Disposable Inline Filters

PRODUCT FEATURES / BENEFITS

- Completely Disposable
- Available In Blue Transparent Body or High Purity Virgin Kynar Body
- Four Body Sizes / Two or Three Port Design
- Five Grades of Filtration
- Wide Range of Adsorbents
- Low Cost Scrubbers
- Last Chance Air Purifier
- Zero Air Gas Calibration

Disposable In-Line Filters (DIF) and Disposable In-Line Adsorbers (DIA) are designed to provide **reliable instrument air quality** for sample protection, cleansing, and purification. These self-contained units are compact, disposable, and simple to replace, ensuring consistent performance with minimal downtime.

Disposable In-Line Filters (DIF)
Our DIF units are available in **four physical sizes** and are manufactured from:

- **Nylon** – for general service applications
- **Kynar (PVDF)** – for exceptional chemical and solvent resistance

Design Features

- Self-contained, disposable construction
- Customizable barb sizes available for specific application requirements
- Alternative media options:
  - **PTFE membranes** – for fine separation
  - **Stainless steel screens** – for coarse filtration

Disposable In-Line Adsorbers (DIA)
DIA units are constructed with **granular adsorbent material ultrasonically welded** into a transparent Nylon or Kynar body, allowing clear visibility of the adsorbent. Available in **four sizes**, with volumes ranging from **6 cc to 120 cc**.

Key Advantages

- Compact, disposable design
- Transparent housings for visual monitoring (DIA)
- Four sizes available for flexibility in system design
- Choice of Nylon or Kynar for broad chemical compatibility
- Multiple media options for application-specific requirements
- Custom barb sizes and configurations available
- Custom designs available with **short lead times** regardless of quantity

Custom Solutions
In addition to standard catalog offerings, custom solutions are available and can be manufactured to order with quick turnaround times. Whether your application requires a minor variation of a standard product or a completely unique configuration, our engineering team can provide a solution to meet your exact needs.

Disposable In-Line Filters

PRODUCT FEATURES / BENEFITS

- Completely Disposable
- Available In Blue Transparent Nylon Body or High Purity Virgin Kynar Body for Enhanced Compatibility
- Four Body Sizes / Two or Three Port Design
- Five Grades of Filtration
- HVAC Protection
- Analyzer & Sensor Protection
- Low Cost Scrubbers
- Last Chance Air Purifier / Zero Air Gas Calibration

Our Disposable In-Line Filters (DIF Series) are engineered with permanently welded housings and encapsulated filter elements, making them ideal for portable analyzers and other analytical systems that demand a robust, compact, and easily replaceable filtration solution.

With a variety of body materials available, these filters are compatible with a wide range of chemical environments. The DIF Series provides the high-efficiency performance of microfiber filtration for both gases and liquids, with the added benefit of complete disposability—eliminating cleaning or maintenance.

This series of disposable filters provide end-users with a convenient, ready-to-use filtration solution that minimizes equipment and process downtime through fast, tool-free replacement. Each unit features a permanently welded housing, supplied fully assembled for immediate installation. A wide range of filter element grades and media types are available.

Key Features:

- Welded, leak-proof construction
- Compact, disposable design
- High-efficiency microfiber elements
- Optional PTFE or stainless-steel media
- Wide chemical compatibility
- Multiple connection/barb options
- Fully customizable—even in low quantities

Additional Variations are Available Upon Request

Specialized Filtration Solutions

We offer the flexibility to incorporate unique barb sizes and filter designs to meet specific application requirements.

For unique applications, we offer alternative media options such as PTFE membranes for fine separation and stainless-steel screens for coarse filtration.

Whether you need a perforated screen for coarse filtration or a membrane for precision separation, we can tailor solutions to your specifications—across all body sizes.

Custom solutions are available and built to order with quick turnaround times, regardless of quantity. From standard needs to highly specialized requirements, we're ready to deliver.

Contact us today for a fast, comprehensive quote—no minimum order required.

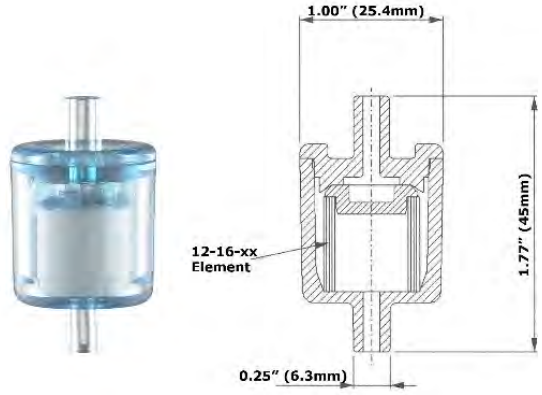
Miniature Size with Microfiber Element

The DIF-MN (Mini Disposable In-Line Filter) is engineered as a final "last chance" filter for critical equipment where space is limited and performance is essential. With its compact footprint, the DIF-MN is ideal for protecting sensitive systems in HVAC and pneumatic temperature control applications, where even the smallest contaminants can lead to costly downtime or damage.

