



# MICROFILTRATION FOR Optimizing Global Amine Systems

ADG Filter focusing on the creation of "SCIFIL" filters that address the critical demands of diverse industries, Like water treatment, chemicals, power plants, microelectronics, food & beverages, pharmaceuticals, oil and gas, etc. Our products are pivotal in addressing the stringent demands of diverse sectors. Our team's innovations are designed to enhance both filter efficacy and lifespan while significantly reducing the ecological footprint. It's our goal to continuously deliver cuttingedge, eco-friendly filtration technologies that promote both industry advancement

and ecosystem preservation. With sustainability as a guiding principle, our team's commitment is to bolster global health and preserve ecological balance. This mission is embodied in delivering innovative filtration solutions, always ensuring exceptional quality and pioneering advancements in our field. Our expertise lies in enhancing filter performance and longevity **while minimizing environmental footprint**.



The global demand for cleaner energy is placing unprecedented pressure on oil and gas operations. Amine treating systems, the industry standard for removing acid gases like hydrogen sulfide ( $H_2S$ ) and carbon dioxide ( $CO_2$ ), are at the forefront of this challenge. As regulations on sulfur emissions tighten and the processing of sour gas streams increases, the efficiency and reliability of these units are no longer just an operational goal—they are a critical factor in maintaining profitability and environmental compliance.

However, amine systems are notoriously susceptible to contamination from iron sulfides, corrosion byproducts, and degradation products. These contaminants trigger a cascade of costly operational problems, demanding a more advanced approach to filtration.

ADG/HFC/AMINE/Y5H15





For Lean Amine: Lean amine filtration safeguards essential downstream equipment like heat exchangers, strippers, and reboilers. To "polish" the amine, filters are strategically placed at key points in the circulation loop, such as after the reboiler, downstream of the flash tank, or protecting an activated carbon bed. This ensures a clean solvent enters the contactor, preventing foaming and maximizing acid gas absorption.

For Rich Amine: Installed after the contactor and before the heat exchanger, the filters remove solid particulates picked up during the absorption process. This protects the heat exchanger from fouling and prevents contaminants from accumulating in the regenerator, ensuring optimal performance and longevity of the entire system.

# HIGHFOW PLEATED FILTER CARTRIDGE

Features	Benefits
High-Flow Capacity	Fewer cartridges are needed for a given flow rate, leading to smaller housing requirements and lower capital expenditure.
Multiple Media Options	Provides a large surface area for high dirt-holding capacity, resulting in longer filter life and reduced maintenance costs.
Absolute-Rated Filtration	Delivers reliable and consistent particle removal efficiency for superior process fluid quality and protection of critical downstream equipment.
Direct Retrofit Design	Engineered as a direct replacement for major brands, simplifying upgrades and maintenance operations.
Thermally Bonded Construction	Eliminates the need for adhesives or binders that could contaminate the amine stream.
Integrated Handle	Allows for easy, tool-free installation and removal, reducing downtime and improving operator safety.

The large-diameter, pleated design provides a massive surface area, resulting in high flow rates, low pressure drop, and an exceptionally long service life, reducing the frequency of filter change-outs.











#### **MATERIAL OF CONSTRUCTION**

**Media** Polypropylene

Support Media Polyester /Polypropylene

Inner and Outer CoreGlass Filled PPEnd capsGlass filled PP

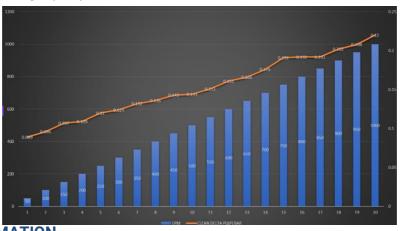
Gaskets/O-rings EPDM, Nitrile, Viton®

## **TECHNICAL SPECIFICATION**

Lengths60/40/20 inchOutside diameterØ 6" (152mm)Typical surface Area10.5 m² @60inchMicron Rating5 to 50 µm

Max DPΔ 50 psid at 180°F (3.4bar at 100°C)

Recommended Change out DPΔ 2.4bar
Max Flow per Cartridge (60") 1000 LPM



Tested with Clean Water at 25 °C

### **ORDERING INFORMATION**

PΡ

GF

ADG + HF + MOC + GRADE + MICRON RATING + **6** +LENGTH + END CAPS + SEAL+APPEARANCE EXAMPLE - ADG-HFC-PP-N-50-**6**-60-PN-E-IOC

TABLE 1- MOC	
MATERIAL	CODE

POLYPROPYLENE

**GLASS FIBRE** 

ABSOLUTE	Α
NOMINAL	N

**TABLE 2- GRADE** 

CODE

CONFIG.

TABLE 3- MICRON		
CODE		

50
100
200
300
400
500

<u>TABLE 4 -LENGTH</u>		
LENGTH CODE		

20"	20
40"	40
60"	60

TABLE 5 - CONNECTIONS	
CAPS	CODE

OUT TO IN	PN
IN TO OUT	PL

TABLE 6- SEAL		
CODE		
)		

EPDM	E
NITRILE	В
*VITON®	٧

TABLE 7 - APPEARANCE	
APPEARANCE CODE	

INNER CORE & OUTER CAGE	IOC
INNER CORE & BELT WRAP	BW

Contact us for Hardware MOC selection

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