



5 • Air Filtration



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Why an Air Filtration System is So Important



There Is Something In the Air

Air is not only vital for any life form on earth but also important for today's state of the art diesel engines. An average Heavy Duty Diesel truck engine requires between 3,650 to 5,600 gallons (13,000 to 20,000 liters) of air to burn just one liter of fuel. However, this air is polluted with all kinds of contaminants, such as fumes, dust, smog and other particles. Like temperature and humidity, these particles are not always visible to the eye, but they are harmful to the engine. They diminish the purity of the air and can lead to severe damage of all engine components. Under normal highway conditions, the air consumed by a 16 liter engine contains almost 20 kilograms of dirt/contaminants per 62,500 miles (100,000 kilometers).

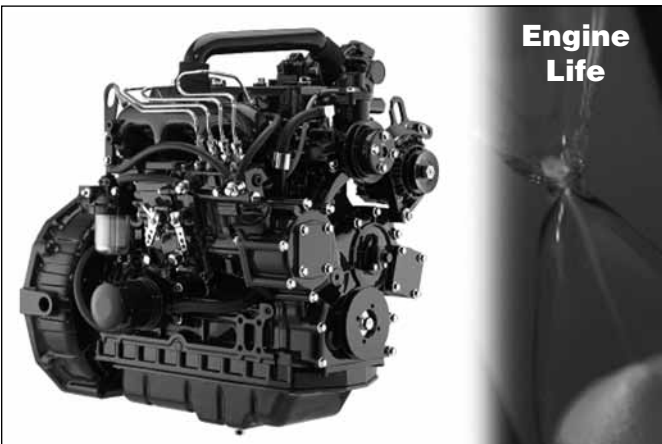
Don't Compromise On Air Filtration

There is no room for compromise. The air intake is an open loop system, and the air filter only has one opportunity to filter the contaminant out of the intake air. Air filters are essential for heavy duty diesel engines, and the air that these engines 'breathe' needs to be as clean as possible. Poor air quality will significantly impact the performance of a diesel engine. Plugged air filters reduce engine performance, create higher fuel consumption, increase exhaust fumes and are harmful to the environment. Fleetguard® air filters are engineered to deliver optimized air quality and provide the best overall performance and service life. To properly perform its function of reducing wear and extending engine life, the air filter must filter 100% of the pre-combustion air and remove as much contaminant of any and every particle size as it can to a very high final efficiency. Sooner or later, the choice of the right filter for the right application can make a substantial difference in wear rate, cost and performance of your diesel engine.



From Pre-Cleaning to Direct Flow™

With a range of over 1,500 different air filtration products from clamps to air housings to "state-of-the-art" air filters, Fleetguard Heavy Duty Air Filtration, covers all the needs for your sophisticated air intake systems. Fleetguard Visibowl™ Pre-Cleaners and highly efficient Fleetguard pre-cleaner™ self cleaning Pre-cleaners are strongly recommended for construction, mining, farming, forestry and other segments where operating conditions are severe. For best preventive maintenance practice and to automatically monitor the performance of your air filter, use Fleetguard Restriction indicators. Fleetguard products are engineered to provide the best overall performance and service life. They are the ideal solution in terms of better engine protection, extended service intervals and lower maintenance cost. Our media technology is designed to meet technical specifications including fiber size, shape, pore size, paper thickness and mechanical strength. Fleetguard LIPS (Lenticular Integral Pleat Spacing) ensures that pleats are evenly spaced and that the air spreads equally throughout the surface to maximize filter capacity and life. Special resins impregnated in the media provide maximum performance. Hot melt bonding ensures proper alignment and protection of pleats throughout filter life.



Air Cleaner Housings

Fleetguard® air housings, air cleaners and intake components meet the needs of over 200 Original Equipment Manufacturers (OEM). Fleetguard leads the way in air filtration technology through state-of-the-art design and manufacturing capabilities worldwide. We have the experience and technical expertise to design air filtration systems that exceed application requirements and maximize system potential.

Fleetguard manufacturing facilities around the world produce air filtration systems and are QS 9000, ISO 9001 and/or TS16949 certified. All performance data displayed in this section is based on ISO 5011/SAE J726 standards.



Fleetguard products are used in a wide variety of markets, including:

- On-Highway - Heavy and Medium Duty Trucks
- Construction and Mining
- Agriculture
- Marine
- Industrial



Determine the Requirements

- Establish the air flow required
 - Refer to engine data sheet or contact engine manufacturer
 - Calculate from the available engine data using the formula below
- Establish the maximum allowable initial restriction
 - Refer to engine data sheet or contact engine manufacturer
 - If no information is available, use the 152 mm H₂O, 1.5 kPa, or 6 in H₂O rule of thumb as a guide for On-Highway applications and 254 mm H₂O, 2.5 kPa, or 10 in H₂O for Off-Highway/Industrial applications

Determine the Class of Air Cleaner: If in doubt always over-specify

- In what type of application/ environment will it operate?
 - Light dust concentration environment (single stage air cleaner)
 - On highway, Marine, Light dust environments
 - Medium dust concentration environment (2 stage air cleaner)
 - On/off highway, industrial with moderate dust
 - Heavy dust concentration environment (2 stage air cleaner with safety element)
 - Off road, industrial equipment with heavy dust in the air

Select an Appropriate Air Cleaner

- Examine the flow versus restriction curves to determine the restriction at your given flow rate
- Check the dimensional data to ensure it will fit the customer's application
- Verify that the capacity meets the performance requirements
- Inlet and outlet size and positioning

Determine the Accessories Needed

- Mounting Bracket(s)
- Weather Hood
- Restriction Indicator
- Fleetguard Pre-Cleaner
- Rubber Elbows, Hump Hoses, Hose Clamps, etc.

Air Flow Calculation Formula

$$\text{Metric: Air flow in m}^3/\text{min} = \frac{\text{swept volume}^1 (\text{liters}) \times \text{speed}^2 \times \text{VE}^3 \times \text{PF}^4}{1000 \times \text{CF}}$$

¹ engine displacement in liters; ² maximum engine RPM; ³ Volumetric Efficiency; ⁴ Pulsation factor

$$\text{Imperial: Air flow in CFM} = \frac{\text{swept volume}^5 (\text{CID}) \times \text{speed}^2 \times \text{VE}^3 \times \text{PF}^4}{1728 \times \text{CF}}$$

⁵ engine displacement in **cubic inches**; ² maximum engine RPM; ³ Volumetric Efficiency; ⁴ Pulsation factor

Volumetric Efficiency (VE)

- VE = can be greater than >2 for very new engine designs
- VE = 1.3 to 1.8 for 4 stroke engine with turbocharger
- VE = 0.85 for 4 stroke engine that is naturally aspirated
- VE = 1.4 for 2 stroke (cycle) engine with Roots-Compressor (blower)
- VE = 1.9 for 2 stroke (cycle) engine with Turbocharger

Cycle Factor (CF)

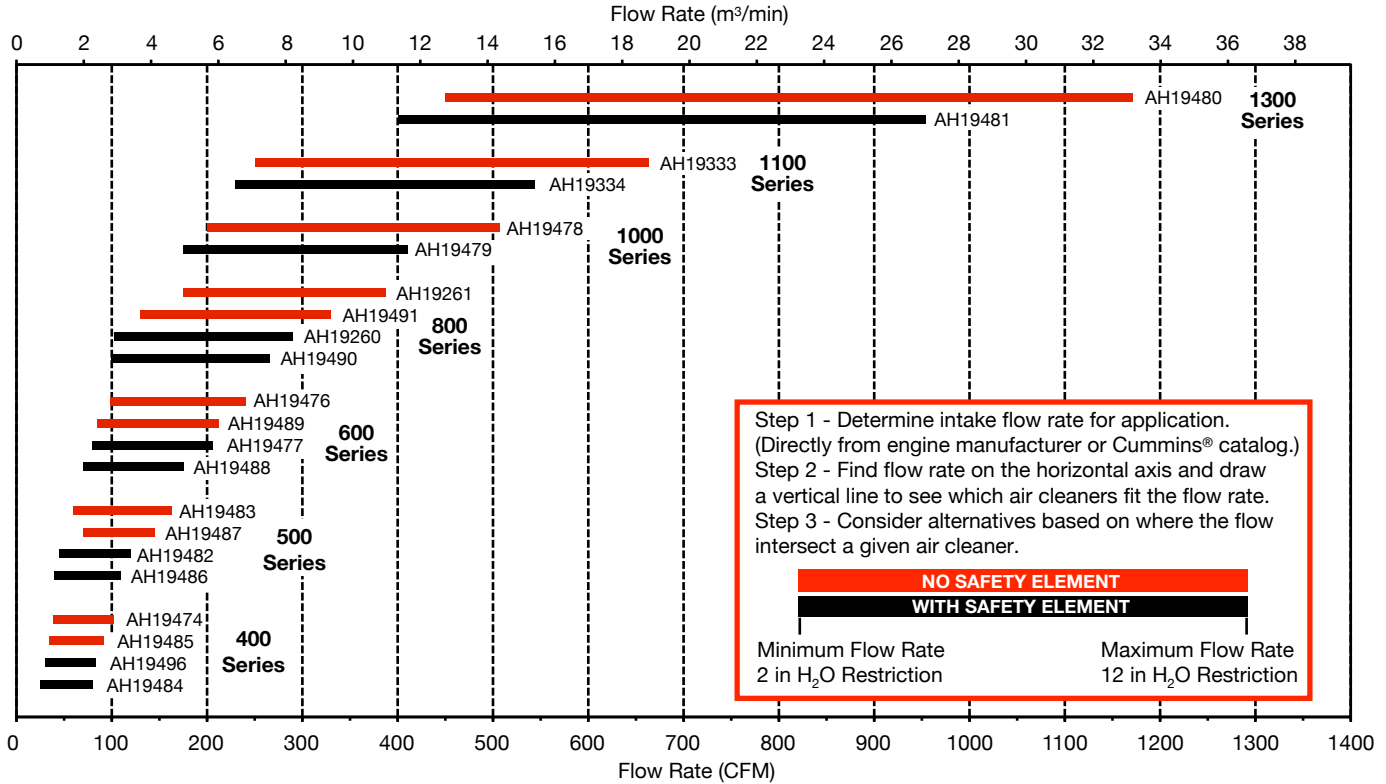
- CF = 2 for a four stroke (cycle) engine
- CF = 1 for a 2 stroke (cycle) engine

Pulsation Factor (PF) - only applies to engines that are *both naturally aspirated and having 3 cylinders or less*

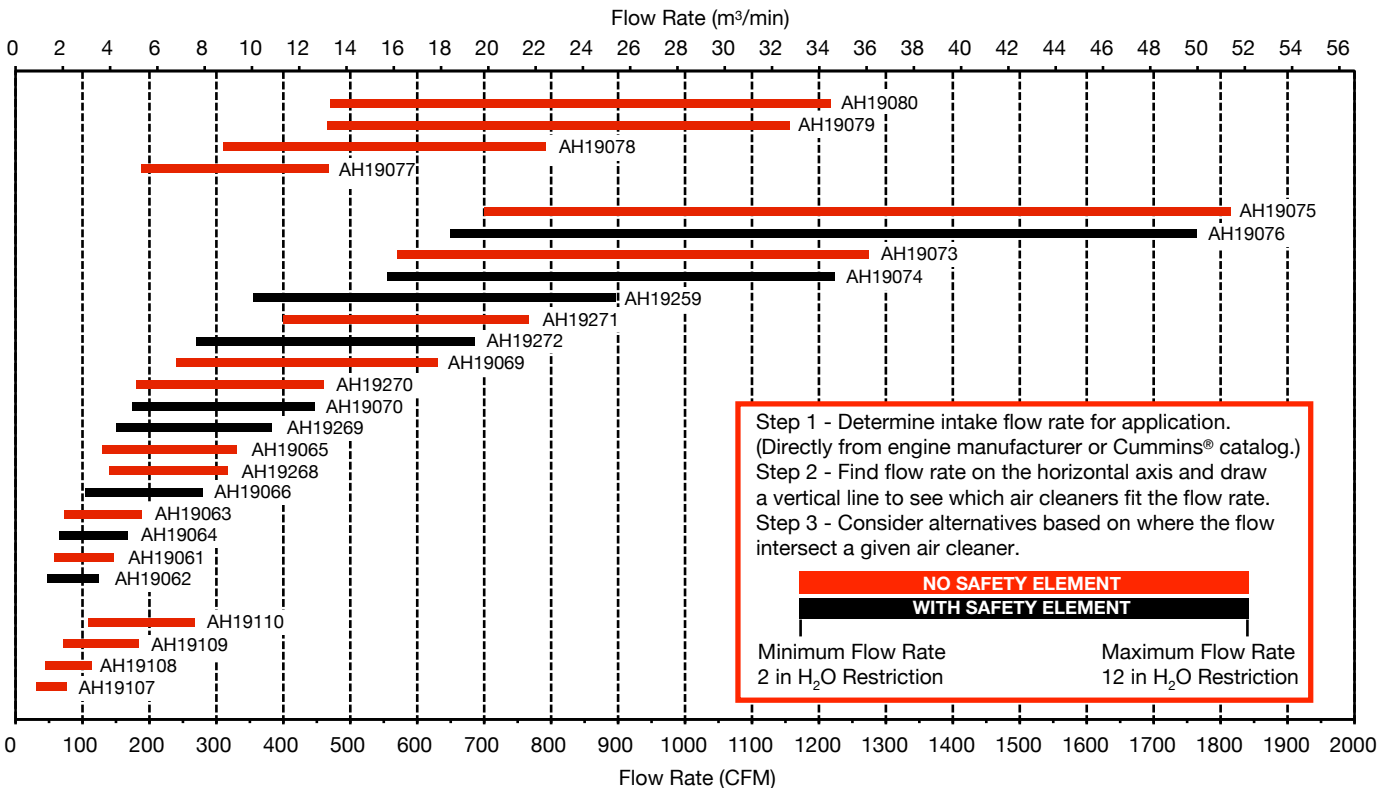
- PF = 2-2.1 if only 1 cylinder
- PF = 1.4-1 for two cylinders
- PF = 1.33 for three cylinders

Air Cleaner Selection Charts

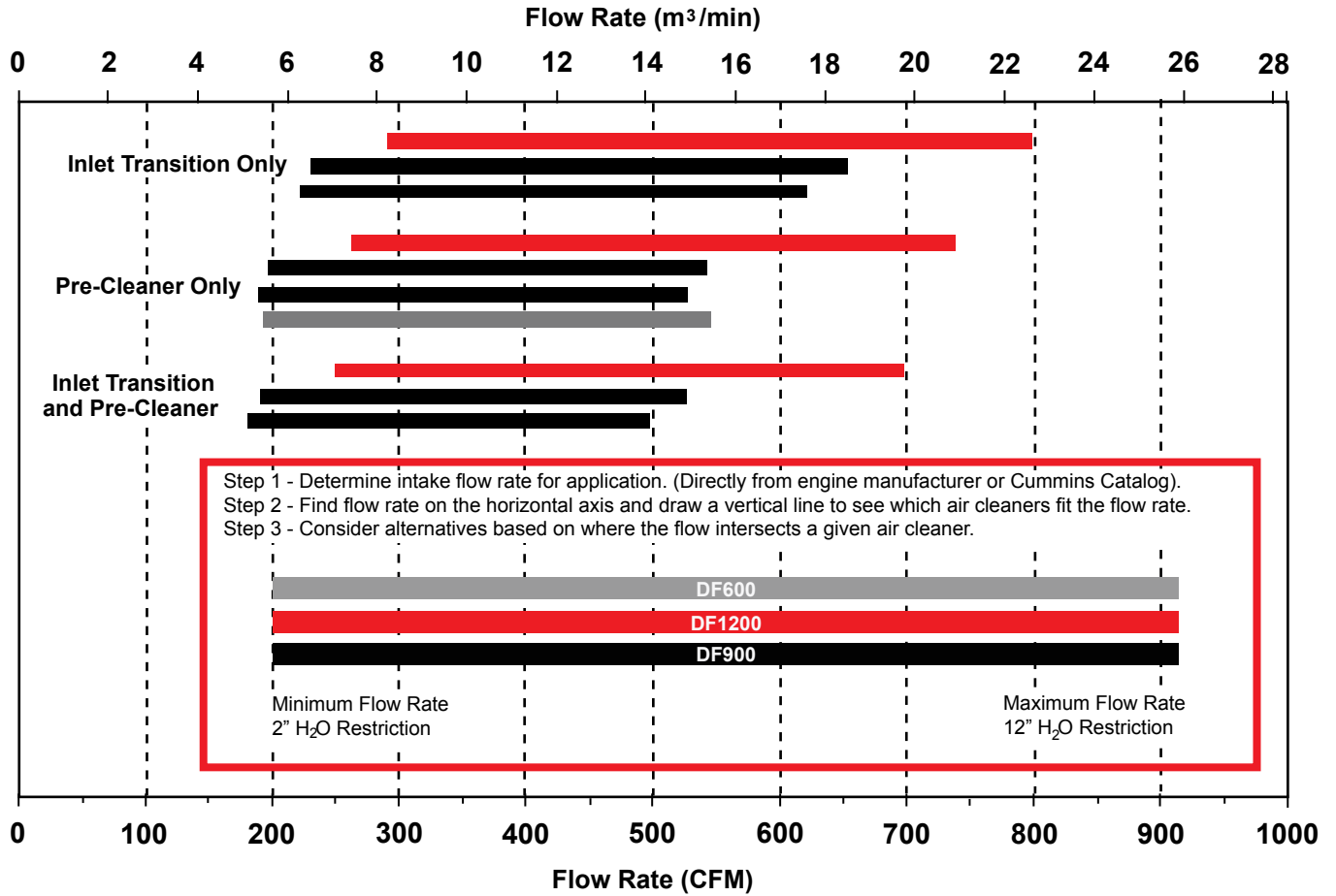
OptiAir™ Air Cleaner Selection Chart



Metal Air Cleaner Selection Chart



Direct Flow™ Flow Air Cleaner Selection Chart



Air Filtration Application Guidelines

This section describes Air Filtration Application Guidelines as they relate to Engine Manufacturer Requirements, Environmental Considerations, and Durability.

Engine Manufacturer Requirements

System Restriction

Every engine manufacturer has their own recommendation for the maximum allowable initial (clean) restriction for the air intake system, which includes upstream and downstream ducting and grills. If the system's initial restriction requirements are unknown, use 3.74 kPa (15 in H₂O) for off-highway applications and 2.49 kPa (10 in H₂O) for on-highway applications.



This application is where ducting specifications are important. Pressure loss through the combination of upstream and downstream ducting is generally 0.75-1.25 kPa (3-5 in H₂O). However, poor ducting designs can more than double that effect. Proper duct design and care taken to minimize initial restriction will improve the air cleaner's capacity and **increase service life**.

The following are key items for minimizing pressure drop:

- Ensure that air intake openings are as large as possible. Utilize ideal openings or grills (where possible) to straighten the flow path at air intake openings.
- Minimize the number of turns and transitions and avoid sharp angles and rough surfaces.
- Keep the duct diameter as large as possible throughout the system and reduce down as close to the engine/turbo intake as possible.
- When combining two flows, use gradual "Y" angles. A gradual "Y" angle is preferred, as "T" style connections cause pressure loss due to turbulence.

Ducting Designs

Ideal Design



Marginal Design

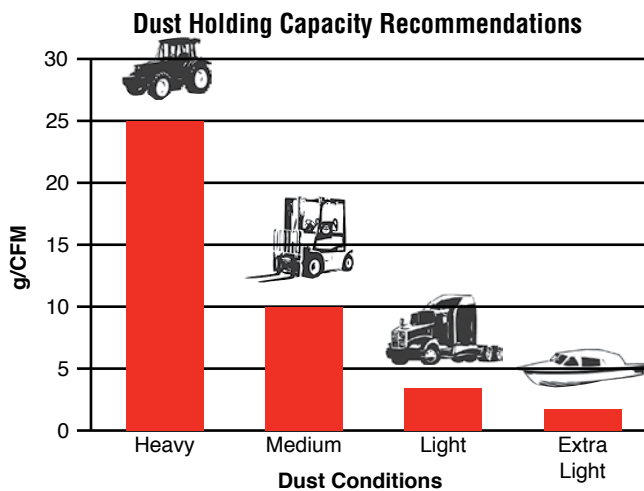


Negative Design



One way to describe dust holding capacity is by taking a ratio of the grams of dust processed by the air cleaner per engine airflow (g/CFM). The following dust holding capacities are recommended for the given dust environments:

Dust Holding Capacity



Dust Environments and Typical Applications

Heavy = Construction, mining, convoys on dirt roads, agricultural equipment

Medium = Asphalt equipment, forklifts

Light = On-highway vehicles in developed countries, lawn & turf equipment

Extra Light = Marine use, residential stationary equipment

For light environments the dust holding capacity can range from 1.5-3 g/CFM.

Heavy and medium dust environments require a two-stage air cleaner such as an integral pre-cleaner with a tangential inlet, or a spinner fin. Dump trucks and on-road trucks spending more than 20% of their time off-road or in developing countries should anticipate medium or heavy dust conditions. Heavy-duty applications should always utilize an air cleaner with a secondary element. The use of a secondary element is also recommended for medium-duty applications.

Air Filtration Application Guidelines

Environmental Considerations

The purpose of the air intake system is to provide clean, cool, quiet, and dry air for the engine. Keep the following environmental conditions in mind when positioning the air cleaner and intake ducting:

- **Protect the intake air from water ingestion by utilizing weather hoods or other protection.**
- **Position the air intake to minimize dust ingestion.** Do not draw air from the wheel well or under carriage areas. The air intake should be positioned as high as possible and toward the front of the vehicle for on-highway vehicles. (Small variations in the air intake position can greatly improve service life.)
- **Air intake ducting should draw air from near-ambient locations.** Increased air intake temperatures have a significant effect on engine power.
- **Continuous Operating Temperature Range (COTR) for the plastic air cleaners shown in this catalog is -40 °F (-40 °C) to 180 °F (82 °C).** Heat shielding and air baffles are acceptable options for reducing skin temperatures. If higher temperature materials are required, contact your Fleetguard sales representative to inquire about custom designs (minimum quantities may apply).

Durability

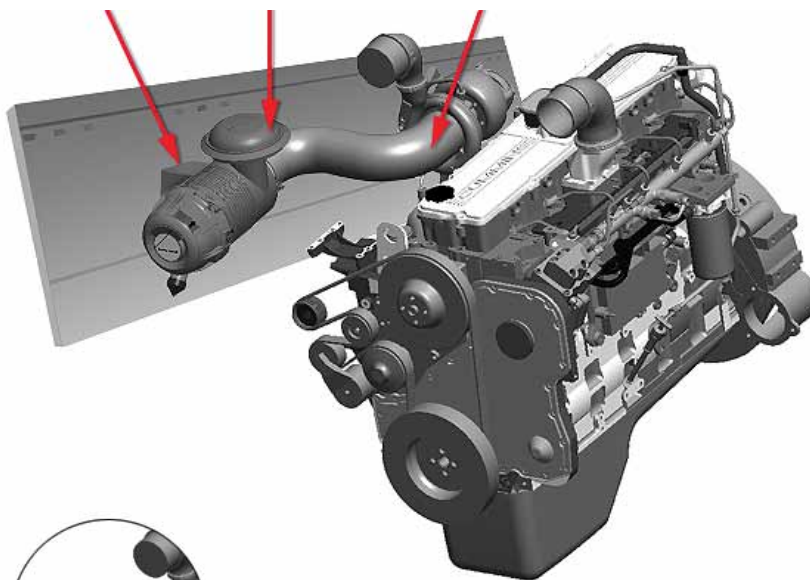
Air cleaners should be chassis mounted to minimize vibration. Engine mounting is only recommended with proper validation by a vehicle/equipment designer. Avoid the mounting of air cleaners or other components to 3-cylinder engines, as the vibration level is excessive due to the natural unbalanced condition of the engine. If vibration is a concern, consider iso-mounting or bracket designs to reduce acceleration levels and move the air cleaner resonance points away from the engine or vehicle resonance frequencies. Consider both the engine and vehicle resonance points. Engine resonance frequencies can be easily calculated. Vehicle resonance points are not easy to calculate. However, many on-highway vehicles have their first resonance point at or around 20 Hz. For further assistance in dealing with vibration issues, contact your Fleetguard representative to inquire about custom designs or materials (minimum quantities may apply).

When air cleaners are chassis mounted, pay close attention to the clean side ducting design. Because of the relative movement between the air cleaner and the engine, the ducting will be exposed to additional forces and the hose design may need to compensate for significant length changes between connections during operation. Flexible hose connections are essential.

Minimize vibration with a chassis mount.

Protect the inlet from harmful elements with a weather hood.

Ensure that the design accounts for full relative motion between the air cleaner and the engine. Flexible connections are mandatory.



Avoid mounting in areas where ducting is exposed to components that could cause abrasive wear.

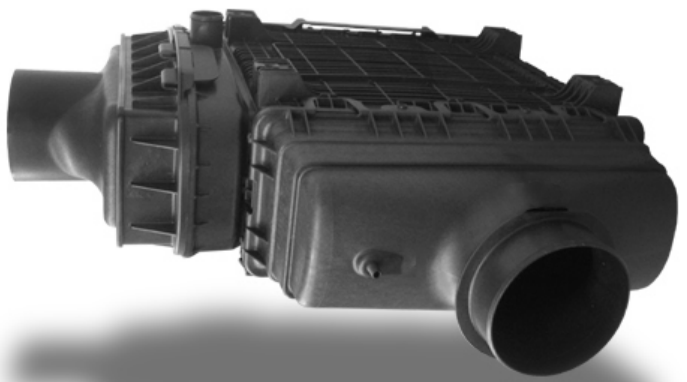
Miscellaneous Guidelines

- **Torque Range:** The torque range for plastic inlet/outlet tubes = 25-40 in-lbs (2.8-4.5 N-m). Do not over-torque connections.
- **Hose Connections:** Use appropriate hose connections. SAE HD Worm Gear F-style or T-bolt are recommended.
- **Connection Points:** Minimize the connection points. Leakage is a greater risk with multiple connections.
- **Hose Materials:** Utilize the appropriate high temperature material at the turbo.
- **Intake Routing:** Use caution when routing intake system ducting by avoiding damage from abrasion and heat sources.
- **Excessive Weight:** Avoid excessive unsupported weight on clamped joints (< 3 lb (1.4 kg) recommended).
- **Restriction Indicators:** Utilize restriction indicators in the system to monitor restriction and maximize performance and service life.

Direct Flow™ Air Cleaners

Reduced Volume - Improved Performance - Flexible Packaging

The patented Direct Flow technology provides the flexibility to optimize the air system performance to size ratio, meeting the demands of today's engines and specialized applications.



Direct Flow™ design utilizes more media volume in less space than some cylindrical systems

The Direct Flow Advantage

Front Inlet/Front Service



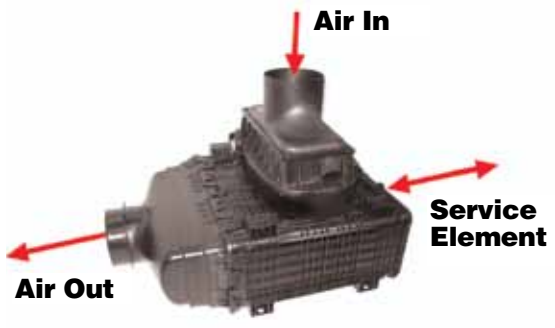
Integrated Handle
Improved serviceability

Element Label
Can display service part information and service instructions



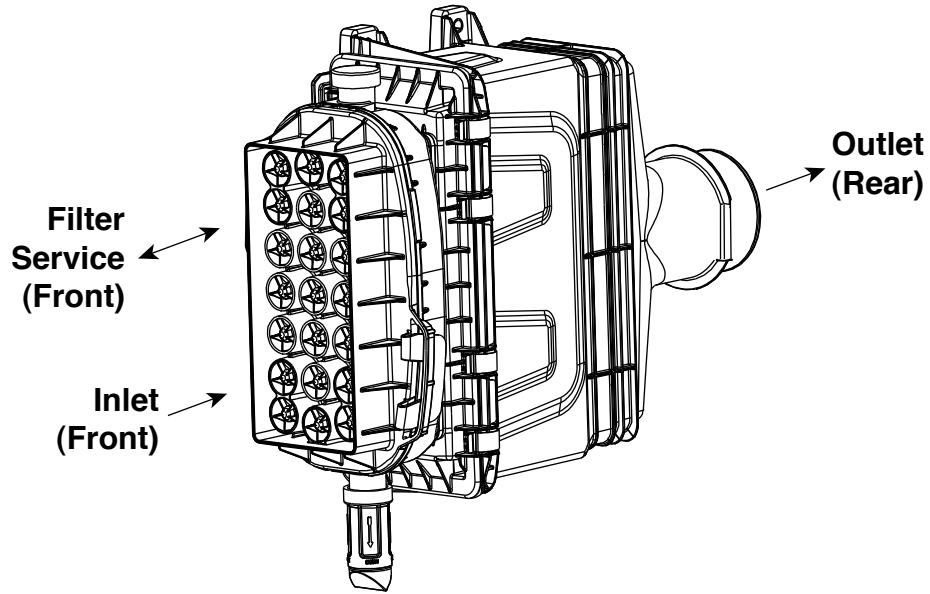
Phenolic Media
Water resistant with high stiffness to improve service intervals

Side Inlet/Front Service



Metal-Free Service Element





Specifications

Specification	AH55555
Length, Overall	10.01" (254.3 mm)
Width, Overall	25.30" (642.6 mm)
Height, Overall	22.29" (566.2 mm)
Flow, Min. (2" restriction)	195 CFM (5.52 m ³ /min)
Flow, Max. (12" restriction)	544 CFM (15.41 m ³ /min)
Secondary Element	Yes
Housing Material	Glass-Filled Polyamide
Pre-cleaner Integral	Yes
Inlet Transition	No

Specifications subject to change without notice.

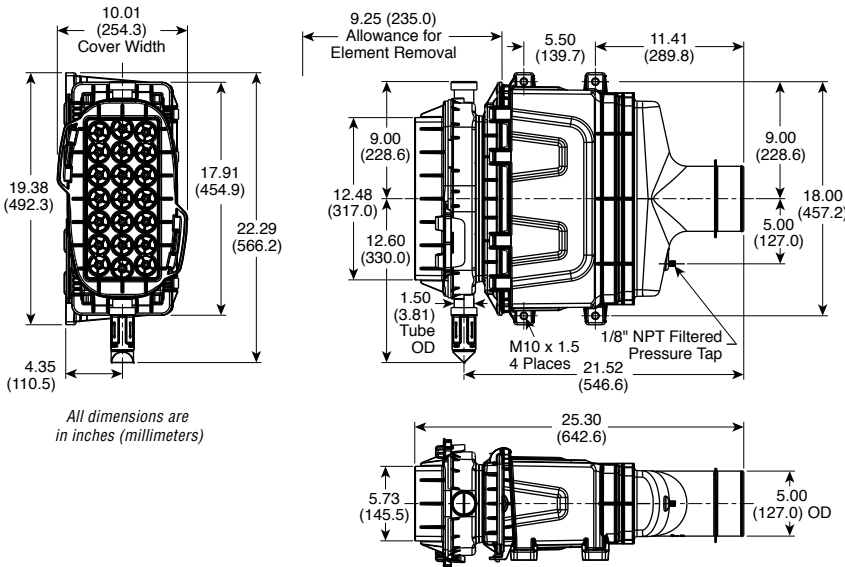
Ordering Information

Air Cleaners	
Part Number	Description
AH55555	Direct Flow DF600P -with Integral Pre-Cleaner -Front Inlet

Accessories	
Part Number	Description
3316658 S	4" Band Clamp
3316660 S	5" Band Clamp
3316608 S	4" Hump Hose
3316610 S	5" Hump Hose
3316568 S	4" 90° Elbow
3316570 S	5" 90° Elbow
3316618 S	5" to 4" Hump Hose Reducer
3946329 S	Restriction Indicator

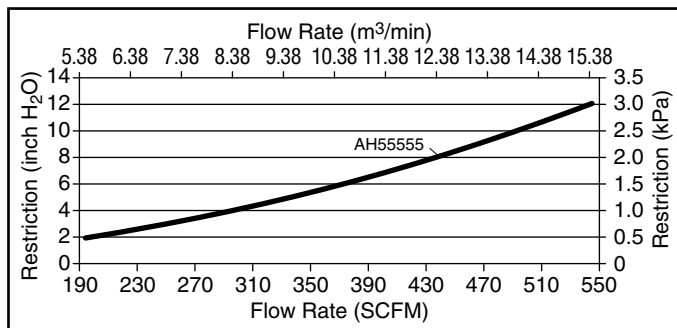
Service Parts	
Part Number	Description
AF55005	Primary Element
AF55308	Secondary Element
SP01004	Service Kit: DEV Tube, DEV Cap, J-Clips (4)

Dimensions



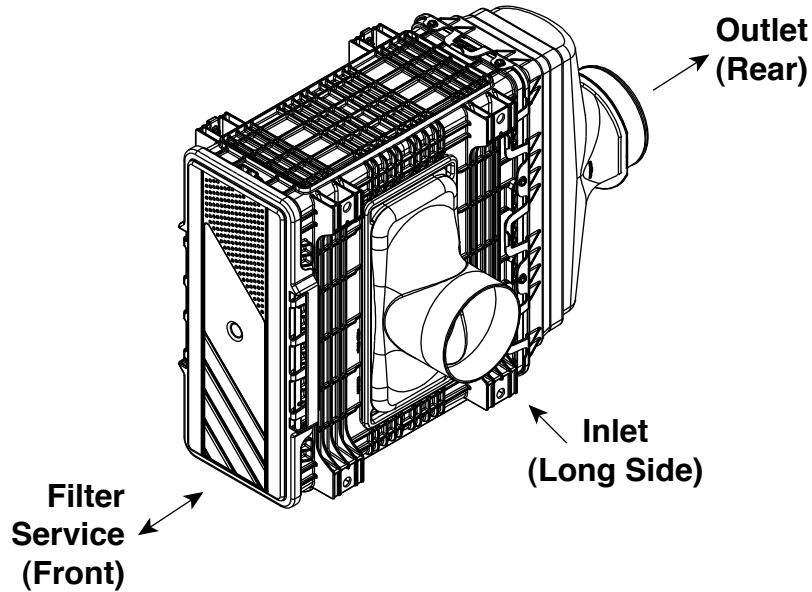
Performance

System Restriction vs Flow Rate



Restriction		Flow Rate	
in H ₂ O	kPa	CFM	m ³ /min
6	1.5	371	10.51
8	2.0	436	12.33
10	2.5	492	13.94
12	3.0	544	15.39





Specifications

Specification	AH55556
Length, Overall	12.69" (322.3 mm)
Width, Overall	24.54" (623.3 mm)
Height, Overall	17.67" (448.8 mm)
Flow, Min. (2" restriction)	234 CFM (6.63 m ³ /min)
Flow, Max. (12" restriction)	652 CFM (18.46 m ³ /min)
Secondary Element	Yes
Housing Material	Glass-Filled Polyamide
Pre-cleaner Integral	No
Inlet Transition	Yes

Specifications subject to change without notice.

