



CPDS-1000 CANISTER PRESSURE DROP SYSTEM

PRINCIPLE OF OPERATION

The APS CPDS-1000 test stand is designed for manual control of pressure and flow for testing carbon canister pressure drop values. This system tests load and purge modes by utilizing a compressed air supply and a vacuum pump. Test functions of the CPDS are:

- Load or fill mode simulation by applying pressure to the canister load or tank port
- Purge mode simulation by applying vacuum to the purge port
- Canister weight determination on the optional scale

THE CPDS CAN BE USED FOR THE FOLLOWING TESTS //

- Purge Vacuum Drop
 - Measures the total allowable purge vacuum drop across the carbon canister
- Loading Pressure Drop
 - Diurnal (enhanced evaporative) measures the total pressure drop across the carbon canister
 - Refueling (ORVR) measures the total allowable air and tank tube pressure drop across the carbon canister
- Purge Restriction
 - Measures the total allowable purge vacuum restriction across the carbon canister for enhanced evaporative and ORVR

OPTIONAL FEATURES //

- Fully automatic control and data acquisition system
- Full integration with APS C2K (Canister Conditioning System)
- Fixed-in-place or portable units



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TECHNICAL SPECIFICATIONS

SYSTEM POWER REQUIREMENTS //	Voltage: 120VAC, 60 Hz, Single Phase Current: 5 A
CAPABILITIES //	Maximum purge flow rate: 100 slm Maximum fill flow rate: 100 slm Maximum vacuum reading: -25" WC Maximum pressure reading: +25" WC Scale capacity: 7.2 kg with 0.1 g resolution
ACCURACY //	Mass flow meter: +/- 1% of full scale Differential pressure transmitters: +/- 0.25% of full scale
PURGE VACUUM PUMP //	Rating: 4 CFM at -14". Hg
COMPRESSED AIR //	Maximum pressure: 120 psig Minimum pressure: 90 psig at 5 SCFM
OPERATING TEMPERATURE //	Maximum ambient temperature: 105 °F
PLUMBING CONNECTIONS //	Compressed air: 1/2" OD Exhaust vent: 1" PVC
CANISTER CONNECTIONS //	Pressure load port and pressure transducers: 1/4" OD, stainless steel Vacuum purge port: 3/8" OD, stainless steel Mass flow meter ports: 1/2" OD, stainless steel

