

IN-LINE PITOTLESS NOZZLE™

USER GUIDE

Item#: INPNWC1.5

US Patent#: 6,874,375

OVERVIEW

Use the 1 ½” Inline Pitotless Nozzle™ for flow testing from 1 ½” diameter connections such as hose cabinets, standpipes, or valves. Hose or piping can be attached downstream of the unit without affecting the accuracy of the readings. The 1 ½” Inline Pitotless Nozzle™ determines flow-rate by measuring the differential pressure between the two gauge ports.



COMPONENTS

- 1) 1 ½” Differential Chamber Nozzle
- 2) 1 ½” Discharge Valve
- 3) Monster Meter™
- 4) Gauge Tubes
- 5) Residual Gauge 0 – 200 PSI 1% accuracy rated

OPTIONAL ACCESSORIES

- 1) **Adapter 1 ½” F NH x 2 ½” NH M.** This would allow you to connect 2 ½” hose to the discharge side of the 1 ½” Inline Pitotless Nozzle™. (Item#: AD1.5FNHX2.5MNH)
- 2) **Reducing Adapter 2 ½” F NH x 1 ½” M NH.** This would allow you to connect the 1 ½” Inline Pitotless Nozzle™ to a 2 ½” NH connection. (Item#: 2.5FNHX1.5MNH)

OPERATION

Note: All connections in this assembly must be watertight. Any leakage can affect readings.

- 1) Secure the female swivel coupling of the 1 ½” Inline Pitotless Nozzle™ to the water source. You may attach the unit to a 1½” valve, a valve larger than 1 ½” by using reducing adapters, or an end of a secured 1 ½” hose.
- 2) Attach the two gauge tubes to the Inline unit by inserting the male quick disconnect fittings into the female quick disconnect fittings on the Inline unit, Red tube into the High Pressure port and the White tube into the Low Pressure port.
- 3) With the Discharge Valve on the Inline unit in the closed position, open the water source valve slightly to ‘charge’ the Inline unit with water, holding the ends of the gauge tubes into a bucket/container.
- 4) Purge the Inline unit of all air, then close the water source valve.
- 5) Monster Meter™ should be at ‘Connect Input Test Pressure’ screen. See Monster Meter™ User Guide for proper setup and operation.
- 6) Attach the opposite ends of the gauge tubes to their respective Monster Meter™ ports, the red tubing to the ‘HI’ port and the white tubing to the ‘LO’ port.
- 7) Before flowing water verify that the discharge valve is fully closed and all connections are fastened securely. Any leakage can affect readings. Slowly open the water source when ready. Allow the differential chamber to completely fill with water and become pressurized.
- 8) Slowly open the differential valve to the desired flow rate. The Monster Meter™ displays the real-time GPM and differential pressure.
- 9) When the test is complete, close the discharge valve and the water source.

THE MONSTER METER™ & FLOW CHARTS

- **When using the Monster Meter™, a flow chart is not required. The Monster Meter™ displays the real-time GPM, differential pressure, and the high and low pressures.**
 - *If you need to manually verify the flow rate, please ensure you are referencing the correct flow chart is used. It should have the correct size and the “In-line Pitotless Nozzle™” logo in the title.*

MAINTENANCE

- **The female quick disconnect fittings.** Apply lubricant or WD-40 for stainless steel or brass fittings as necessary to prevent corrosion, and then wipe down with a cloth. The female quick disconnect coupling can be removed. Use a hold-back when changing out the female quick disconnect coupling. Apply thread tape (not thread-locking sealant) on the male end of the fitting to re-install the female quick disconnect coupling. Contact Hydro Flow Products, Inc. customer service if repair is needed.
- **Monster Meter™.** For operation and charging information, refer to the Monster Meter™ Users Guide. Calibration to NIST standard is available through The Hose Monster Company. Contact The Hose Monster Company if service is needed.
- Clean dirt and debris from your equipment after use by wiping down with a cloth.

TECHNICAL INFORMATION

K-Factor: 31.7

Operating Pressure Range: 2 to 90 PSI

Operating Flow Range: 45 to 301 GPM

CAUTION: ALL CONNECTIONS IN THIS ASSEMBLY MUST BE ATTACHED SECURELY. DIRECT WATER DISCHARGE AWAY FROM ANY PEOPLE OR PROPERTY THAT MAY BE AFFECTED. DO NOT ATTACH THE DEVICE TO THE END OF A HOSE UNLESS A *HOSE MONSTER*® IS ATTACHED TO IT OR UNLESS THE HOSE IS PROPERLY SECURED. THE USE OF THIS PRODUCT INVOLVES HEAVY WATER FLOW WHICH CAN RESULT IN SERIOUS INJURY OR DEATH IF USED IMPROPERLY. PRODUCTS THAT HAVE BEEN ALTERED OR MODIFIED IN ANY WAY POSE A SAFETY RISK AND WILL VOID THE MANUFACTURER'S WARRANTY. THE MANUFACTURER AND ITS DISTRIBUTORS ARE NOT RESPONSIBLE FOR ANY DAMAGE OR INJURY CAUSED BY THE USE OF THIS PRODUCT.

For questions or comments please call The Hose Monster Company at **888-202-9987** or email **service@hosemonster.com**.

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