Ordering Information

Air Cleaners	
Part Number	Description
AH55556	Direct Flow DF900T -with Inlet Transition -Long Side Inlet

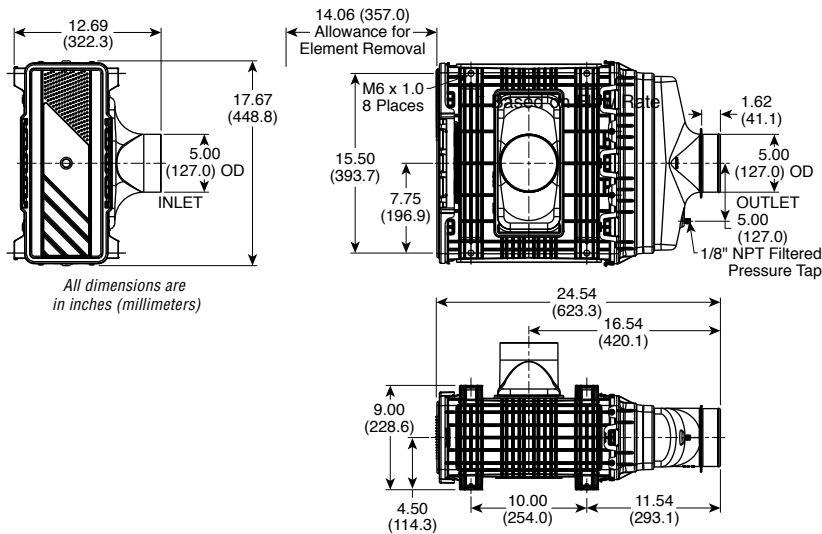
Service Parts	
Part Number	Description
AF55014	Primary Element
AF55308	Secondary Element
SP01002	Service Door
SP01004	Service Kit: DEV Tube, DEV Cap, J-Clips (4)

Accessories	
Part Number	Description
3316658 S	4" Band Clamp
3316660 S	5" Band Clamp
3316608 S	4" Hump Hose
3316610 S	5" Hump Hose
3316568 S	4" 90° Elbow
3316570 S	5" 90° Elbow
3316618 S	5" to 4" Hump Hose Reducer
3946466 S	Weather Hood
3946329 S	Restriction Indicator

Accessories	
Part Number	Description
*AP8409	Fleetguard® External Pre-Cleaner (Flow=275-350 CFM)
*AP8421	Fleetguard External Pre-Cleaner (Flow=350-500 CFM)
*AP8404	Fleetguard External Pre-Cleaner (Flow=500-650 CFM)
*AP8410	Fleetguard External Pre-Cleaner (Flow=650-800 CFM)

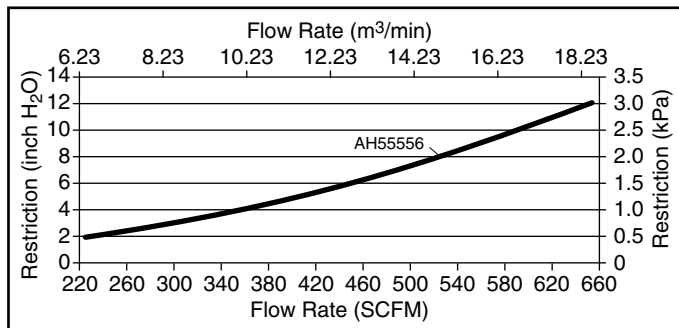
* Based on Flow Rate

Dimensions



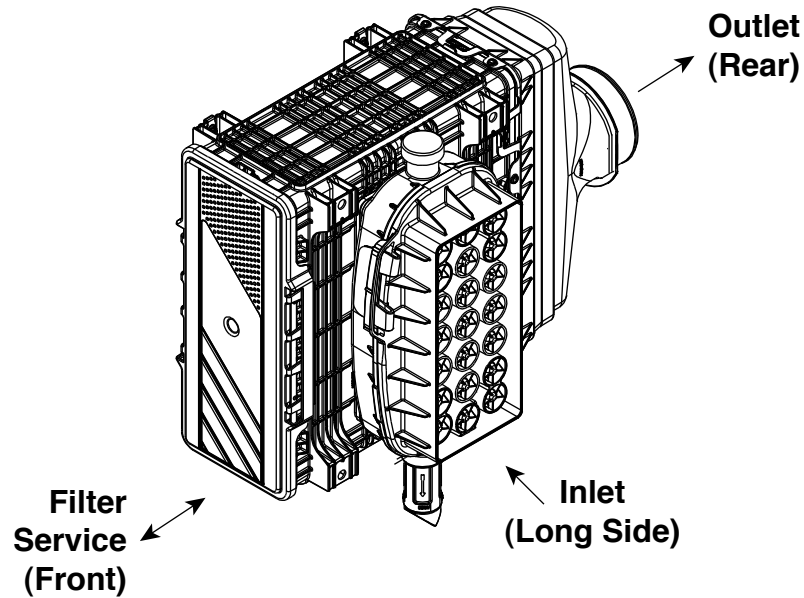
Performance

System Restriction vs Flow Rate



Restriction		Flow Rate	
in H ₂ O	kPa	CFM	m ³ /min
6	1.5	447	12.66
8	2.0	524	14.84
10	2.5	591	16.74
12	3.0	652	18.46





Specifications

Specification	AH55557
Length, Overall	13.02" (330.7 mm)
Width, Overall	24.54" (623.3 mm)
Height, Overall	21.59" (548.4 mm)
Flow, Min. (2" restriction)	200 cfm (5.66 m ³ /min)
Flow, Max. (12" restriction)	541 cfm (15.32 m ³ /min)
Secondary Element	Yes
Housing Material	Glass-Filled Polyamide
Pre-cleaner Integral	Yes
Inlet Transition	No

Specifications subject to change without notice.

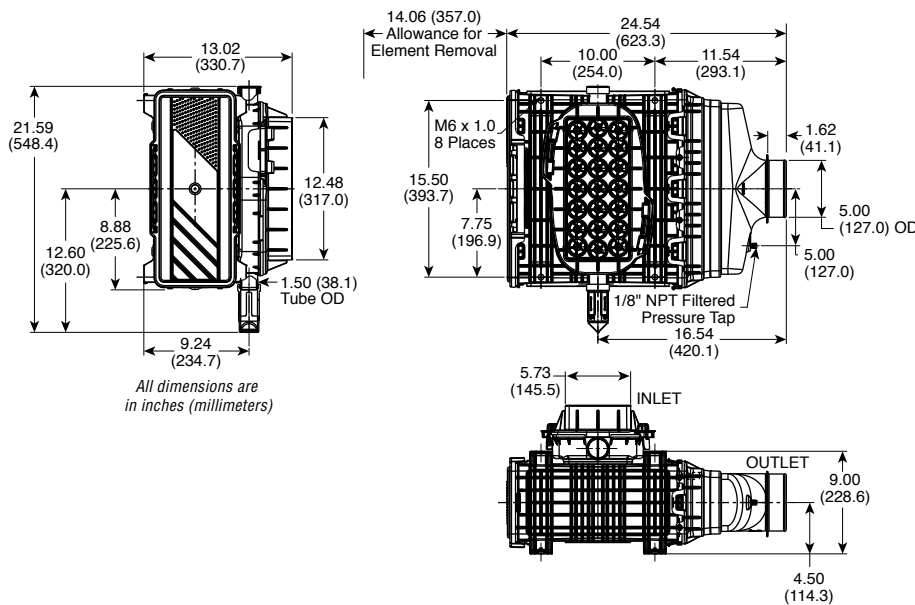
Ordering Information

Air Cleaners	
Part Number	Description
AH55557	Direct Flow DF900P -with Integral Pre-Cleaner -Long Side Inlet

Accessories	
Part Number	Description
3316658 S	4" Band Clamp
3316660 S	5" Band Clamp
3316608 S	4" Hump Hose
3316610 S	5" Hump Hose
3316568 S	4" 90° Elbow
3316570 S	5" 90° Elbow
3316618 S	5" to 4" Hump Hose Reducer
3946329 S	Restriction Indicator

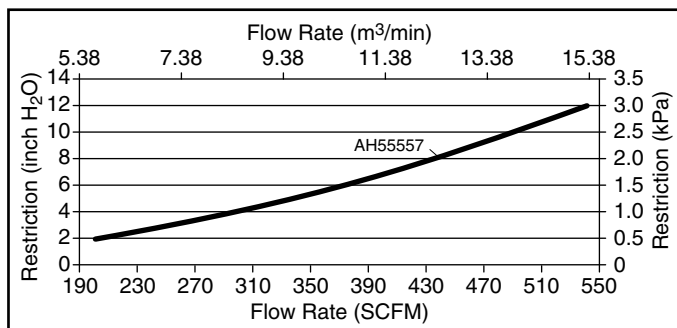
Service Parts	
Part Number	Description
AF55014	Primary Element
AF55308	Secondary Element
SP01002	Service Door
SP01004	Service Kit: DEV Tube, DEV Cap, J-Clips (4)

Dimensions



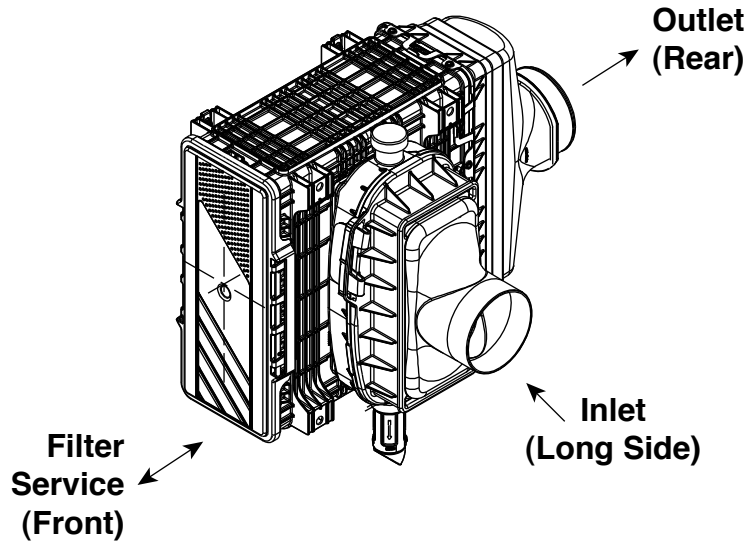
Performance

System Restriction vs Flow Rate



Restriction		Flow Rate	
in H ₂ O	kPa	CFM	m ³ /min
6	1.5	373	10.56
8	2.0	436	12.35
10	2.5	491	13.90
12	3.0	541	15.32





Specifications

Specification	AH55558
Length, Overall	17.67" (448.8 mm)
Width, Overall	24.54" (623.3 mm)
Height, Overall	21.59" (548.4 mm)
Flow, Min. (2" restriction)	193 CFM (5.47 m ³ /min)
Flow, Max. (12" restriction)	526 CFM (14.89 m ³ /min)
Secondary Element	Yes
Housing Material	Glass-Filled Polyamide
Pre-cleaner Integral	Yes
Inlet Transition	Yes

Specifications subject to change without notice.

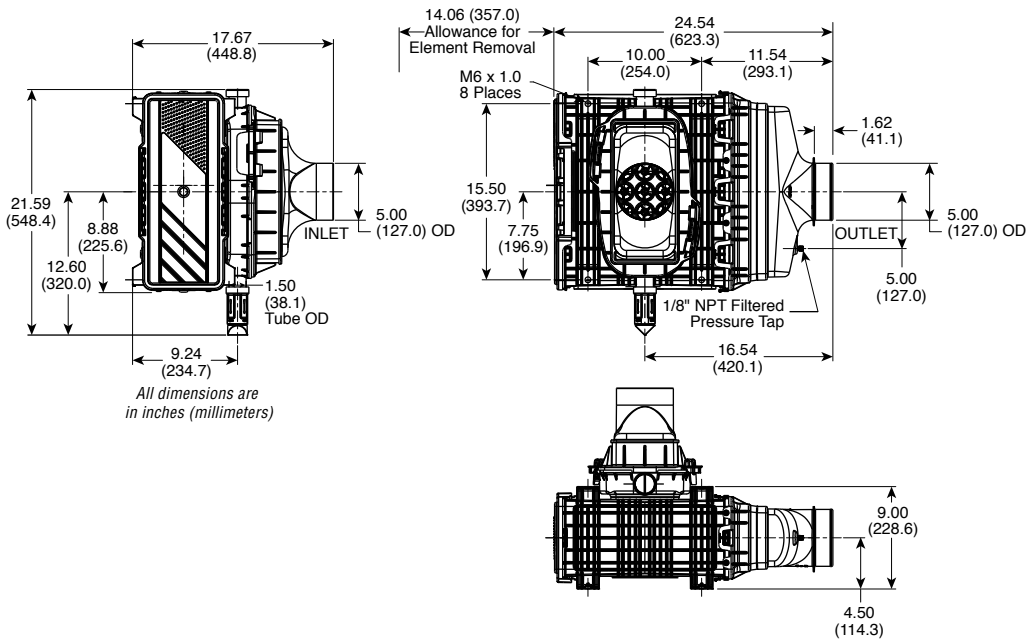
Ordering Information

Air Cleaners	
Part Number	Description
AH55558	Direct Flow DF900C -with Inlet Transition -with Integral Pre-Cleaner -Long side inlet

Accessories	
Part Number	Description
3316658 S	4" Band Clamp
3316660 S	5" Band Clamp
3316608 S	4" Hump Hose
3316610 S	5" Hump Hose
3316568 S	4" 90° Elbow
3316570 S	5" 90° Elbow
3316618 S	5" to 4" Hump Hose Reducer
3946329 S	Restriction Indicator

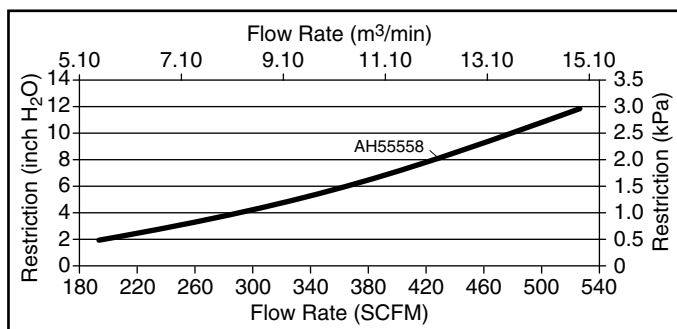
Service Parts	
Part Number	Description
AF55014	Primary Element
AF55308	Secondary Element
SP01002	Service Door
SP01004	Service Kit: DEV Tube, DEV Cap, J-Clips (4)

Dimensions



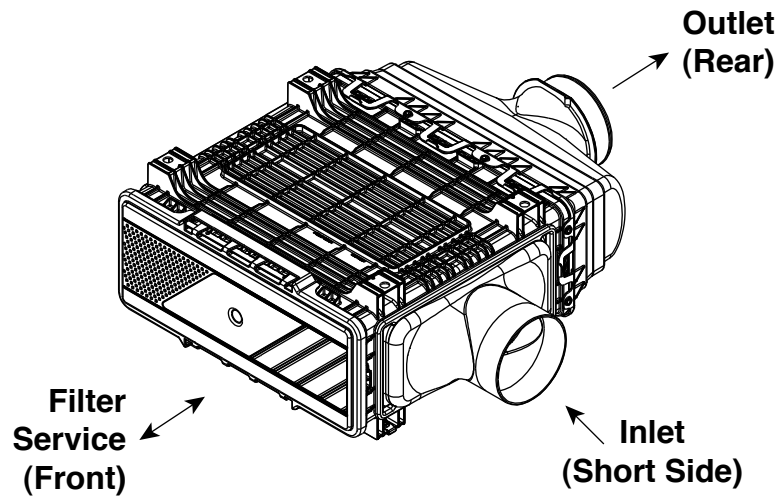
Performance

System Restriction vs Flow Rate



Restriction		Flow Rate	
in H ₂ O	kPa	CFM	m³/min
6	1.5	363	10.28
8	2.0	424	12.00
10	2.5	478	13.54
12	3.0	526	14.89





Specifications

Specification	AH55559
Length, Overall	22.08" (560.8 mm)
Width, Overall	24.54" (623.3 mm)
Height, Overall	9.00" (228.6 mm)
Flow, Min. (2" restriction)	225 CFM (6.37 m³/min)
Flow, Max. (12" restriction)	620 CFM (17.56 m³/min)
Secondary Element	Yes
Housing Material	Glass-Filled Polyamide
Pre-cleaner Integral	No
Inlet Transition	Yes

Specifications subject to change without notice.

Ordering Information

Air Cleaners	
Part Number	Description
AH55559	Direct Flow DF900T -with Inlet Transition -Short Side Inlet

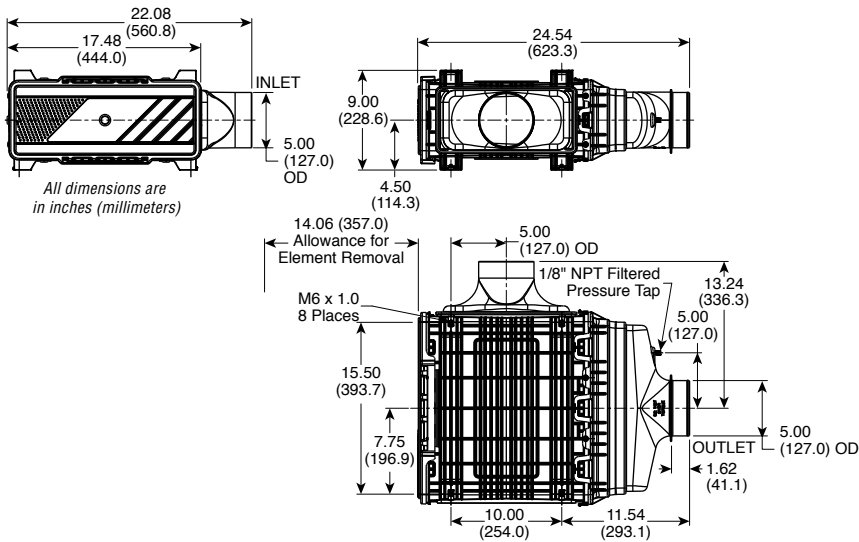
Service Parts	
Part Number	Description
AF55014	Primary Element
AF55308	Secondary Element
SP01002	Service Door
SP01004	Service Kit: DEV tube, DEV Cap, J-Clips (4)

Accessories	
Part Number	Description
3316658 S	4" Band Clamp
3316660 S	5" Band Clamp
3316608 S	4" Hump Hose
3316610 S	5" Hump Hose
3316568 S	4" 90° Elbow
3316570 S	5" 90° Elbow
3316618 S	5" to 4" Hump Hose Reducer
3946466 S	Weather Hood
3946329 S	Restriction Indicator

Accessories	
Part Number	Description
*AP8409	Fleetguard External Pre-Cleaner (Flow=275-350 CFM)
*AP8421	Fleetguard External Pre-Cleaner (Flow=350-500 CFM)
*AP8404	Fleetguard External Pre-Cleaner (Flow=500-650 CFM)

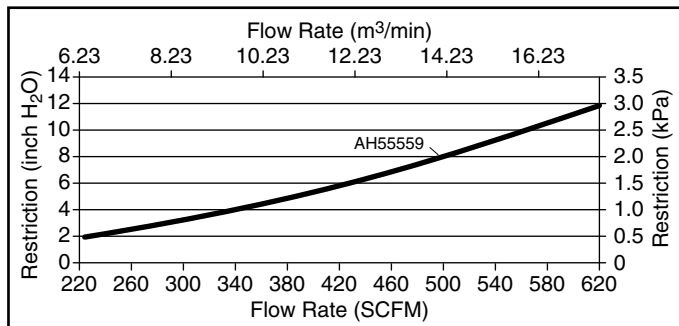
* Based on Flow Rate

Dimensions



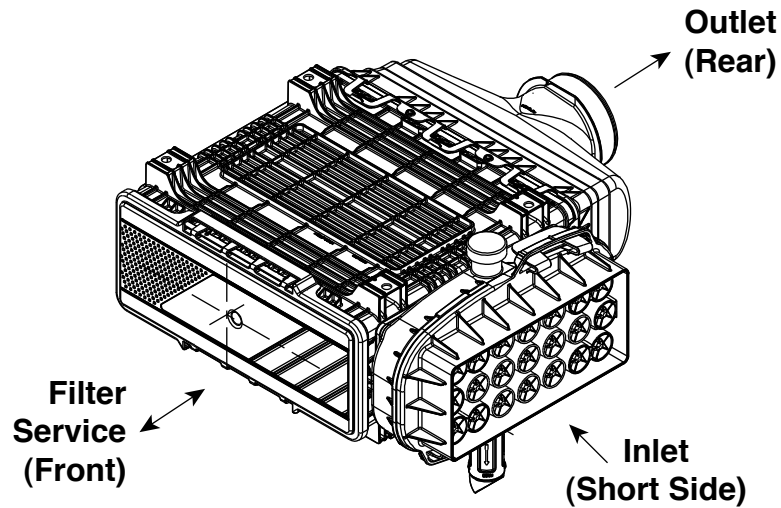
Performance

System Restriction vs Flow Rate



Restriction		Flow Rate	
in H ₂ O	kPa	CFM	m³/min
6	1.5	426	12.06
8	2.0	499	14.13
10	2.5	562	15.91
12	3.0	620	17.56





Specifications

Specification	AH55560
Length, Overall	22.41" (569.2 mm)
Width, Overall	24.54" (623.3 mm)
Height, Overall	14.84" (376.9 mm)
Flow, Min. (2" restriction)	191 CFM (5.41 m ³ /min)
Flow, Max. (12" restriction)	524 CFM (14.84 m ³ /min)
Secondary Element	Yes
Housing Material	Glass-Filled Polyamide
Pre-cleaner Integral	Yes
Inlet Transition	No

Specifications subject to change without notice.

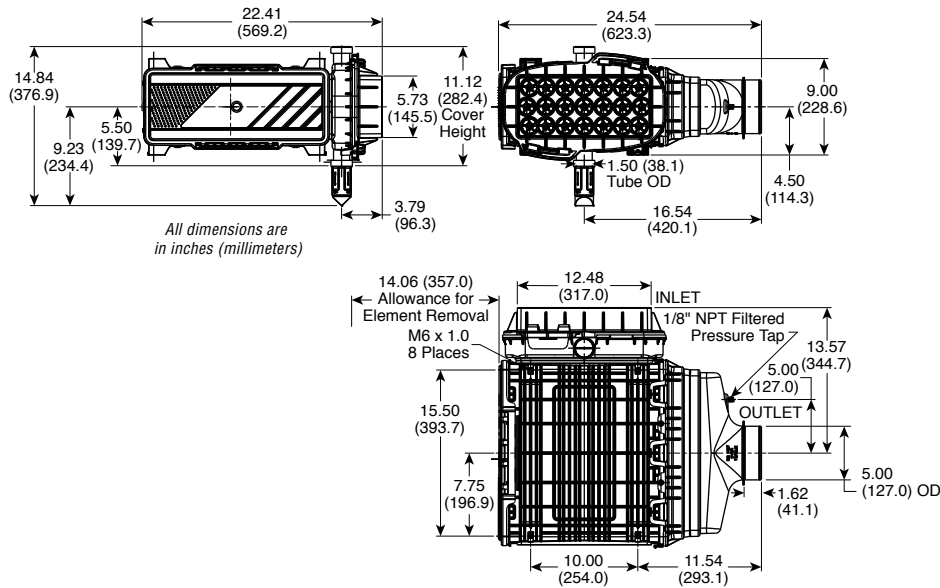
Ordering Information

Air Cleaners	
Part Number	Description
AH55560	Direct Flow DF900P -with Integral Pre-Cleaner -Short Side Inlet

Accessories	
Part Number	Description
3316658 S	4" Band Clamp
3316660 S	5" Band Clamp
3316608 S	4" Hump Hose
3316610 S	5" Hump Hose
3316568 S	4" 90° Elbow
3316570 S	5" 90° Elbow
3316618 S	5" to 4" Hump Hose Reducer
3946329 S	Restriction Indicator

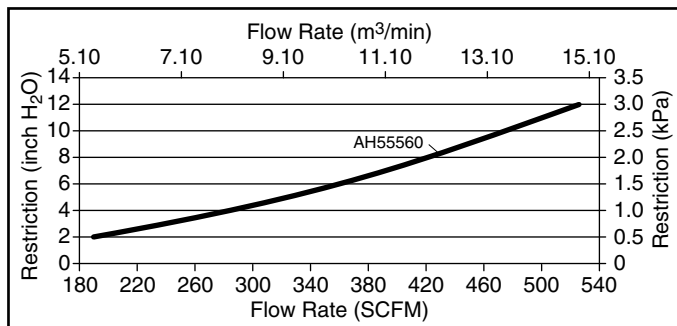
Service Parts	
Part Number	Description
AF55014	Primary Element
AF55308	Secondary Element
SP01002	Service Door
SP01004	Service Kit: DEV Tube, DEV Cap, J-Clips (4)

Dimensions



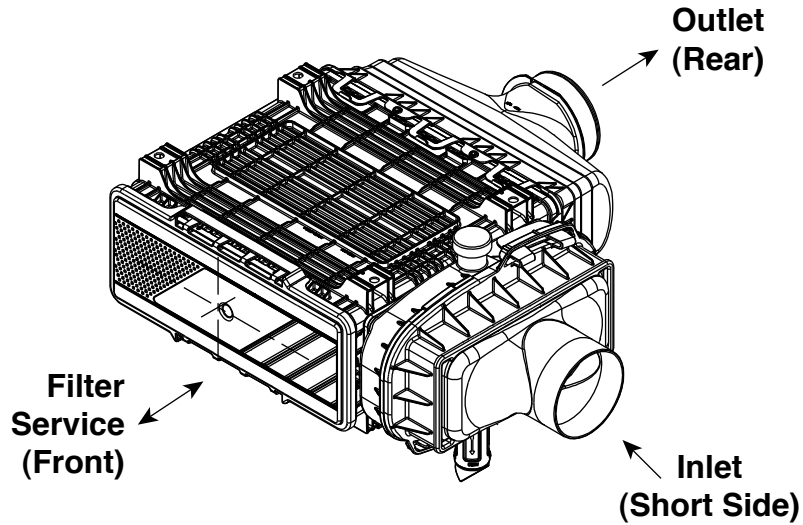
Performance

System Restriction vs Flow Rate



Restriction		Flow Rate	
in H ₂ O	kPa	CFM	m³/min
6	1.5	360	10.19
8	2.0	421	11.92
10	2.5	475	13.45
12	3.0	524	14.84





Specifications

Specification	AH55561
Length, Overall	27.06" (687.3 mm)
Width, Overall	24.54 " (623.3 mm)
Height, Overall	14.84" (376.9 mm)
Flow, Min. (2" restriction)	183 CFM (5.18 m ³ /min)
Flow, Max. (12" restriction)	494 CFM (13.99 m ³ /min)
Secondary Element	Yes
Housing Material	Glass-Filled Polyamide
Pre-cleaner Integral	Yes
Inlet Transition	Yes

Specifications subject to change without notice.

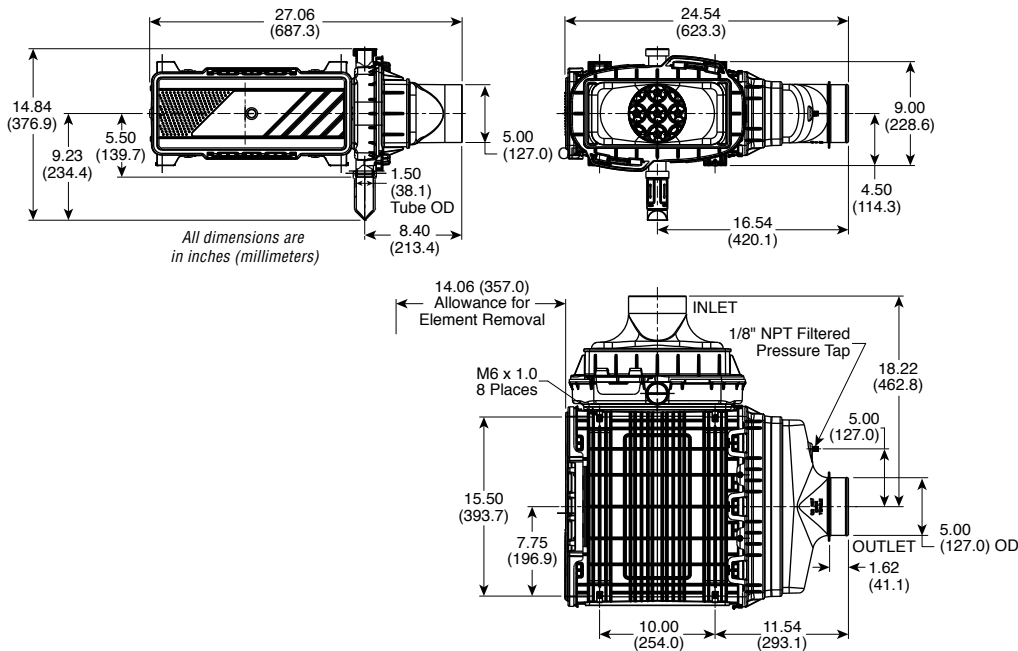
Ordering Information

Air Cleaners	
Part Number	Description
AH55561	Direct Flow DF900C -with Inlet Transition -with Integral Pre-Cleaner -Short Side Inlet

Accessories	
Part Number	Description
3316658 S	4" Band Clamp
3316660 S	5" Band Clamp
3316608 S	4" Hump Hose
3316610 S	5" Hump Hose
3316568 S	4" 90° Elbow
3316570 S	5" 90° Elbow
3316618 S	5" to 4" Hump Hose Reducer
3946466 S	Weather Hood
3946329 S	Restriction Indicator

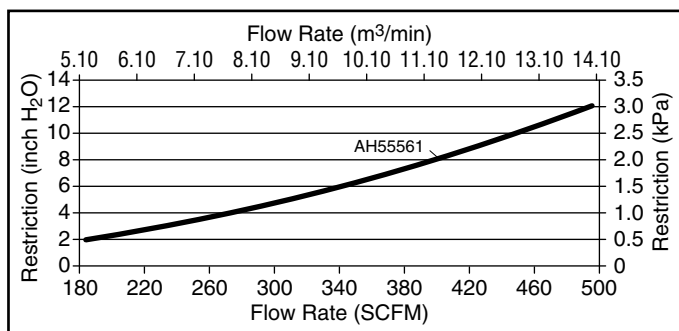
Service Parts	
Part Number	Description
AF55014	Primary Element
AF55308	Secondary Element
SP01002	Service Door
SP01004	Service Kit: DEV Tube, DEV Cap, J-Clips (4)

Dimensions



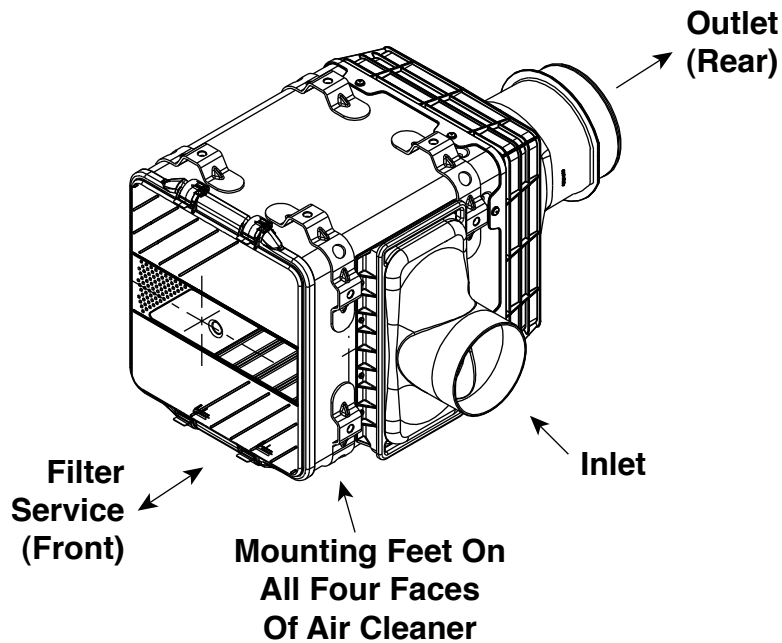
Performance

System Restriction vs Flow Rate



Restriction		Flow Rate	
in H ₂ O	kPa	CFM	m ³ /min
6	1.5	340	9.63
8	2.0	398	11.27
10	2.5	448	12.69
12	3.0	494	13.99





Specifications

Specification	AH55562
Length, Overall	18.46" (468.9 mm)
Width, Overall	25.00" (635.0 mm)
Height, Overall	14.55" (369.6 mm)
Flow, Min. (2" restriction)	294 CFM (8.33 m ³ /min)
Flow, Max. (12" restriction)	797 CFM (22.57 m ³ /min)
Secondary Element	Yes
Housing Material	Metal/Glass-Filled Polyamide
Pre-cleaner Integral	No
Inlet Transition	Yes

Specifications subject to change without notice.