DIF-MN__ *add grade required
Standard Grade: DIF-MN50 (99.99% @ 0.01 Micron) - Other Grades Available: 30, 40, 60, 70, 80

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
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 2.1 SCFM (Grade 50)



Additional Variations are Available Upon Request

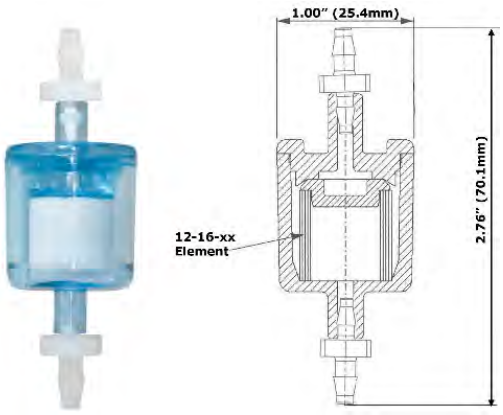
Miniature Size with 1/8” Straight Barb

Our Mini DIF is specifically engineered as a final, last-chance filter for protecting critical equipment. Designed with a compact footprint and 1/8” ID tubing, it is ideally suited for HVAC and pneumatic temperature control systems, where space is limited and performance is essential.

DIF-MN__1/8” *add grade required
Standard Grade: DIF-MN50-1/8” (99.99% @ 0.01 Micron) - Other Grades Available: 30, 40, 60, 70, 80

TECHNICAL INFORMATION

- 1/8” Tubing Connection on Inlet / Outlet
- 6cc of Volume
- 230°F Maximum Temp. At 0 PSIG
- 125 PSIG of Maximum Pressure at 110°F
- Material:
  - Body - 100% Grilamid TR 55 Blue Nylon
  - Straight Barb – White Nylon
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 2.1 SCFM (Grade 50)



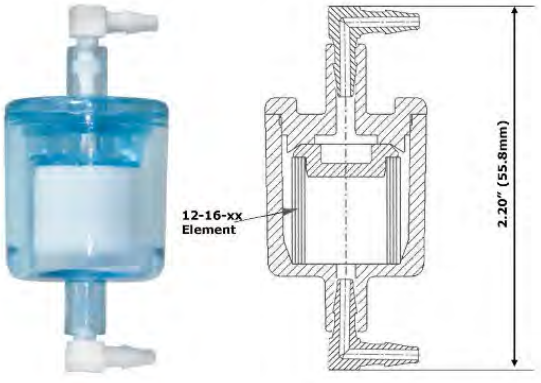
Miniature Size with 1/8” Elbow Barb

Our Mini DIF is purpose-built as a final, last-chance filter for critical equipment requiring a compact footprint and 1/8” ID tubing with a 90° inlet/outlet configuration. It is ideally suited for HVAC and pneumatic temperature control protection applications.

DIF-MN__1/8”-90 *add grade required
Standard Grade: DIF-MN50-1/8” (99.99% @ 0.01 Micron) - Other Grades Available: 30, 40, 60, 70, 80

TECHNICAL INFORMATION

- 1/8” Tubing Connection on Inlet / Outlet
- 6cc of Volume
- 230°F Maximum Temp. At 0 PSIG
- 125 PSIG of Maximum Pressure at 110°F
- Material:
  - Body - 100% Grilamid TR 55 Blue Nylon
  - Elbow Barb – White Nylon
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 2.1 SCFM (Grade 50)



Additional Variations are Available Upon Request

Standard OEM Size with Microfiber Element

Our standard DIF-BN series is by far the most widely used DIF size, combining high-efficiency filtration with low pressure drop in a compact, reliable package. Whether integrated into an OEM cabinet, emission bench, or air monitoring system, this versatile filter is an economic workhorse trusted across industries.

DIF-BN__ *add grade required
Standard Grade: DIF-BN50 (99.99% @ 0.01 Micron) - Other Grades Available: 30, 40, 60, 70, 80

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
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 4.2 SCFM (Grade 50)

Standard OEM Size with Stainless Steel Screen

For applications where high-efficiency microfiber elements are not required, we offer cost-effective stainless-steel screens—commonly used in portable emission analyzers, bulk contaminant removal, and liquid sampling.

DIF-BN__SS *add micron required
For Portable Emission Analyzers: DIF-BN50SS. - Other Microns Available: 05, 10, 25, 100

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
- 304 Stainless Steel Screen Element

Additional Variations are Available Upon Request

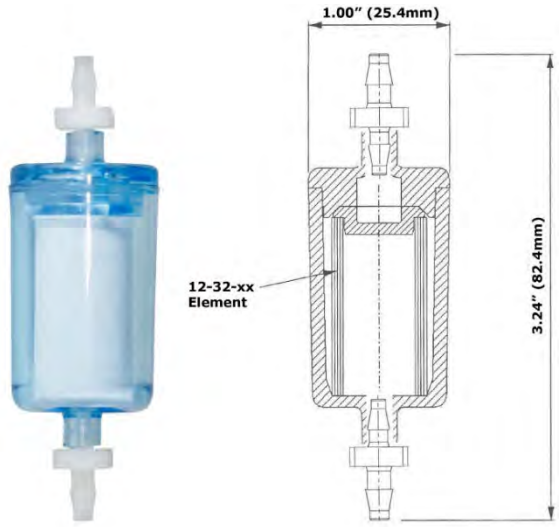
Standard OEM Size with 1/8” Straight Barb (Short Spigot)

Our standard DIF-BN series is the most commonly used DIF size, offering high-efficiency filtration and low pressure drop in a compact design. For applications requiring 1/8” tubing—while maintaining the same footprint and dimensions—please specify DIF-BN50SP-1/8”.

