

SG Series

In Line Sight Glasses

The in-line sight glasses offered by Steriflow are suitable for a wide range of ASME BPE applications in high purity tubing systems typically found in the pharmaceutical or bio-pharmaceutical industry.

The double window design ensures optimum viewing area and eliminates the need for a back light. The bore of the glass and end fittings match that of the corresponding tubing size, preventing the possibility of fluid retention, even when units are installed horizontally.

The SG Series sight glasses combine 316L stainless steel end connections with a toughened borosilicate viewing glass making them suitable for both clean-in-place (CIP) and sterilization-in-place (SIP) operations. Standard units are available in 1/2" to 4" sizes with Tri-clamp® compatible connections. Alternative sizes and connection types can also be supplied.

Where there is a risk of accidental damage to the viewing glass, a Polycarbonate shield or perforated viewing tube can be supplied.

FEATURES

- Full bore flow path
- Large viewing area
- Compact design
- Metal stop provides ideal o-ring compression and prevents pipe torque from affecting glass
- Suitable for CIP and SIP
- SF5, 20 Ra µin (0,5 µm Ra) mechanical polish
- with Electropolish is standard

STANDARDS

- Where applicable, all sight glass models comply with ASME BPE criteria
- All sight glass models are CE compliant under the SEP category of the PED directive
- All seal materials are FDA and USP Class VI compliant

CLEANING & PACKAGING

- All sight glasses are cleaned after manufacture, capped, sealed in a polythene bag and individually boxed



DOCUMENTATION

The following documentation is shipped with each order:

- Steriflow Unicert
 - Traceable Material Heat Number for body and ferrels
 - Certificate of Compliance to FDA and USP Class VI
 - Certificate of Surface Finish
- Final Test Reports and Certificate of Origin available upon request at time of order

SPECIFICATIONS

Sizes: 1/2", 3/4", 1", 1-1/2", 2", 2-1/2", 3", 4"

End Connections

- Tri-clamp® compatible

Materials of Construction

- Body – 316L Stainless Steel
- End fitting – 316L Stainless Steel
- Glass – Borosilicate
- Seals – EPDM, Viton, Silicone FEP-Silicone, or Perlast (FFKM) (all FDA and USP VI compliant)

Surface Finish

- Internal – SF5; 20 Ra µin (0,5 µm) mechanical
- finish with Electropolish is Standard
- External – 32 Ra µin (0,8 µm) mechanical finish

Operating Conditions

- Maximum operating pressure – 150 psig (10,3 barg)
- Maximum allowable temperature with EPDM seals – 175°F (135°C)
- Maximum allowable temperature with Silicone, Viton or FEP Silicone seals - 392°F (200°C)
- Maximum allowable temperature with Perlast seals: 401°F (205°C), including continuous steam service up to 145 psig (10 bar)

Minimum Temps:

- EPDM: -40°F (-40°C); Silicone: -76°F (-60°C); Viton: -4°F (-20°C)

* Standard Silicone not suitable for steam service or SIP

ORDERING SCHEMATIC

| Model | Size | Seal | Shield | Finish |
|-------|------|------|--------|--------|
| | | | | |

| | Model |
|----|-------------|
| SG | Sight Glass |

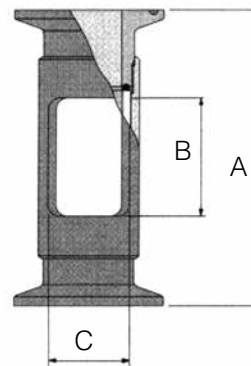
| | Size |
|-----|----------------------------|
| 050 | 1/2" ASME BPE Tri-Clamp® |
| 075 | 3/4" ASME BPE Tri-Clamp® |
| 100 | 1" ASME BPE Tri-Clamp® |
| 150 | 1-1/2" ASME BPE Tri-Clamp® |
| 200 | 2" ASME BPE Tri-Clamp® |
| 250 | 2-1/2" ASME BPE Tri-Clamp® |
| 300 | 3" ASME BPE Tri-Clamp® |
| 400 | 4" ASME BPE Tri-Clamp® |

Options

- DIN, ISO & SMS sizes available upon request
- Electropolished finishes
- Perforated viewing tube
- Alternative lengths / weld end connections

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| Valve Size | Weight lb (kg) |
|-------------|----------------|
| 1/2" & 3/4" | 0.22 (0,1) |
| 1" | 0.66 (0,3) |
| 1 1/2" | 0.88 (0,4) |
| 2" | 1.32 (0,6) |
| 2 1/2" | 1.76 (0,8) |
| 3" | 2.20 (1,0) |
| 4" | 2.86 (1,3) |

| Valve Size | A | B | Viewing Area C° |
|------------|---------------|-------------|-----------------|
| 1/2", 3/4" | 3.54 (90mm) | 1.57 (40mm) | 120° |
| 1" - 4" | 3.94 (100 mm) | 1.57 (40mm) | 120° |

| | Seal |
|-----|-----------------------------------|
| EP | EPDM, FDA, USP Class VI |
| VI | Viton, FDA, USP Class VI |
| SI* | Silicone, FDA, USP Class VI |
| FI | FEP-Silicon, FDA, USP Class VI |
| PL | Perlast (FFKM), FDA, USP Class VI |

* Standard Silicone not suitable for steam service or SIP

| | Shield |
|----|----------------------------|
| 00 | None |
| KS | Polycarbonate outer shield |

| | Finish |
|----|----------------|
| EP | Electro-Polish |