Ordering Information

Air Cleaners	
Part Number	Description
AH55562	Direct Flow DF1200T -with Inlet Transition

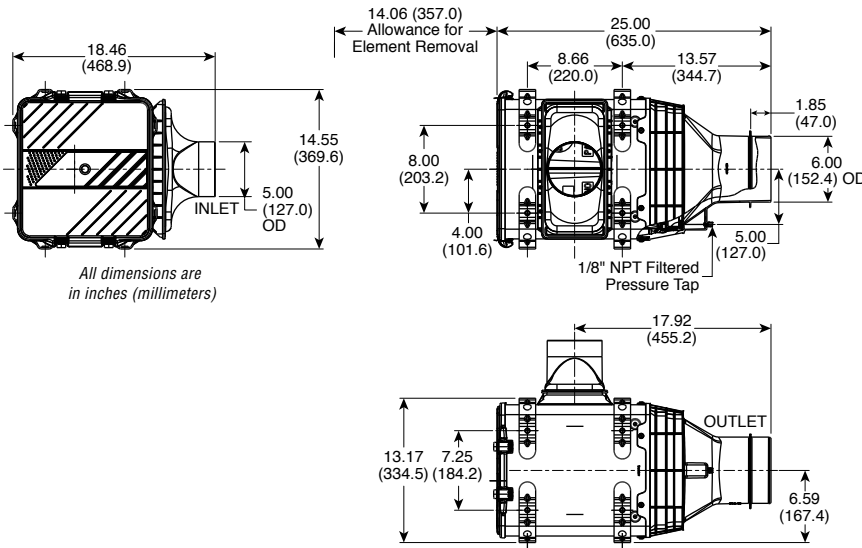
Service Parts	
Part Number	Description
AF55015	Primary Element
AF55309	Secondary Element
SP01003	Service Door

Accessories	
Part Number	Description
3316658 S	4" Band Clamp
3316660 S	5" Band Clamp
3316662 S	6" Band Clamp
3316608 S	4" Hump Hose
3316610 S	5" Hump Hose
3316612 S	6" Hump Hose
3316568 S	4" 90° Elbow
3316570 S	5" 90° Elbow
3316573 S	6" 90° Elbow
3316589 S	6" to 5" Reducing Elbow
3316618 S	5" to 4" Hump Hose Reducer
3316621 S	6" to 5" Hump Hose Reducer
3946466 S	Weather Hood
3946329 S	Restriction Indicator

Accessories	
Part Number	Description
*AP8404	Fleetguard External Pre-Cleaner (Flow=275-350 CFM)
*AP8421	Fleetguard External Pre-Cleaner (Flow=350-500 CFM)
*AP8404	Fleetguard External Pre-Cleaner (Flow=500-650 CFM)
*AP8410	Fleetguard External Pre-Cleaner (Flow=650-800 CFM)

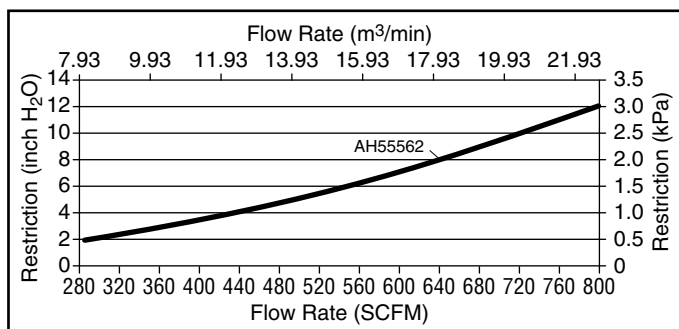
* Based on Flow Rate

Dimensions



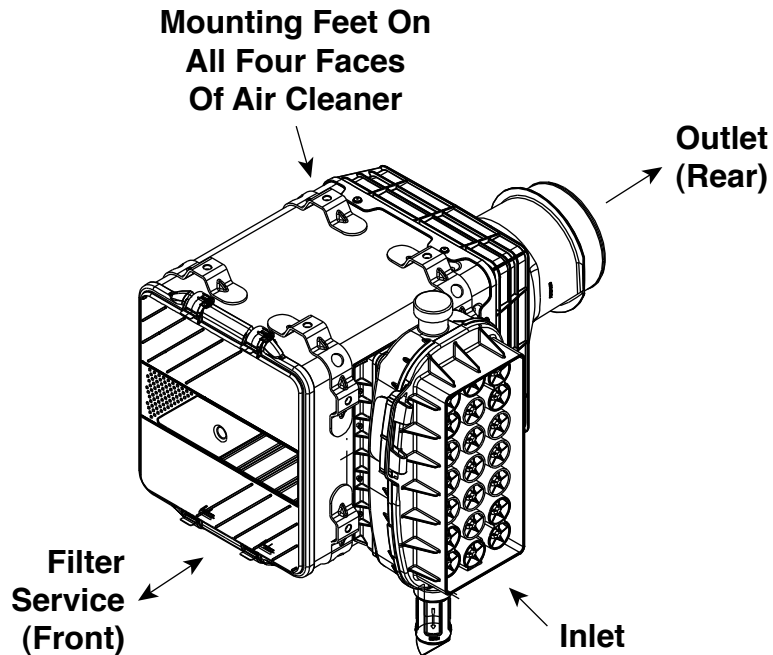
Performance

System Restriction vs Flow Rate



Restriction		Flow Rate	
in H ₂ O	kPa	CFM	m ³ /min
6	1.5	551	15.60
8	2.0	643	18.21
10	2.5	724	20.50
12	3.0	797	22.57





Specifications

Specification	AH55563
Length, Overall	18.78" (477.0 mm)
Width, Overall	25.00" (635.0 mm)
Height, Overall	21.78" (553.2 mm)
Flow, Min. (2" restriction)	266 CFM (7.53 m ³ /min)
Flow, Max. (12" restriction)	737 CFM (20.87 m ³ /min)
Secondary Element	Yes
Housing Material	Metal/Glass-Filled Polyamide
Pre-cleaner Integral	Yes
Inlet Transition	No

Specifications subject to change without notice.

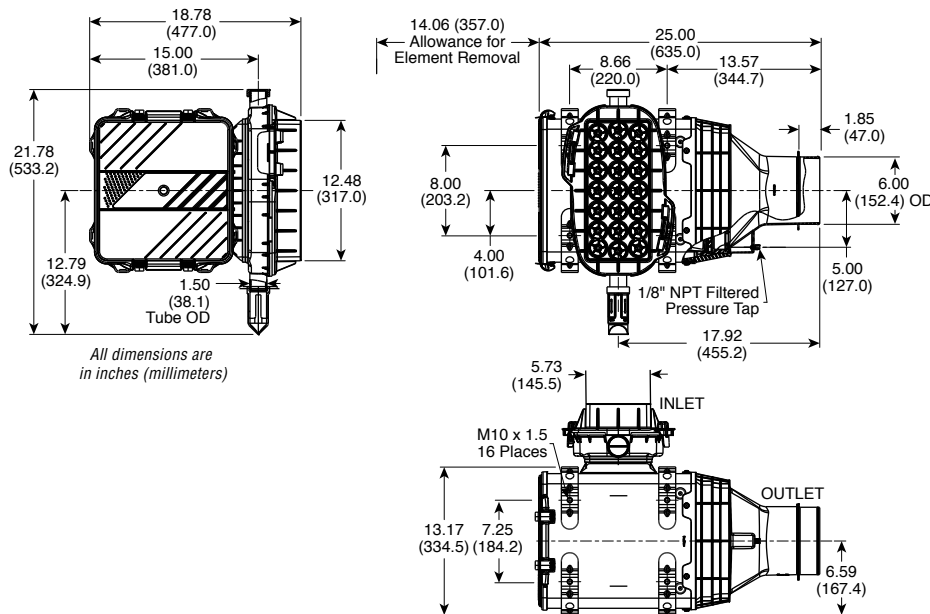
Ordering Information

Air Cleaners	
Part Number	Description
AH55563	Direct Flow DF1200P -with Integral Pre-Cleaner

Accessories	
Part Number	Description
3316658 S	4" Band Clamp
3316660 S	5" Band Clamp
3316662 S	6" Band Clamp
3316608 S	4" Hump Hose
3316610 S	5" Hump Hose
3316612 S	6" Hump Hose
3316568 S	4" 90° Elbow
3316570 S	5" 90° Elbow
3316573 S	6" 90° Elbow
3316589 S	6" to 5" Reducing Elbow
3316618 S	5" to 4" Hump Hose Reducer
3316621 S	6" to 5" Hump Hose Reducer
3946329 S	Restriction Indicator

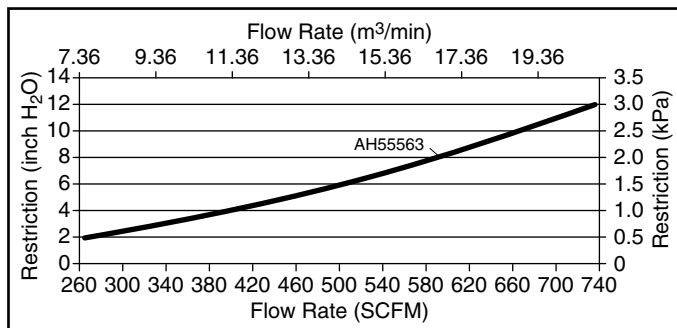
Service Parts	
Part Number	Description
AF55015	Primary Element
AF55309	Secondary Element
SP01003	Service Door
SP01004	Service Kit: DEV Tube, DEV Cap, J-Clips (4)

Dimensions



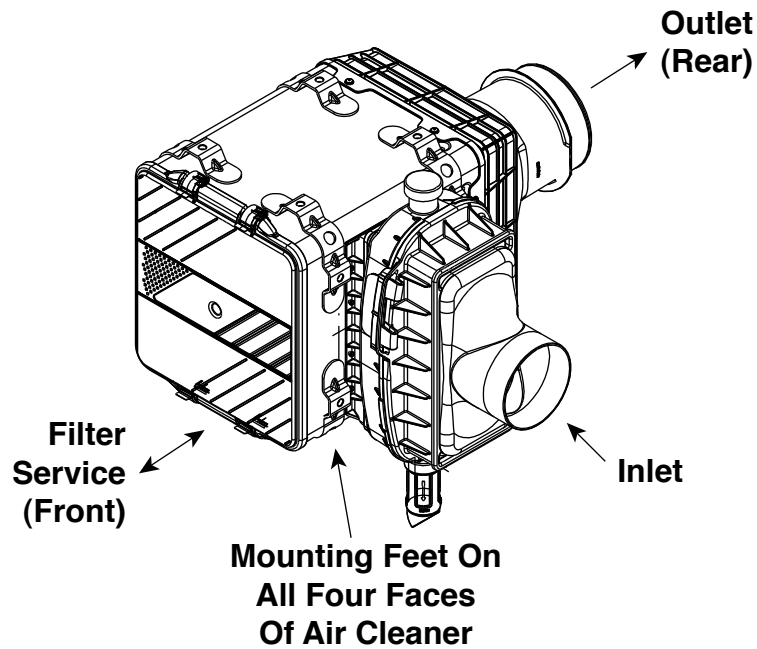
Performance

System Restriction vs Flow Rate



Restriction		Flow Rate	
in H ₂ O	kPa	CFM	m³/min
6	1.5	503	14.24
8	2.0	590	16.71
10	2.5	667	18.89
12	3.0	737	20.87





Specifications

Specification	AH55564
Length, Overall	23.43" (595.1 mm)
Width, Overall	25.00" (635.0 mm)
Height, Overall	21.78" (553.2 mm)
Flow, Min. (2" restriction)	251 CFM (7.11 m ³ /min)
Flow, Max. (12" restriction)	699 CFM (19.79 m ³ /min)
Secondary Element	Yes
Housing Material	Metal/Glass-Filled Polyamide
Pre-cleaner Integral	Yes
Inlet Transition	Yes

Specifications subject to change without notice.

Ordering Information

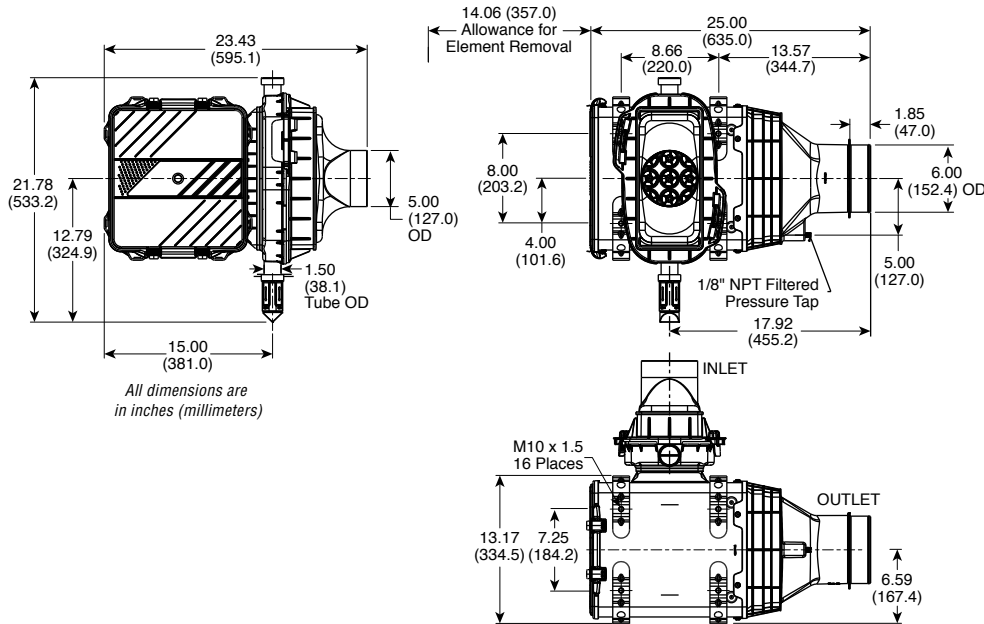
Air Cleaners	
Part Number	Description
AH55564	Direct Flow DF1200C -with Inlet Transition -with Integral Pre-Cleaner

Service Parts	
Part Number	Description
AF55015	Primary Element
AF55309	Secondary Element
SP01003	Service Door
SP01004	Service Kit: DEV Tube, DEV Cap, J-Clips (4)

Accessories	
Part Number	Description
3316658 S	4" Band Clamp
3316660 S	5" Band Clamp
3316662 S	6" Band Clamp
3316608 S	4" Hump Hose
3316610 S	5" Hump Hose
3316612 S	6" Hump Hose
3316568 S	4" 90° Elbow

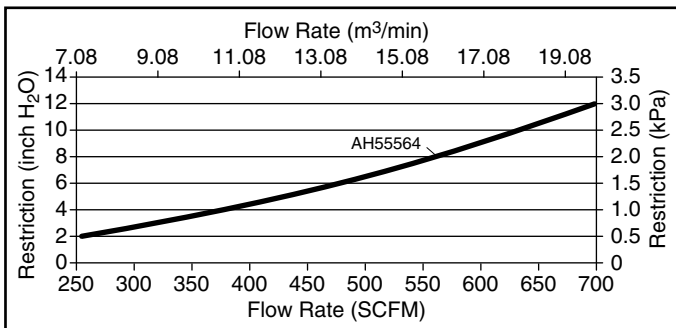
Accessories	
Part Number	Description
3316570 S	5" 90° Elbow
3316573 S	6" 90° Elbow
3316589 S	6" to 5" Reducing Elbow
3316618 S	5" to 4" Hump Hose Reducer
3316621 S	6" to 5" Hump Hose Reducer
3946466 S	Weather Hood
3946329 S	Restriction Indicator

Dimensions



Performance

System Restriction vs Flow Rate



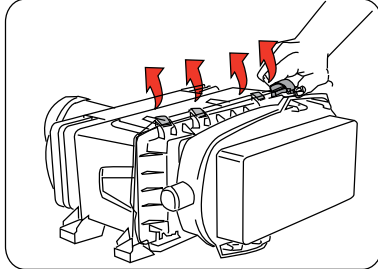
Restriction		Flow Rate	
in H ₂ O	kPa	CFM	m ³ /min
6	1.5	478	13.54
8	2.0	560	15.86
10	2.5	633	17.93
12	3.0	699	19.79



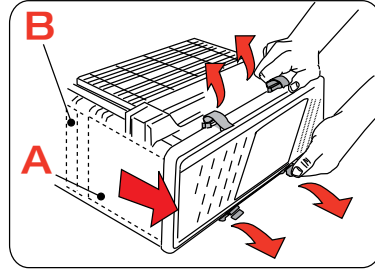
Servicing the Direct Flow™ Air Cleaners

1. Open the metal latches to remove the service cover.

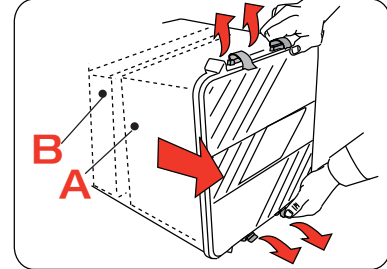
DF600 Element Size



DF900 Element Size



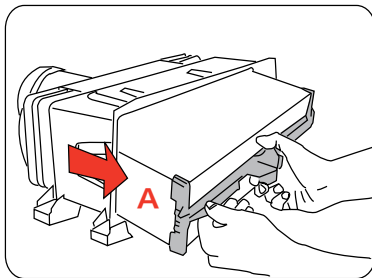
DF1200 Element Size



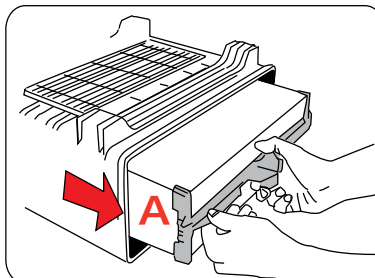
1

2. Remove the primary element. .

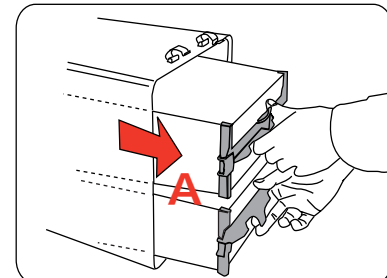
DF600 Element Size



DF900 Element Size



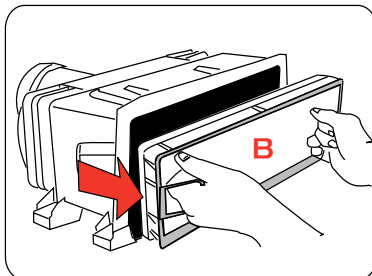
DF1200 Element Size



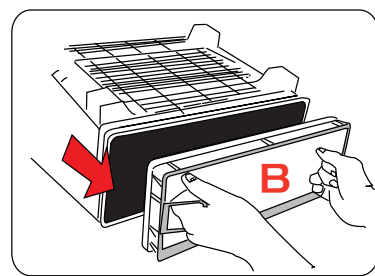
2

3. Remove the secondary element. .

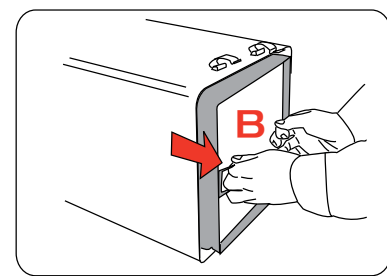
DF600 Element Size



DF900 Element Size



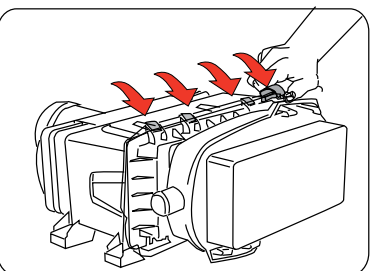
DF1200 Element Size



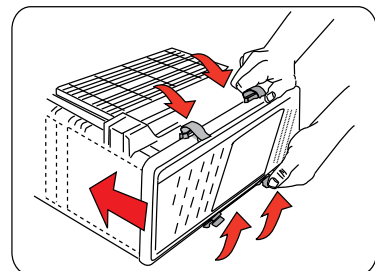
3

4. Replace the primary and secondary elements in the same order and close the metal latches. .

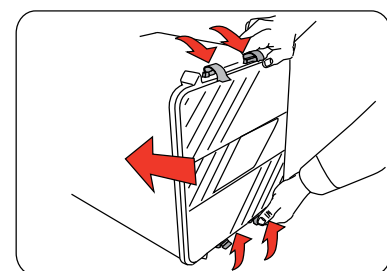
DF600 Element Size



DF900 Element Size



DF1200 Element Size



4

Direct Flow™ Frequently Asked Questions

Why are two types of Direct Flow™ models available?

The Cummins applied models are manufactured with a TBAP (Temperature Barometric Air Pressure) sensor that is tailored for specifics of a Cummins applied engine system. The standard models are manufactured for a broader range of systems.

How is Direct Flow™ different from a traditional cylindrical air cleaner?

The Direct Flow filter element utilizes a rectangular “V-Block” configuration which allows the filter media to be packaged in a smaller volume, improving performance while reducing size. The rectangular design allows the Direct Flow air cleaner to take advantage of the wasted space in the inner diameter of the conventional air cleaner. The benefits of Direct Flow system are an increase in total dust holding capacity and a decrease in size. These features allow for a longer service interval, less maintenance and vehicle down time, a lower cost of ownership, and the ability to mount the air cleaner in location previously unobtainable with a conventional air cleaner. The Direct Flow air cleaner also includes an integrated pre-cleaner and integrated mounting feet.

How long will it last?

The Direct Flow™ air cleaner has been designed to package the optimal amount of filter media in the smallest volume, increasing life and service interval. Compared to an equivalent traditional cylindrical air cleaner, the Direct Flow air cleaner will outperform and outlast conventional cylindrical air cleaners.

Where can I get replacement Elements?

Direct Flow aftermarket replacement filter elements and service parts will be available at hundreds of Cummins Filtration® and Fleetguard® worldwide retail locations. Visit cumminsfiltration.com for the nearest location.

How do I mount this air cleaner?

The Direct Flow air cleaners have integrated mounting feet on both the top and bottom sides of the housing which allow for easier and more convenient installations. Additional mounting band clamps are no longer required as compared to the conventional cylindrical air cleaners. The Direct Flow air cleaner can be mounted either vertically or horizontally.

What does the sensor do?

The sensor is located in the outlet of the air cleaner housing, which provides a consistent location for the sensor while communicating air flow data to the ECM, optimizing engine and system performance.

Why is Direct Flow required for Tier 4?

The Direct Flow air cleaner has been designed and integrated with the Cummins Engine Business in order to understand and match the engine performance requirements and industrial specifications for the air intake system. The sensor must be mounted at a specific location in the airstream for accurate calculations, therefore, the Direct Flow housing has been specifically designed to minimize variation and achieve optimized system performance.

What does a pre-cleaner do?

A pre-cleaner is used to remove about 75% of all incoming dust from reaching the filter element. A pre-cleaner uses centrifugal force to move dust particles out of the air stream and then expels these particles back into the environment.

What is aspiration?

Aspirating the air cleaner increases the efficiency of the pre-cleaner by pulling a small vacuum and extracting the large dust particles from the pre-cleaner. Typically, the efficiency of most pre-cleaners is 75%, an aspirated pre-cleaner is normally 90% efficient. This increase in efficiency increases the life of the filter element about 250%. Aspirating the air cleaner is done by installing an aspirator within the exhaust flow; the aspirator uses a venturi to create a pressure differential which provides the vacuum pressure to the air cleaner. For more information, contact Technical Assistance at 1-800-22FILTER.

Can Direct Flow™ be used for Tier 3 applications?

Absolutely. The Direct Flow™ air cleaner has been designed to operate in any air filtration environment.

Innovative Design Meets All OEM Requirements

Cummins Filtration® has revolutionized air filtration design with the introduction of its patented Fleetguard® OptiAir™ technology. OptiAir systems address key design requirements of all equipment manufacturers:

- Reduction in system size to fit shrinking engine compartments
- Higher dust holding capacity to extend service intervals
- Two-stage air housing design to extend filter life
- Lower system restriction to deliver maximum engine performance
- Reduced service time to lower maintenance costs
- Secondary element optional



OptiAir™ Air Cleaners

The OptiAir Advantage

Outlet Options
Systems available in both straight and 90° rotatable designs

Pressure Tap
Easy-to-install filter restriction gauge option

Highly Durable Resin Construction
Plastic or metal mounting options

Optional Secondary Element Design
Added engine protection

Quick reference Service Label
Replacement filter information

Two-Stage Air Housing Design
Removes large particulates, extending filter life

Mono Latch Twist Lock™ Cover with Multi-Locking Positions
Installation flexibility, easy to service, reduced maintenance time

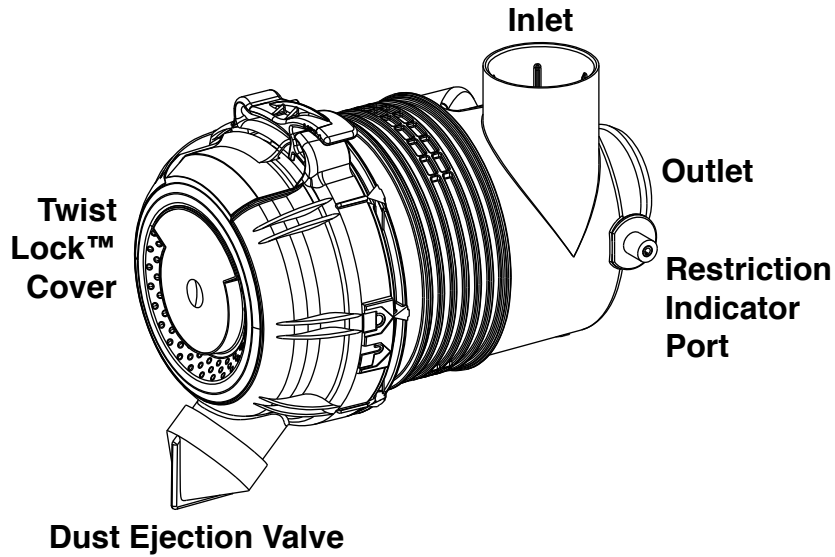
Dust Ejection Valve
Removal of large particulates and moisture

Increased Filter Media Area
Greater capacity - longer filter life

Increased Outlet Area
Increased area resulting in reduced restriction

Highly Resistant Urethane Seal
Excellent sealing capacity





Specifications

Specification	AH19474	AH19496
Length Overall	9.3" (237.1 mm)	9.3" (237.1 mm)
Cover OD	5.6" (141.6 mm)	5.6" (141.6 mm)
Flow, Min. (2" restriction)	38 CFM (1.1 m ³ /min)	30 CFM (0.8 m ³ /min)
Flow, Max. (12" restriction)	102 CFM (2.9 m ³ /min)	83 CFM (2.4 m ³ /min)
Secondary Element	No	Yes
Housing Material	Glass-Filled Polypropylene	Glass-Filled Polypropylene
Pre-Cleaner Integral	Yes	Yes
Outlet	Straight	Straight

Dust Holding Capacity per Cummins® Specification

Specification	AH19474	AH19496
Allowable Flow for 10 g/CFM	< 63 CFM (1.8 m ³ /min)	< 57 CFM (1.6 m ³ /min)
Allowable Flow for 25 g/CFM	< 35 CFM (1.0 m ³ /min)	< 34 CFM (1.0 m ³ /min)

Specifications subject to change without notice.

