

# AVENGER™ 33

## Particulate & Coalescing Filter

### High performance filters providing the utmost flexibility for coalescing/particulate filtration needs!

The Avenger™ 30 Series Filters provide sample conditioning and analyzer protection by using a disposable filter element to remove solids and liquid droplets from gas sample streams. Genie® Membrane Technology™ with Liquid Block™ can be added as an option to the 30 Series filters, in addition to the disposable filter element. The use of Genie® Membrane Technology™ in these filters will remove 100% of entrained liquid, including aerosols, from the sample stream. The Liquid Block™ will completely valve off flow through the membrane to prevent liquid break-through from occurring in the presence of excess liquid. The Avenger™ 30 Series sample filters are easy to install and maintain, especially in heated, densely populated cabinets. The uniquely designed filter housing allows service to the filter element/membrane by simply removing the bowl without disassembly of the fittings.

The Avenger™ Model 33 is the same size as the Model 33M. Unlike the Model 33M, the Model 33 does not include Genie® Membrane Technology™ or Liquid Block™. If either of these features are desired, the Model 33M should be selected. When compared to the Models 38 and 38M, the Model 33 is larger in size and internal volume, making it better suited for applications requiring higher flow rates or containing larger amounts of contaminants than the Models 38 and 38M can handle. In addition to gas sampling applications, the Model 33 can also be used as a particulate filter in liquid sampling applications.



#### Product Brief

##### Applications

- Continuous sampling in any process industry including natural gas, petrochemical, and oil refining
- Coalescing liquid droplets
- Particulate removal from gas and liquid sample streams

##### Benefits

- Analyzer protection against liquid droplets and micron/ submicron size particles
- Quick and easy installation and maintenance
- Multiple porting configurations

##### Features

- 5 ports
- Horizontal mounting
- All primary connection ports on filter head

#### Technical Specifications

Maximum pressure rating	1,000 psig
Maximum recommended supply pressure	Lowest possible pressure consistent with application
Maximum temperature	302°F (150°C)
Flow coefficients, Liquid C <sub>v</sub>	Without element 1.9
Element size	Outside Diameter: ~ 1.4" Inside Diameter: ~ 1.0" Length: ~ 2.5"
Port sizes	Inlet, Outlet, & Bypass: 1/2" female NPT Gauge: 1/4" female NPT
Number of ports	5
Internal volume	200 cc
Wetted materials	Machined parts: 316/316L stainless steel / NACE compliant All other metal parts: stainless steel / NACE compliant Sealing material: Fluoroelastomer standard



## Model Numbering & Additional Part Numbers

Your model number is determined by your specific needs. Choose options below.

<b>Sealing material</b> ⚠	0 = Fluoroelastomer	1 = Perfluoroelastomer	(other materials available upon request)
<b>Element type</b>	07CFS = 0.1 micron coalescer fluorocarbon	SS10 = 10 micron stainless steel	
<b>Mounting bracket accessory</b>	Part # 33-509SS (sold separately)		

### How to build the model number:



⚠ Sealing material  
Element type

### How to build the replacement o-ring kit number:



⚠ Sealing material

### How to build the replacement filter element number:

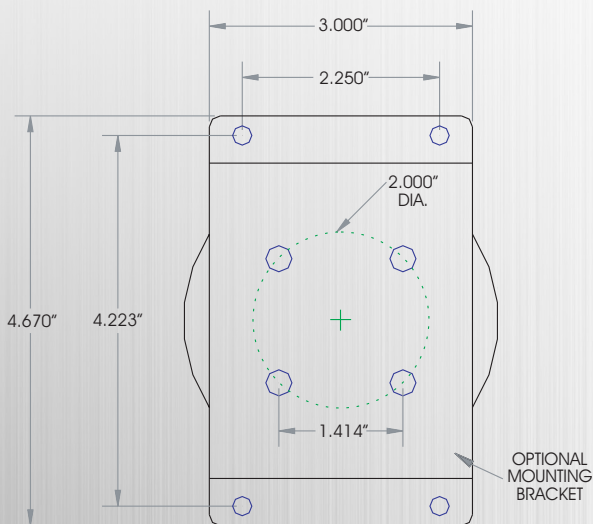


Element type

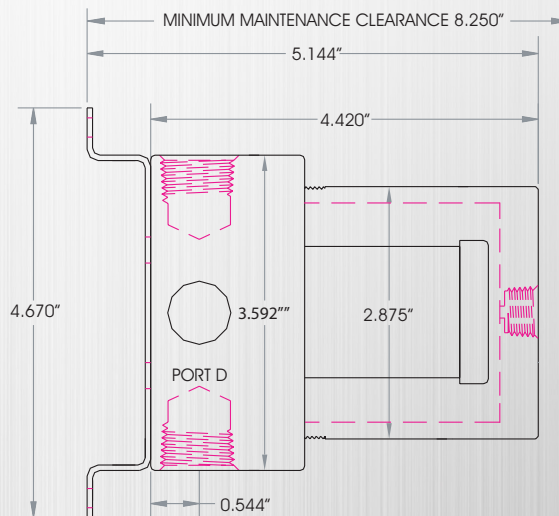
⚠ We cannot recommend specific sealing materials due to the complex nature of sample stream compositions. Temperature and pressure also may be factors. Unless specified otherwise, the product will ship with our standard sealing materials and materials of construction stated in the technical specifications section of the corresponding Product Sheet. Please refer to [www.dupontelastomers.com](http://www.dupontelastomers.com) for sealing material recommendations and advice. It is the user's responsibility to specify the sealing materials of construction for their application.

## Dimensions

### Back View



### Side View



Local Distributor

A+ Corporation is the leader in Analytically Correct™ Sample Extraction and Conditioning Systems.

Contact us for expert product application assistance.

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