

HPD III High Pressure Diffuser

Aerosol Monitoring Accessory



High Pressure Diffusers (HPDs) have been developed to address the challenge of sampling pressures of 5 – 100 psi, and the possible damage that can result from connecting pressurized air or gas to a particle counter. HPDs reduce the pressure of the gas to near atmospheric pressure by allowing some of the gas to diffuse out of the system, allowing the particle counter's flow-metering system to function as designed.

The HPD III Aerosol Monitoring Accessory is compatible with non-toxic, non-flammable gases such as Clean Dry Air (CDA), argon, nitrogen and carbon dioxide. The higher pressure gases are reduced to a level acceptable to particle counters designed to operate at atmospheric pressure.

BENEFITS

- Measures gases from 5 to 100 psi (range dependent on model)
- No external flow meters needed
- Low contamination, < 5% of ISO Class 5 cleanliness
- Economical monitoring of pressurized gases with atmospheric pressure particle counters
- Can be used with Clean Dry Air (CDA), argon, nitrogen, carbon dioxide or other non-toxic inert gases
- Seven different versions for 0.1 CFM, 1.0 CFM, 50 LPM, and 100 LPM flow rates

FEATURES

- No moving parts to wear
- Connects via male 4-VCR fitting
- Exhaust filter prevents possible room contamination
- Mounting clamps supplied
- Stainless steel construction

APPLICATIONS

- Nano-ID® NPC10 nanoparticle counter
- Lasair® III particle counter models 310B, 310C, 350C, and 5100
- Airnet® II particle sensor models 301, 501, 510, and 510XR
- IsoAir® 310P particle counter

HPD III High Pressure Diffuser

Aerosol Monitoring Accessory

Specifications

Pressure	High Pressure 20 – 100 psi for 0.1 CFM, 1.0 CFM, 50 LPM flow rates 60 – 100 psi for 100 LPM flow rate	Low Pressure 5 – 25 psi for 1.0 CFM and 50 LPM flow rates 20 – 60 psi for 100 LPM flow rate
Flow rate	Options for 0.1 CFM, 1.0 CFM, 50 LPM, or 100 LPM	
Particle size range	0.3 – 25 µm	
Temperature range	Typical: 39 – 86 °F (4 – 30 °C)	
Humidity	0 – 85% RH non-condensing	
Material	Enclosure: 316L stainless steel body, exhaust filter Gaskets: 316 stainless steel, Buna-N O-rings	
Sample gas	Dry, inert, non-toxic, non-flammable gases (CDA, nitrogen, argon, carbon dioxide) NOTE: For carbon dioxide sampling, contact Particle Measuring Systems.	
Inlet fitting	Male 4-VCR fitting, #4 size, class 316L stainless steel with Ruby orifice	
Exhaust fitting	Barb fitting for 0.75" ID, 0.5" ID, 0.375" ID, or 0.125" ID dependent upon configuration	
ISO class	Less than 5% of ISO Class 5	
Tubing length	1 m (39.4 in) maximum	
Dimensions (h, w, d)	15 x 2.75 x 5.5 in (38 x 7 x 14 cm)	
Weight	2.7 lb (1.25 kg)	
Compatible instruments	Lasair® III particle counters: 310B, 310C, 350C, and 5100 IsoAir® PLUS particle sensors: 310 and 510 IsoAir® 310P particle counter Airnet® II particle sensors: 301, 310, 501, 510, and 510XR	

System components included: mounting brackets and exhaust tubing to particle counter

Not included: particle counter, ISPs sample tubing, communications cables, PC, FacilityNet or Pharmaceutical Net software

Airnet®, Lasair®, IsoAir® and Nano-ID® are registered trademarks of Particle Measuring Systems, Inc.
All other trademarks are the property of their respective owners.
Particle Measuring Systems, Inc. reserves the right to change specifications without notice.
©2018 Particle Measuring Systems, Inc. All rights reserved.



**PARTICLE
MEASURING
SYSTEMS®**
a spectris company

HEADQUARTERS

5475 Airport Blvd
Boulder, Colorado 80301 USA
T: +1 303 443 7100, +1 800 238 1801

Instrument Service & Support
T: +1 800 557 6363

Customer Response Center
T: +1 877 475 3317
E: info@pmeasuring.com

GLOBAL OFFICES

AUSTRIA
T: +43 512 390 500
E: pmsaustria@pmeasuring.com

BENELUX
T: +32 10 23 71 56
E: pmsbelgium@pmeasuring.com

BRAZIL
T: +55 11 5188 8227
E: pmsbrazil@pmeasuring.com

CHINA
T: +86 21 6113 3600
E: pmschina@pmeasuring.com

FRANCE
T: +33 (0)6 82 99 17 98
E: pmsfrance@pmeasuring.com

GERMANY
T: +49 6151 6671 632
E: pmsgermany@pmeasuring.com

ITALY
T: +39 06 9053 0130
E: pmsrl@pmeasuring.com

JAPAN
T: +81 3 5298 8175
E: pmsjapan@pmeasuring.com

KOREA
T: +82 31 286 5790
E: pmskorea@pmeasuring.com

MEXICO
T: +52 55 2271 5106
E: pmsmexico@pmeasuring.com

NORDIC
T: +45 707 028 55
E: pmsnordic@pmeasuring.com

PUERTO RICO
T: +1 787 718 9096
E: pmspuertorico@pmeasuring.com

SINGAPORE
T: +65 6496 0330
E: pmssingapore@pmeasuring.com

SWITZERLAND
T: +41 71 987 01 01
E: pmsswitzerland@pmeasuring.com

TAIWAN
T: 886-3-5525300 Ext: 301
E: pmstaiwan@pmeasuring.com