Disposable Inline Adsorbers

PRODUCT FEATURES / BENEFITS

- Completely Disposable / No Handling of Loose Adsorbents
- Available In Blue Transparent Nylon Body or High Purity Virgin Kynar Body for Enhanced Compatibility
- Four Body Sizes
- Wide Range of Adsorbents (DIA)
- HVAC Purification
- Analyzer & Sensor Protection
- Low Cost Scrubbers
- Last Chance Air Purifier / Zero Air Gas Calibration

Our Disposable In-Line Adsorbers consist of nylon or Kynar (for chemical compatibility) bodies filled with granular adsorption material with integral inlet and outlet filter pads. For best results longer contact time will increase the efficiency of the desiccant media providing a more effective adsorber. A wide choice of adsorbents permits the selective removal of vapors from air and other gases. Desiccant choices are listed on page 5.

Our Disposable In-Line Adsorbers consist of granular adsorbent material ultrasonically welded into a see-through nylon or Kynar body. Integral filter pads eliminate adsorbent migration. Four sizes are available, containing from 6cc up to 120cc of adsorbent.

Disposable In-Line Adsorbers (DIAs) selectively remove vapors from air and other gases, depending on the adsorbent used. The captured vapor remains trapped in the solid bed, giving each unit a fixed maximum capacity. Because regeneration is generally not feasible once the adsorption limit is reached, DIAs are best suited for applications involving small quantities of vapor.

To maximize performance, they are typically installed as close as possible to the equipment being protected, since the available media volume is minimal. The standard OEM DIA-BN-BK body, which holds 11 cc of media, is the most commonly used configuration, offering a cost-effective balance of adsorption capacity and size. Three additional body sizes are available, providing flexibility in meeting space constraints and service life requirements.

For applications requiring greater adsorbent volume, which is replaceable refer to our IACH series of adsorption housings, which can accommodate up to 4100cc of media. The IACH series is better suited for laboratories or continuous-use environments.
Please see Adsorption Columns.

Also, we have the ability to factory convert any of our T-Type housing to hold loose replaceable media. These assemblies are referred to by the "ADS" suffix. Example: 126-ADS
Please see Adsorption Dryer Housings.

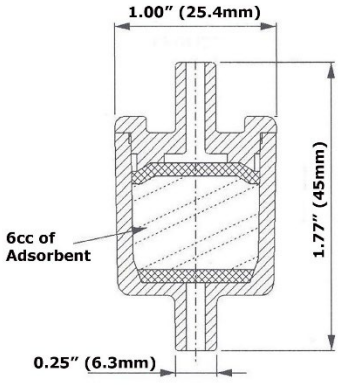
Miniature OEM Size Filled with Media

The DIA-MN (Mini DIA) is specifically designed as a final, last-chance adsorber for critical equipment where space is limited. Its compact footprint makes it ideal for use in HVAC and pneumatic temperature control systems, providing essential protection at the point of use.

DIA-MN__ *add media required
Replace "__" with grade required CC, 4A, 13X, SG, DR, MB, PP, HO, SB, CS, e.g. **DIA-MNCC**

TECHNICAL INFORMATION

- 1/4" Inlet / Outlet
- 6cc of Volume
- 230°F Maximum Temp. At 0 PSIG
- 125 PSIG of Maximum Pressure at 110°F
- 100% Grilamid TR 55 Blue Nylon body
- Specify Adsorbent
- Standard Gas Flow at 100 PSIG is 2.1 SCFM



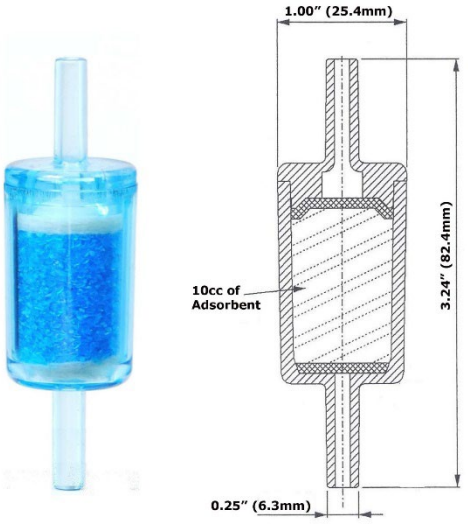
Standard OEM Size Filled with Media

The DIA-BN Series is our most widely used DIA model—and for good reasons. DIAs are best suited for applications requiring the removal of small quantities of vapor. Whether installed in OEM cabinets, emissions benches, or zero-air systems, this compact unit is an economical and reliable workhorse.

