

GAUGE KITS

USER GUIDE

Item #: GK

OVERVIEW

Gauge Kits measure the velocity pressure or system pressures during a flow test. The included gauge fittings allow you to easily connect to The Hose Monster®, Pitotless Nozzle®, Remote Reader Assembly, or any standard 1/4" NPT connection.

COMPONENTS

- 1 gauge
- 1 brass tee 1/4"
- 1 petcock 1/4"
- 1 brass nipple 1/4" x 1 1/2"
- 1 set quick disconnect couplings (male and female)

RECOMMENDED CONFIGURATION OPTIONS



The Hose Monster®



Pitotless Nozzle®



Remote Reader

ASSEMBLY INSTRUCTIONS

Wrap tape sealant around the threaded joints so that connections are made leak free. Attach any gauge fittings that you are using such as the petcock and quick disconnects. Vent the gauge prior to initial use by turning the yellow flag on the top of the gauge to the "Open" position and lightly tapping on the gauge. When the gauge needle rests on the zero mark, turn the yellow flag back to

the “Closed” position. During initial water flow open the petcock (if attached) to eliminate the air in the gauge then close it once all the air has been removed.

MAINTENANCE

- Pressure gauges will need to be recalibrated and certified from time to time. Calibration to NIST Standard is available through Hydro Flow Products. Calibrations include a certificate with the test results and a gauge label indicating the date of calibration.
- Wipe down the product with a damp rag after each use to remove dirt and debris. To reduce corrosion on brass, aluminum, or steel fittings apply WD-40 or other brand lubricant, then wipe with a rag.
- Gauges should be protected against shock and extreme temperature changes. Store gauges in a protective case and keep them indoors.

TROUBLESHOOTING

Problem: The gauge needle is off zero.

Solution: Sometimes pressure changes in the atmosphere affect the gauge. Push up on the Female Quick Disconnect Coupling to allow the gauge access to atmospheric pressure or remove the gauge fittings completely and reinstall. If the gauge is still off zero, it may need to be recalibrated. Contact HFP for calibration services.

Problem: The gauge reads zero when pressurized or the gauge holds pressure from the last reading for a period of time.

Solution: Sometimes a piece of debris will get into the restricted orifice. Look into the inlet of the gauge and remove any obstructions.

NOTE ON GAUGE ELEVATION RELATIVE TO FLOW DEVICES

If the gauge is connected to a Remote Reader and is at an elevation higher or lower than the flow device, then you must take this into account when determining your flow-rate. You will need to add or subtract 0.43 psi per foot of elevation difference to the indicated pressure on your gauge.

- If the pressure gauge is **above** the flow device, **add** 0.43 psi per foot of elevation difference.
- If the pressure gauge is **below** the flow device, **subtract** 0.43 psi per foot of elevation difference.

AN EXAMPLE

During a pump test, the operator is flowing water into a Hose Monster® that is in a tank 10 feet below them. A Remote Reader tube is connected to the Hose Monster® gauge port below them. The indicated pressure on the user's gauge is 13 psi. Add 4.3 psi to the gauge reading since 0.43 psi per foot multiplied by 10 feet of elevation difference equals 4.3 psi. The new flow pressure is now 17.3 psi. Convert 17 psi to GPM by using our flow charts. (Note: Round to the nearest psi whole-number when referring to flow charts.)