## **HIPRO Solicitation for Goods and Services**

Solicitation Title: Primary Flow Standard System

Description: NIST traceable Primary Flow Standard System (PFSS) capable of calibrating flow measuring devices at user defined flow rates.

## **Minimum Specifications for the PFSS:**

- 1. Shall be Mesa Labs DryCal ML-800 or Equal
- 2. Shall be a primary standard
- 3. Shall be portable
- 4. Shall use near-frictionless dry piston and flow cell design
- 5. Shall not use any liquid
- 6. Shall include a base unit and three interchangeable flow cells with the following specifications:

	Cell 1 (Ultra Low)	Cell 2 (Low)	Cell 3 (High)
Flow Range, sccm	0.5-50	5-500	500-50,000
Accuracy, Standardized, %	±0.25	±0.15	±0.15
Time Per Reading, second	1-60	3-135	1-35

- 7. Shall measure gas flow rates of both pressure and vacuum flow sources
- 8. Shall have an integrated temperature sensor and barometric pressure in the gas flow stream for instant conversion of the volumetric readings into standardized flow
- 9. Shall have a backlit display
- 10. Shall be compatible with noncorrosive, noncondensing, noncombustible gases, less than 70%humidity
- 11. Shall be capable of obtaining readings with a push of a button
- 12. Shall be capable of obtaining readings manually (one reading at a time), or automatically in a hands-free continuous auto-read mode
- 13. Shall have RS-232 serial and USB ports, cable, and software to enable data to be downloaded to a Microsoft Excel spreadsheet.
- 14. Shall have an internal rechargeable battery capable of powering system for at least 6 hours
- 15. Shall have NIST-traceable calibration certificate(s) good for at least one year
- 16. Shall have a 120VAC adapter/charger, North American standard

## **HIePRO Solicitation for Goods and Services**

17.	Shall have a Pelican storage case with customized storage compartments of	or
	oam cutouts	

18. Shall have a 1 year warranty; 6 months for battery