DIF-BN__SP-1/8” *add grade required
Standard Grade: DIF-BN50SP-1/8” (99.99% @ 0.01 Micron) - Other Grades Available: 30, 40, 60, 70, 80

TECHNICAL INFORMATION

- 1/8” Tubing Connection on Inlet / Outlet
- 11.5cc of Volume
- 230°F Maximum Temp. At 0 PSIG
- 125 PSIG of Maximum Pressure at 110°F
- Material:
  - Body - 100% Grilamid TR 55 Blue Nylon
  - Straight Barb – White Nylon
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 4.2 SCFM (Grade 50)



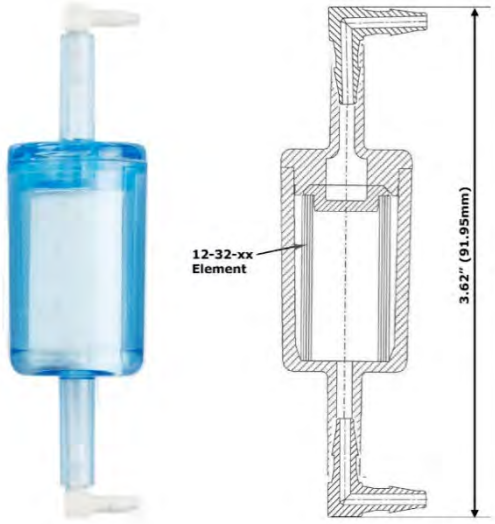
Standard OEM Size with 1/8” Elbow Barb

Our standard DIF-BN series is by far the most commonly used DIF model, combining high-efficiency filtration with low pressure drop in a compact, space-saving design. It is ideal for installations with limited tubing connection space. Combinations of different barb sizes are available upon request to suit specific application needs.

DIF-BN__1/8”-90 *add grade required
Standard Grade: DIF-BN50-1/8”-90 (99.99% @ 0.01 Micron) - Other Grades Available: 30, 40, 60, 70, 80

TECHNICAL INFORMATION

- 1/8” Tubing Connection on Inlet / Outlet
- 11.5cc of Volume
- 230°F Maximum Temp. At 0 PSIG
- 125 PSIG of Maximum Pressure at 110°F
- Material:
  - Body - 100% Grilamid TR 55 Blue Nylon
  - Elbow Barb – White Nylon
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 4.2 SCFM (Grade 50)



Additional Variations are Available Upon Request

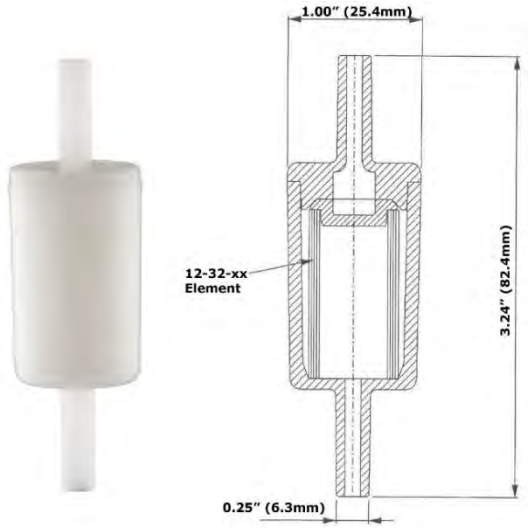
Standard OEM Size for Chemical Compatibility

This series of DIF assemblies is constructed from virgin white Kynar®(PVDF), making it ideal for use in corrosive applications. Compatible media include, but are not limited to: sulfuric acid, hydrochloric acid, chlorine (gas or liquid), hydrogen peroxide, phenol, glycol, and ethylene oxide (ETO).

DIF-BK__ *add grade required
Standard Grade: DIF-BK50 (99.99% @ 0.01 Micron) - Other Grades Available: 30, 40, 60, 70, 80

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
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 4.2 SCFM (Grade 50)



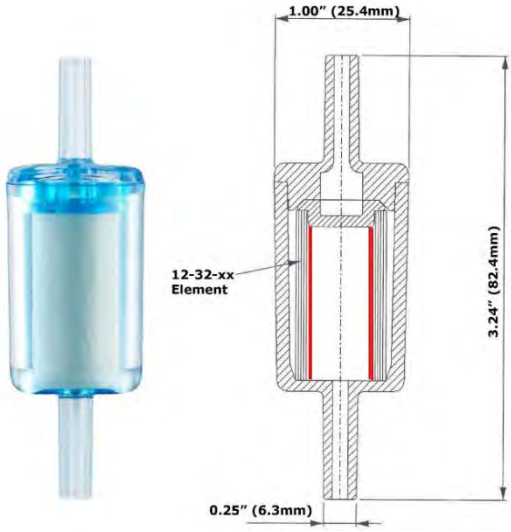
Indicating Standard OEM Size

The DIF-BN50I features a red dye indicator that provides a clear visual signal when oil is present. As the element becomes saturated, the dye permeates through the filter media, indicating oil breakthrough. A common application for this model is in HVAC control panels. This dye indicator option can also be incorporated into any of our microfiber elements upon request.

