

### General Description

Simco Transparent level gauges are different in design / function to a reflex gauge as they consist of two flat transparent glasses where the light can enter / exit from the back to the front of the gauge thus illuminating the liquid level which is contained in the chamber separating the two glasses. The liquid level is indicated by the different transparency of the two media.

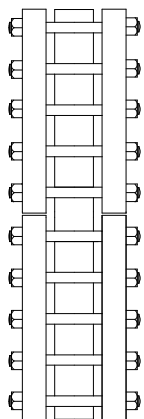
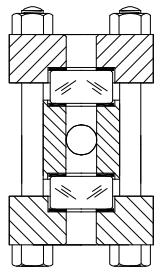
A source of light (Illuminator) may located at the back of the transparent level gauge, light from the illuminator passes through the process fluid and is then viewed by to the observer so that a level measurement can seen.

This type of gauge is used for measuring both total and interface liquid level of fluids in a vessel and also allows the use of Mica shields on the glass for excellent protection in steam service (if the environment is corrosive then Kel-F shields should be used instead).

Series 1000 Transparent gauges are available in nine standard lengths and constructed with a single piece chamber.

### Series 1000 Transparent Gauge

Cross sectional and side view



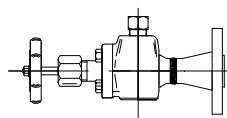
### Isolation Valves / Gauge Cocks

Simco isolation valves have been specifically designed for use with liquid level gauges and are available in a variety of materials, for temperature and pressure ranges to meet most specifications. Valves are available in both straight and offset pattern designs with outside screw and yolk (OS&Y) or inside screw configurations and have a selection of vessel and gauge connections to fit a variety of mounting requirements.

A standard feature with Simco Valves is the automatic safety ball checks. In the event of the glass breaking the ball check seats to prevent the loss of vessel contents. All valves may be repacked under pressure with the back seating arrangement ensuring complete shut off. A typical selection of

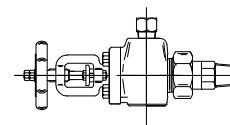
#### Example 1

Type 16 Offset Pattern Inside Screw  
Flanged Vessel Connection  
Gauge Connection NPT  
Vent / Drain Connection NPT Plugged



#### Example 2

Type 26 Offset Pattern (OS&Y)  
Union Vessel Connection  
Gauge con.. NPT - Drain / Vent NPT Plugged  
Vent / Drain Connection NPT Plugged



### Typical Material Specifications

#### Chamber / Cover / Flanges

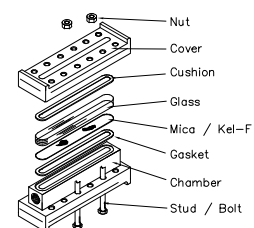
A105N, A350 LF2, 304 / 304L, 316 / 316L, F44, F51, F55

#### Bolting

Carbon Steel -A193 2H A194 (Zinc Plated & Passivated)

Carbon Steel -A193 2H A194 (Hot Dip Galvanized)

Stainless Steel -A193 B8M / A194 8M



### Typical Vessel Connection

Threaded - 1/2", 3/4" NPT (Union connections avail.)

Flanged - 1/2", 3/4", 1", 1.5", 2" & 3"

ANSI Class 150#, 300#,

### Typical Gauge Connection

Threaded - 1/2", 3/4" NPT (Union connections avail.)

Socket Welded - 1/2", 3/4"

Butt Welded - 1/2", 3/4"

### Typical Vent / Drain Connection

Threaded - 1/2", 3/4" NPT

Flanged - 1/2" & 3/4" ANSI Class 150# & 300#

### Selection of Available Accessories

#### Non-Frosting Extention

For low temperature applications protecting against the build up of frost.

#### Calibrated Scale

Manufactured from traflowlyte / 316 stainless steel and engraved with units which reflect individual clients requirements.

#### Illuminator

Standard bulb type illuminators c/w Perspex light diffuser or alternate LED type illuminators are available with ATEX certification.

#### Protective Shields for Glass

The instrument glass may be protected from corrosive process medums through the incorporation of Mica or Kel-F shields.