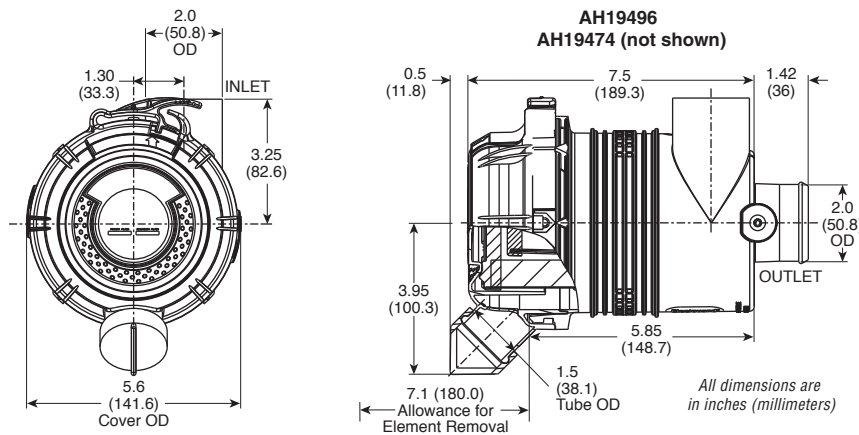
Ordering Information

Air Cleaners	
Part Number	Description
AH19474	OptiAir™ 400 Series Air Cleaner – without Secondary Element – with Straight Outlet
AH19496	OptiAir 400 Series Air Cleaner – with Secondary Element – with Straight Outlet

Accessories	
Part Number	Description
3918199 S	Mounting Bracket
1	No. of Brackets Required
3316653 S	Outlet Band Clamps
3918194 S	Weather Hood
N/A	Hump-Hose
3316564 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

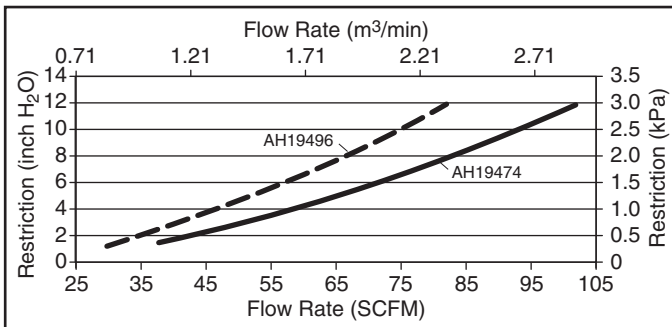
Service Parts	
Part Number	Description
AF26116	Primary Element
N/A	Magnum Primary Element
AF26350	Secondary Element
3946457 S	Dust Ejection Valve
3946459 S	Cover Assembly

Dimensions

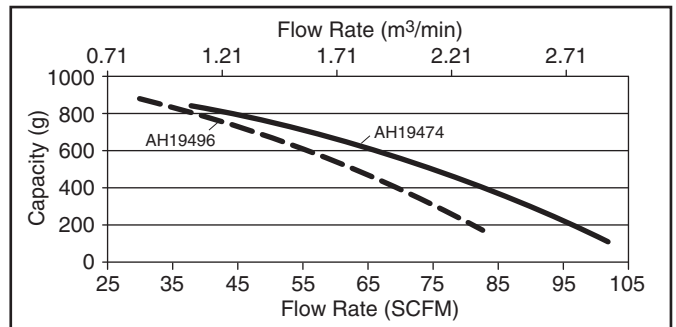


Performance

System Restriction vs Flow Rate

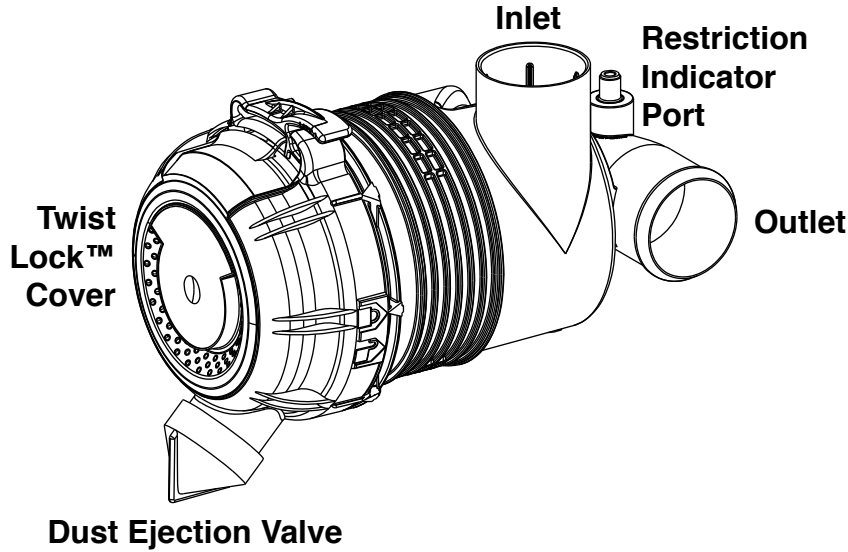


Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	70 (55)	1.98 (1.56)	571 (610)
8	2.0	82 (65)	2.32 (1.84)	420 (465)
10	2.5	93 (74)	2.63 (2.10)	257 (329)
12	3.0	102 (83)	2.89 (2.35)	115 (170)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction



Specifications

Specification	AH19485	AH19484
Length Overall	10.4" (263.3 mm)	10.4" (263.3 mm)
Cover OD	5.6" (141.6 mm)	5.6" (141.6 mm)
Flow, Min. (2" restriction)	35 CFM (1.0 m ³ /min)	25 CFM (0.7 m ³ /min)
Flow, Max. (12" restriction)	92 CFM (2.6 m ³ /min)	80 CFM (2.3 m ³ /min)
Secondary Element	No	Yes
Housing Material	Glass-Filled Polypropylene	Glass-Filled Polypropylene
Pre-cleaner Integral	Yes	Yes
Outlet	90° Elbow	90° Elbow

Dust Holding Capacity per Cummins® Specification

Specification	AH19485	AH19484
Allowable Flow for 10 g/CFM	< 57 CFM (1.6 m ³ /min)	< 55 CFM (1.6 m ³ /min)
Allowable Flow for 25 g/CFM	< 32 CFM (0.9 m ³ /min)	< 31 CFM (0.9 m ³ /min)

Specifications subject to change without notice.

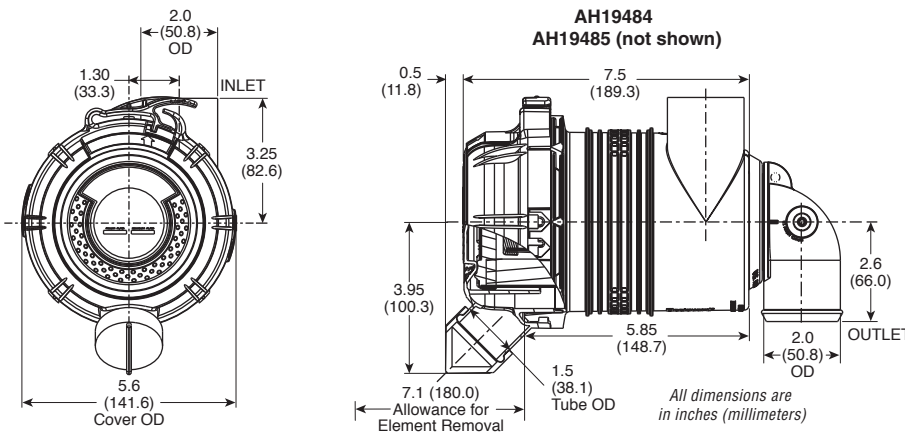
Ordering Information

Air Cleaners	
Part Number	Description
AH19485	OptiAir™ 400 Series Air Cleaner – without Secondary Element – with 90° Outlet
AH19484	OptiAir 400 Series Air Cleaner – with Secondary Element – with 90° Outlet

Accessories	
Part Number	Description
3918199 S	Mounting Bracket
1	No. of Brackets Required
3316653 S	Outlet Band Clamps
3918194 S	Weather Hood
N/A	Hump-Hose
3316564 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

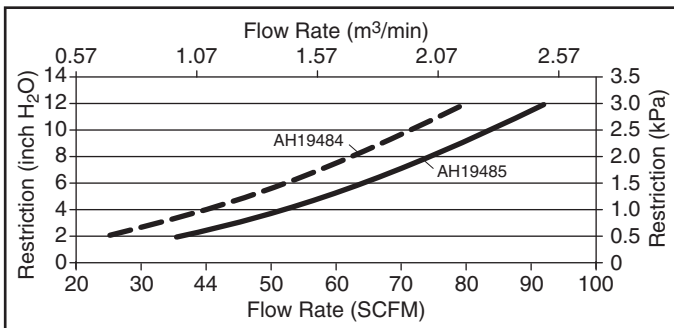
Service Parts	
Part Number	Description
AF26116	Primary Element
N/A	Magnum Primary Element
AF26350	Secondary Element
3946457 S	Dust Ejection Valve
3946459 S	Cover Assembly

Dimensions

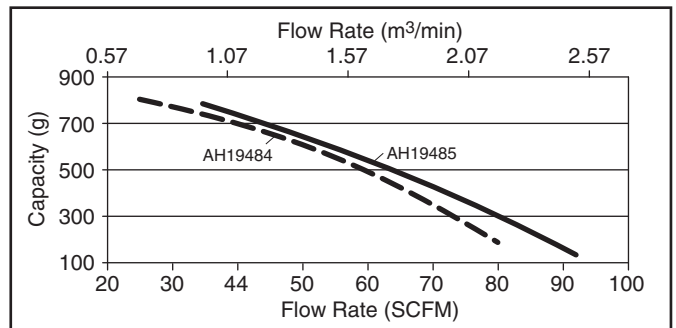


Performance

System Restriction vs Flow Rate

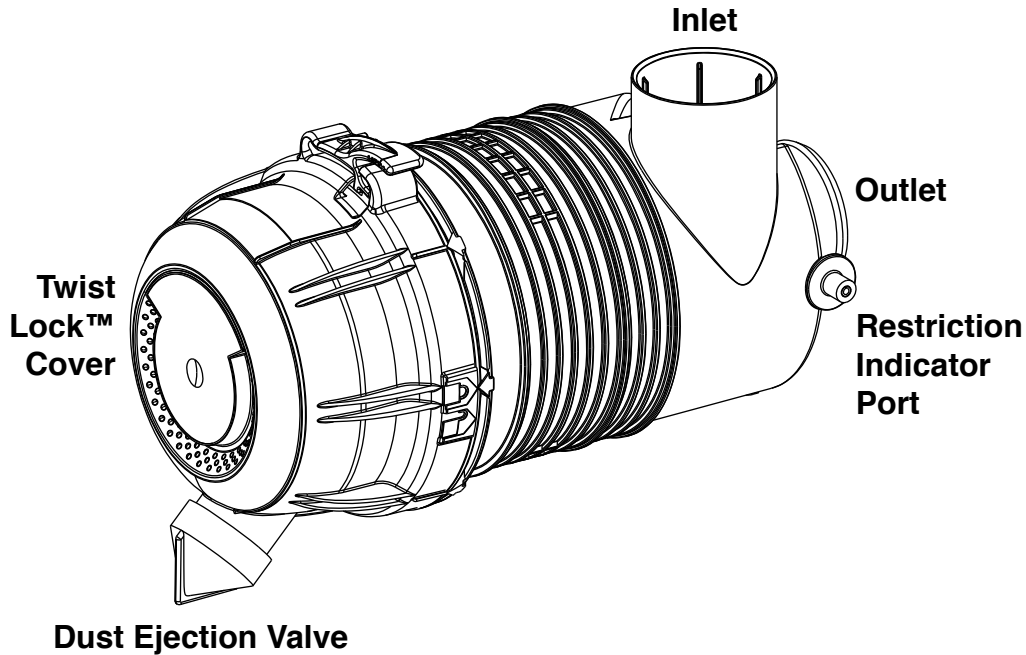


Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	64 (52)	1.81 (1.47)	502 (580)
8	2.0	75 (63)	2.12 (1.78)	364 (450)
10	2.5	84 (72)	2.38 (2.04)	250 (320)
12	3.0	92 (80)	2.61 (2.27)	135 (190)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction



Specifications

Specification	AH19483	AH19482
Length Overall	13.1" (332.3 mm)	13.1" (332.3 mm)
Cover OD	6.5" (166.0 mm)	6.5" (166.0 mm)
Flow, Min. (2" restriction)	60 CFM (1.7 m ³ /min)	45 CFM (1.3 m ³ /min)
Flow, Max. (12" restriction)	163 CFM (4.6 m ³ /min)	120 CFM (3.4 m ³ /min)
Secondary Element	No	Yes
Housing Material	Glass-Filled Polypropylene	Glass-Filled Polypropylene
Pre-cleaner Integral	Yes	Yes
Outlet	Straight	Straight

Dust Holding Capacity per Cummins® Specification

Specification	AH19483	AH19482
Allowable Flow for 10 g/CFM	< 141 CFM (4.0 m ³ /min)	< 116 CFM (3.3 m ³ /min)
Allowable Flow for 25 g/CFM	< 85 CFM (2.4 m ³ /min)	< 74 CFM (2.1 m ³ /min)

Specifications subject to change without notice.



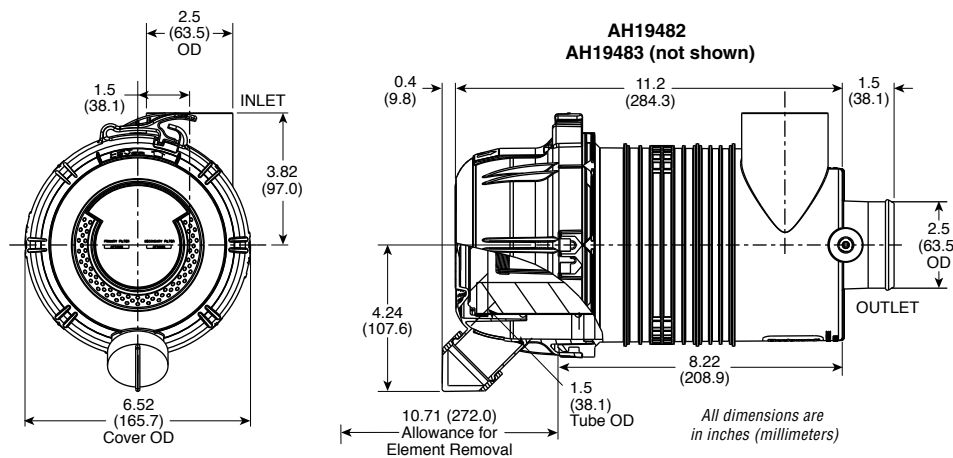
Ordering Information

Air Cleaners	
Part Number	Description
AH19483	OptiAir™ 500 Series Air Cleaner – without Secondary Element – with Straight Outlet
AH19482	OptiAir 500 Series Air Cleaner – with Secondary Element – with Straight Outlet

Accessories	
Part Number	Description
3918198 S	Mounting Bracket
1	No. of Brackets Required
3316654 S	Outlet Band Clamps
3918193 S	Weather Hood
N/A	Hump-Hose
3316565 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

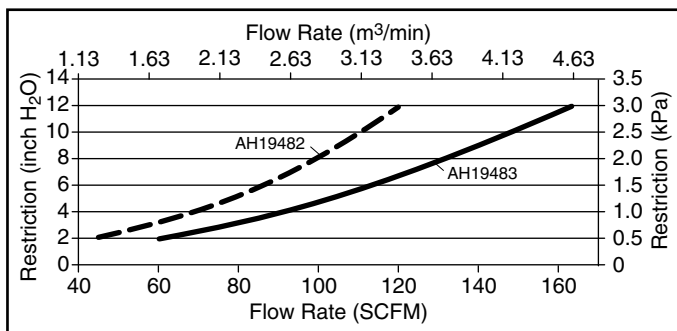
Service Parts	
Part Number	Description
AF26168	Primary Element
N/A	Magnum Primary Element
AF26351	Secondary Element
3946457 S	Dust Ejection Valve
3946460 S	Cover Assembly

Dimensions

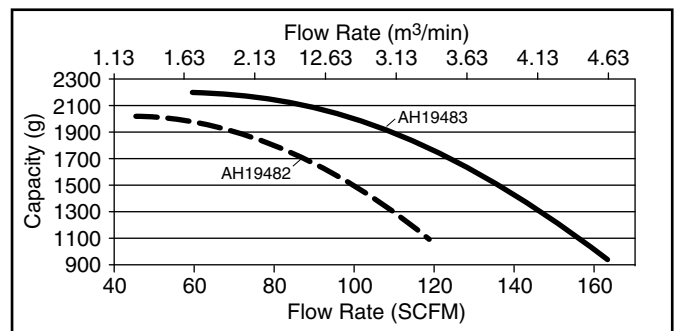


Performance

System Restriction vs Flow Rate



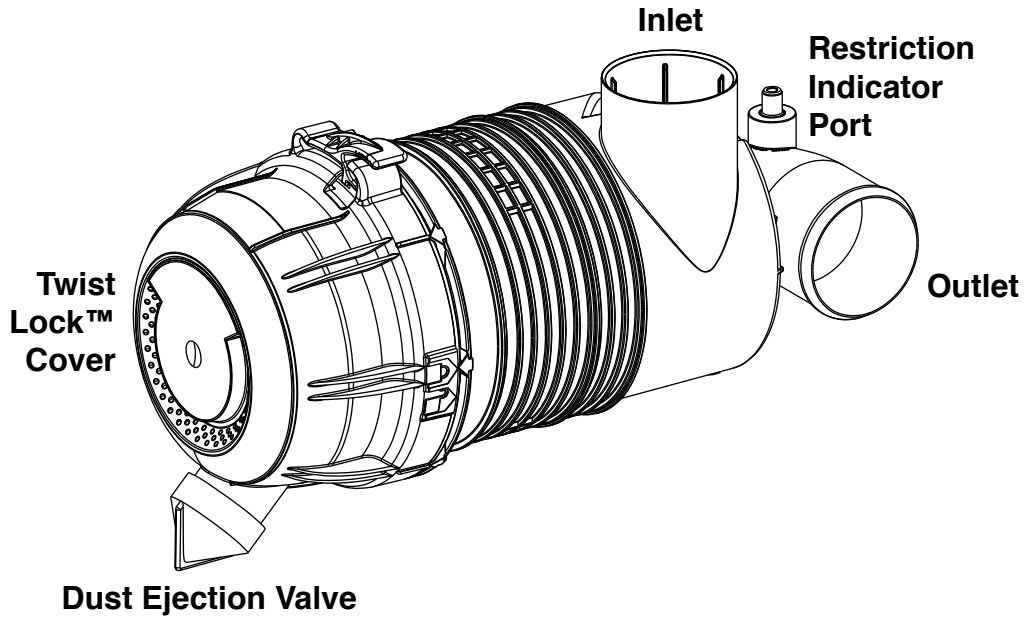
Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	112 (87)	3.17 (2.46)	1845 (1700)
8	2.0	132 (100)	3.74 (2.83)	1585 (1465)
10	2.5	147 (111)	4.16 (3.14)	1300 (1285)
12	3.0	163 (120)	4.62 (3.40)	930 (1050)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19487	AH19486
Length Overall	14.5" (368.3 mm)	14.5" (368.3 mm)
Cover OD	6.5" (166.0 mm)	6.5" (166.0 mm)
Flow, Min. (2" restriction)	70 CFM (2.0 m ³ /min)	40 CFM (1.1 m ³ /min)
Flow, Max. (12" restriction)	145 CFM (4.1 m ³ /min)	110 CFM (3.1 m ³ /min)
Secondary Element	No	Yes
Housing Material	Glass-Filled Polypropylene	Glass-Filled Polypropylene
Pre-cleaner Integral	Yes	Yes
Outlet	90° Elbow	90° Elbow

Dust Holding Capacity per Cummins® Specification

Specification	AH19487	AH19486
Allowable Flow for 10 g/CFM	< 127 CFM (3.6 m ³ /min)	< 105 CFM (3.0 m ³ /min)
Allowable Flow for 25 g/CFM	< 85 CFM (2.4 m ³ /min)	< 79 CFM (2.2 m ³ /min)

Specifications subject to change without notice.

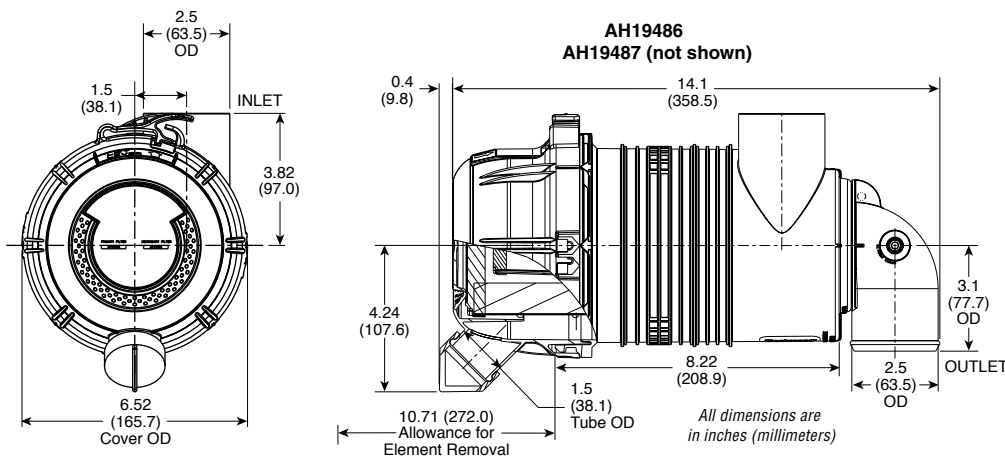
Ordering Information

Air Cleaners	
Part Number	Description
AH19487	OptiAir™ 500 Series Air Cleaner – without Secondary Element – with 90° Outlet
AH19486	OptiAir 500 Series Air Cleaner – with Secondary Element – with 90° Outlet

Accessories	
Part Number	Description
3918198 S	Mounting Bracket
1	No. of Brackets Required
3316654 S	Outlet Band Clamps
3918193 S	Weather Hood
N/A	Hump-Hose
3316565 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

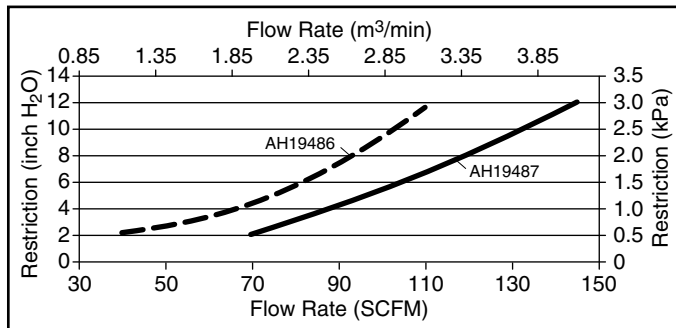
Service Parts	
Part Number	Description
AF26168	Primary Element
N/A	Magnum Primary Element
AF26351	Secondary Element
3946457 S	Dust Ejection Valve
3946460 S	Cover Assembly

Dimensions

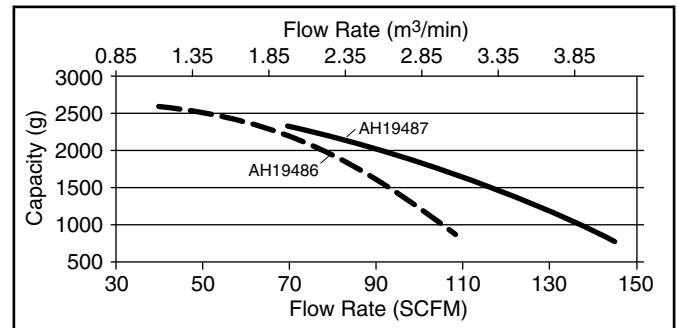


Performance

System Restriction vs Flow Rate

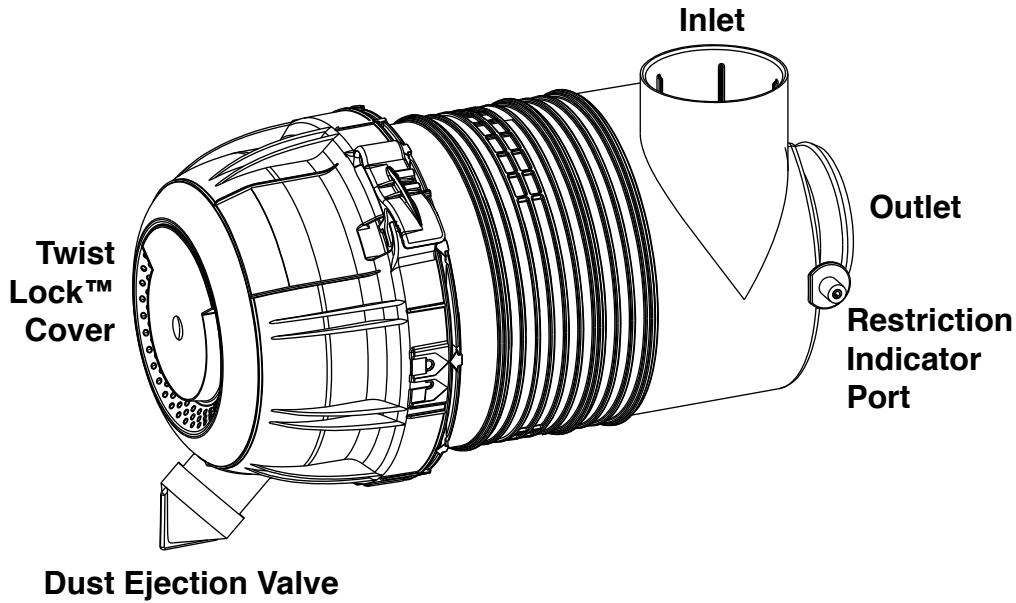


Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	105 (81)	2.97 (2.29)	1747 (1880)
8	2.0	119 (96)	3.37 (2.72)	1470 (1420)
10	2.5	134 (105)	3.79 (2.97)	1130 (1040)
12	3.0	145 (110)	4.11 (3.11)	750 (800)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction



Specifications

Specification	AH19476	AH19477
Length Overall	14.8" (375.1 mm)	14.8" (375.1 mm)
Cover OD	7.6" (193.7 mm)	7.6" (193.7 mm)
Flow, Min. (2" restriction)	98 CFM (2.8 m ³ /min)	80 CFM (2.3 m ³ /min)
Flow, Max. (12" Restriction)	240 CFM (6.8 m ³ /min)	206 CFM (5.8 m ³ /min)
Secondary Element	No	Yes
Housing Material	Glass-Filled Polypropylene	Glass-Filled Polypropylene
Pre-cleaner Integral	Yes	Yes
Outlet	Straight	Straight

Dust Holding Capacity per Cummins® Specification

Specification	AH19476	AH19477
Allowable Flow for 10 g/CFM	< 212 CFM (6.0 m ³ /min)	< 191 CFM (5.4 m ³ /min)
Allowable Flow for 25 g/CFM	< 135 CFM (3.8 m ³ /min)	< 126 CFM (3.6 m ³ /min)

Specifications subject to change without notice.

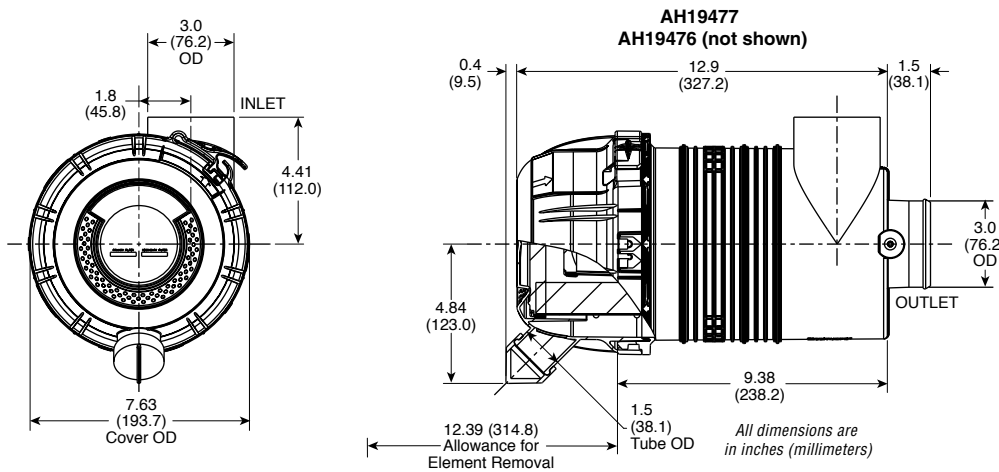
Ordering Information

Air Cleaners	
Part Number	Description
AH19476	OptiAir™ 600 Series Air Cleaner – without Secondary Element – with Straight Outlet
AH19477	OptiAir 600 Series Air Cleaner – with Secondary Element – with Straight Outlet

Accessories	
Part Number	Description
3918196 S	Mounting Bracket
1	No. of Brackets Required
3316656 S	Outlet Band Clamps
3946322 S	Weather Hood
3316606 S	Hump-Hose
3316566 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

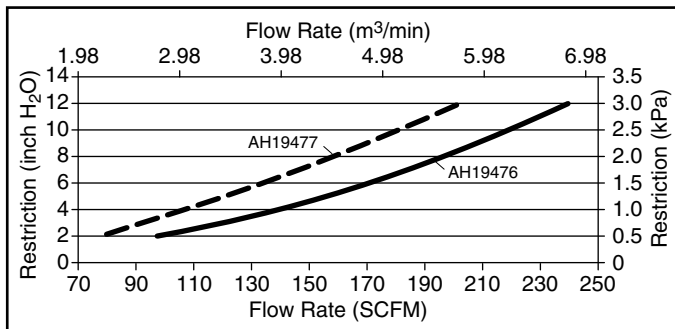
Service Parts	
Part Number	Description
AF26117	Primary Element
N/A	Magnum Primary Element
AF26118	Secondary Element
3946457 S	Dust Ejection Valve
3946461 S	Cover Assembly

Dimensions

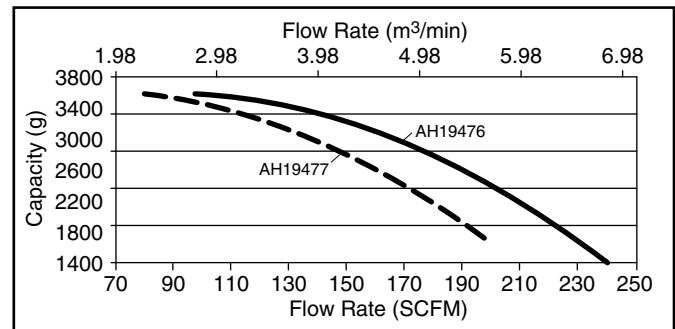


Performance

System Restriction vs Flow Rate



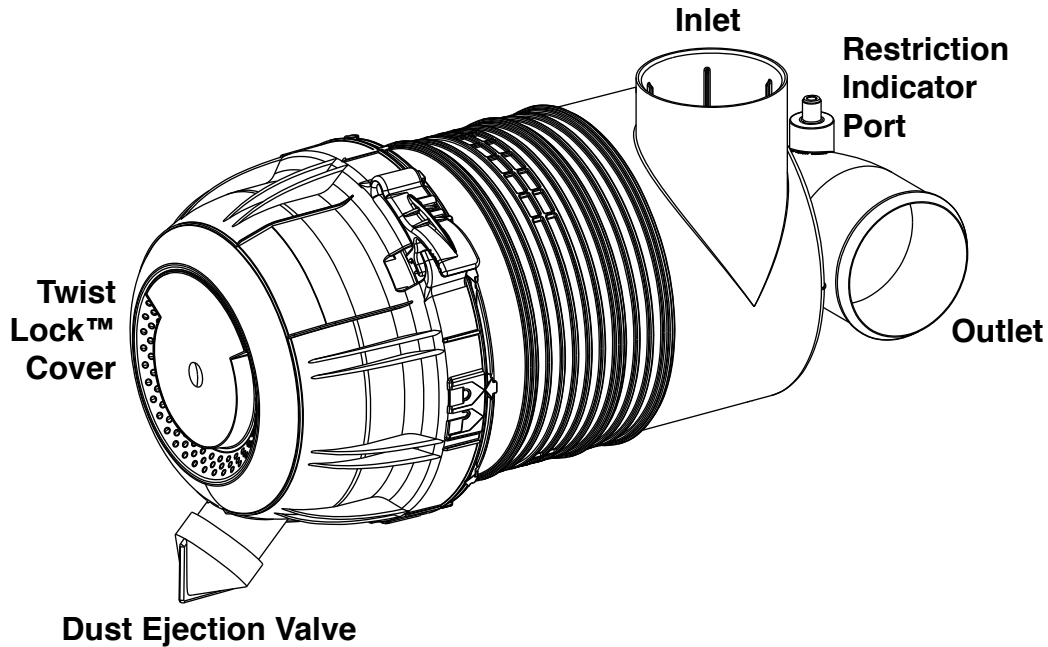
Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m³/min	grams
6	1.5	171 (135)	4.84 (3.82)	2930 (3024)
8	2.0	198 (160)	5.61 (4.53)	2425 (2578)
10	2.5	219 (180)	6.20 (5.10)	1986 (2184)
12	3.0	240 (202)	6.80 (5.72)	1400 (1600)

ISO Coarse Dust
 2.0 g/m³ Feed Rate
 6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19489	AH19488
Length Overall	16.7" (423.3 mm)	16.7" (423.3 mm)
Cover OD	7.6" (193.7 mm)	7.6" (193.7 mm)
Flow, Min. (2" restriction)	85 CFM (2.4 m ³ /min)	70 CFM (2.0 m ³ /min)
Flow, Max. (12" restriction)	213 CFM (6.0 m ³ /min)	175 CFM (5.0 m ³ /min)
Secondary Element	No	Yes
Housing Material	Glass-Filled Polypropylene	Glass-Filled Polypropylene
Pre-cleaner Integral	Yes	Yes
Outlet	90 ° Elbow	90 ° Elbow

Dust Holding Capacity per Cummins® Specification

Specification	AH19489	AH19488
Allowable Flow for 10 g/CFM	< 196 CFM (5.6 m ³ /min)	< 175 CFM (5.0 m ³ /min)*
Allowable Flow for 25 g/CFM	< 132 CFM (3.7 m ³ /min)	< 128 CFM (3.6 m ³ /min)

* Flow rate limited by restriction

Specifications subject to change without notice.

