

The Problem...

Air Bubbles

In conventional antifreeze testers, air bubbles are formed on the measuring unit during turbulent fluid inflow. Their buoyancy causes the measuring unit to float higher. This is dangerous because the reading shows more than the true antifreeze protection. Therefore it was always necessary to tap the device to get rid of air bubbles before reading.

Fluid Loss Unstable Readings Positioning Errors

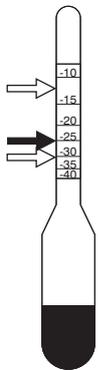
The open hydrostatic system of conventional antifreeze testers is subject to fluid loss and air bleed, particularly when testing hot fluids. The measuring unit is unstable so that the intake tube must be closed by hand to make a reading.

Glass hydrometers and many rotating-float testers must be positioned absolutely vertical to avoid reading errors.

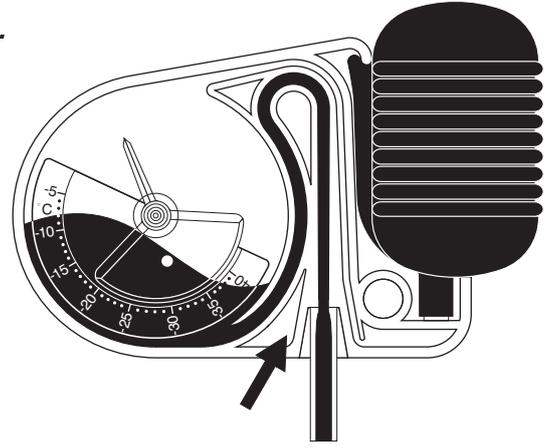
Small Antifreeze Scale Large Temperature Errors

It is difficult to take accurate readings from small scales with irregular subdivisions.

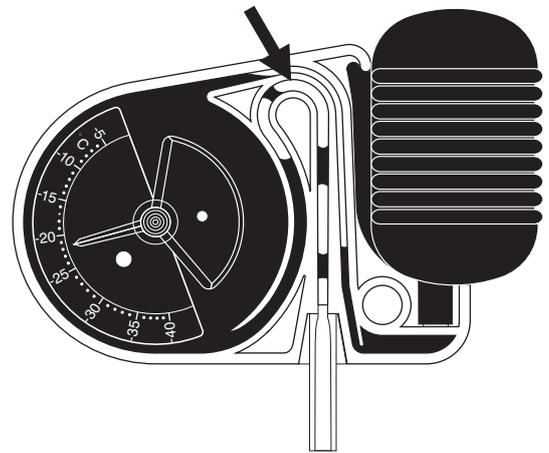
Glass hydrometers are reliable only at room temperature because the thermal expansion of antifreeze fluids is 17 times greater than that of glass. For example: for a fluid with a freezing point of -25°C the temperature error of glass hydrometers is almost 20°C .



The Solution...

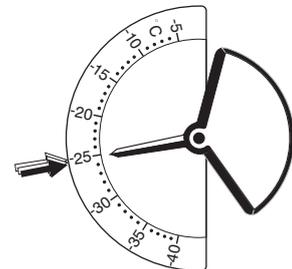


The Microtemp tester has a laminar-flow inlet duct for rapid, bubble-free filling. There's no need to tap the case to remove air bubbles; readings are always reliable.



The Microtemp inflow channel extends above the measuring chamber to form an automatic hydrostatic lock after filling. Even with hot fluids there's no leakage or air bleed, thus readings are immediately stable.

The circular measuring chamber allows the twin-rotor measuring unit to rotate freely through 360° . Measurements are independent of instrument positioning. The floats are practically weightless in antifreeze fluids to eliminate axle friction.



Microtemp is very compact, yet its antifreeze scale is long. Regular scale subdivisions make error-free readings easy.

Microtemp's temperature compensation is automatic. The two float materials follow the thermal expansion of antifreeze fluids so that they are mutually corrective at all temperatures. The comparable temperature error is therefore only 0.5°C .

Microtemp has professional advantages.