DIF-BN50I
Simply order as DIF-BN50I

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
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 4.2 SCFM (Grade 50)



Additional Variations are Available Upon Request

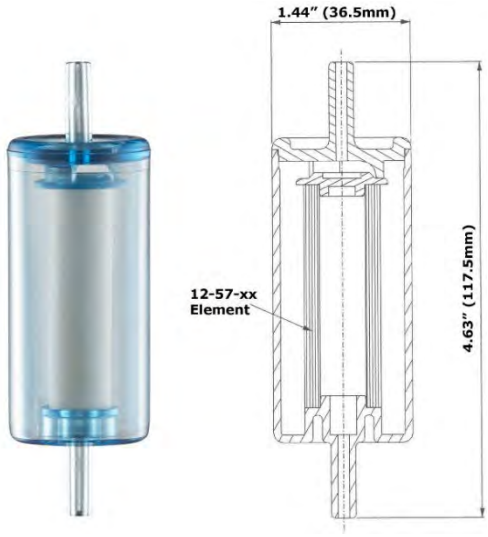
Intermediate High Flow with Microfiber Element

Our intermediate range is ideal for applications requiring higher particulate holding capacity.

DIF-IN__ *add grade required
Standard Grade: DIF-IN50 (99.99% @ 0.01 Micron) - Other Grades Available: 30, 40, 60, 70, 80

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
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 10.0 SCFM (Grade 50)



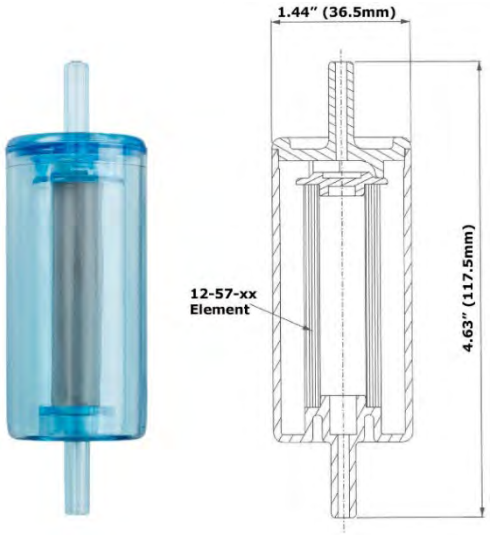
Intermediate High Flow with Stainless Steel Screen

For applications where high-efficiency microfiber elements are not required, we offer cost-effective stainless-steel screens—commonly used in portable emission analyzers, bulk contaminant removal, and liquid sampling.

DIF-IN__SS *add micron required
For Portable Emission Analyzers: DIF-IN50SS. - Other Microns Available: 05, 10, 25, 100

TECHNICAL INFORMATION

- 1/4” Inlet / Outlet
- 50 cc of Volume
- 230°F Maximum Temp. At 0 PSIG
- 125 PSIG of Maximum Pressure at 110°F
- 100% Grilamid TR 55 Blue Nylon body
- 304 Stainless Steel Screen Element



Additional Variations are Available Upon Request

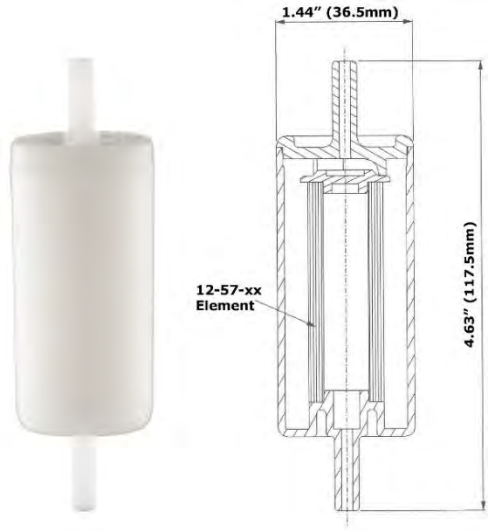
Intermediate High Flow for Chemical Compatibility

Our intermediate range is ideal for applications requiring higher particulate holding capacity.

DIF-IK__ *add grade required
Standard Grade: DIF-IK50 (99.99% @ 0.01 Micron) - Other Grades Available: 30, 40, 60, 70, 80

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
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 10.0 SCFM (Grade 50)



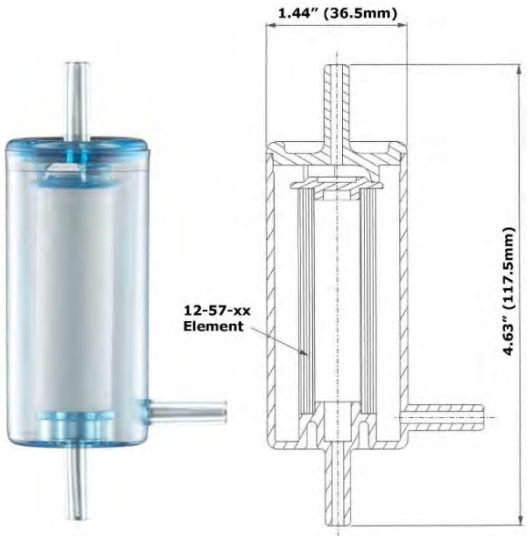
Intermediate High Flow Coalescing DIF

Our intermediate DIF model with a third spigot is designed for applications requiring coalescing (liquid removal).
New Kynar Version Available
To specify the Kynar construction, designate **"IK"**. **Standard Grade Example:** *DIF-IK50C*

DIF-IN__C *add grade required
Standard Grade: DIF-IN50C (99.99% @ 0.01 Micron) - Other Grades Available: 30, 40, 60, 70, 80

TECHNICAL INFORMATION

- 1/4" Inlet, Outlet, and Drain Port
- 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
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 10.0 SCFM (Grade 50)



