DryVue™ Sahara

Gas Conditioning System

Patent Pending



Extremely dry. Exact composition.

The **DryVue Sahara™ Gas Conditioning System** redefines gas conditioning performance and sets a new benchmark in moisture and particulate removal. Moving beyond conventional cooling-only designs, it combines high-pressure operation with precision Peltier temperature control to achieve unprecedented moisture reduction levels.

DryVue Sahara can process sample streams with up to **30% moisture** and reduce moisture content to **<1,000 ppm**, achieving dew points as low as **–20°C**. Traditional chillers operating at 4°C are typically limited to ~8,000 ppm and are constrained by size, cost, and flow capacity. In contrast, DryVue Sahara delivers **high flow rates (10 LPM)** with no practical flow limitation, all in a significantly smaller and lighter package.

This performance is enabled by proprietary **EVT DryVue Technology**, featuring a heated-head piston pump operating at **120°C** with up to **100 psig backpressure**, paired with a dual-chamber impinger-style condenser block. The result is rapid moisture removal and stable, low residual moisture within seconds.

DryVue Sahara is designed to transform stationary source testing and CEM applications by eliminating the need for heated lines, and complex sampling systems. The unit is designed for deployment at the stack or in a mobile testing trailer & operates with **unheated sampling and calibration lines**, significantly reducing system cost and complexity.

Features	Benefits
• Heated-head piston pump rated to 100 psig	• Dew points to –20°C (≤1,000 ppm moisture)
• Dual-chamber aluminum condenser block	• Reduces water-related measurement bias
• Dual electrically actuated drain valves	• Allows low-resolution IR data, reducing MDLs
• Manual outlet pressure control via rotameter	• Allows full-spectrum IR gas analysis
• Integrated HMI/PLC for local and remote control	• Stack installation reduces need for heated sampling
• Outdoor-rated NEMA enclosure with cooling	• 10 LPM flow rates for fast system response
• 135-watt Peltier cooler with output temperature control from 2–25°C	• Most VOCs pass through at >85% recovery
	• Useful on ambient to 30% absolute moisture sources

evt Ellington Valley Technologies, Inc.

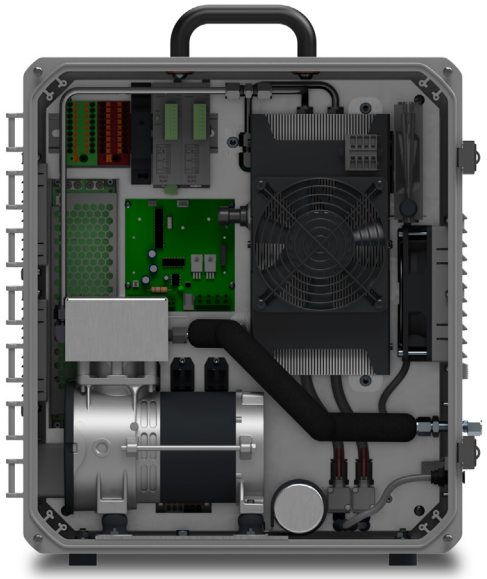
Technical Specifications

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Technology	Compression/Peltier moisture reduction Single heated head piston pump 135 w Peltier Cooler 2 chamber aluminum impinger
Pressure sensor	150 PSIA
Pressure control	Manual outlet pressure control via rotameter
Flow meter	0 – 10 L/min
Enclosure	NEMA-4
Plumbing connections	¼ inch Swagelok®
Condensate Drains	Electrically actuated drain valves
Display	HMI touchscreen for local control
Power	120VAC, 60 Hz, 8 Amps (max)
Dimensions	419mm x 483mm x 210mm (W x H x D)
Weight	16.8 KG
Communication	RJ-45 Ethernet





Ellington Valley Technologies, Inc.

Ellington Valley Technologies, Inc., East Windsor, CT
info@ellingtonvalley.com • www.ellingtonvalley.com

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