

# Disk Drive Adsorbent Recirculation Filter (ARF)

## Product Guidelines & Specifications

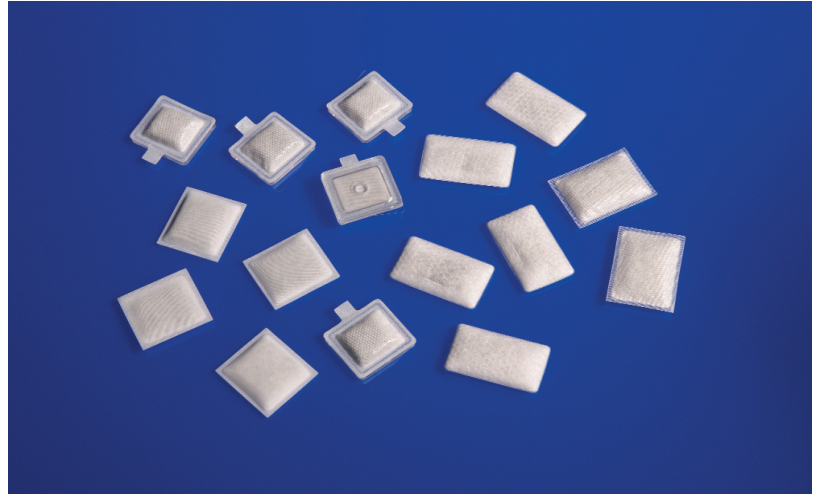
### Description

The Adsorbent Recirculation Filter (ARF) is comprised of an adsorbent element encapsulated between two layers of electrostatic filtration media and protective scrim.

### Principle of Operation

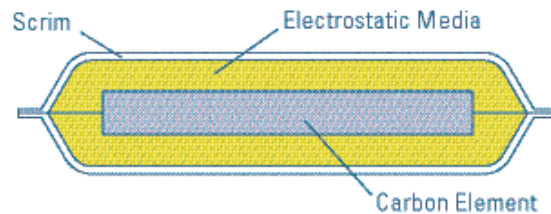
The ARF is designed to provide protection from particles, hydrocarbons, and acid gases. Its location, directly in the airstream generated by the rotating disks, allows superior chemical and particulate cleanup time. The electrostatic filtration media and protective scrim provide particle filtration and encapsulate the adsorbent element. The adsorbent element is specially formulated to adsorb acid gases and hydrocarbons. The most common adsorbent and its associated functions is:

- **Chemically Treated Activated Carbon:** Adsorption of acid gases and hydrocarbons



### Installation in Drive

The ARF is located directly in the path of the airflow generated by the rotating disks. In a hard drive disk, this location is typically the opposite the read/write arm; in a removable cartridge drive, it is typically in the airstream entering the cartridge. The installation of the filter into the drive can be accomplished by several techniques. The most common method is to slide the filter into a holder integral to the base casting. Alternative methods include inserting the filter into a slot in a plastic bracket or ultrasonically welding the filter to the plastic bracket. The plastic bracket, in turn, is custom designed to fit into the base casting.



## Parameter

## Specification

### Performance

Restriction	1.2 - 3mm of H <sub>2</sub> O @ 5.3 cm/s (10.5 ft./min)
Efficiency	90% - 98% on 0.1µm particles @ 5.3 cm/s (10.5 ft/min)

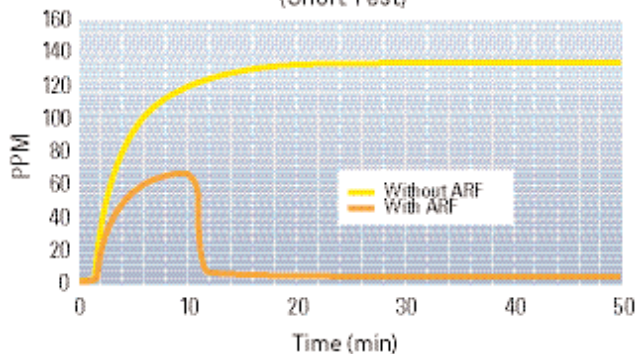
### Packaging

Inner Bag	Level 100 cleanroom bag free of silicone, amides, and DOP per NVR/FTIR
Outer Packaging	Inner cleanroom bag enclosed in metalized vapor barrier bag

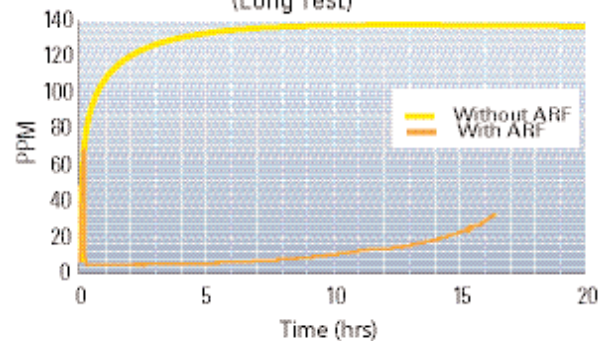
### Contamination Control

In-house cleanliness testing routinely performed designed to meet the most stringent cleanliness specifications. Manufactured in a cleanroom environment.

Donaldson In-Drive Chemical Clean-up: With and Without Adsorbent Recirculation Filter (ARF)  
(Short Test)



Donaldson In-Drive Chemical Clean-up: With and Without Adsorbent Recirculation Filter (ARF)  
(Long Test)



**Contact Donaldson today for more information!**



Donaldson Company, Inc.  
Minneapolis, MN  
952-887-3344

Donaldson Filters Co., Ltd.  
Wuxi, China  
86-510-8528-2010

Nippon Donaldson Ltd.  
Tokyo, Japan  
81-42-540-4119

Donaldson Far East Ltd.  
Hong Kong  
852-24058319

Donaldson Ltd.  
Rayong, Thailand  
66-38-650280

Donaldson Singapore Office  
Singapore  
65-6311-7373

Donaldson Korea Co. Ltd.  
Seoul  
85-2-517-3333