Additional Variations are Available Upon Request

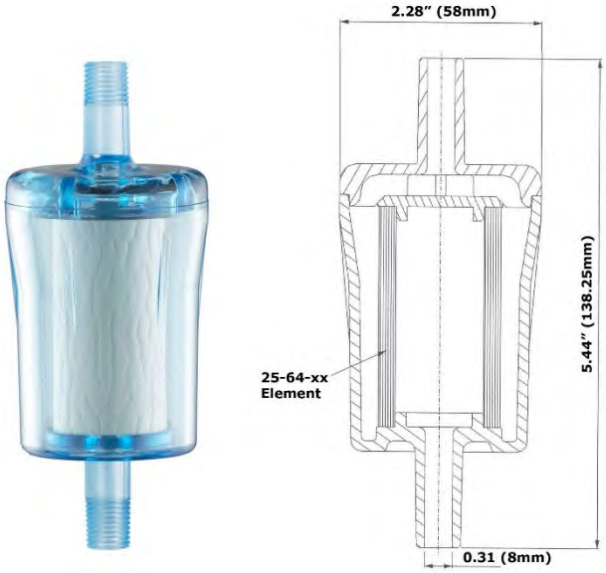
Maximum Flow with Microfiber Element

Our largest DIF is ideal for applications with high particulate loads or in remote locations where maintenance access is limited. Typical uses include ambient air monitoring and other harsh environmental conditions.

DIF-LN__ *add grade required
Standard Grade: DIF-LN60 (99.5% @ 0.01 Micron) - Other Grades Available: 30, 40, 50, 70, 80

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
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 17.0 SCFM (Grade 50)



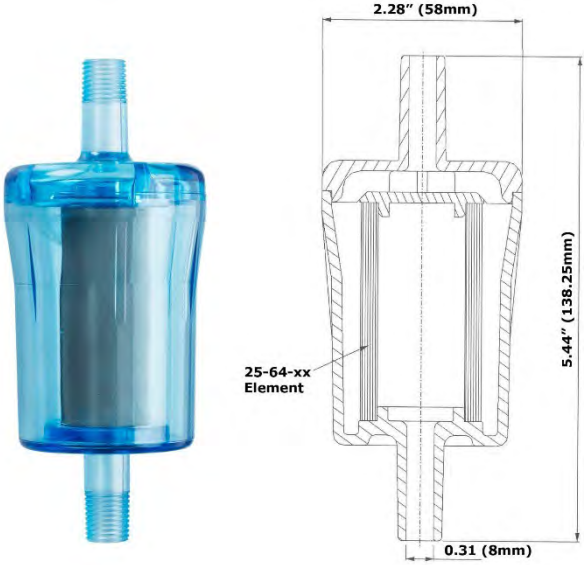
Maximum Flow DIF with Stainless Steel Screen

For applications where high-efficiency microfiber elements are not required, we offer economical stainless steel screens—commonly used for liquid sampling and pump protection.

DIF-LN__SS-1/4" *add micron required
For Portable Emission Analyzers: DIF-LN50SS-1/4. - Other Microns Available: 05, 10, 25, 100

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
- Fluorocarbon Borosilicate Glass Microfiber Element



Additional Variations are Available Upon Request

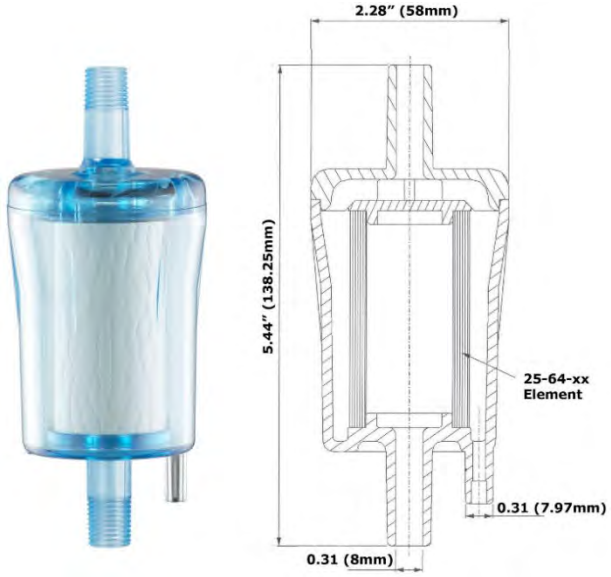
Maximum Flow Coalescing DIF

Our large DIF model with a third spigot is used in applications requiring coalescing (liquid removal), offering efficient separation in demanding environments.
New Kynar Version Available
To specify the Kynar construction, designate **"LK"**. **Standard Grade Example:** *DIF-LK50C*

DIF-LN__C *add grade required
Standard Grade: DIF-LN50C (99.99% @ 0.01 Micron) - Other Grades Available: 30, 40, 60, 70, 80

TECHNICAL INFORMATION

- 1/4" NPT Inlet / Outlet or 1/2" Slip On Connection
- 1/4" Drain Port
- 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
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 17.0 SCFM (Grade 50)



