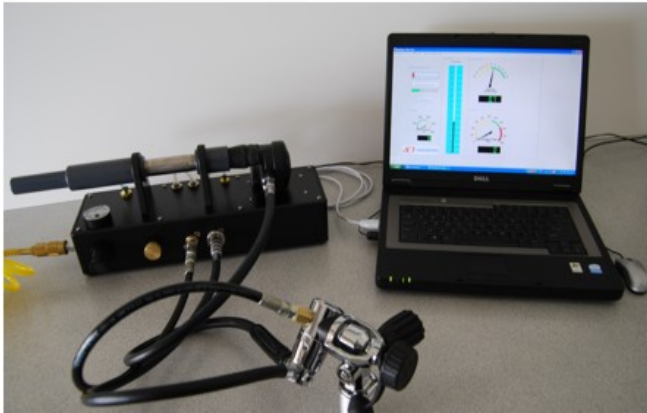


## The Atmospheric Inhalation Resistance (A.I.R.) Flow Test Stand



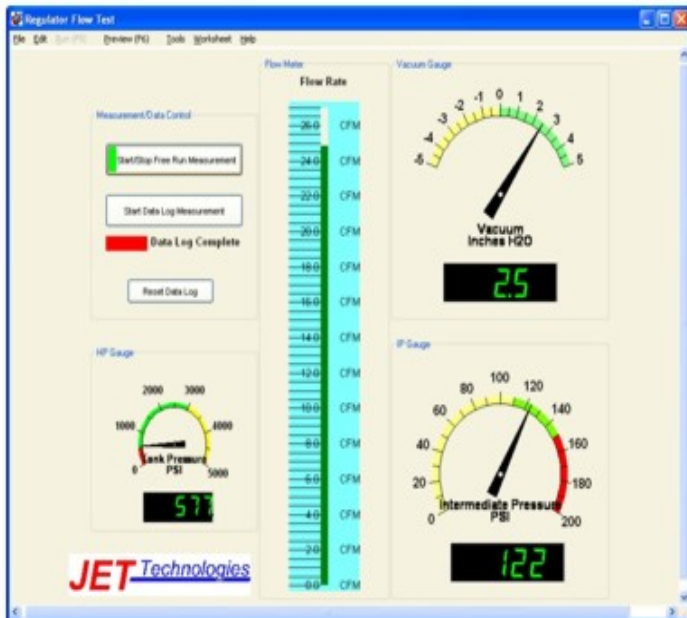
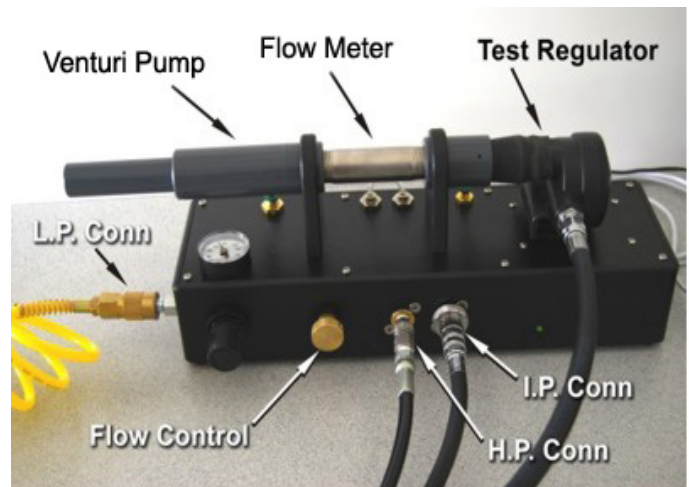
Scuba Instruments has developed a PC based flow test stand that records and documents regulator performance.

Scuba Instruments' A.I.R. Flow Test Stand is designed to test diving regulators under both static and dynamic conditions. In addition to the standard "static tests" for cracking effort and intermediate pressure, the "dynamic performance" of the complete regulator (first and second stage) can be automatically monitored, recorded and logged to files while the regulator is supplying air at varying flow rates. These dynamic tests are important on modern regulators that utilize venturi assists as part of the overall work of breathing.

The following outlines the tests that can be performed with the A.I.R. Flow Test Stand:

- Precision Cracking Effort
- Static & Dynamic IP Levels
- Demand Effort vs Flow
- Venturi Performance

Scuba Instruments has developed this test stand to make the technicians job of testing, evaluating, and documenting regulator performance easier by utilizing the latest in measurement and data acquisition technologies. All data from the sensors in the test stand are processed and sent via USB interface to a PC running the test program. This information is displayed along with measurement data control functions in an intuitive familiar instrument layout as shown.



The main display provides analog representations of gauges as well as digital values. Analog gauge response times are fast and are comparable to the mechanical gauges used in conventional instruments. The accuracy of the pressure measurements are typically  $\pm 0.25\%$  FS at standard conditions and the flowrate measurement accuracy is typically  $\pm 1.0\%$  FS at standard conditions. Analog to digital conversions are resolved to 10 bits (0.1%). The analog representations of the gauges are augmented with digital counterparts to allow increased measurement resolution. Two modes of measurements are provided; free-run testing or data logging. The free-run testing mode allows the technician to perform testing of the first and second stages of the regulator while making adjustments. The data logging mode allows the technician to perform diagnostic testing prior to regulator maintenance for evaluation and final testing to verify regulator performance after maintenance. All data values for Flowrate, H.P., I.P. and Vacuum are written to an Excel spreadsheet during a data log cycle. Two data log cycles are provided, one for tests emulated at high tank pressure and one for low tank pressure. The user may also customize the spreadsheet - except for the areas data is written- to show other

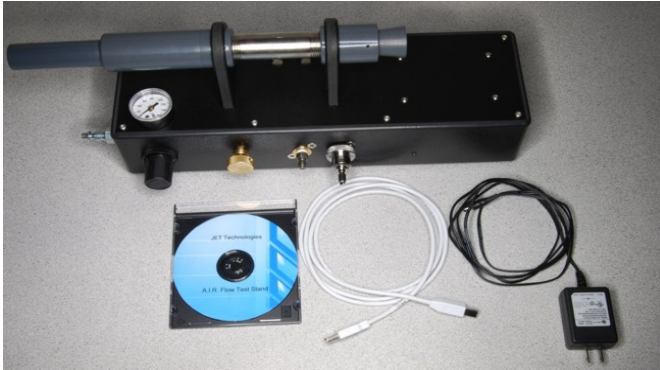


The A.I.R. Flow Test Stand includes the following items:

- Test Stand comprised of : Venturi Pump, Flow Controls, Flowmeter, Pressure Transducers, Dive Regulator interface, High Pressure & Intermediate Pressure ports, Data Acquisition interface.
- A.I.R. Flow Test Software with drivers.
- USB Interface Cable
- Power Supply Adapter

Recommended Minimum System Requirements:

- PC with Windows XP
- One USB Port
- 256 MB RAM and 40 MB free hard drive space



A.I.R. Flow Test Stand  
SI-10200100 \$3000.00

Quantity:

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