

Signet 4150 Stilling Chamber with automatic air release valve



3-4150.096

Rev A 10/08 English

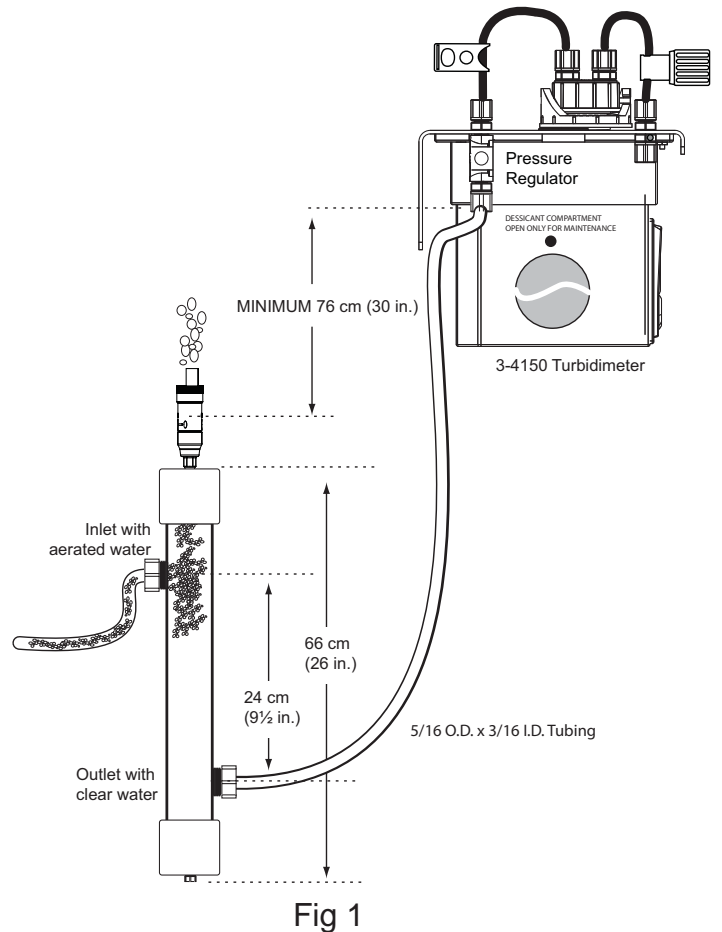
Description

The Signet 4150 Stilling Chamber is used to remove air bubbles from the flow stream before it passes through the measuring cell. Air bubbles will cause unstable or incorrect readings if not eliminated from the flow stream.

The stilling chamber is a cylinder approximately 5 cm x 66 cm (2 in. x 26 in.). Water enters the chamber via the outlet fitting near the top of the cylinder (see figure 1). As it passes through the chamber, the flow velocity is reduced by the larger volume of the chamber. This allows time for any entrained air to rise to the top of the cylinder, where the automatic air vent releases it into the environment.

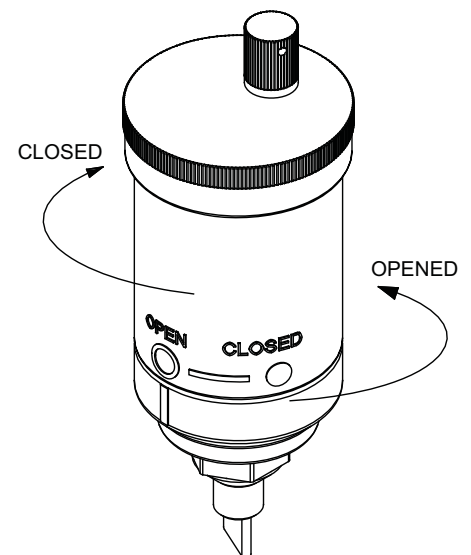
For proper operation the stilling chamber must be mounted lower than the sensor. For optimum results there should be at least 76 cm (30 in.) as measured from midpoint of the air vent to the inlet at the sensor.

The air vent has a maximum working pressure of 6 bar (90 psi) and maximum temperature range to 106°C (225°F).