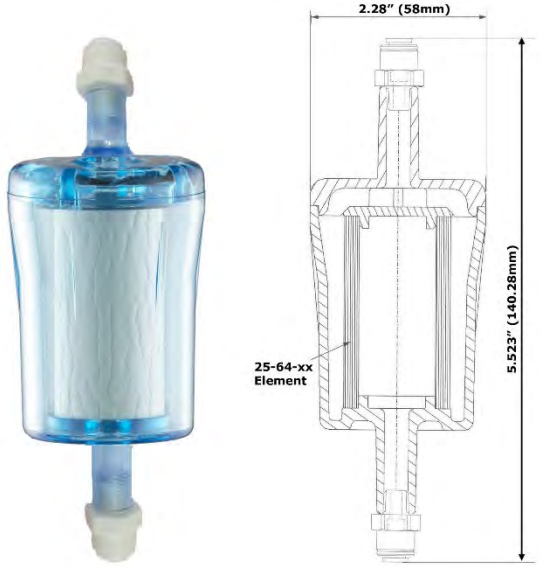
Maximum Flow with 1/4" Push Connect Fitting

This DIF model is specified for environments with extremely high particulate levels and serves as a direct replacement for the DIF-BN series. It comes complete with 1/4" push-to-connect (PTC) adapters for easy installation.

DIF-LN__-1/4" PTC *add grade required
Standard Grade: DIF-LN60-1/4" PTC (99.5% @ 0.01 Micron) - Other Grades Available: 30, 40, 50, 70, 80

TECHNICAL INFORMATION

- 1/4" Push Connect Fitting
- 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
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 17.0 SCFM (Grade 50)



Additional Variations are Available Upon Request

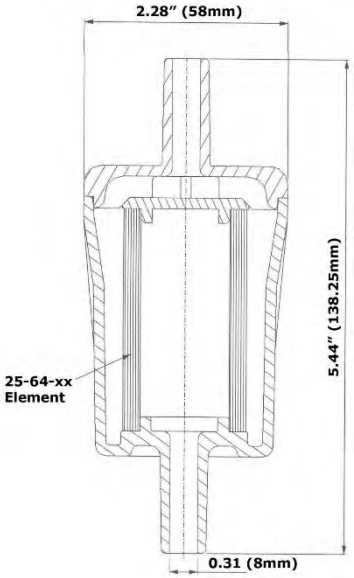
Maximum Flow for Chemical Compatibility

DIF-LK assemblies are constructed from black Kynar, making them ideal for corrosive environments. Compatible with a wide range of aggressive media, including (but not limited to) sulfuric acid, hydrochloric acid, chlorine (gas or liquid), and hydrogen peroxide.

DIF-LK__ *add grade required
Standard Grade: DIF-LK60 (99.5% @ 0.01 Micron) - Other Grades Available: 30, 40, 50, 70, 80

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
- Fluorocarbon Borosilicate Glass Microfiber Element
- Standard Gas Flow at 100 PSIG is 17.0 SCFM (Grade 50)



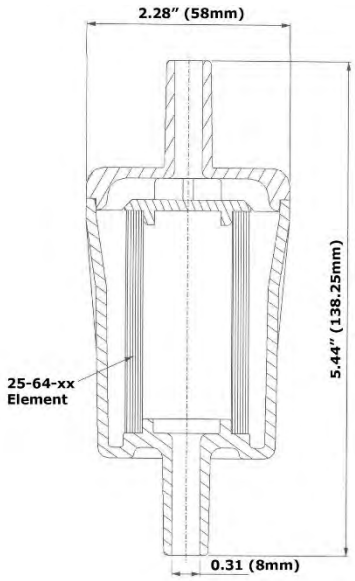
Maximum Flow for Chemical Compatibility w/ PTFE Element

Constructed from black Kynar, DIF-LK assemblies are ideal for liquid sample filtration in environments where PTFE and Kynar are the only acceptable wetted materials.

DIF-LK__PT *add grade required
Standard Grade: DIF-LK25PT - Other Micron Available: 03PT

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
- Teflon (PTFE) Element



Additional Variations are Available Upon Request

Disposable In-Line Filters – Gas & Liquid Flow Rate Charts

GAS FLOW RATES – DIF-MN□ (12-16-□) – MINI

DIF Model Number	Filtration Efficiency Removal Of 0.01 Micron Particles	Gas Flow In SCFM At Stated PSIG With 1.5 PSID						
		1.5	20	40	60	80	100	125
DIF-MN30	99.99998+%	0.1	0.2	0.3	0.4	0.5	0.6	0.7
DIF-MN40	99.9999+%	0.15	0.3	0.5	0.7	0.8	1.0	1.2
DIF-MN50	99.99+%	0.3	0.6	1.0	1.0	1.7	2.1	2.8
DIF-MN60	99.5+%	0.4	1.0	1.6	2.1	2.7	3.4	4.1
DIF-MN70	95.0+%	0.5	1.1	1.8	2.4	3.0	3.7	4.7
DIF-MN80	75.0+%	0.9	1.3	2.0	2.7	3.5	4.3	5.0

LIQUID FLOW RATES (12-16-□) - MINI

DIF Model Number	Filtration Efficiency 98% Removal Rating	Water Flow Rates with 1.5 PSID
DIF-MN30	0.3 micron	0.6 GPH / 0.04 LPM
DIF-MN40	1 micron	1.6 GPH / 0.12 LPM
DIF-MN50	2 micron	3.3 GPH / 0.25 LPM
DIF-MN60	8 micron	6.5 GPH / 0.49 LPM
DIF-MN70	25 micron	8.0 GPH / 0.60 LPM
DIF-MN80	75 micron	8.5 GPH / 0.64 LPM