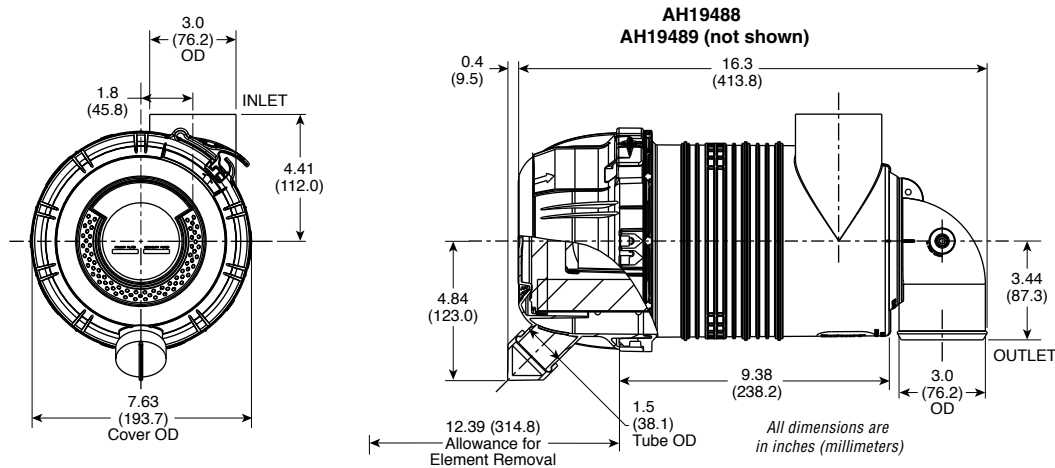
Ordering Information

Air Cleaners	
Part Number	Description
AH19489	OptiAir™ 600 Series Air Cleaner – without Secondary Element – with 90° Outlet
AH19488	OptiAir 600 Series Air Cleaner – with Secondary Element – with 90° Outlet

Accessories	
Part Number	Description
3918196 S	Mounting Bracket
1	No. of Brackets Required
3316656 S	Outlet Band Clamps
3946322 S	Weather Hood
3316606 S	Hump-Hose
3316566 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

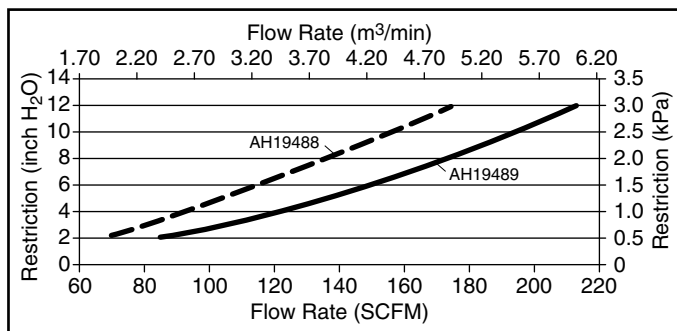
Service Parts	
Part Number	Description
AF26117	Primary Element
N/A	Magnum Primary Element
AF26118	Secondary Element
3946457 S	Dust Ejection Valve
3946461 S	Cover Assembly

Dimensions

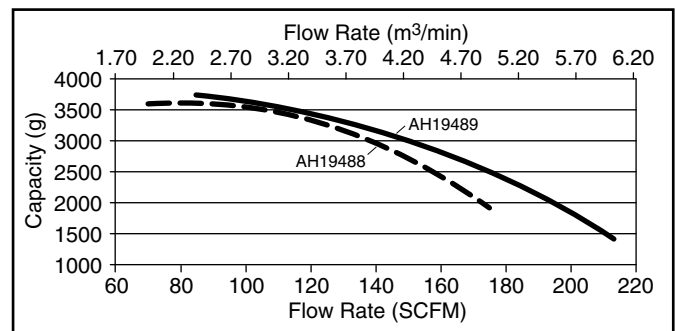


Performance

System Restriction vs Flow Rate

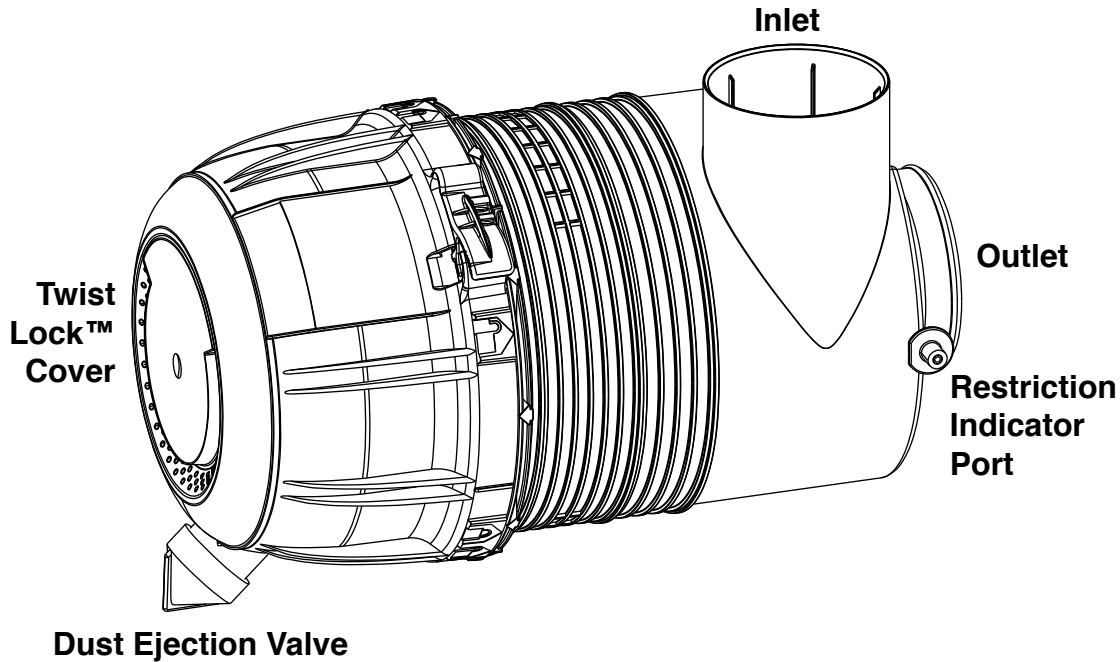


Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	148 (115)	4.19 (3.26)	3000 (3400)
8	2.0	175 (138)	4.96 (3.91)	2459 (3000)
10	2.5	195(157)	5.52 (4.45)	1986 (2510)
12	3.0	213 (175)	6.03 (4.96)	1450 (1925)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction



Specifications

Specification	AH19261	AH19260
Length Overall	16.2" (411.0 mm)	16.2" (411.0 mm)
Cover OD	9.3" (237.0 mm)	9.3" (237.0 mm)
Flow, Min. (2" restriction)	175 CFM (5.0 m ³ /min)	103 CFM (2.9 m ³ /min)
Flow, Max. (12" restriction)	388 CFM (11.0 m ³ /min)	290 CFM (8.2 m ³ /min)
Secondary Element	No	Yes
Housing Material	Glass-Filled Polypropylene	Glass-Filled Polypropylene
Pre-cleaner Integral	Yes	Yes
Outlet	Straight	Straight

Dust Holding Capacity per Cummins® Specification

Specification	AH19261	AH19260
Allowable Flow for 10 g/CFM	< 336 CFM (9.5 m ³ /min)	< 285 CFM (8.1 m ³ /min)
Allowable Flow for 25 g/CFM	< 216 CFM (6.1 m ³ /min)	< 206 CFM (5.8 m ³ /min)

Specifications subject to change without notice.

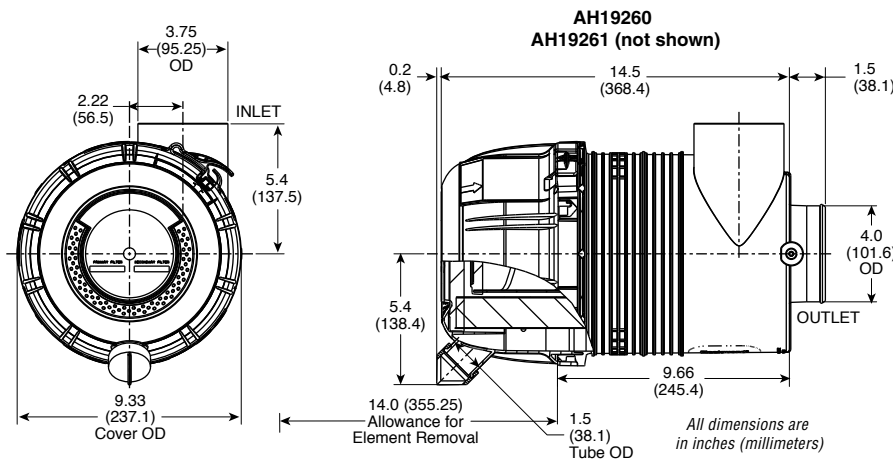
Ordering Information

Air Cleaners	
Part Number	Description
AH19261	OptiAir™ 800 Series Air Cleaner – without Secondary Element – with Straight Outlet
AH19260	OptiAir 800 Series Air Cleaner – with Secondary Element – with Straight Outlet

Accessories	
Part Number	Description
3918197 S	Mounting Bracket
1	No. of Brackets Required
3316658 S	Outlet Band Clamps
3946458 S	Weather Hood
3316608 S	Hump-Hose
3316568 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

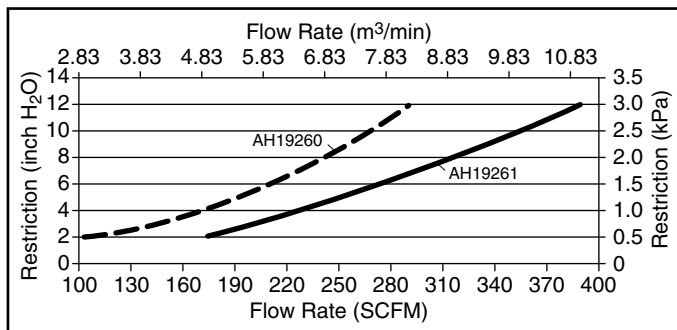
Service Parts	
Part Number	Description
AF25960	Primary Element
N/A	Magnum Primary Element
AF25961	Secondary Element
3946457 S	Dust Ejection Valve
3946462 S	Cover Assembly

Dimensions

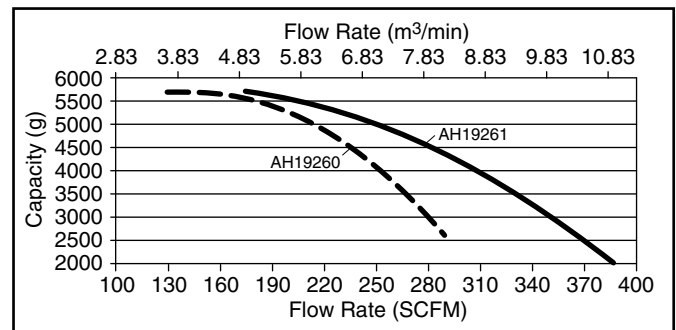


Performance

System Restriction vs Flow Rate

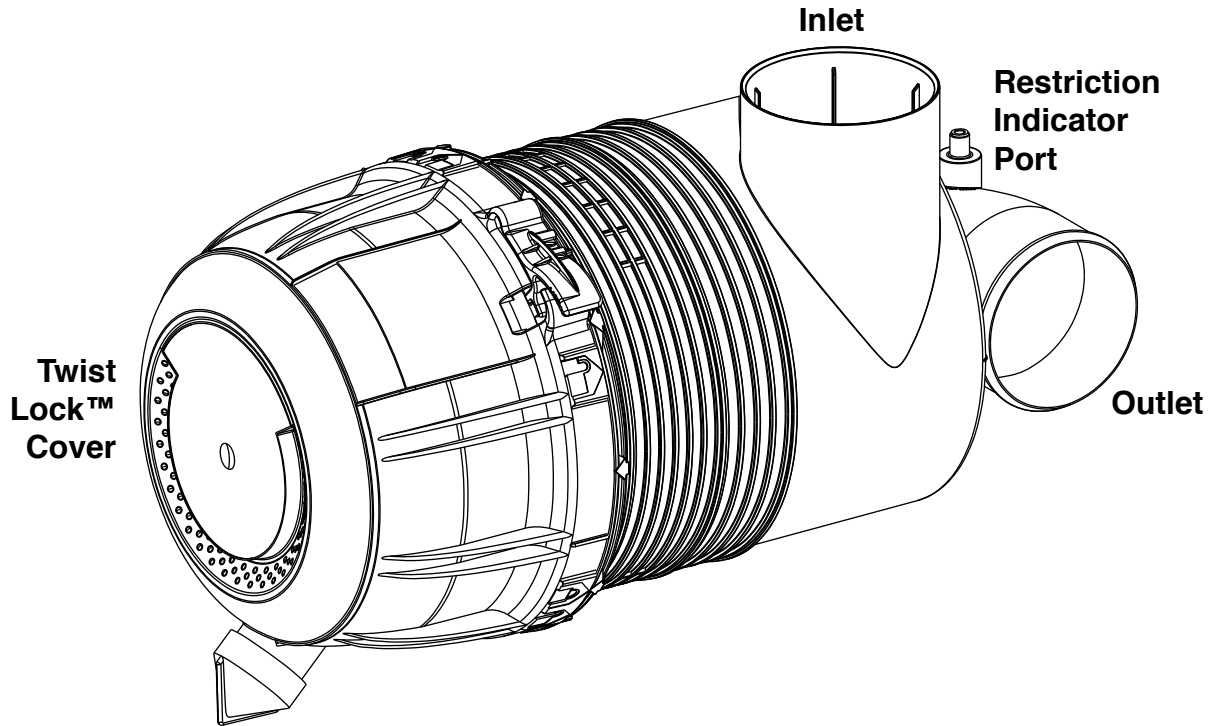


Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	275 (207)	7.79 (5.86)	4583 (5155)
8	2.0	317 (242)	8.98 (6.85)	3857 (4369)
10	2.5	355 (270)	10.05 (7.65)	2844 (3392)
12	3.0	388 (290)	10.99 (8.21)	2012 (2600)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction



Dust Ejection Valve

Specifications

Specification	AH19491	AH19490
Length Overall	18.6" (472.1 mm)	18.6" (472.1 mm)
Cover OD	9.3" (237.0 mm)	9.3" (237.0 mm)
Flow, Min. (2" restriction)	130 CFM (3.7 m ³ /min)	100 CFM (2.8 m ³ /min)
Flow, Max. (12" restriction)	330 CFM (9.3 m ³ /min)	266 CFM (7.5 m ³ /min)
Secondary Element	No	Yes
Housing Material	Glass-Filled Polypropylene	Glass-Filled Polypropylene
Pre-cleaner Integral	Yes	Yes
Outlet	90° Outlet	90° Outlet

Dust Holding Capacity per Cummins® Specification

Specification	AH19491	AH19490
Allowable Flow for 10 g/CFM	< 321 CFM (9.1 m ³ /min)	< 266 CFM (7.5 m ³ /min)*
Allowable Flow for 25 g/CFM	< 212 CFM (6.0 m ³ /min)	< 191 CFM (5.4 m ³ /min)

* Flow rate limited by restriction.

Specifications subject to change without notice.

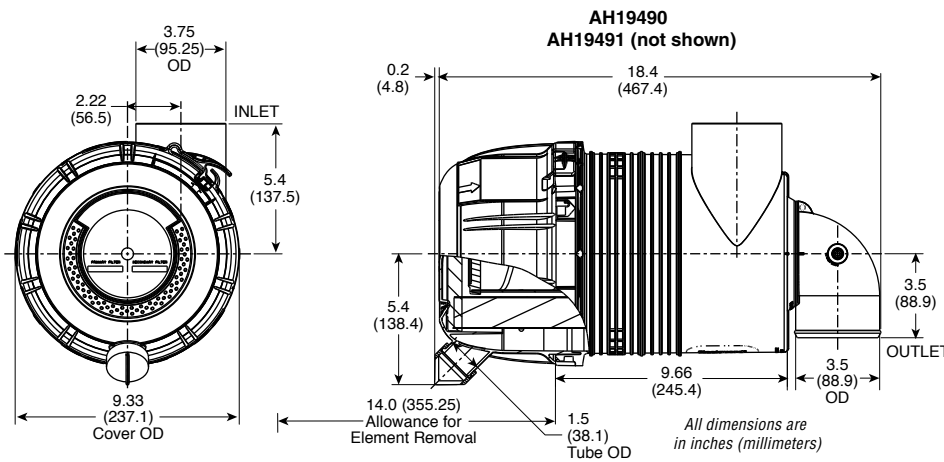
Ordering Information

Air Cleaners	
Part Number	Description
AH19491	OptiAir™ 800 Series Air Cleaner – without Secondary Element – with 90° Outlet
AH19490	OptiAir 800 Series Air Cleaner – with Secondary Element – with 90° Outlet

Accessories	
Part Number	Description
3918197 S	Mounting Bracket
1	No. of Brackets Required
3316657 S	Outlet Band Clamps
3946458 S	Weather Hood
3316608 S	Hump-Hose
3316568 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

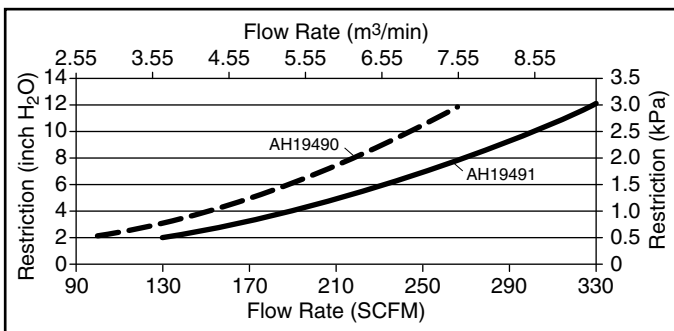
Service Parts	
Part Number	Description
AF25960	Primary Element
N/A	Magnum Primary Element
AF25961	Secondary Element
3946457 S	Dust Ejection Valve
3946462 S	Cover Assembly

Dimensions

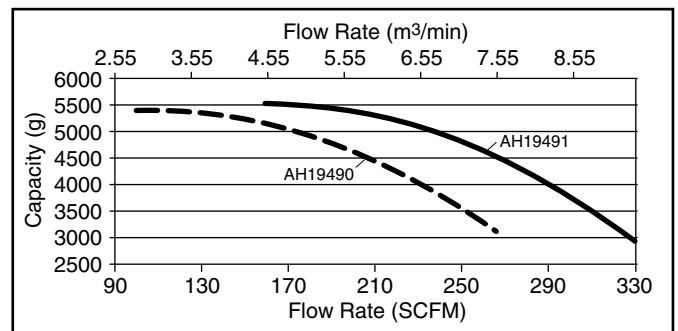


Performance

System Restriction vs Flow Rate



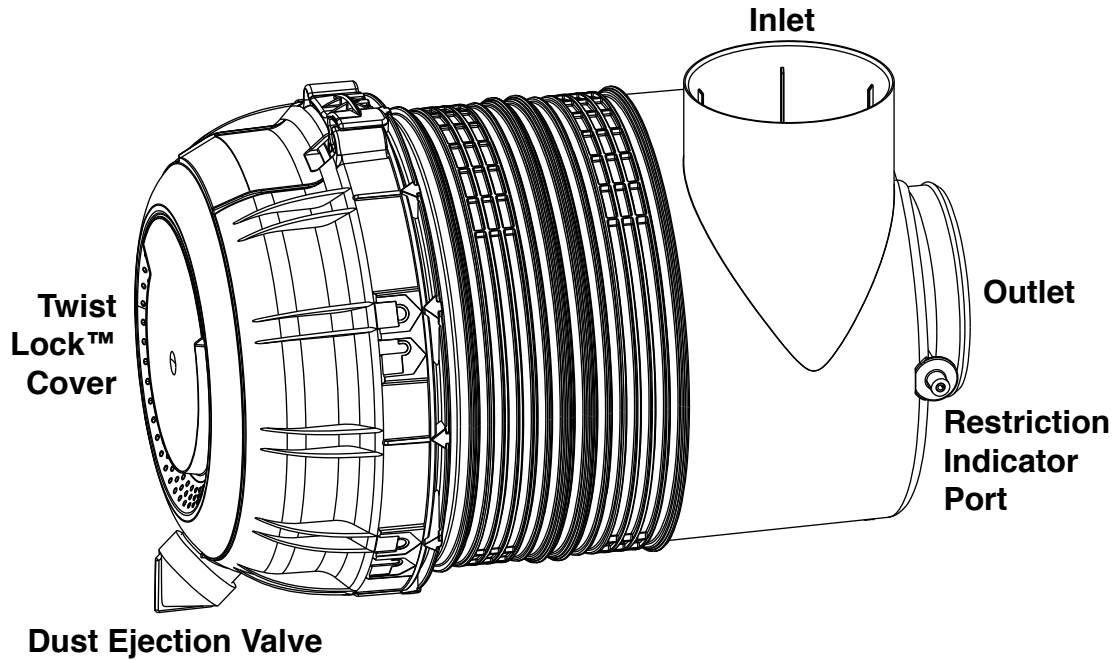
Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	233 (190)	6.60 (5.38)	5095 (4756)
8	2.0	270 (220)	7.65 (6.23)	4525 (4300)
10	2.5	300(247)	8.50 (7.00)	3730(3640)
12	3.0	330 (266)	9.35 (7.53)	2950 (3105)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19478	AH19479
Length Overall	17.4" (442.6 mm)	17.4" (442.6 mm)
Cover OD	10.7" (272.0 mm)	10.7" (272.0 mm)
Flow, Min. (2" restriction)	200 CFM (5.7 m ³ /min)	175 CFM (5.0 m ³ /min)
Flow, Max. (12" restriction)	507 CFM (14.4 m ³ /min)	411 CFM (11.6 m ³ /min)
Secondary Element	No	Yes
Housing Material	Glass-Filled Polypropylene	Glass-Filled Polypropylene
Pre-cleaner Integral	Yes	Yes
Outlet	Straight	Straight

Dust Holding Capacity per Cummins® Specification

Specification	AH19478	AH19479
Allowable Flow for 10 g/CFM	< 489 CFM (13.9 m ³ /min)	< 411 CFM (11.6 m ³ /min)*
Allowable Flow for 25 g/CFM	< 323 CFM (9.1 m ³ /min)	< 315 CFM (8.9 m ³ /min)

* Flow rate limited by restriction.

Specifications subject to change without notice.

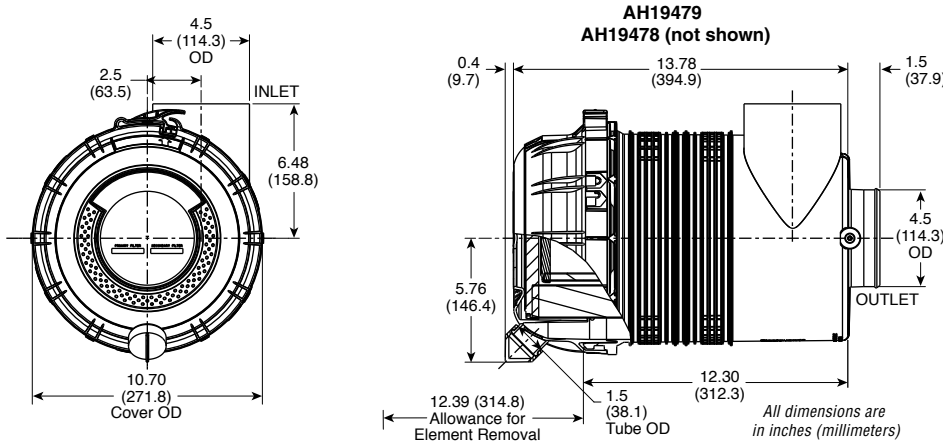
Ordering Information

Air Cleaners	
Part Number	Description
AH19478	OptiAir™ 1000 Series Air Cleaner – without Secondary Element – with Straight Outlet
AH19479	OptiAir 1000 Series Air Cleaner – with Secondary Element – with Straight Outlet

Accessories	
Part Number	Description
3946456 S	Mounting Bracket
2	No. of Brackets Required
3316659 S	Outlet Band Clamps
3946464 S	Weather Hood
3316609 S	Hump-Hose
3316569 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

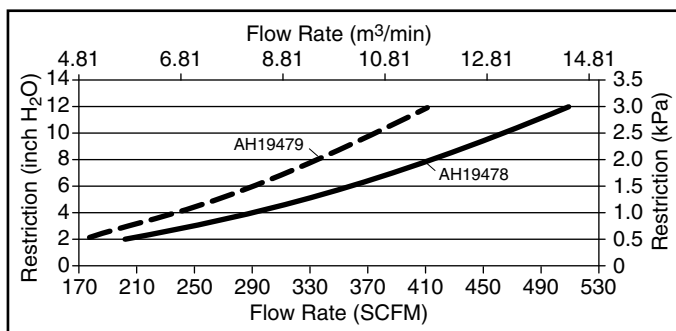
Service Parts	
Part Number	Description
AF26120	Primary Element
N/A	Magnum Primary Element
AF26121	Secondary Element
3946457 S	Dust Ejection Valve
3946463 S	Cover Assembly

Dimensions

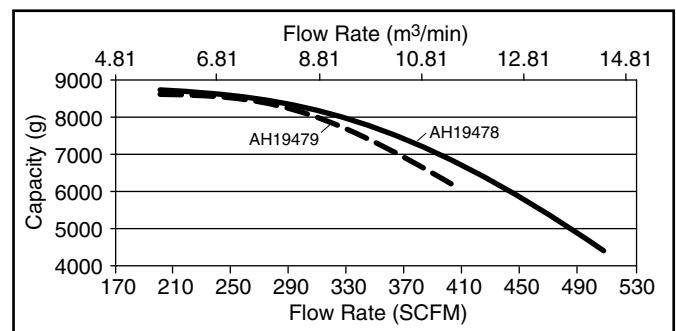


Performance

System Restriction vs Flow Rate

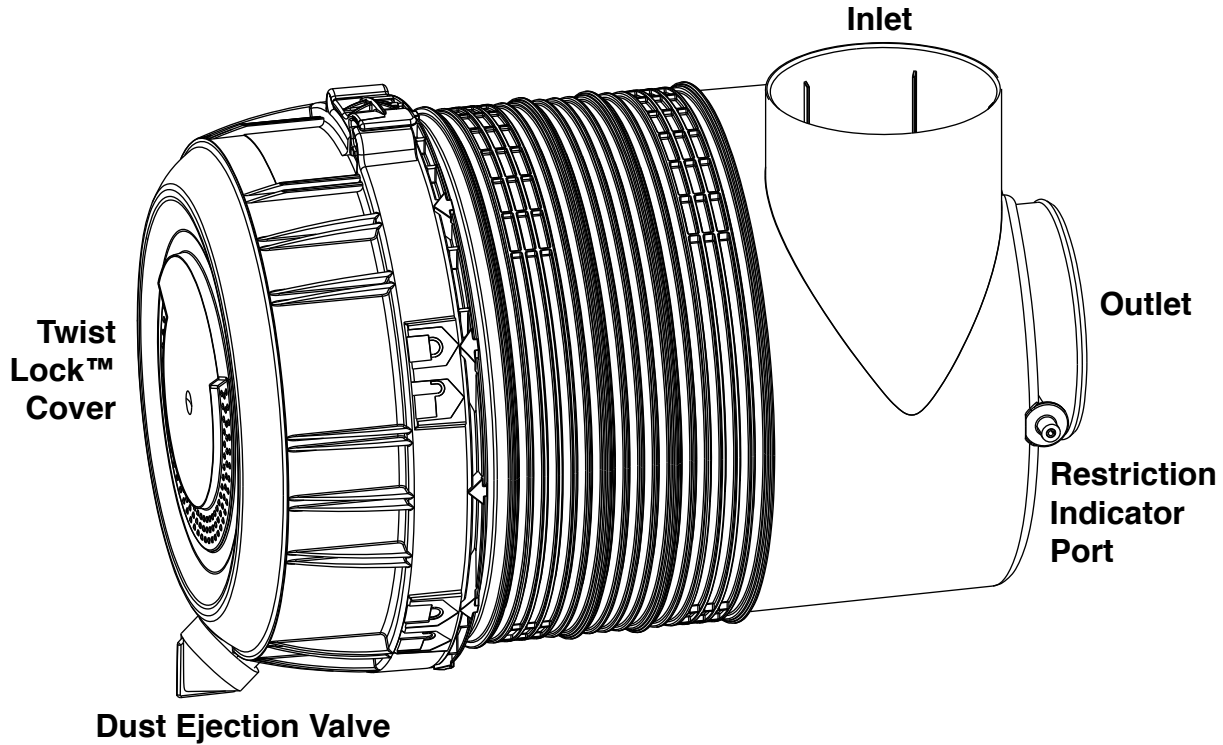


Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	358 (289)	10.14 (8.18)	7670 (8248)
8	2.0	416 (336)	11.78 (9.52)	6590 (7546)
10	2.5	464 (375)	13.14 (10.62)	5535 (6805)
12	3.0	507 (411)	14.36 (11.64)	4400 (5990)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction



Specifications

Specification	AH19333	AH19334
Length Overall	19.2" (489.0 mm)	19.2" (489.0 mm)
Cover OD	12.2" (309.2 mm)	12.2" (309.2 mm)
Flow, Min. (2" restriction)	250 CFM (7.1 m ³ /min)	230 CFM (6.5 m ³ /min)
Flow, Max. (12" restriction)	663 CFM (18.8 m ³ /min)	544 CFM (15.4 m ³ /min)
Secondary Element	No	Yes
Housing Material	Glass-Filled Polypropylene	Glass-Filled Polypropylene
Pre-cleaner Integral	Yes	Yes
Outlet	Straight	Straight

Dust Holding Capacity per Cummins® Specification

Specification	AH19333	AH19334
Allowable Flow for 10 g/CFM	< 663 CFM (18.8 m ³ /min)*	< 544 CFM (15.4 m ³ /min)*
Allowable Flow for 25 g/CFM	< 474 CFM (13.4 m ³ /min)	< 454 CFM (12.9 m ³ /min)

* Flow rate limited by restriction.

Specifications subject to change without notice.