DIA-BN__ *add media required
Replace "__" with grade required CC, 4A, 13X, SG, DR, MB, PP, HO, SB, CS, e.g. **DIA-BNCC**

TECHNICAL INFORMATION

- 1/4" Inlet / Outlet
- 11.5cc of Volume
- 230°F Maximum Temp. At 0 PSIG
- 125 PSIG of Maximum Pressure at 110°F
- 100% Grilamid TR 55 Blue Nylon body
- Specify Adsorbent
- Standard Gas Flow at 100 PSIG is 4.2 SCFM



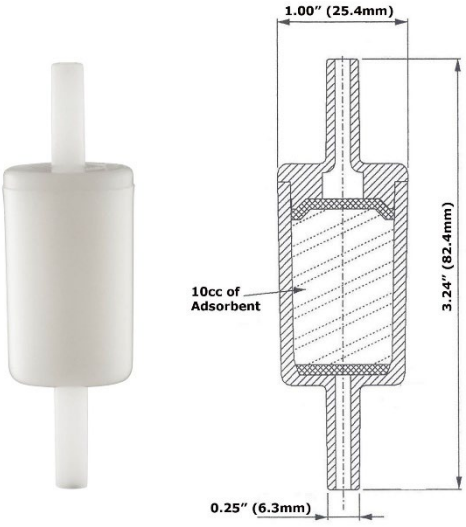
Standard OEM Size for Chemical Compatibility

This series of DIA assemblies is constructed from virgin white Kynar®, making it ideal for use in corrosive environments.

DIA-BK__ *add media required
Replace "__" with grade required CC, 4A, 13X, SG, DR, MB, PP, HO, SB, CS, e.g. **DIA-BKCC**

TECHNICAL INFORMATION

- 1/4" Inlet / Outlet
- 11.5cc of Volume
- 230°F Maximum Temp. At 0 PSIG
- 125 PSIG of Maximum Pressure at 110°F
- Virgin White Kynar body
- Specify Adsorbent
- Standard Gas Flow at 100 PSIG is 4.2 SCFM



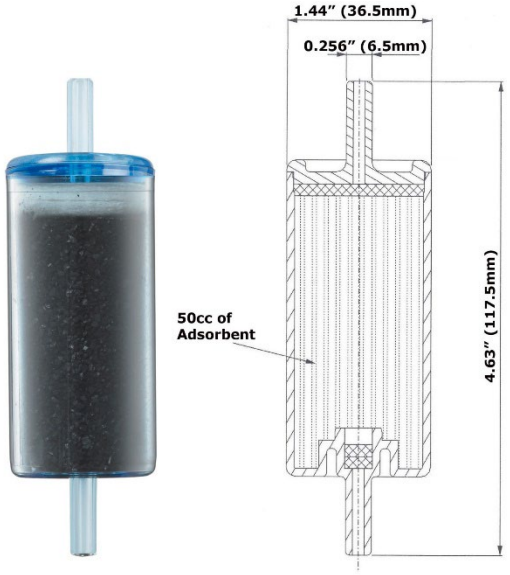
Intermediate OEM High Flow with Media

Our Nylon intermediate range is designed for applications requiring higher vapor holding capacity. With increased internal volume, these units offer extended service life and improved performance for general applications.

DIA-IN__ *add media required
Replace "__" with grade required CC, 4A, 13X, SG, DR, MB, PP, HO, SB, CS, e.g. **DIA-INCC**

TECHNICAL INFORMATION

- 1/4" Inlet / Outlet
- 50cc of Volume
- 230°F Maximum Temp. At 0 PSIG
- 100 PSIG of Maximum Pressure at 110°F
- 100% Grilamid TR 55 Blue Nylon body
- Specify Adsorbent
- Standard Gas Flow at 100 PSIG is 10.0 SCFM



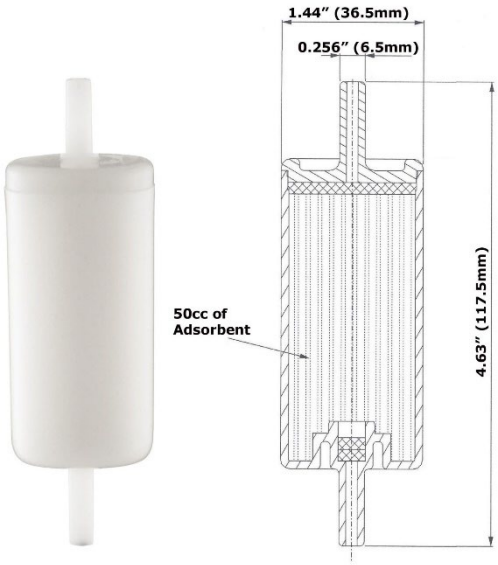
Intermediate OEM High Flow for Chemical Compatibility

Our Kynar (PVDF) intermediate range is designed for applications requiring higher vapor holding capacity. With increased internal volume, these units offer extended service life and improved performance in demanding corrosive environments.