GAS FLOW RATES – DIF-BN□ (12-32-□) – STANDARD

DIF Model Number	Filtration Efficiency Removal Of 0.01 Micron Particles	Gas Flow In SCFM At Stated PSIG With 1.5 PSID						
		1.5	20	40	60	80	100	125
DIF-BN30 or BK30	99.99998+%	0.2	0.4	0.6	0.8	1.0	1.3	1.5
DIF-BN40 or BK40	99.9999+%	0.3	0.7	1.0	1.4	1.7	2.1	2.5
DIF-BN50 or BK50	99.99+%	0.6	1.3	2.0	2.7	3.5	4.2	5.7
DIF-BN60 or BK60	99.5+%	0.9	2.0	3.2	4.3	5.4	6.9	8.2
DIF-BN70 or BK70	95.0+%	1.1	2.3	3.6	4.9	6.0	7.5	9.4
DIF-BN80 or BK80	75.0+%	1.2	2.6	4.0	5.5	7.0	8.6	10.0

LIQUID FLOW RATES – (12-32-□) - STANDARD

DIF Model Number	Filtration Efficiency 98% Removal Rating	Water Flow Rates with 1.5 PSID
DIF-BN30 or BK30	0.3 micron	1.3 GPH / 0.10 LPM
DIF-BN40 or BK40	1 micron	3.2 GPH / 0.24 LPM
DIF-BN50 or BK50	2 micron	6.6 GPH / 0.50 LPM
DIF-BN60 or BK60	8 micron	13.0 GPH / 0.98 LPM
DIF-BN70 or BK70	25 micron	16.0 GPH / 1.21 LPM
DIF-BN80 or BK80	75 micron	17.0 GPH / 1.29 LPM

Additional Variations are Available Upon Request

GAS FLOW RATES – DIF-IN□ (12-57-□) – INTERMEDIATE

DIF Model Number	Filtration Efficiency Removal Of 0.01 Micron Particles	Gas Flow In SCFM At Stated PSIG With 1.5 PSID					
		1.5	20	40	60	80	100
DIF-IN30	99.99998+%	0.4	0.7	0.9	1.0	1.5	2.0
DIF-IN40	99.9999+%	0.7	1.7	2.7	3.3	4.1	5.0
DIF-IN50	99.99+%	1.5	3.4	5.3	6.6	8.3	10.0
DIF-IN60	99.5+%	3.0	7.0	11.2	14.0	17.5	21.0
DIF-IN70	95.0+%	3.6	8.4	13.5	17.0	21.5	26.0
DIF-IN80	75.0+%	4.0	9.3	15.0	19.0	24.0	29.0

LIQUID FLOW RATES – (12-57-□) - INTERMEDIATE

DIF Model Number	Filtration Efficiency 98% Removal Rating	Water Flow Rates with 1.5 PSID
DIF-IN30	0.3 micron	2.6 GPH / 0.19 LPM
DIF-IN40	1 micron	6.4 GPH / 0.48 LPM
DIF-IN50	2 micron	13.2 GPH / 1.00 LPM
DIF-IN60	8 micron	26.0 GPH / 1.97 LPM
DIF-IN70	25 micron	32.0 GPH / 2.42 LPM
DIF-IN80	75 micron	34.0 GPH / 2.57 LPM

GAS FLOW RATES – DIF-LN□ (25-64-□) – LARGE

DIF Model Number	Filtration Efficiency Removal Of 0.01 Micron Particles	Gas Flow In SCFM At Stated PSIG With 1.5 PSID					
		1.5	20	40	60	80	100
DIF-LN30 or LK30	99.99998+%	0.7	1.5	2.5	3.2	4.1	5.1
DIF-LN40 or LK40	99.9999+%	1.2	2.6	4.0	5.5	7.2	8.0
DIF-LN50 or LK50	99.99+%	2.4	5.1	7.9	11.0	14.0	17.0
DIF-LN60 or LK60	99.5+%	3.8	8.3	13.0	17.0	22.0	26.0
DIF-LN70 or LK70	95.0+%	4.3	9.3	14.0	19.0	24.0	30.0
DIF-LN80 or LK80	75.0+%	4.7	10.0	16.0	22.0	27.0	34.0

LIQUID FLOW RATES – (25-64-□) - LARGE

DIF Model Number	Filtration Efficiency 98% Removal Rating	Water Flow Rates with 1.5 PSID
DIF-LN30 or LK30	0.3 micron	13.0 GPH / 0.98 LPM
DIF-LN40 or LK40	1 micron	26.0 GPH / 19.7 LPM
DIF-LN50 or LK50	2 micron	62.0 GPH / 4.70 LPM
DIF-LN60 or LK60	8 micron	84.0 GPH / 6.36 LPM
DIF-LN70 or LK70	25 micron	95.0 GPH / 7.20 LPM
DIF-LN80 or LK80	75 micron	118.0 GPH / 8.94 LPM

Disposable In-Line 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.

Additional Variations are Available Upon Request

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.