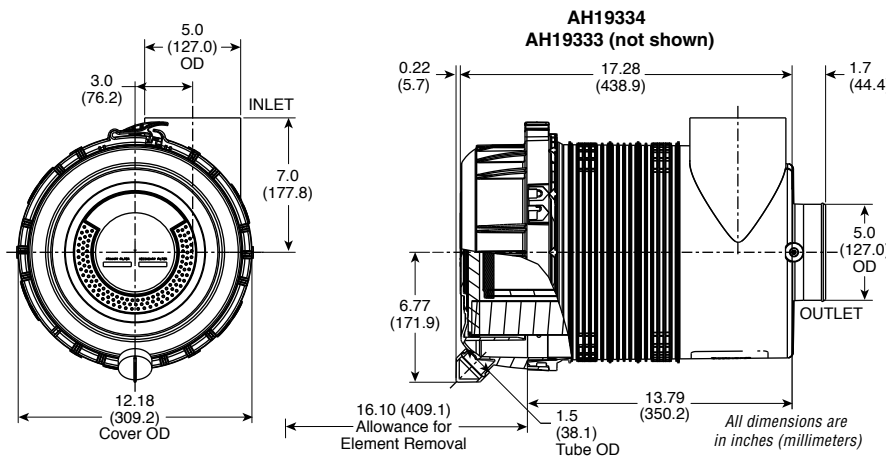
Ordering Information

Air Cleaners	
Part Number	Description
AH19333	OptiAir™ 1100 Series Air Cleaner – without Secondary Element – with Straight Outlet
AH19334	OptiAir 1100 Series Air Cleaner – with Secondary Element – with Straight Outlet

Accessories	
Part Number	Description
3932495 S	Mounting Bracket
2	No. of Brackets Required
3316660 S	Outlet Band Clamps
3946466 S	Weather Hood
3316610 S	Hump-Hose
3316570 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

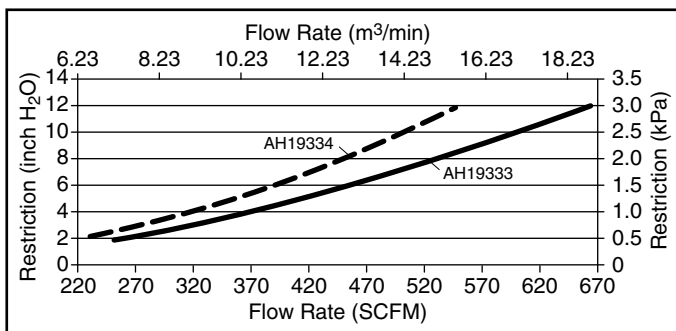
Service Parts	
Part Number	Description
AF25962	Primary Element
N/A	Magnum Primary Element
AF25963	Secondary Element
3946457 S	Dust Ejection Valve
3946465 S	Cover Assembly

Dimensions

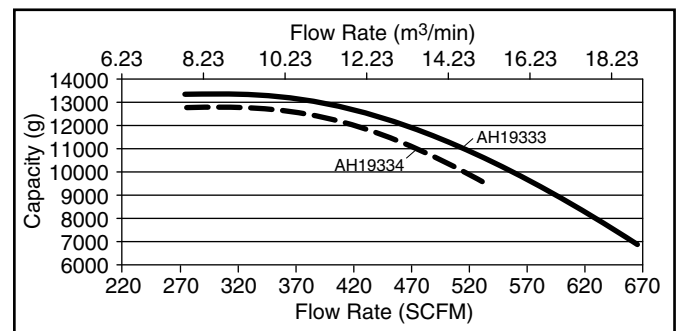


Performance

System Restriction vs Flow Rate

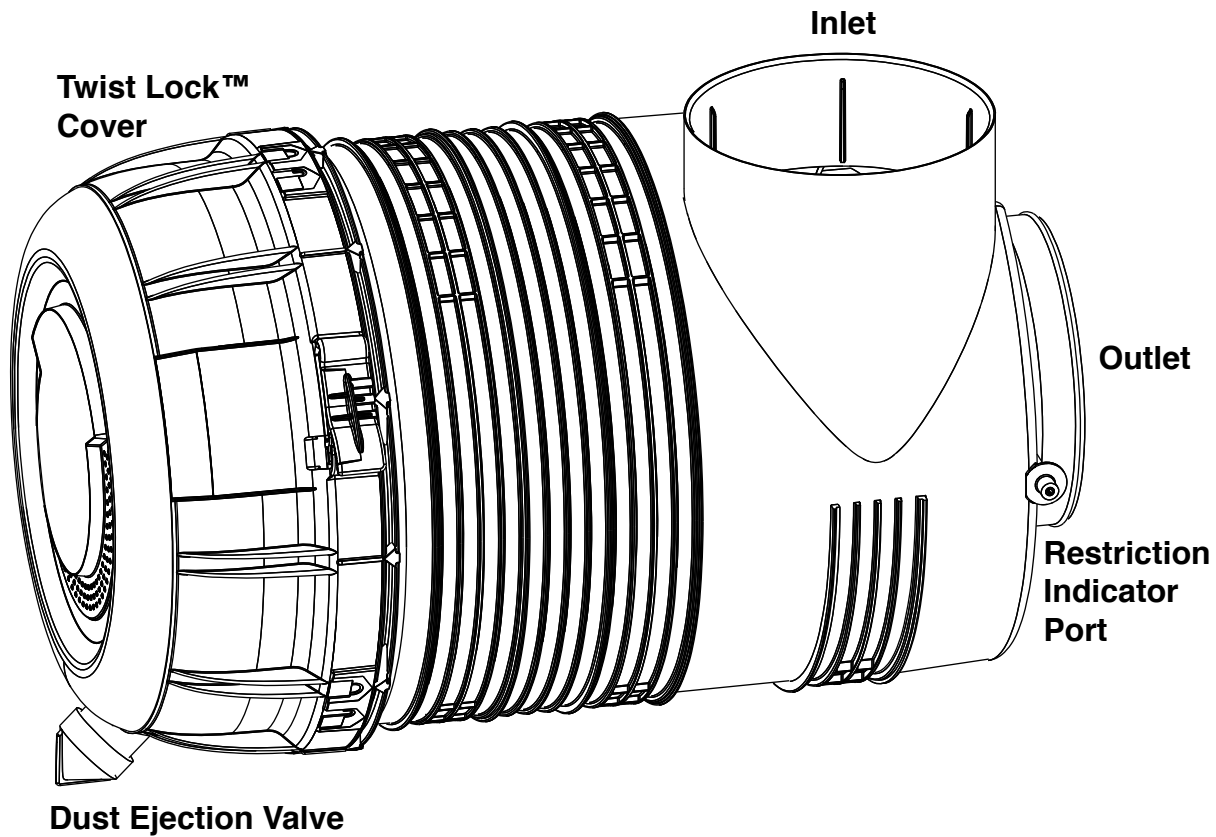


Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	454 (390)	12.86 (11.04)	12230 (12300)
8	2.0	532 (451)	15.07 (12.77)	10700 (11580)
10	2.5	600 (510)	16.99 (14.44)	8951 (10162)
12	3.0	663 (544)	18.78 (15.41)	7000 (9200)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction



Specifications

Specification	AH19480	AH19481
Length Overall	23.0" (583.5 mm)	23.0" (583.5 mm)
Cover OD	14.0" (356.2 mm)	14.0" (356.2 mm)
Flow, Min. (2" restriction)	450 CFM (12.7 m ³ /min)	400 CFM (11.3 m ³ /min)
Flow, Max. (12" restriction)	1171 CFM (33.2 m ³ /min)	954 CFM (27.0 m ³ /min)
Secondary Element	No	Yes
Housing Material	Glass-Filled Polypropylene	Glass-Filled Polypropylene
Pre-cleaner Integral	Yes	Yes
Outlet	Straight	Straight

Dust Holding Capacity per Cummins® Specification

Specification	AH19480	AH19481
Allowable Flow for 10 g/CFM	< 1134 CFM (32.1 m ³ /min)	< 954 CFM (27.0 m ³ /min)*
Allowable Flow for 25 g/CFM	< 705 CFM (20.0 m ³ /min)	< 673 CFM (19.1 m ³ /min)

* Flow rate limited by restriction.

Specifications subject to change without notice.

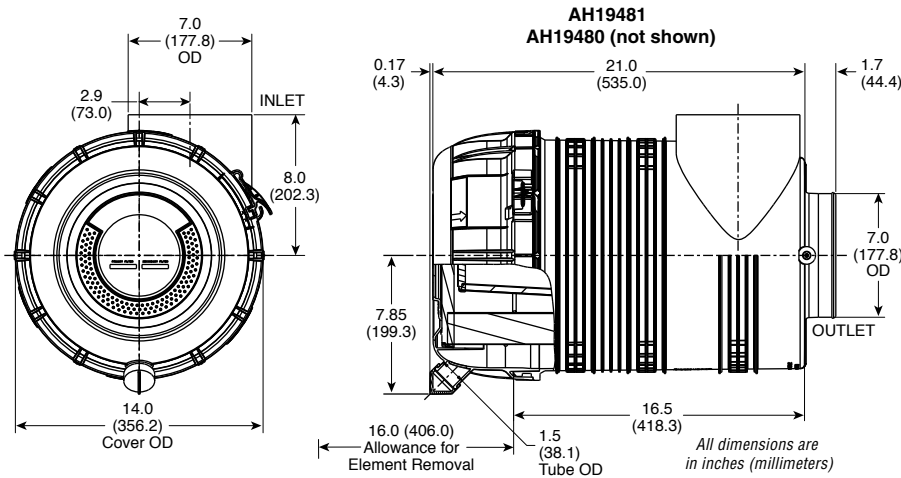
Ordering Information

Air Cleaners	
Part Number	Description
AH19480	OptiAir™ 1300 Series Air Cleaner – without Secondary Element – with Straight Outlet
AH19481	OptiAir 1300 Series Air Cleaner – with Secondary Element – with Straight Outlet

Accessories	
Part Number	Description
3936445 S	Mounting Bracket
2	No. of Brackets Required
3316663 S	Outlet Band Clamps
3946468 S	Weather Hood
3316613 S	Hump-Hose
3316576 S	90° Elbow
3316593 S	90° Reducing Elbow
3946326 S	Restriction Indicator

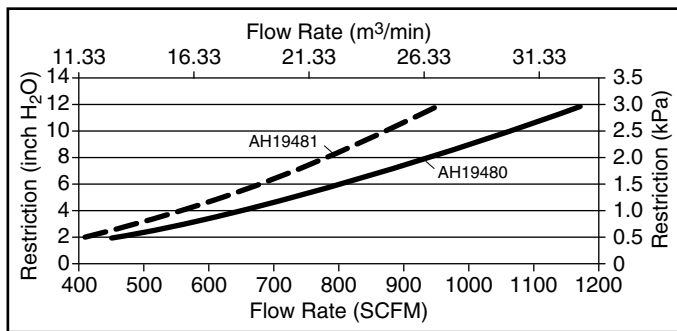
Service Parts	
Part Number	Description
AF26124	Primary Element
N/A	Magnum Primary Element
AF26125	Secondary Element
3946457 S	Dust Ejection Valve
3946467 S	Cover Assembly

Dimensions

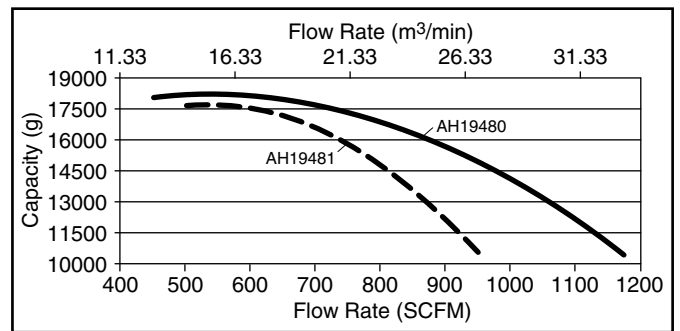


Performance

System Restriction vs Flow Rate

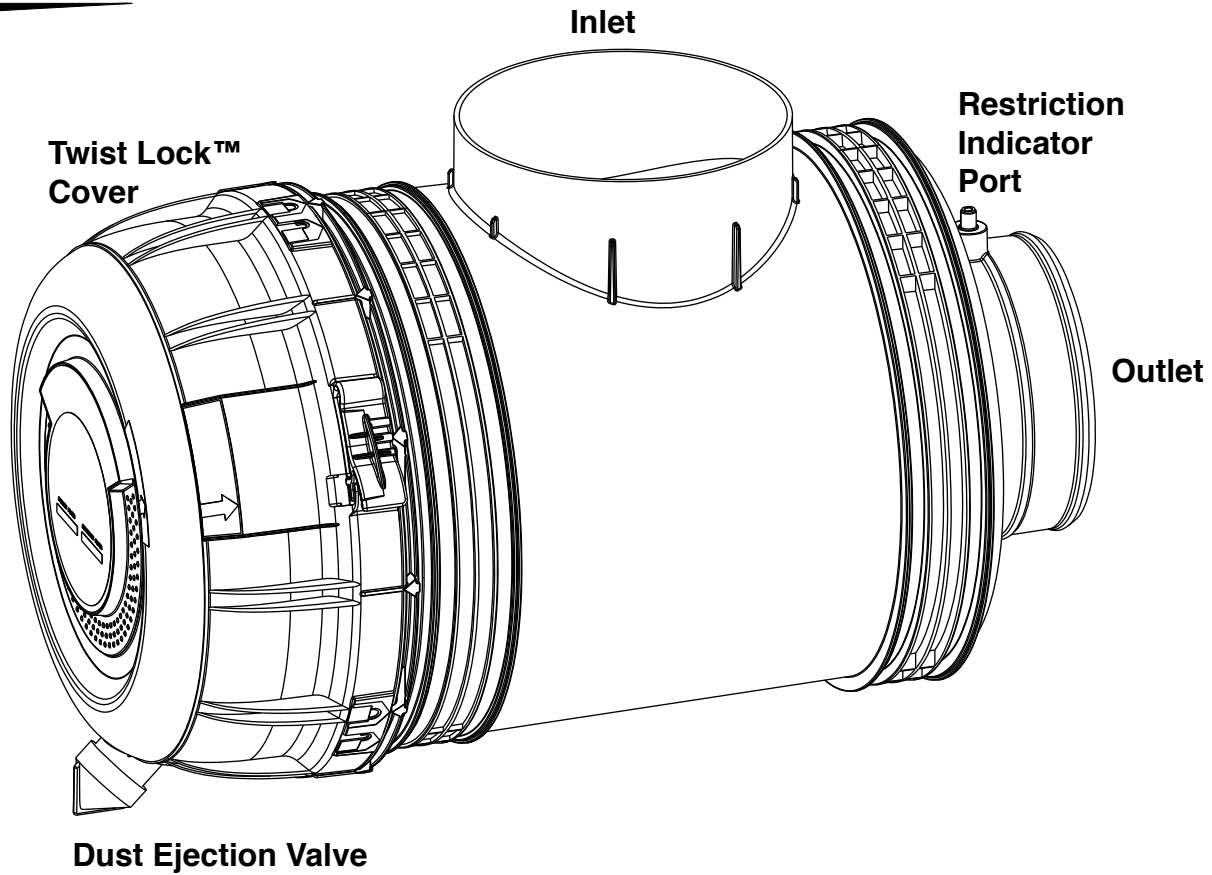


Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	798 (676)	22.60 (19.14)	16862 (16789)
8	2.0	935 (779)	26.48 (22.06)	15129 (15110)
10	2.5	1058 (870)	29.96 (24.64)	12965 (12950)
12	3.0	1171 (953)	33.16 (26.99)	10482 (10442)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction



Specifications

Specification	AH19274
Length Overall	23.8" (603.7 mm)
Cover OD	14.1" (358.1 mm)
Flow, Min. (2" restriction)	612 CFM (17.3 m ³ /min)
Flow, Max. (12" restriction)	1503 CFM (42.6 m ³ /min)
Secondary Element	No
Housing Material	Plastic
Pre-cleaner Integral	No
Outlet	Straight

Dust Holding Capacity per Cummins® Specification

Specification	AH19274
Allowable Flow for 3 g/CFM	< 1263 CFM (35.8 m ³ /min)
Allowable Flow for 10 g/CFM	< 682 CFM (19.4 m ³ /min)
Allowable Flow for 25 g/CFM	< 338 CFM (9.6 m ³ /min)

Specifications subject to change without notice.

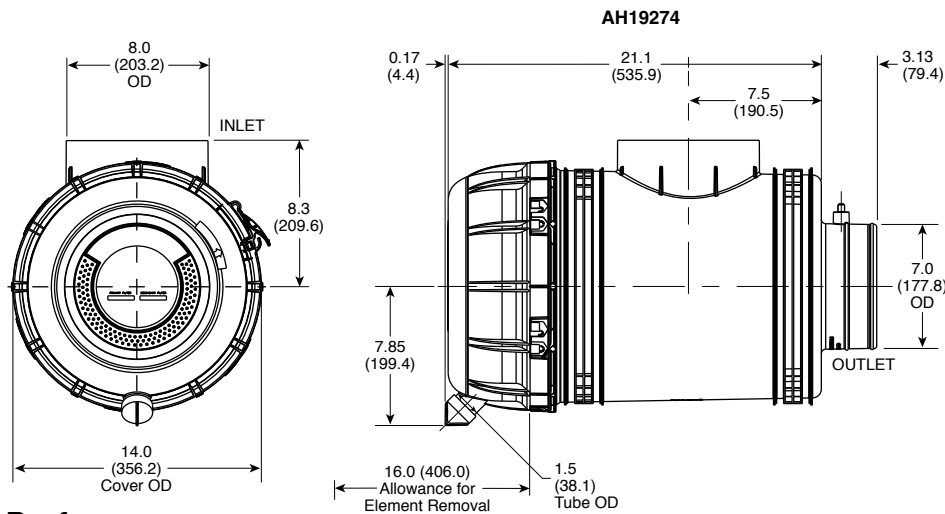
Ordering Information

Air Cleaners	
Part Number	Description
AH19274	OptiAir™ 1300 Series Air Cleaner – without Secondary Element – with Straight Outlet

Accessories	
Part Number	Description
3936445 S	Mounting Bracket
2	No. of Brackets Required
3316663 S	Outlet Band Clamps
3918213 S	Weather Hood
3316613 S	Hump-Hose
3316576 S	90° Elbow
3316591 S	90° Reducing Elbow
3946326 S	Restriction Indicator

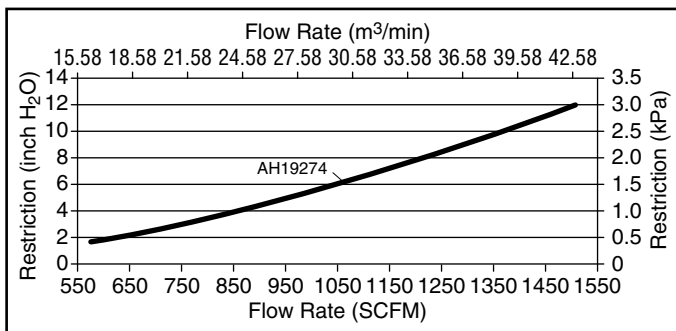
Service Parts	
Part Number	Description
AF25708	Primary Element
AF25708M	Magnum Primary Element
3946457 S	Dust Ejection Valve
Q760517	Cover Assembly

Dimensions

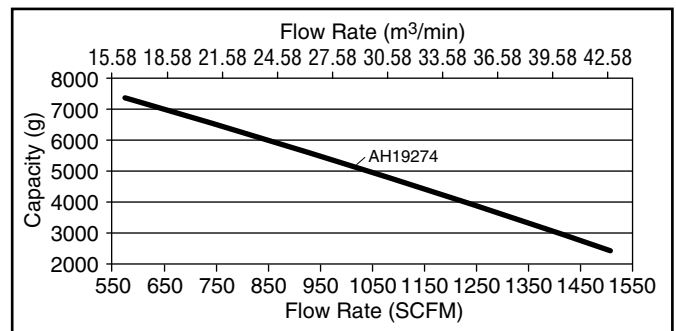


Performance

System Restriction vs Flow Rate



Typical System Capacity vs Flow Rate



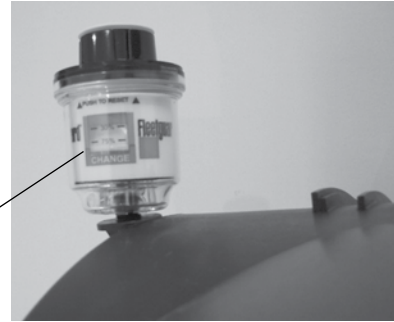
Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m³/min	grams
6	1.5	1047	29.65	4956
8	2.0	1215	34.41	4055
10	2.5	1366	38.66	3227
12	3.0	1503	42.56	2452

ISO Coarse Dust
 2.0 g/m³ Feed Rate
 6.25 kPa (25" H₂O) Terminal Restriction





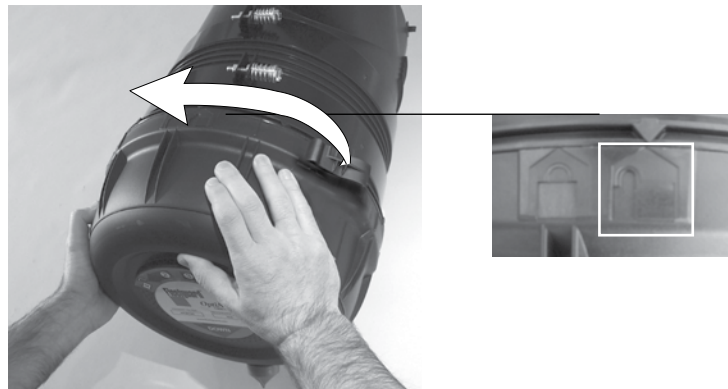
1 Time for an element change...
The restriction indicator mounted on your OptiAir™ system indicates when your OptiAir element needs changing.



2 Lift the lever as indicated on the OptiAir cover label.



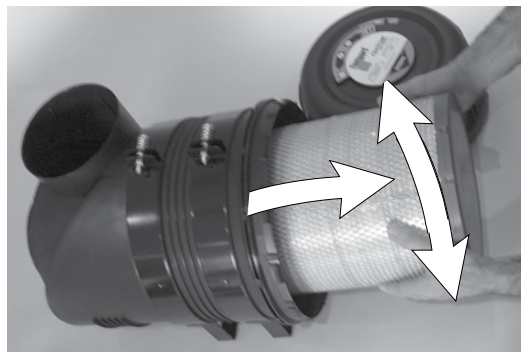
3 Twist the OptiAir cover to the left into the "open" position.



4 Remove the OptiAir cover.



5 Twist the end of the filter to disengage seal. Gently remove the filter element¹ from the housing. Inspect the filter for foreign material on the sealing surface and potential marks of dust on the clean air side.



¹ If servicing a system that contains a secondary element that needs to be replaced, apply the same procedure as shown in step 5.

6 Thoroughly clean the sealing surface and the inside of the OptiAir™ housing.



7 Inspect the new filter element² for damage and insert into the housing.



8 Place the OptiAir cover back on the housing. Make sure dust ejection valve is orientated downward.



9 Twist the OptiAir cover to the right into the "locked" position



10 Reset the restriction indicator.



² If servicing a system that contains a secondary element that needs to be replaced, apply the same procedure as shown in step 7.

Metal Air Cleaners

**Medium Dust Applications
Integral Pre-Cleaner
Primary Element Only**

Part Number	CFM @ 10" H ₂ O	m ³ /min @ 2.5 kPa
AH19107	70	1.98
AH19108	103	2.92
AH19109	167	4.73
AH19110	244	6.91
AH19061	134	3.79
AH19063	170	4.81
AH19065	301	8.52
AH19268	287	8.13
AH19270	410	11.61
AH19069	574	16.26
AH19271	692	19.60
AH19073	1131	32.03
AH19075	1650	46.73

**Light Dust Applications
Primary Element Only**

Part Number	CFM @ 6" H ₂ O	m ³ /min @ 1.5 kPa
AH19077	331	9.37
AH19078	555	15.72
AH19079	805	22.80
AH19080	825	23.36

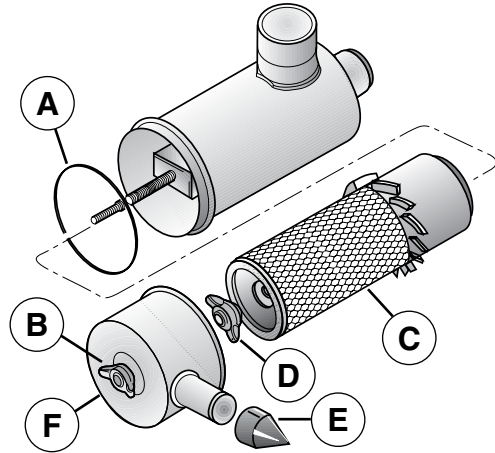
**Heavy or Medium Dust Applications
Integral Pre-Cleaner
Primary and Secondary Element**

Part Number	CFM @ 10" H ₂ O	m ³ /min @ 2.5 kPa
AH19062	114	3.23
AH19064	153	4.33
AH19066	251	7.11
AH19269	345	9.77
AH19070	406	11.50
AH19272	625	17.70
AH19259	821	23.25
AH19074	1098	31.10
AH19076	1600	45.31

Style 1

- AH19107 AH19061
- AH19108 AH19063
- AH19109 AH19065
- AH19110 AH19069

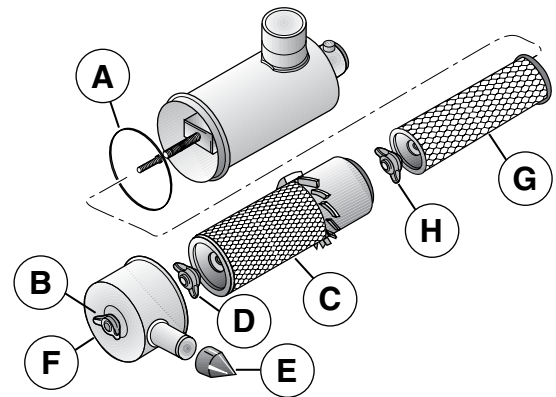
	Part
A	O-Ring
B	Wing Nut
C	Element
D	Wing Nut
E	Dust Ejector
F	Cover Assembly



Style 2

- AH19062
- AH19064
- AH19066
- AH19268
- AH19070

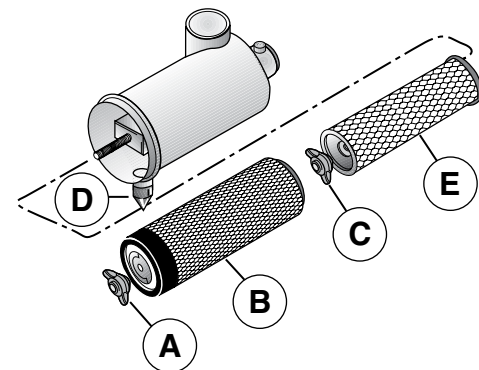
	Part
A	O-Ring
B	Wing Nut
C	Element
D	Wing Nut
E	Dust Ejector
F	Cover Assembly
G	Secondary Element
H	Wing Nut



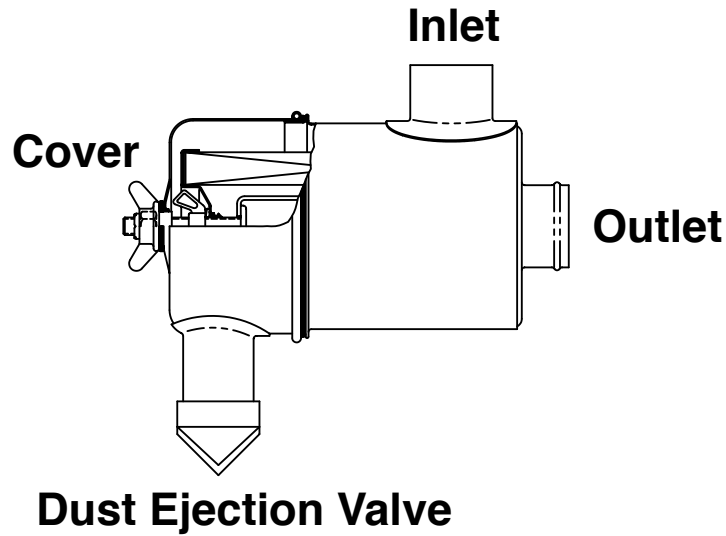
Style 3

- AH19073 AH19259
- AH19074 AH19269
- AH19075 AH19270
- AH19076 AH19271
- AH19077 AH19272
- AH19078
- AH19079
- AH19080

	Part
A	Wing Nut
B	Element
C	Wing Nut
D	Dust Ejector
E	Secondary Element



Notes section with 24 horizontal lines for writing.



Specifications

Specification	AH19107
Length Overall	8.5" (216.0 mm)
Body OD	4.38" (111.3 mm)
Flow, Min. (2" Restriction)	31 CFM (0.9 m ³ /min)
Flow, Max. (12" Restriction)	76 CFM (2.2 m ³ /min)
Secondary Element	No
Housing Material	Metal
Pre-cleaner Integral	Yes

Dust Holding Capacity per Cummins® Specification

Specification	AH19107
Allowable Flow for 3 g/CFM	< 75 CFM (2.1 m ³ /min)
Allowable Flow for 10 g/CFM	< 58 CFM (1.6 m ³ /min)
Allowable Flow for 25 g/CFM	< 40 CFM (1.1 m ³ /min)

Specifications subject to change without notice.

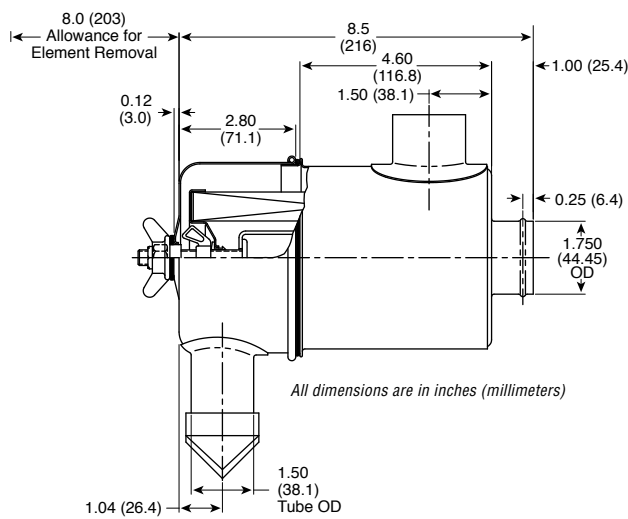
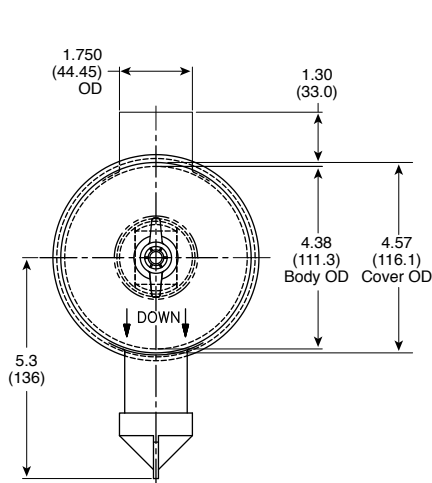
Ordering Information

Air Cleaner	
Part Number	Description
AH19107	Metal Air Cleaner

Accessories	
Part Number	Description
3918218 S	Mounting Bracket
1	No. of Brackets Required
N/A	Outlet Band Clamps
3918195 S	Weather Hood
N/A	Hump-Hose
N/A	90° Elbow
N/A	90° Reducing Elbow
N/A	Restriction Indicator

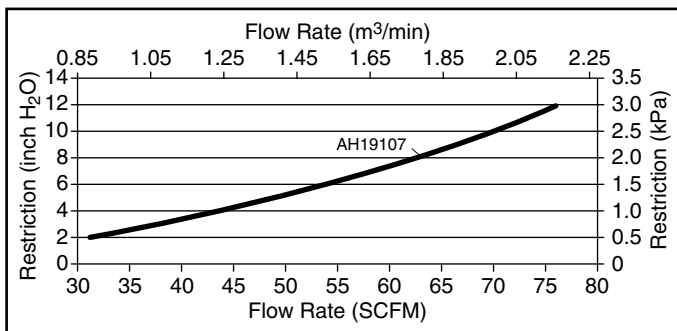
Service Parts	
Part Number	Description
AF1658K	Primary Element
N/A	Magnum Primary Element
N/A	Secondary Element
3946457 S	Dust Ejection Valve
3955486 S 3955491 S	Wing Nut/Clips
3955467 S	Cover Assembly

Dimensions

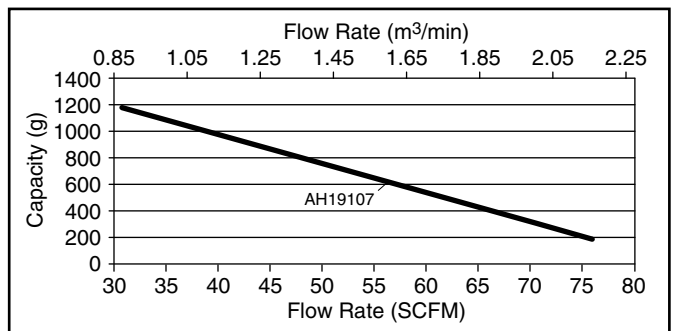


Performance

System Restriction vs Flow Rate



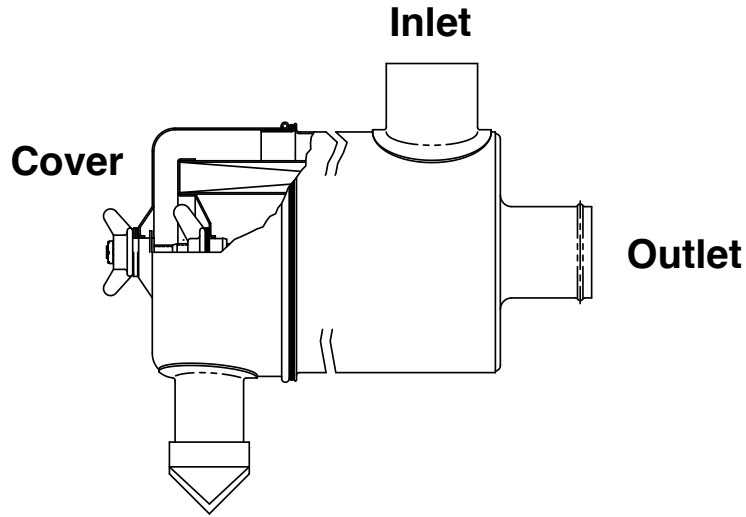
Typical System Capacity vs Flow Rate



Restriction		Flow Rate		Typical Capacity
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	54	1.53	680
8	2.0	62	1.76	495
10	2.5	70	1.98	332
12	3.0	76	2.15	184

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction





Dust Ejection Valve

Specifications

Specification	AH19108
Length Overall	12.9" (326.4 mm)
Body OD	5.3" (133.4 mm)
Flow, Min. (2" Restriction)	44 CFM (1.3 m ³ /min)
Flow, Max. (12" Restriction)	113 CFM (3.2 m ³ /min)
Secondary Element	No
Housing Material	Metal
Pre-cleaner Integral	Yes

Dust Holding Capacity per Cummins® Specification

Specification	AH19108
Allowable Flow for 10 g/CFM	< 96 CFM (2.7 m ³ /min)
Allowable Flow for 25 g/CFM	< 68 CFM (1.9 m ³ /min)

Specifications subject to change without notice.

