MODEL 1403 BALANCED FLOW METER
High Accuracy Replacement for Orifice Plates, Venturi Meters and Other Flow Measurement Devices
Flow Rate Measurement of Liquids, Gasses, Steam or Two Phase Flow

AWARDED 2007 NASA INVENTION OF THE YEAR
Lab Calibrations Retain Full Accuracy in Field Even for Flow Meters Close to Bends, Valves, Junctions and Other Disturbances

- Accuracies up to 0.2% of reading
- Accuracy unaffected by entrance and exit lengths
- Reduced system pressure drop
- Reduced vibration
- Elimination of scaling for most fluids
- Direct drop-in replacement to an orifice plate

Balanced Flow Meter Advantages over Orifice Plates
- Ten times improvement in accuracy
- 100% increase in pressure recovery
- No need for straight pipe runs before or after the plate
- Extreme resistance to scaling
- 15 times reduction in noise energy/vibration
- Permanent pressure loss, accuracy and discharge coefficient comparable with a venturi meter

Balanced Flow Meters Custom Made for Your Application
- Line sizes 0.25” to 36”
- Liquid flow rate accuracies to 0.2% of reading
- Gas flow rates accuracies to 0.5% of reading
- Stainless steel, titanium or special alloys as needed to prevent erosion or corrosion
- Measured pressure drops similar to orifice plates and venturi meters
- ISO 17025 certified, NIST traceable calibrations included
- Appendix B, 10 CFR 50 Part 21 applicable calibration upon request
- Can be supplied Appendix B safety related for nuclear power applications, recent NUPIC and NIAC audits

The customer specifies: The fluid, pipe size, desired maximum pressure drop, temperature range and the desired measurement accuracy. Graftel would provide a full custom design to meet customer specs. When a temperature sensor is added, this unit becomes a heat rate meter as well as a flow meter.

Complete multi-plate instrumented systems can also be ordered to customer Specifications

With balanced flow meter and welded on three valve manifold