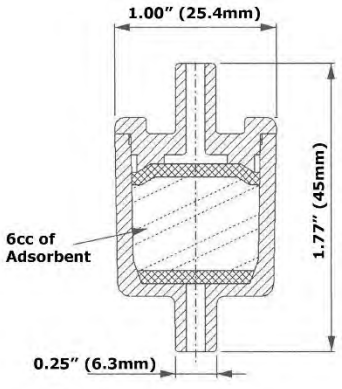
Miniature Size Filled with Media

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



Additional Variations are Available Upon Request

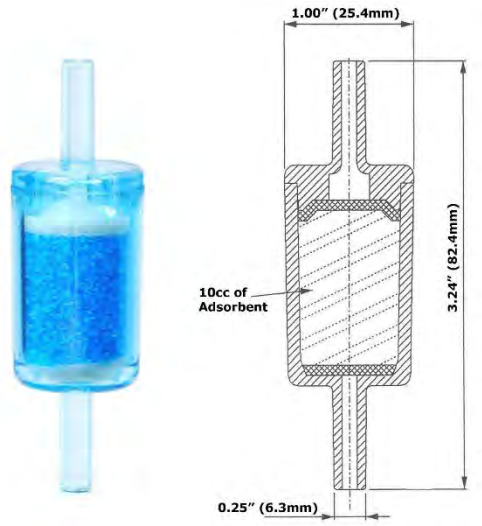
Standard OEM Size Filled with Media

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



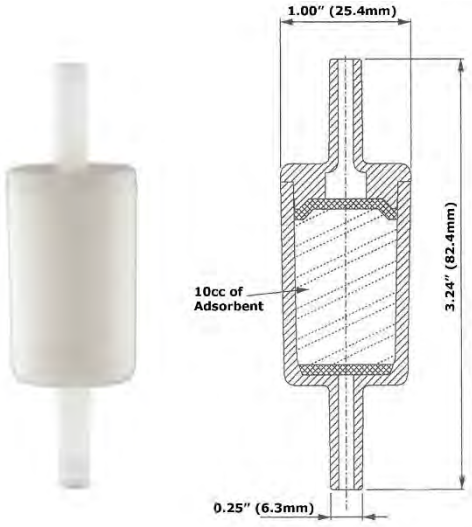
Standard OEM Size for Chemical Compatibility

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



Additional Variations are Available Upon Request

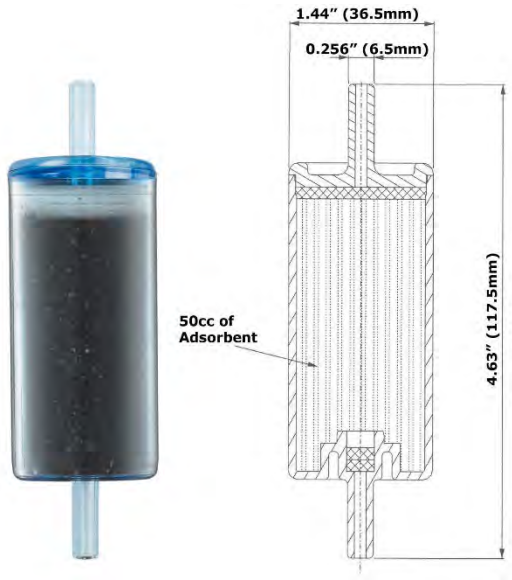
Intermediate High Flow with Media

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



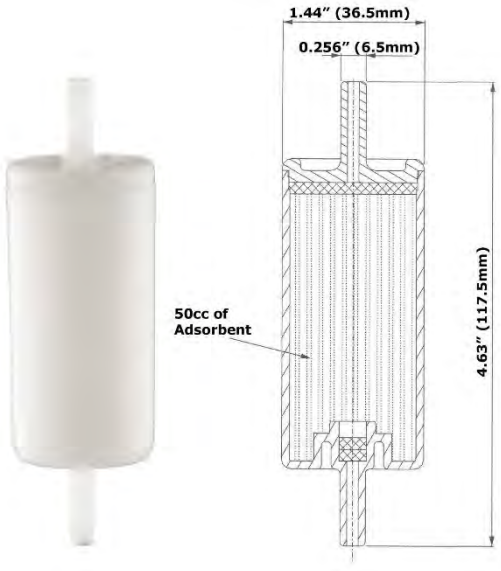
Intermediate High Flow for Chemical Compatibility

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



Additional Variations are Available Upon Request

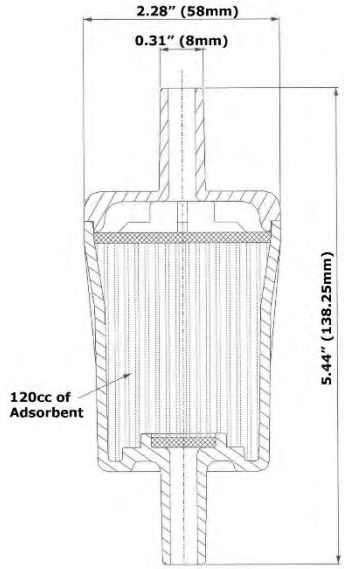
Maximum Flow DIA with Media

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



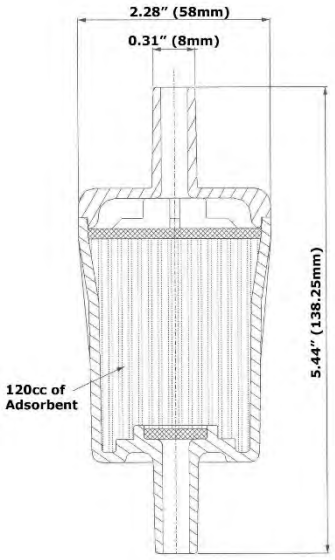
Maximum Flow for Chemical Compatibility

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



Additional Variations are Available Upon Request

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	**DR**	Adsorption of water vapor
Anhydrous Calcium Sulfate 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