protection of the glass against accidental damage is required.

- 1. Place one of the support rings (6) over one end of the sight glass with the lens lip facing inwards.
- 2. Fit the inner rings inside (1) the outer ring screwing the grub screws (3) through the inner ring clearance holes. Position the ring cluster at the end of the body as illustrated.
- 3. Fit the Polycarbonate lens (4) over the opposite end of the sight glass.
- 4. Fit the second ring cluster. Adjust the position of the ring cluster to allow the lens some free movement. Tighten the grub.



Part	Part Name	Material
1	Body	316L Stainless Steel
2	End Fitting	316L Stainless Steel
3	Glass	Borosilicate
4	Seal	EPDM, Viton, Silicone or FEP-Silicone
5	Inner Ring	316L Stainless Steel
6	Outer Ring	316L Stainless Steel
7	Grub Screw	Stainless Steel
8	Lens	Polycarbonate

#### **Available Spares**

Glass (3), Seals (4) and lens (8)

