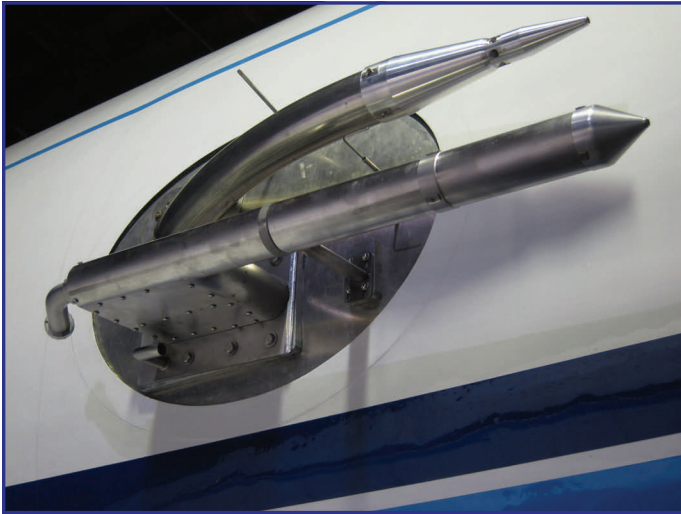


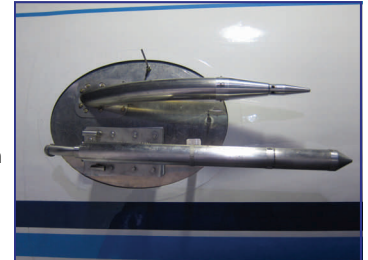
BMI: Counterflow Virtual Impactor Inlet System - Model 1204

BMI offers a Counterflow Virtual Impactor (CVI) cloud droplet sampling inlet system tailored to meet your needs. Both aircraft and ground-based systems are available.

The CVI inlet has automatic flow control, where the counterflow rate and sample flow rate are kept constant by the integrated control system. Performance is validated through wind tunnel testing and computational fluid dynamics modeling.

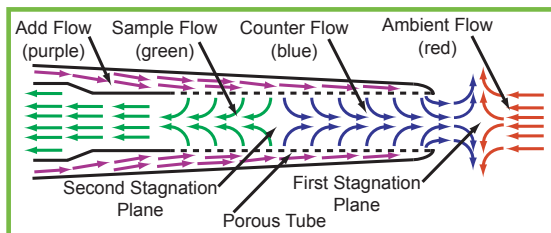


CVI Inlet Model 1204, Main probe body
(Model 1204 is the lower inlet)



Key Features:

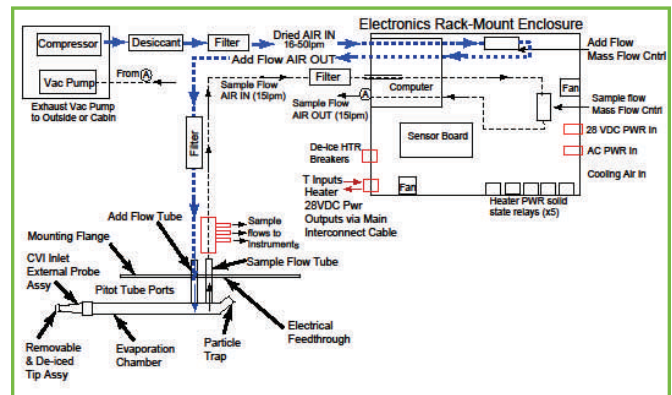
- Fully automated, hands-off operation
- Controllable droplet cut sizes between 6 and 18µm
- Wind tunnel tested and validated
- Inlet manifold customized for application
- Custom or off-the-shelf mounting solutions account for aircraft angle of attack
- 15 lpm of aerosol sample flow available to instruments
- Add flow rate adjustable between 16 and 35 lpm to vary cloud droplet cut size
- Heated Add Flow to evaporate cloud droplets
- Ground-based operation available
- Anti-icing system
- Integrated pitot tube for airspeed measurements
- Flow rate, pressure and temperature measurements of sample and add flows
- Integrated data system to control operation, record all parameters and provide 1 Hz serial output data stream
- Control electronics (5U, 31 lbs.), keyboard, mouse & monitor (1U, 30 lbs) conveniently packaged into two rack mountable enclosures
- Air flow pumps (50 lbs)



Schematic of air flows within the CVI Inlet tip assembly. The distance between the two stagnation planes determines the droplet cut size of the inlet.

CVI Technical Specifications

Cut Size:	6-18 µm
Sample Flow:	15 lpm
Add Flow:	16-35 lpm
Rackmount Size:	8.75" h x 19" w x 24" d
Data System Power:	100 Watts @ 110 or 230 VAC
Anti-Icing Heater Power:	385 Watts @ 28 VDC
Weight:	135 lbs/61 kg
Operating Temperature Range:	-40°C to +45°C
Operating Pressure Range:	0.2 to 1 atm



Typical Inlet System Configuration



For more information on Inlet Systems, please visit our website at www.brechtel.com/aerosol.html or contact our sales department by email at sales@brechtel.com or 510-732-9723