Operating Instructions Braukman Automatic Air Release Valve

1. Before filling the chamber, make sure the red vent cap is securely tight and that the release valve is in the closed position (see figure 2) by turning valve body clockwise. **HAND-TIGHTEN ONLY** to avoid damaging the valve.
2. With the valve in the closed position, flush the system as required to remove dirt, debris and contaminants.
3. Fill the system with the appropriate solution.
4. Start operation by turning the air release valve body counter-clockwise to the open position (see figure 2).
5. For proper operation, make sure that the red vent cap is tightened all the way to the stop position. **HAND-TIGHTEN ONLY.**



Cleaning Instructions

1. Turn the valve body clockwise to the closed position, isolating the valve from the system. See figure 2.
2. Remove the float assembly by unscrewing the top of the body and lifting the black cover assembly up. See figure 3.
3. Carefully clean the seat area of any dirt or debris.
4. Carefully clean any dirt or debris from inside the vent chamber.
5. Reinstall the clean float assembly, making sure that the O-ring is not damaged and is seated properly. See figure 3.
6. Reinstall the black cover assembly on the air release valve body. **HAND-TIGHTEN ONLY.**
7. Operate by turning the air release valve body counter-clockwise to the open position. **HAND-TIGHTEN ONLY.** See figure 3.
8. For proper operation, make sure that the red vent cap is tightened all the way to the stop. **HAND-TIGHTEN ONLY.**

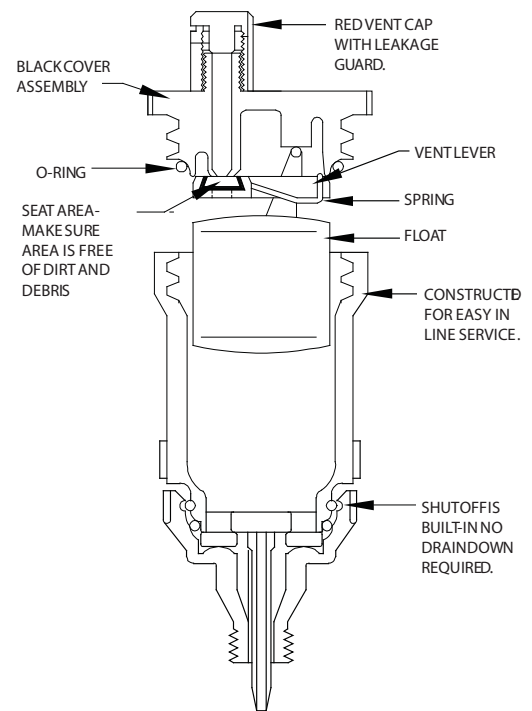


Figure 3

Ordering Information

| Signet Part Number | Code | Description |
|--------------------|--------------------|--|
| 3-4150-1 | 159 001 596 | Turbidimeter, White Light, 0 to 1000 NTU |
| 3-4150-2 | 159 001 597 | Turbidimeter, Infrared, 0 to 1000 NTU |
| 3-4150-3 | 159 001 598 | Turbidimeter, White Light, 0 to 100 NTU With AutoClean |
| 3-4150-4 | 159 001 599 | Turbidimeter, Infrared, 0 to 100 NTU With AutoClean |
| 3-4150-5 | 159 001 600 | Turbidimeter, White Light, 0 to 1000 NTU With AutoClean |
| 3-4150-6 | 159 001 601 | Turbidimeter, Infrared, 0 to 1000 NTU With AutoClean |
| 3822-4001 | 159 001 585 | *Calibration Kit, Turbidity, 100, 10 & 0.02 NTU |
| 3822-4003 | 159 001 586 | *Calibration Kit, Turbidity, 1000, 10 & 0.02 NTU |
| 3-4150.380 | 159 001 588 | Replacement Desiccant |
| 4150-0007 | 159 001 602 | Replacement cuvette set (3 glass cuvettes) |
| 4150-0004 | 159 001 589 | Replacement cuvette with ultrasonic transducer |
| 3822-4002 | 159 001 591 | *Formazin Stock Kit |
| 3822-4000 | 159 001 592 | *Formazin Stock Solution, 4000 NTU, 500 ml |
| 4150-0001 | 159 001 593 | Pressure Regulator |
| 4150-0003 | 159 001 587 | Stilling/Bubble Chamber |
| 4150-0005 | 159 001 595 | Tubing Kit: shutoff clamp backpressure valve 2 lengths connecting tubing with fittings for flow through assembly drain vent |

* Material Safety Data Sheets (MSDS) are available online at www.gfsignet.com/msds.htm.



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