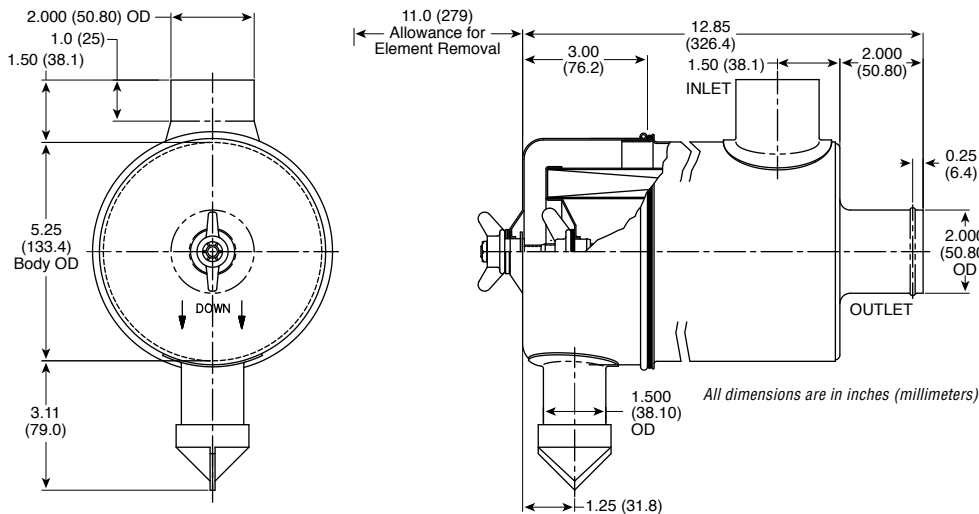
Ordering Information

Air Cleaner	
Part Number	Description
AH19108	Metal Air Cleaner

Accessories	
Part Number	Description
39183219 S	Mounting Bracket
2	No. of Brackets Required
3316653 S	Outlet Band Clamps
3918200 S	Weather Hood
N/A	Hump-Hose
3316564 S	90° Elbow
N/A	90° Reducing Elbow
N/A	Restriction Indicator

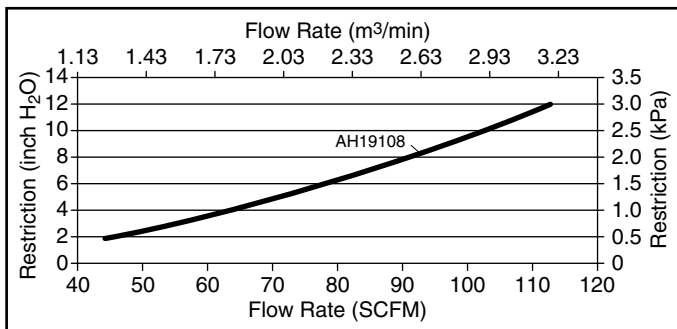
Service Parts	
Part Number	Description
AF25543K	Primary Element
N/A	Magnum Primary Element
N/A	Secondary Element
3946457 S	Dust Ejection Valve
3955488 S	Wing Nut/Clips
3955489 S	
3955472 S	Cover Assembly

Dimensions

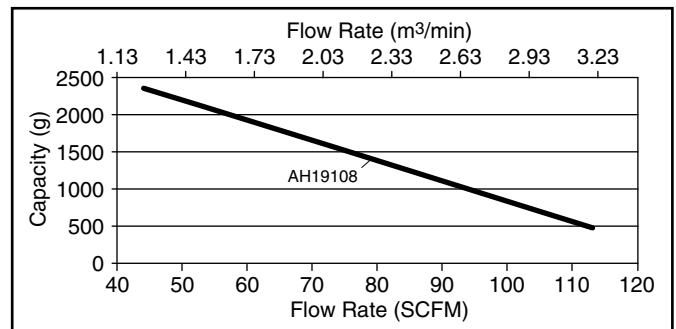


Performance

System Restriction vs Flow Rate



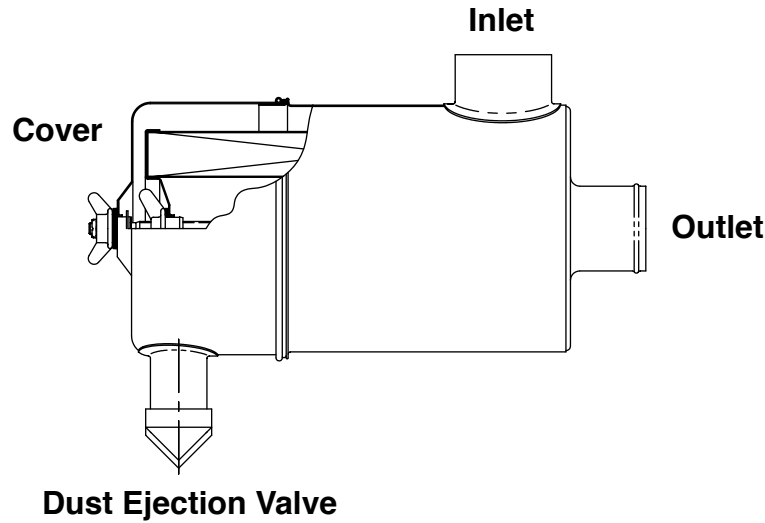
Typical System Capacity vs Flow Rate



Restriction		Flow Rate		Typical Capacity
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	78	2.21	1434
8	2.0	91	2.58	1088
10	2.5	103	2.92	770
12	3.0	113	3.20	484

ISO Coarse Dust
 2.0 g/m³ Feed Rate
 6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19109
Length Overall	13.7" (346.7 mm)
Body OD	6.6" (166.4 mm)
Flow, Min. (2" Restriction)	71 CFM (2.0 m ³ /min)
Flow, Max. (12" Restriction)	184 CFM (5.2 m ³ /min)
Secondary Element	No
Housing Material	Metal
Pre-cleaner Integral	Yes

Dust Holding Capacity per Cummins® Specification

Specification	AH19109
Allowable Flow for 3 g/CFM	< 180 CFM (5.1 m ³ /min)
Allowable Flow for 10 g/CFM	< 145 CFM (4.1 m ³ /min)
Allowable Flow for 25 g/CFM	< 103 CFM (2.9 m ³ /min)

Specifications subject to change without notice.

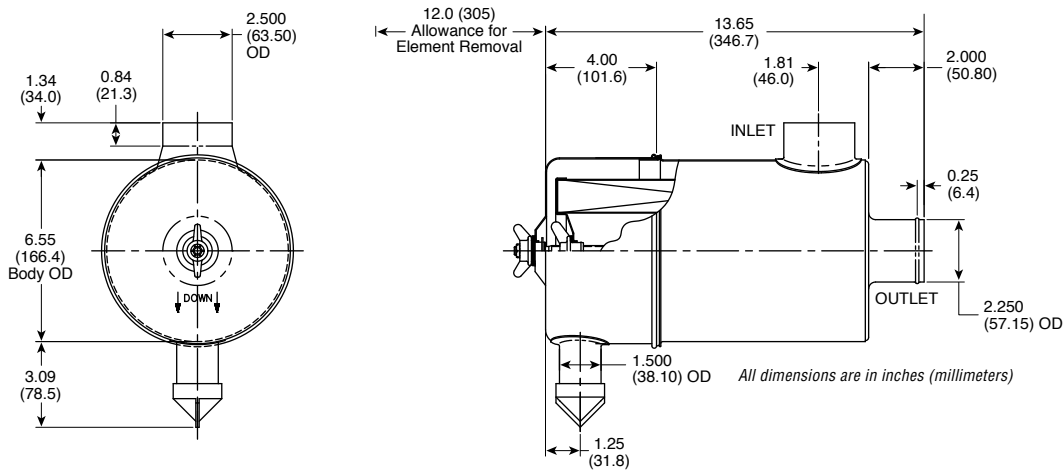
Ordering Information

Air Cleaner	
Part Number	Description
AH19109	Metal Air Cleaner

Accessories	
Part Number	Description
3918220 S	Mounting Bracket
2	No. of Brackets Required
3316653 S	Outlet Band Clamps
3918201 S	Weather Hood
N/A	Hump-Hose
N/A	90° Elbow
N/A	90° Reducing Elbow
N/A	Restriction Indicator

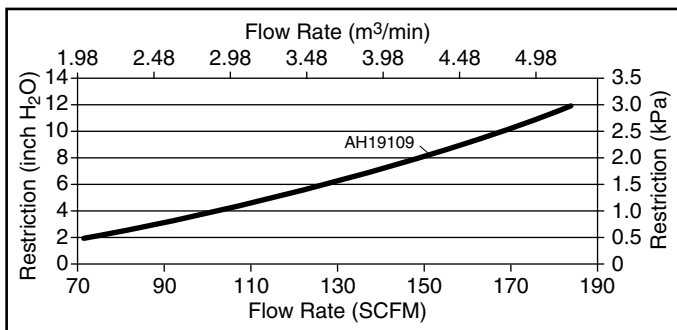
Service Parts	
Part Number	Description
AF437K	Primary Element
AF437KM	Magnum Primary Element
N/A	Secondary Element
3946457 S	Dust Ejection Valve
3955488 S	Wing Nut/Clips
3955489 S	
3955470 S	Cover Assembly

Dimensions

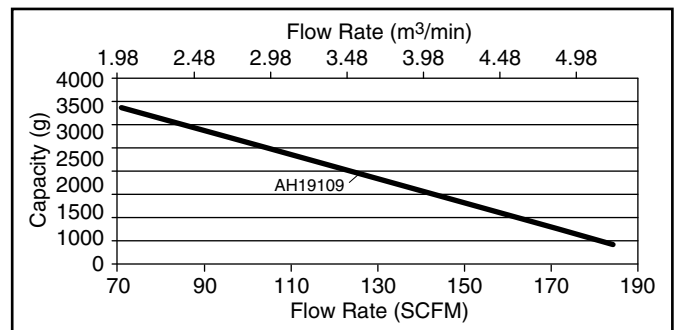


Performance

System Restriction vs Flow Rate



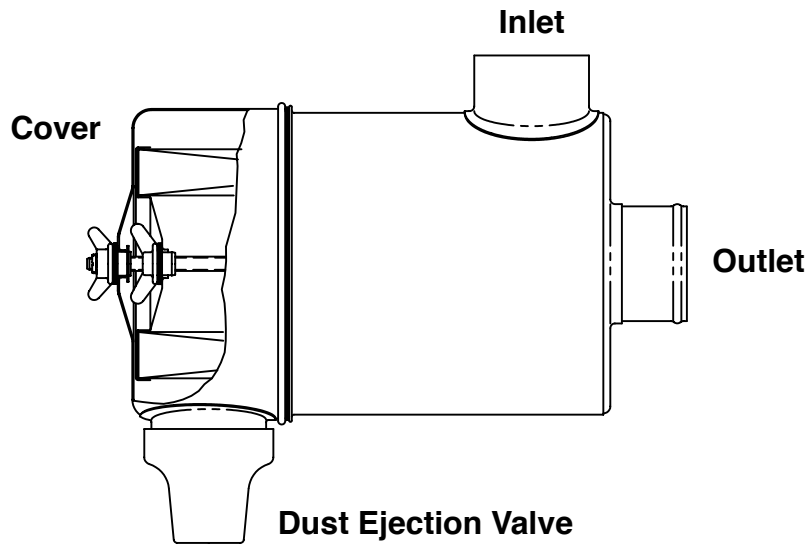
Typical System Capacity vs Flow Rate



Restriction		Flow Rate		Typical Capacity
in H ₂ O	kPa	CFM	m³/min	grams
6	1.5	127	3.60	1918
8	2.0	148	4.19	1369
10	2.5	167	4.73	881
12	3.0	184	5.21	438

ISO Coarse Dust
 2.0 g/m³ Feed Rate
 6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19110
Length Overall	14.5" (369.6 mm)
Body OD	7.9" (200.4 mm)
Flow, Min. (2" Restriction)	108 CFM (3.1 m ³ /min)
Flow, Max. (12" Restriction)	267 CFM (7.6 m ³ /min)
Secondary Element	No
Housing Material	Metal
Pre-cleaner Integral	Yes

Dust Holding Capacity per Cummins® Specification

Specification	AH19110
Allowable Flow for 10 g/CFM	< 246 CFM (7.0 m ³ /min)
Allowable Flow for 25 g/CFM	< 165 CFM (4.7 m ³ /min)

Specifications subject to change without notice.

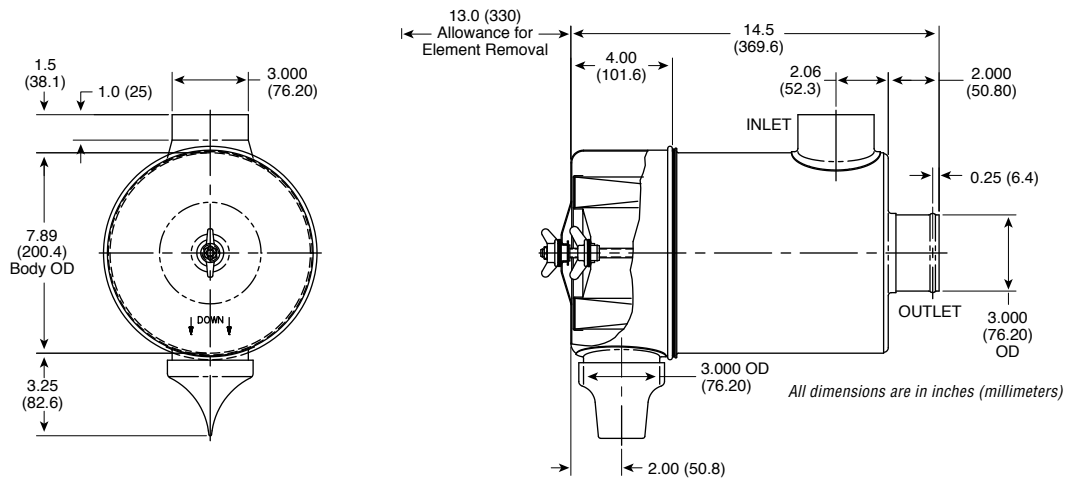
Ordering Information

Air Cleaner	
Part Number	Description
AH19110	Metal Air Cleaner

Accessories	
Part Number	Description
3918222 S	Mounting Bracket
2	No. of Brackets Required
3316656 S	Outlet Band Clamps
3918202 S	Weather Hood
3316606 S	Hump-Hose
3316566 S	90° Elbow
N/A	90° Reducing Elbow
N/A	Restriction Indicator

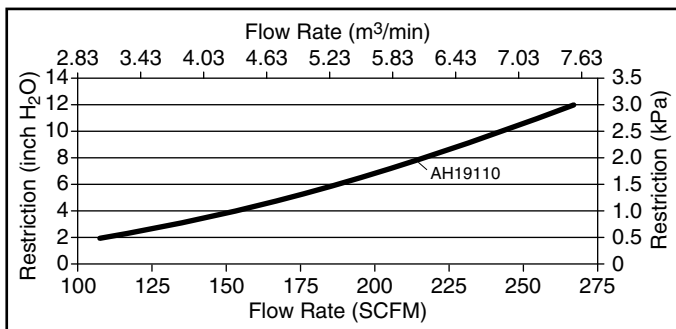
Service Parts	
Part Number	Description
AF409K	Primary Element
AF409KM	Magnum Primary Element
N/A	Secondary Element
3947069 S	Dust Ejection Valve
3955488 S 3955489 S	Wing Nut/Clips
3955469 S	Cover Assembly

Dimensions

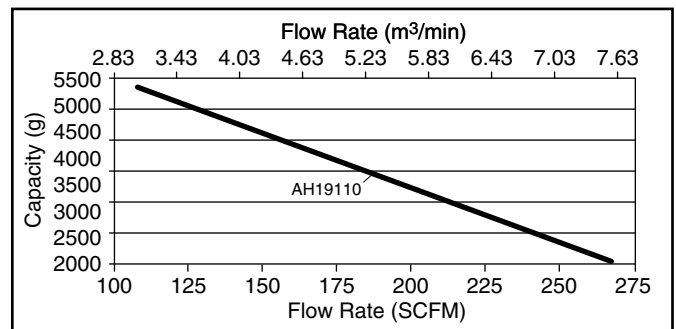


Performance

System Restriction vs Flow Rate

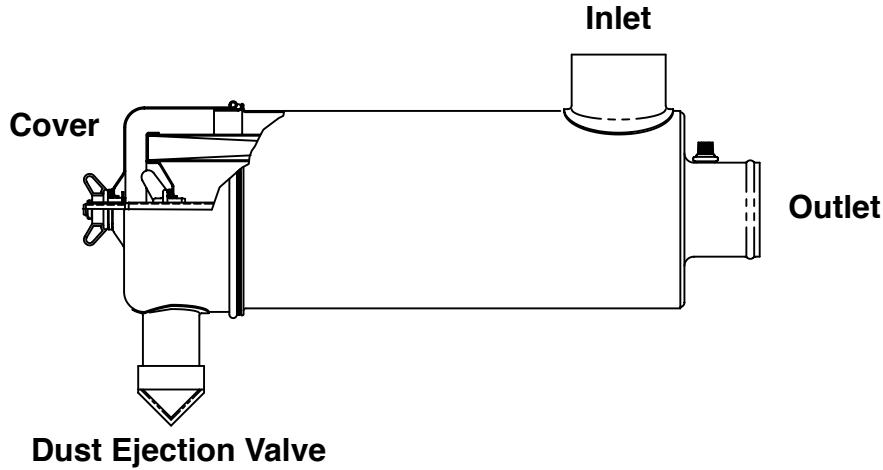


Typical System Capacity vs Flow Rate



Restriction		Flow Rate		Typical Capacity
in H ₂ O	kPa	CFM	m³/min	grams
6	1.5	188	5.32	3664
8	2.0	218	6.17	3055
10	2.5	244	6.91	2518
12	3.0	267	7.56	2031

ISO Coarse Dust
 2.0 g/m³ Feed Rate
 6.25 kPa (25" H₂O) Terminal Restriction



Specifications

Specification	AH19061	AH19062
Length Overall	16.9" (429.0 mm)	16.9" (429.0 mm)
Body OD, Max.	5.3" (200.4 mm)	5.3" (200.4 mm)
Flow, Min. (2" Restriction)	58 CFM (1.6 m ³ /min)	48 CFM (1.4 m ³ /min)
Flow, Max. (12" Restriction)	147 CFM (4.2 m ³ /min)	125 CFM (35 m ³ /min)
Secondary Element	No	Yes
Housing Material	Metal	Metal
Pre-cleaner Integral	Yes	Yes

Dust Holding Capacity per Cummins® Specification

Specification	AH19061	AH19062
Allowable Flow for 10 g/CFM	< 123 CFM (3.5 m ³ /min)	< 102 CFM (2.9 m ³ /min)
Allowable Flow for 25 g/CFM	< 85 CFM (2.4 m ³ /min)	< 72 CFM (2.0 m ³ /min)

Specifications subject to change without notice.

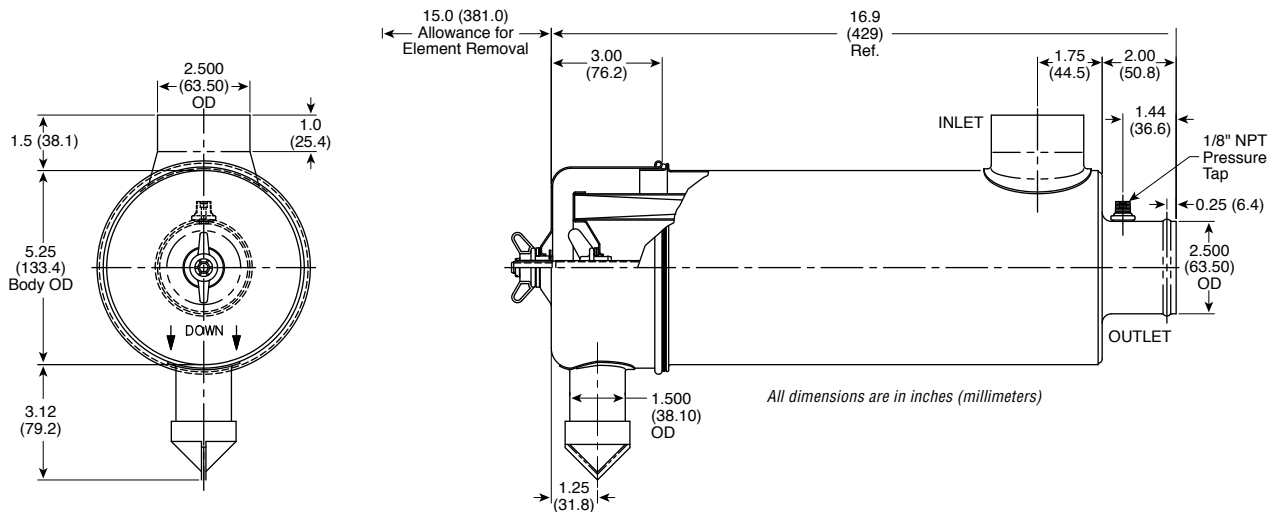
Ordering Information

Air Cleaners	
Part Number	Description
AH19061	Metal Air Cleaner – without Secondary Element
AH19062	Metal Air Cleaner – with Secondary Element

Accessories	
Part Number	Description
3918219 S	Mounting Bracket
2	No. of Brackets Required
3316654 S	Outlet Band Clamps
3918201 S	Weather Hood
N/A	Hump-Hose
3316565 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

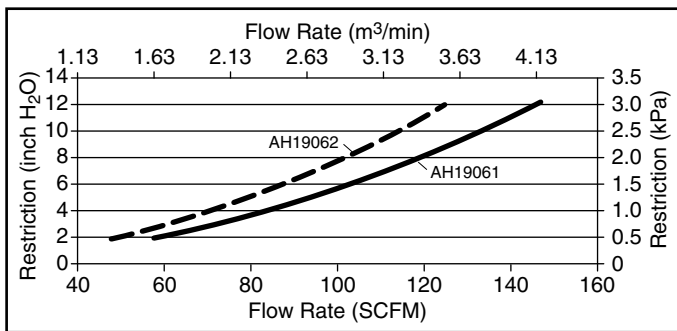
Service Parts	
Part Number	Description
AF1823K	Primary Element
N/A	Magnum Primary Element
AF26118	Secondary Element
3946457 S	Dust Ejection Valve
3955488 S 3955489 S	Wing Nut/Clips
3955468 S	Cover Assembly

Dimensions

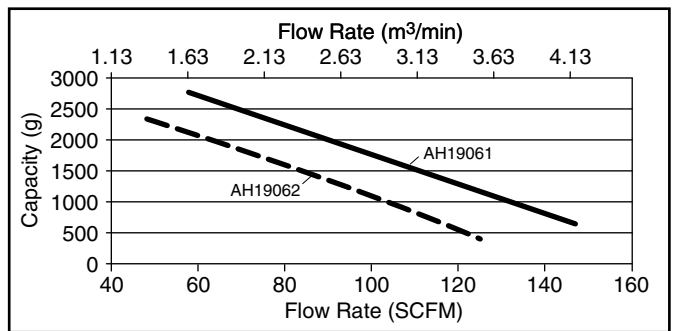


Performance

System Restriction vs Flow Rate



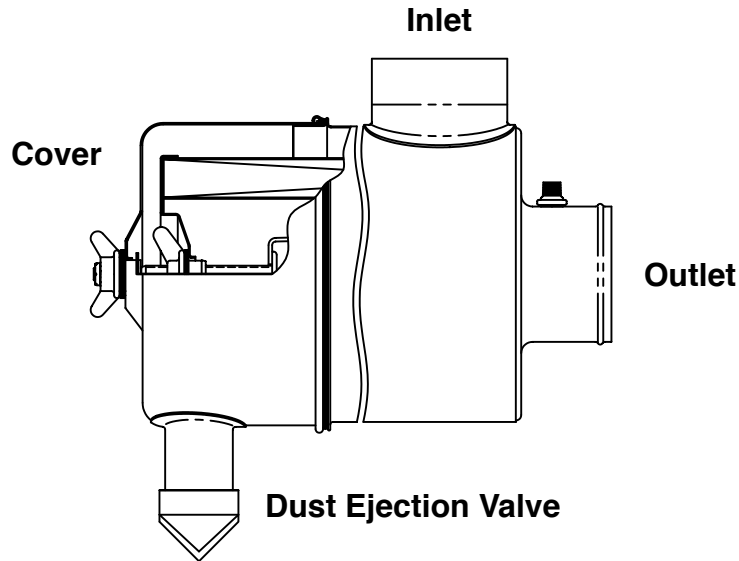
Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m³/min	grams
6	1.5	103 (88)	2.92 (2.49)	1691 (1390)
8	2.0	119 (102)	3.37 (2.89)	1307 (1029)
10	2.5	134 (114)	3.79 (3.23)	969 (699)
12	3.0	147 (125)	4.16 (3.54)	662 (391)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19063	AH19064
Length Overall	17.7" (448.0 mm)	17.7" (448.0 mm)
Body OD, Max.	6.6" (166.4 mm)	6.6" (166.4 mm)
Flow, Min. (2" Restriction)	72 CFM (2.0 m ³ /min)	65 CFM (1.8 m ³ /min)
Flow, Max. (12" restriction)	188 CFM (5.3 m ³ /min)	168 CFM (4.8 m ³ /min)
Secondary Element	No	Yes
Housing Material	Metal	Metal
Pre-cleaner Integral	Yes	Yes

Dust Holding Capacity per Cummins® Specification

Specification	AH19063	AH19064
Allowable Flow for 10 g/CFM	<184 CFM (5.2 m ³ /min)	< 159 CFM (4.5 m ³ /min)
Allowable Flow for 25 g/CFM	< 143 CFM (4.0 m ³ /min)	<123 CFM (3.5 m ³ /min)

Specifications subject to change without notice.

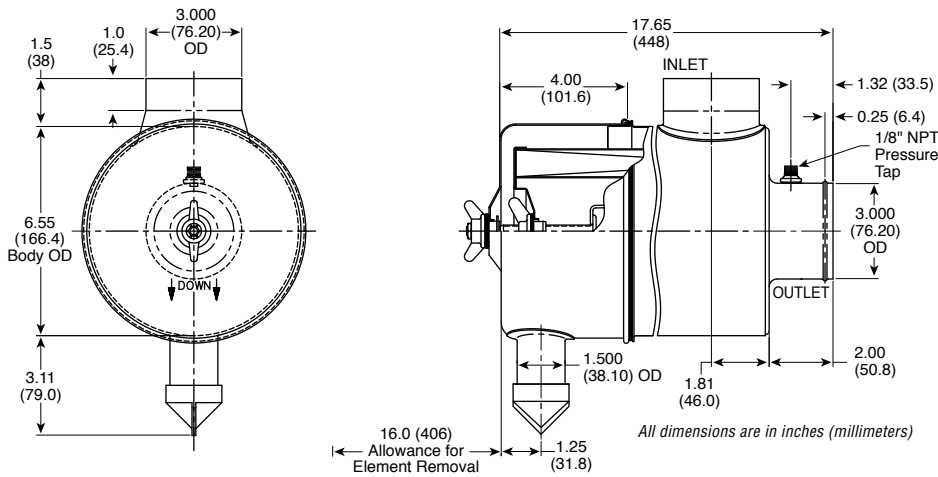
Ordering Information

Air Cleaners	
Part Number	Description
AH19063	Metal Air Cleaner – without Secondary Element
AH19064	Metal Air Cleaner – with Secondary Element

Accessories	
Part Number	Description
3918220 S	Mounting Bracket
2	No. of Brackets Required
3316656 S	Outlet Band Clamps
3918202 S	Weather Hood
3316606 S	Hump-Hose
3316566 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

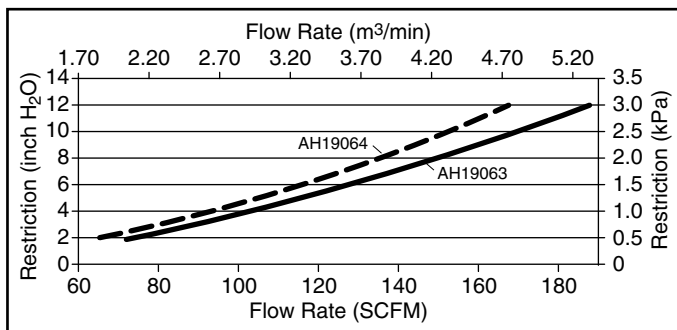
Service Parts	
Part Number	Description
AF1606K	Primary Element
AF1606KM	Magnum Primary Element
AF1982	Secondary Element
3946457 S	Dust Ejection Valve
3955488 S 3955489 S	Wing Nut/Clips
3955470 S	Cover Assembly

Dimensions

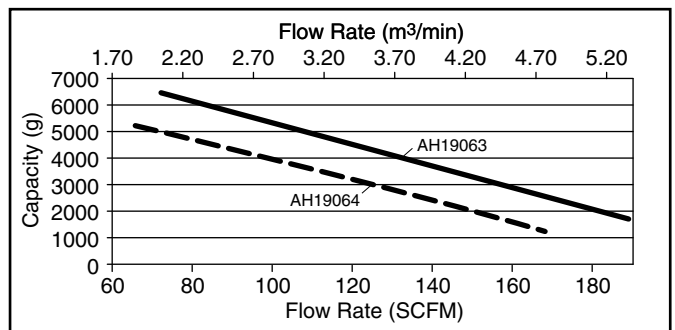


Performance

System Restriction vs Flow Rate



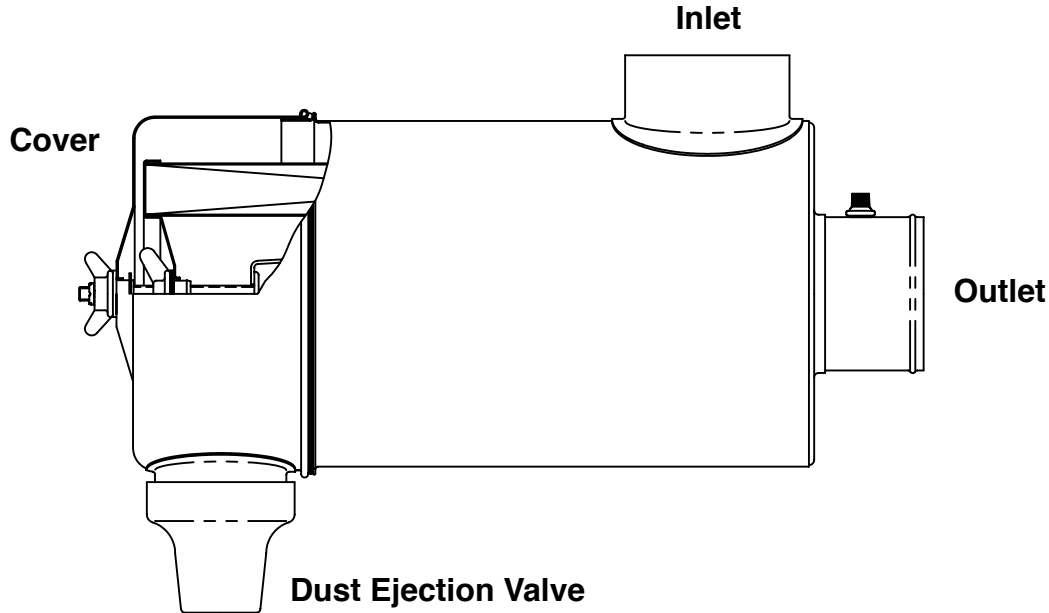
Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m³/min	grams
6	1.5	128 (116)	3.62 (3.29)	4159 (3316)
8	2.0	150 (135)	4.25 (3.82)	3258 (2552)
10	2.5	170 (153)	4.81 (4.33)	2450 (1850)
12	3.0	188 (168)	5.32 (4.76)	1710 (1192)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19065	AH19066
Length Overall	16.1" (458.5 mm)	16.1" (458.5 mm)
Body OD, Max.	7.9" (200.4 mm)	7.9" (200.4 mm)
Flow, Min. (2" Restriction)	130 CFM (3.7 m ³ /min)	105 CFM (3.0 m ³ /min)
Flow, Max. (12" Restriction)	331 CFM (9.4 m ³ /min)	280 CFM (7.9 m ³ /min)
Secondary Element	No	Yes
Housing Material	Metal	Metal
Pre-cleaner Integral	Yes	Yes

Dust Holding Capacity per Cummins® Specification

Specification	AH19065	AH19066
Allowable Flow for 10 g/CFM	< 331 CFM (9.4 m ³ /min)*	< 280 CFM (7.9 m ³ /min)*
Allowable Flow for 25 g/CFM	< 256 CFM (7.3 m ³ /min)	< 240 CFM (6.8 m ³ /min)

* Flow rate limited by restriction.

Specifications subject to change without notice.