DIA-IK__ *add media required
Replace "__" with grade required CC, 4A, 13X, SG, DR, MB, PP, HO, SB, CS, e.g. **DIA-IKCC**

TECHNICAL INFORMATION

- 1/4" Inlet / Outlet
- 50cc of Volume
- 230°F Maximum Temp. At 0 PSIG
- 100 PSIG of Maximum Pressure at 110°F
- Virgin White Kynar Body
- Specify Adsorbent
- Standard Gas Flow at 100 PSIG is 10.0 SCFM



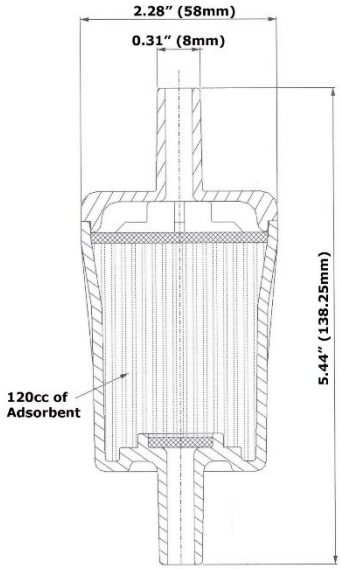
Large OEM Maximum Flow DIA with Media

Our largest DIA is typically specified for environments with extreme vapor presence or remote locations, where its larger volume ensures a longer service life.

DIA-LN__ *add media required
Replace "__" with grade required CC, 4A, 13X, SG, DR, MB, PP, HO, SB, CS, e.g. **DIA-LNCC**

TECHNICAL INFORMATION

- 1/4" NPT Inlet / Outlet or 1/2" Slip On Connection
- 120cc of Volume
- 230°F Maximum Temp. At 0 PSIG
- 100 PSIG of Maximum Pressure at 110°F
- 100% Grilamid TR 55 Blue Nylon body
- Specify Adsorbent
- Standard Gas Flow at 100 PSIG is 17.0 SCFM



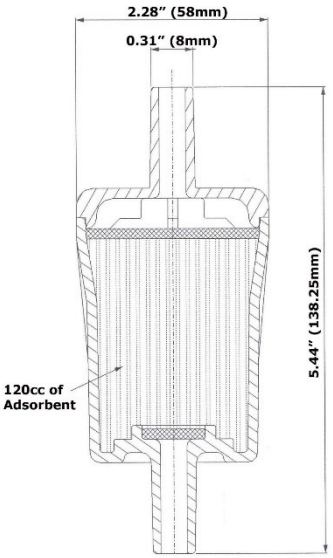
Large OEM High Flow for Chemical Compatibility

The DIA-LK assemblies are constructed from black Kynar, making them ideal for corrosive applications.

DIA-LK__ *add media required
Replace "__" with grade required CC, 4A, 13X, SG, DR, MB, PP, HO, SB, CS, e.g. **DIA-LKCC**

TECHNICAL INFORMATION

- 1/4" NPT Inlet / Outlet or 1/2" Slip On Connection
- 120cc of Volume
- 230°F Maximum Temp. At 0 PSIG
- 100 PSIG of Maximum Pressure at 110°F
- Black Kynar body
- Specify Adsorbent
- Standard Gas Flow at 100 PSIG is 17.0 SCFM



Flow Rate Charts

GAS FLOW RATES – DIA-MN□ – MINI

DIA Model Number	Gas Flow In SCFM At Stated PSIG With 1.5 PSID						
	1.5	20	40	60	80	100	125
DIA-MN	0.3	0.6	1.0	1.0	1.7	2.1	2.8

GAS FLOW RATES – DIA-BN□ – STANDARD

DIA Model Number	Gas Flow In SCFM At Stated PSIG With 1.5 PSID						
	1.5	20	40	60	80	100	125
DIA-BN or BK	0.6	1.3	2.0	2.7	3.5	4.2	5.7

GAS FLOW RATES – DIA-IN□ – INTERMEDIATE

DIF Model Number	Gas Flow In SCFM At Stated PSIG With 1.5 PSID					
	1.5	20	40	60	80	100
DIA-IN or IK	1.5	3.4	5.3	6.6	8.3	10.0

GAS FLOW RATES – DIA-LN□ – LARGE

DIF Model Number	Gas Flow In SCFM At Stated PSIG With 1.5 PSID					
	1.5	20	40	60	80	100
DIA-LN or LK	2.4	5.1	7.9	11.0	14.0	17.0

Adsorbent	Code	Principles
Activated Carbon	**CC**	Adsorption of hydrocarbons and other organic vapors Zero Air Calibration
Molecular Sieve 4A	**4A**	Adsorption of CO_2, NH_3, H_2S, SO_X
Molecular Sieve 13X	**13X**	Adsorption of CO_2, NH_3, H_2S, SO_X, aromatics, amines
Silica Gel	**SG**	Adsorption of water vapor
Drierite Anhydrous Calcium Sulfate	**DR**	Adsorption of water vapor
Mixed Bases	**MB**	Removal of acidic gases, CO_2, SO_X, NO_X, HCI
Potassium Permanganate	**PP**	Removal of SO_X, Hg, and other acidic gases
Hopcalite	**HO**	Removal of CO by catalytic oxidation to CO_2
Sodium Bicarbonate	**SB**	Acid Neutralizer
Copper Sulfate	**CS**	Removal of ammonia