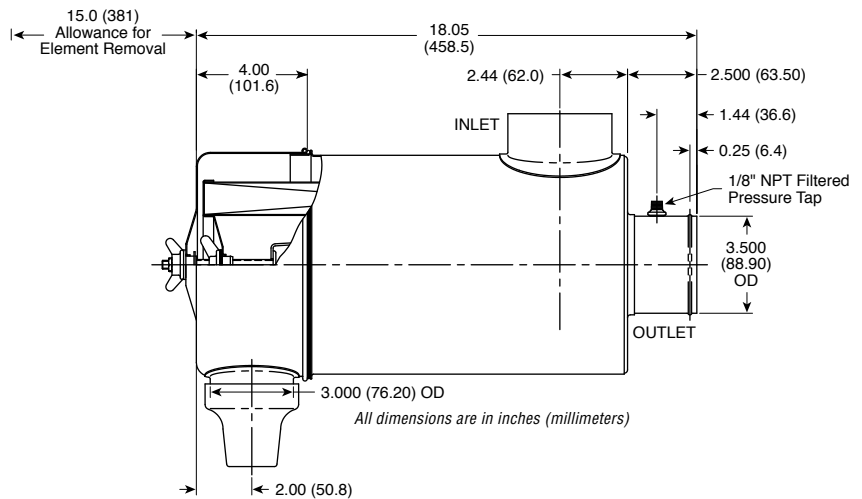
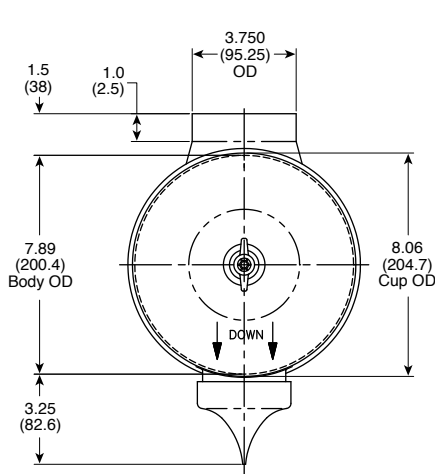
Ordering Information

Air Cleaners	
Part Number	Description
AH19065	Metal Air Cleaner – without Secondary Element
AH19066	Metal Air Cleaner – with Secondary Element

Accessories	
Part Number	Description
3918222 S	Mounting Bracket
2	No. of Brackets Required
3316657 S	Outlet Band Clamps
3918203 S	Weather Hood
3316607 S	Hump-Hose
3316567 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

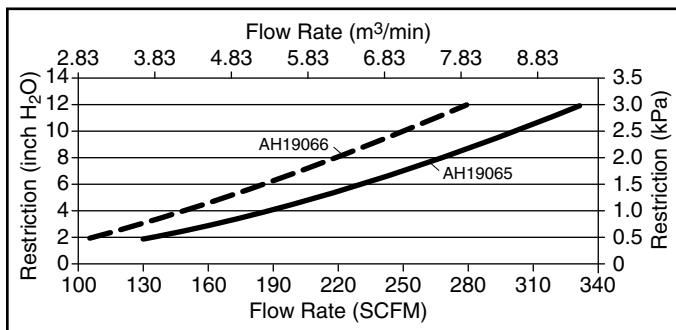
Service Parts	
Part Number	Description
AF4059K	Primary Element
N/A	Magnum Primary Element
AF4103	Secondary Element
3947069 S	Dust Ejection Valve
3955488 S 3955489 S	Wing Nut/Clips
3955469 S	Cover Assembly

Dimensions

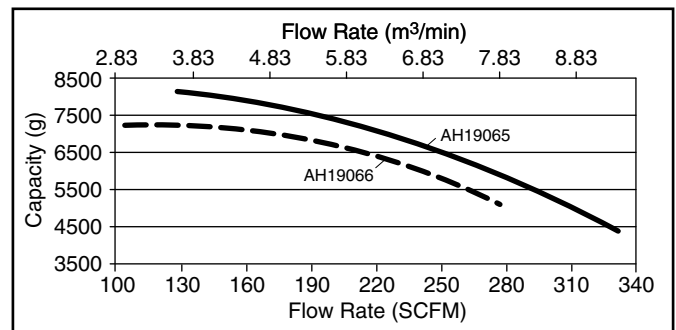


Performance

System Restriction vs Flow Rate



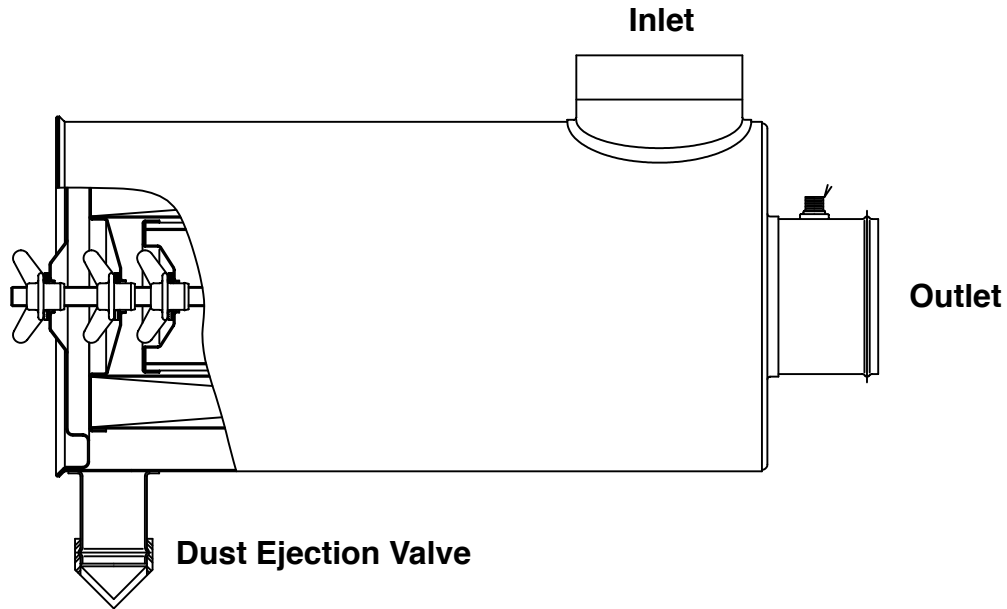
Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	230 (185)	6.51 (5.24)	6927 (6897)
8	2.0	268 (219)	7.59 (6.20)	6146 (6415)
10	2.5	301 (251)	8.52 (7.11)	5302 (5787)
12	3.0	331 (280)	9.37 (7.93)	4412 (5042)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19268
Length Overall	16.0" (406.7 mm)
Body OD, Max.	7.9" (200.4 mm)
Flow, Min. (2" Restriction)	140 CFM (4.0 m ³ /min)
Flow, Max. (12" Restriction)	317 CFM (9.0 m ³ /min)
Secondary Element	No
Housing Material	Metal
Pre-cleaner Integral	Yes

Dust Holding Capacity per Cummins® Specification

Specification	AH19268
Allowable Flow for 10 g/CFM	< 317 CFM (9.0 m ³ /min)*
Allowable Flow for 25 g/CFM	< 223 CFM (6.3 m ³ /min)

* Flow rate limited by restriction.

Specifications subject to change without notice.

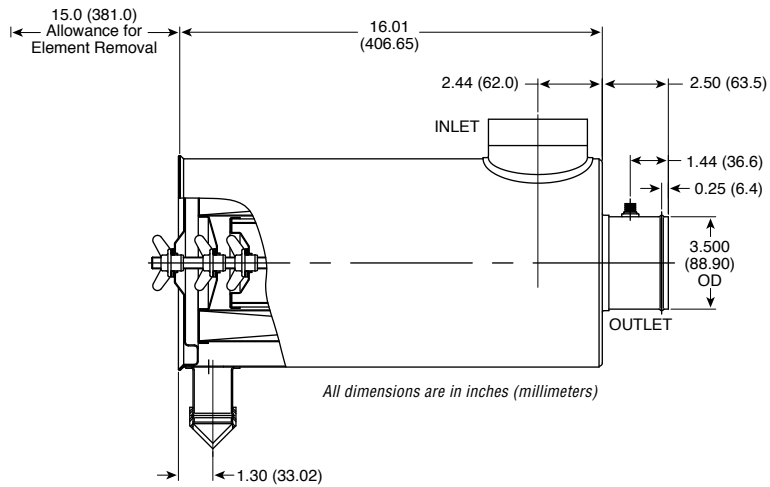
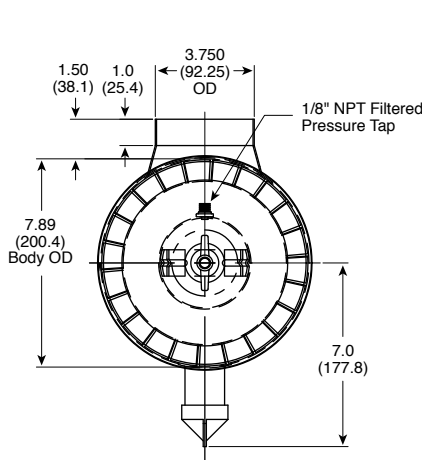
Ordering Information

Air Cleaners	
Part Number	Description
AH19268	Metal Air Cleaner – without Secondary Element

Accessories	
Part Number	Description
3918222 S	Mounting Bracket
2	No. of Brackets Required
3316657 S	Outlet Band Clamps
3918203 S	Weather Hood
3316607 S	Hump-Hose
3316567 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

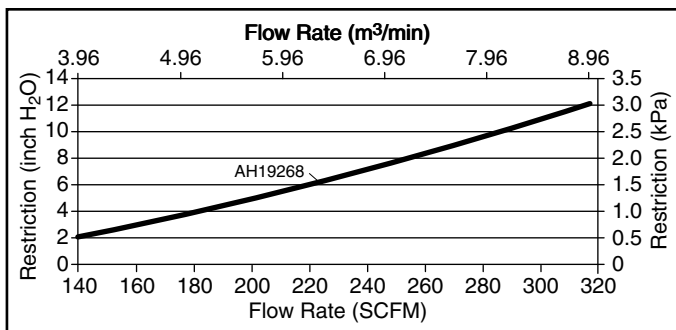
Service Parts	
Part Number	Description
AF4059K	Primary Element
N/A	Magnum Primary Element
AF4103	Secondary Element
3946457 S	Dust Ejection Valve
3955485 S	Wing Nut/Clips
3955463 S	Cover Assembly

Dimensions

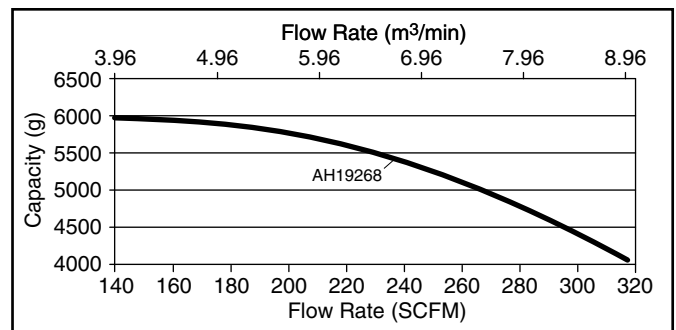


Performance

System Restriction vs Flow Rate



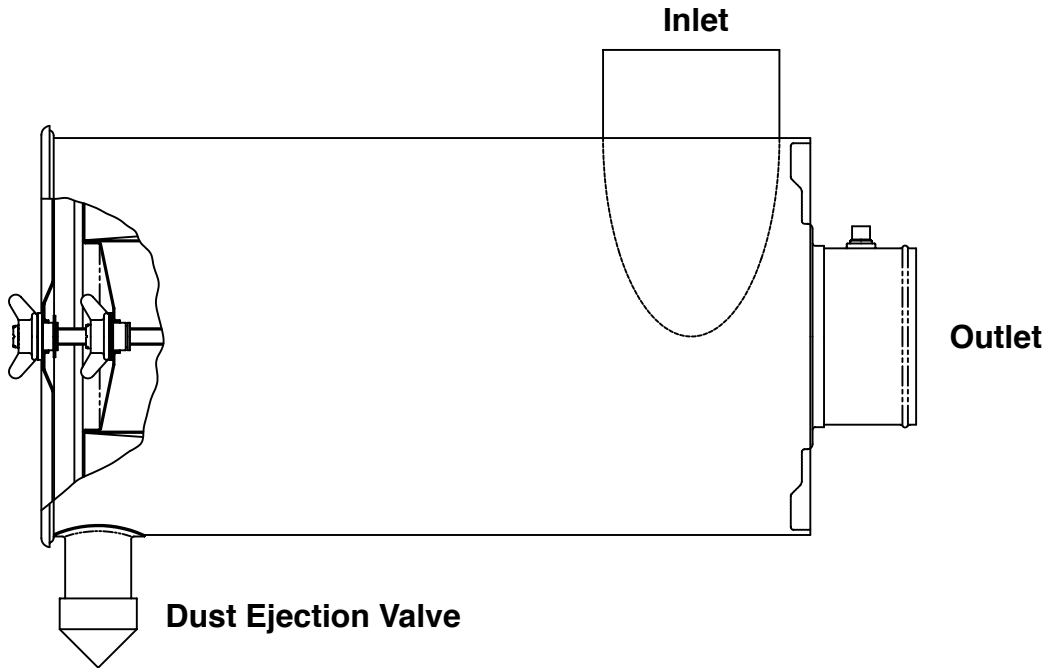
Typical System Capacity vs Flow Rate



Restriction		Flow Rate		Typical Capacity
in H ₂ O	kPa	CFM	m³/min	grams
6	1.5	221	6.26	5598
8	2.0	255	7.22	5187
10	2.5	287	8.13	4675
12	3.0	317	8.98	4083

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19270	AH19269
Length Overall	20.1" (519.4 mm)	20.1" (519.4 mm)
Body OD, Max.	9.0" (227.33 mm)	9.0" (227.3 mm)
Flow, Min. (2" Restriction)	180 CFM (5.1 m ³ /min)	150 CFM (4.2 m ³ /min)
Flow, Max. (12" Restriction)	460 CFM (13.0 m ³ /min)	383 CFM (10.9 m ³ /min)
Secondary Element	No	No
Housing Material	Metal	Metal
Pre-cleaner Integral	Yes	Yes

Dust Holding Capacity per Cummins® Specification

Specification	AH19270	AH19269
Allowable Flow for 10 g/CFM	< 403 CFM (11.4 m ³ /min)	< 368 CFM (10.4 m ³ /min)
Allowable Flow for 25 g/CFM	< 279 CFM (7.9 m ³ /min)	< 269 CFM (7.6 m ³ /min)

Specifications subject to change without notice.

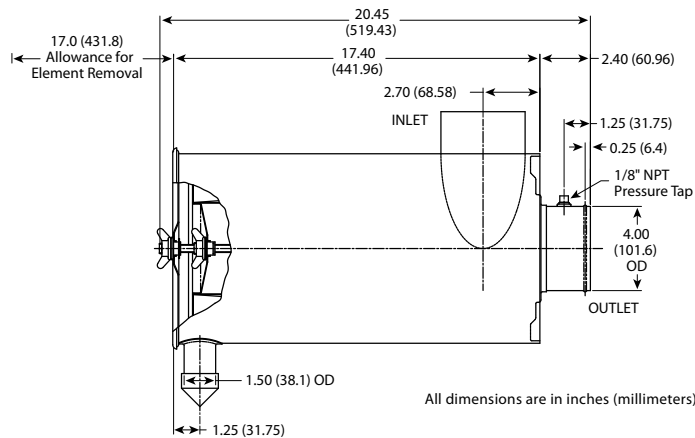
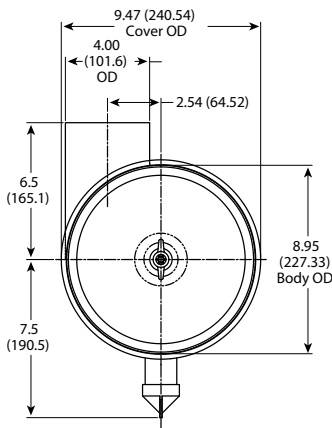
Ordering Information

Air Cleaners	
Part Number	Description
AH19270	Metal Air Cleaner – without Secondary Element
AH19269	Metal Air Cleaner – with Secondary Element

Accessories	
Part Number	Description
3918225 S	Mounting Bracket
2	No. of Brackets Required
3316658 S	Outlet Band Clamps
3918204 S	Weather Hood
3316608 S	Hump-Hose
3316568 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

Service Parts	
Part Number	Description
AF1735K	Primary Element
N/A	Magnum Primary Element
AF4150	Secondary Element
3946457 S	Dust Ejection Valve
3955484 S 3955481 S	Wing Nut/Clips
3955461 S	Cover Assembly

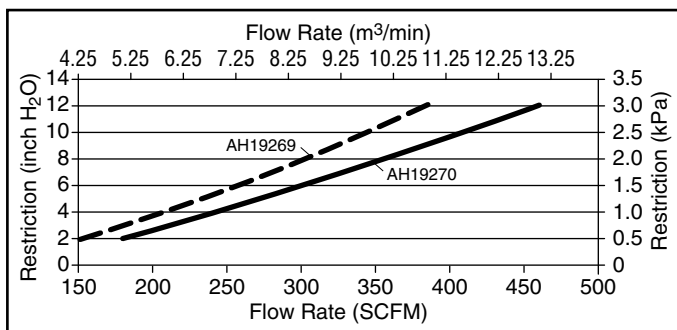
Dimensions



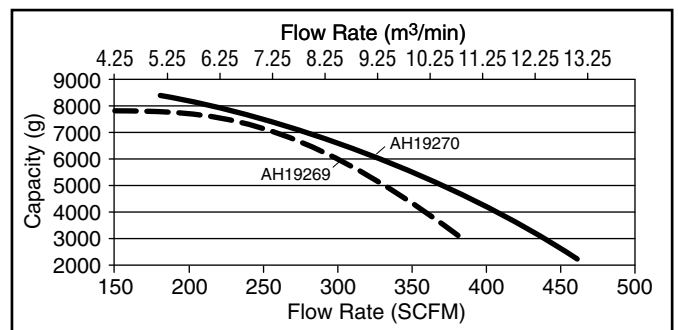
All dimensions are in inches (millimeters)

Performance

System Restriction vs Flow Rate



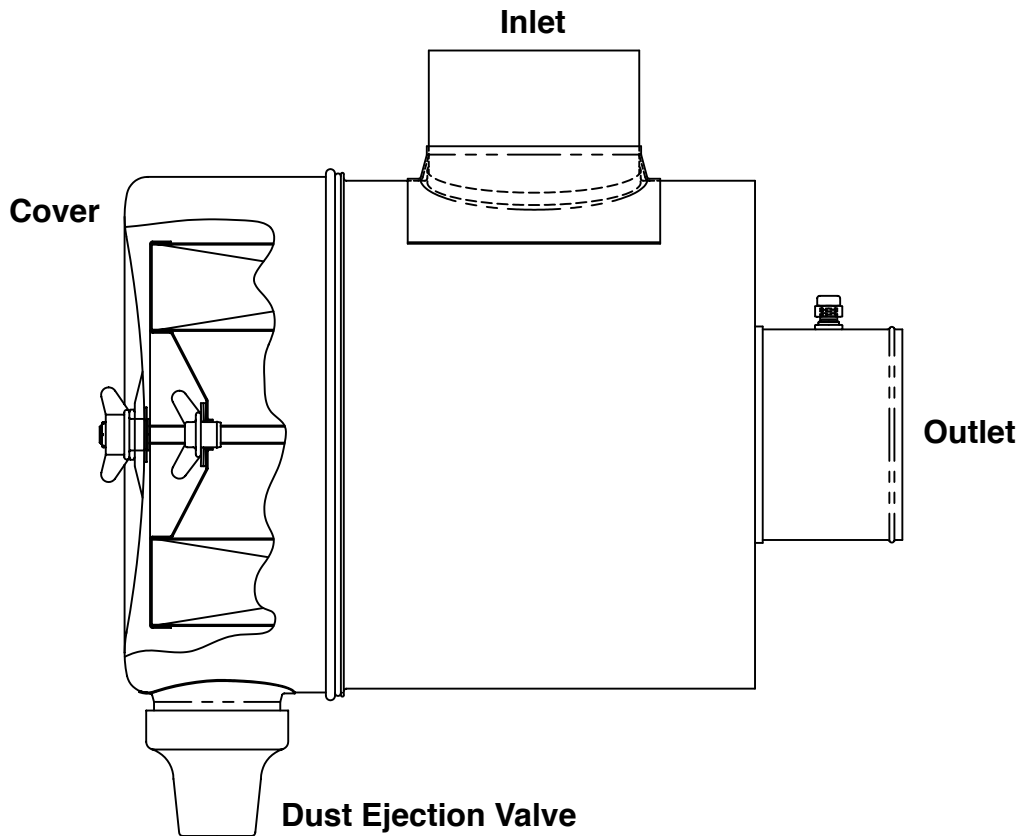
Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	302 (259)	8.55 (7.33)	6924 (6510)
8	2.0	358 (304)	10.14 (8.61)	5864 (5245)
10	2.5	410 (345)	11.61 (9.77)	4550 (3812)
12	3.0	460(383)	13.03 (10.85)	2236 (3042)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19069	AH19070
Length Overall	18.5" (469.4 mm)	18.5" (469.4 mm)
Body OD, Max.	12.1" (306.6 mm)	12.1" (306.6 mm)
Flow, Min. (2" Restriction)	240 CFM (6.8 m ³ /min)	175 CFM (5.0 m ³ /min)
Flow, Max. (12" Restriction)	631 CFM (17.9 m ³ /min)	447 CFM (12.7 m ³ /min)
Secondary Element	No	Yes
Housing Material	Metal	Metal
Pre-cleaner Integral	Yes	Yes

Dust Holding Capacity per Cummins® Specification

Specification	AH19069	AH19070
Allowable Flow for 3 g/CFM	< 615 CFM (17.4 m ³ /min)	< 441 CFM (12.5 m ³ /min)
Allowable Flow for 10 g/CFM	< 495 CFM (14.0 m ³ /min)	< 441 CFM (12.5 m ³ /min)
Allowable Flow for 25 g/CFM	< 329 CFM (9.3 m ³ /min)	< 320 CFM (9.1 m ³ /min)

Specifications subject to change without notice.

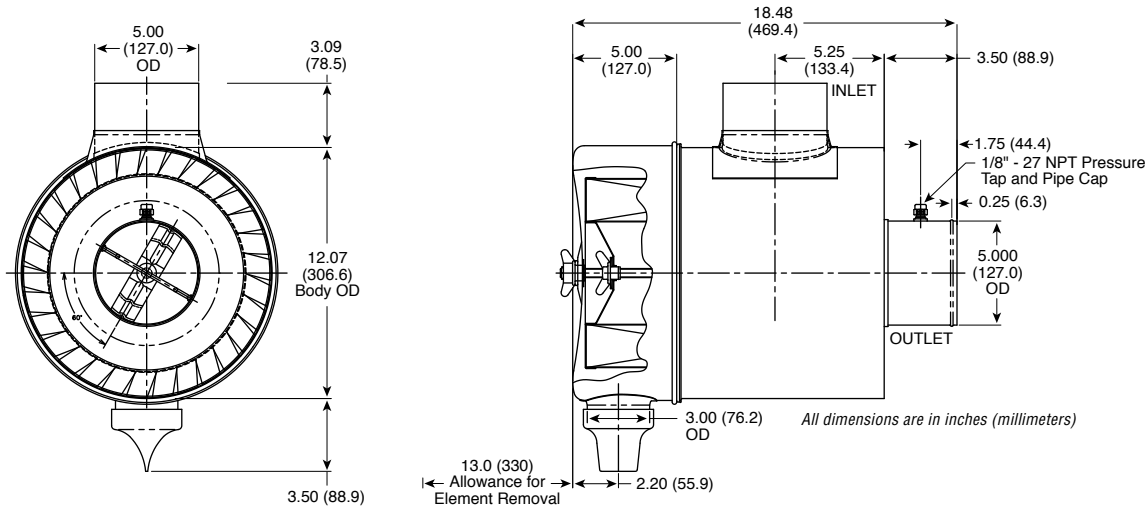
Ordering Information

Air Cleaners	
Part Number	Description
AH19069	Metal Air Cleaner – without Secondary Element
AH19070	Metal Air Cleaner – with Secondary Element

Accessories	
Part Number	Description
3918231 S	Mounting Bracket
2	No. of Brackets Required
3316660 S	Outlet Band Clamps
3918205 S	Weather Hood
3316610 S	Hump-Hose
3316570 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

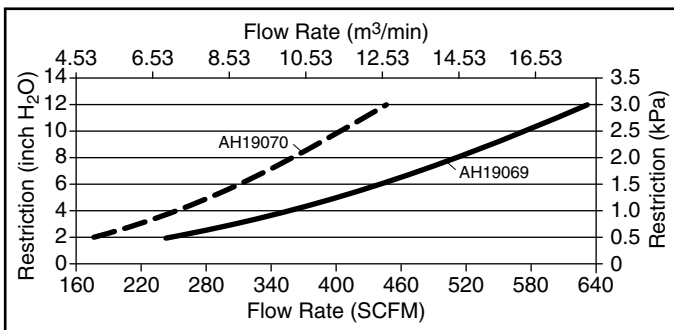
Service Parts	
Part Number	Description
AF418	Primary Element
AF418M	Magnum Primary Element
AF490M	Secondary Element
3947069 S	Dust Ejection Valve
3955482 S 3955487 S	Wing Nut/Clips
3955466 S	Cover Assembly

Dimensions

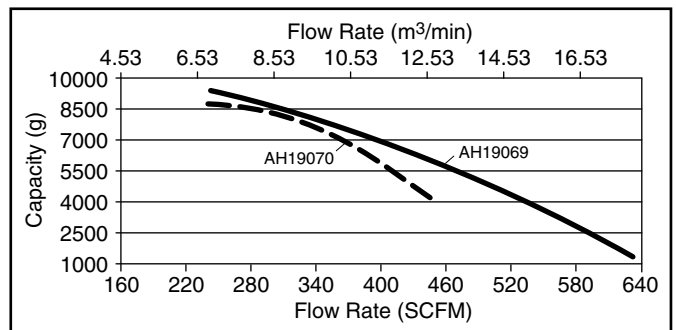


Performance

System Restriction vs Flow Rate



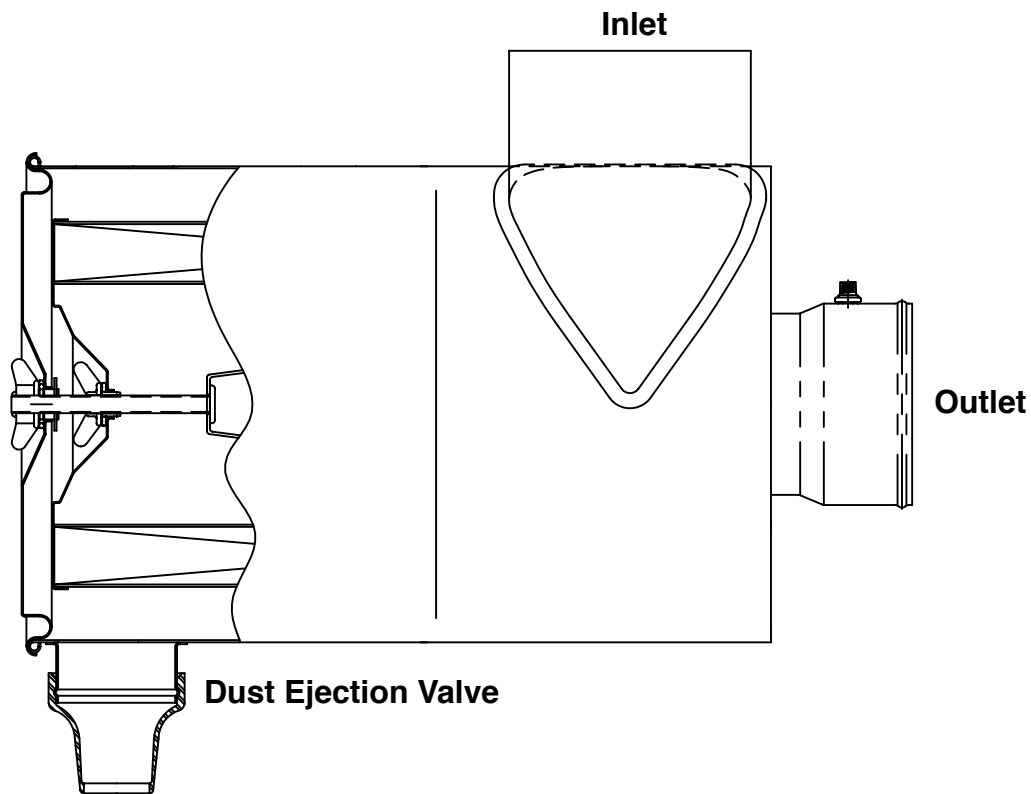
Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m³/min	grams
6	1.5	439 (310)	12.43 (8.78)	6187 (8161)
8	2.0	511 (361)	14.47 (10.22)	4580 (7101)
10	2.5	574 (406)	16.26 (11.50)	2984 (5743)
12	3.0	631 (447)	17.87 (12.66)	1397 (4171)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19271	AH19272
Length Overall	21.9" (556.3 mm)	21.9" (556.3 mm)
Body OD, Max.	11.0" (279.7 mm)	11.0" (279.7 mm)
Flow, Min. (2" Restriction)	400 CFM (11.3 m ³ /min)	270 CFM (7.7 m ³ /min)
Flow, Max. (12" Restriction)	767 CFM (21.7 m ³ /min)	686 CFM (19.4 m ³ /min)
Secondary Element	No	Yes
Housing Material	Metal	Metal
Pre-cleaner Integral	Yes	Yes

Dust Holding Capacity per Cummins® Specification

Specification	AH19271	AH19272
Allowable Flow for 10 g/CFM	< 674 CFM (19.1 m ³ /min)	< 653 CFM (18.5 m ³ /min)
Allowable Flow for 25 g/CFM	< 445 CFM (12.6 m ³ /min)	< 401 CFM (11.4 m ³ /min)

Specifications subject to change without notice.

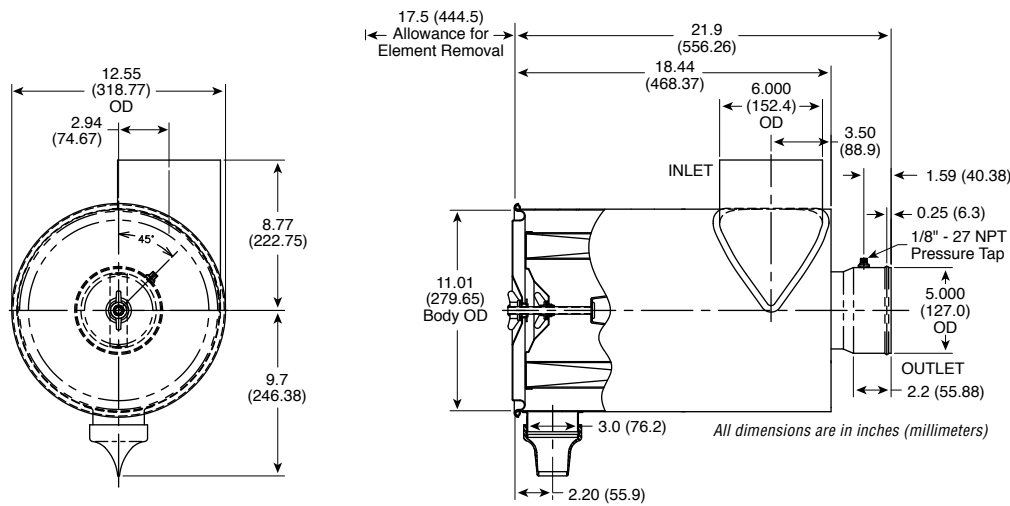
Ordering Information

Air Cleaners	
Part Number	Description
AH19271	Metal Air Cleaner – without Secondary Element
AH19272	Metal Air Cleaner – with Secondary Element

Accessories	
Part Number	Description
3918230 S	Mounting Bracket
2	No. of Brackets Required
3316660 S	Outlet Band Clamps
3918206 S	Weather Hood
3316610 S	Hump-Hose
3316570 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

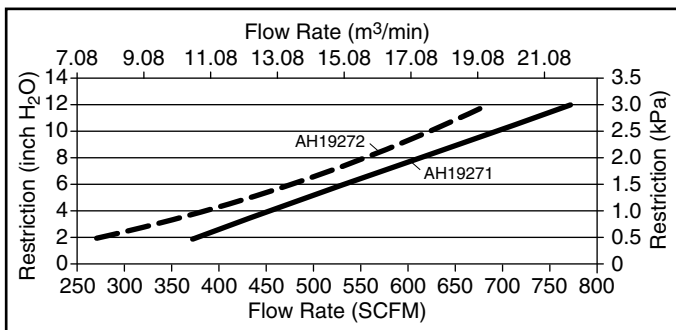
Service Parts	
Part Number	Description
AF4754	Primary Element
N/A	Magnum Primary Element
AF4755	Secondary Element
3947069 S	Dust Ejection Valve
3955487 S 3955482 S	Wing Nut/Clips
3955462 S	Cover Assembly

Dimensions

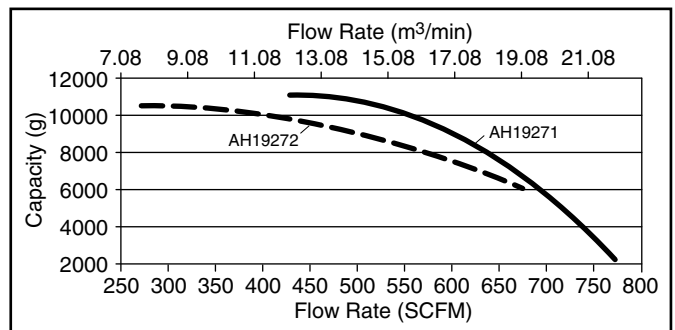


Performance

System Restriction vs Flow Rate



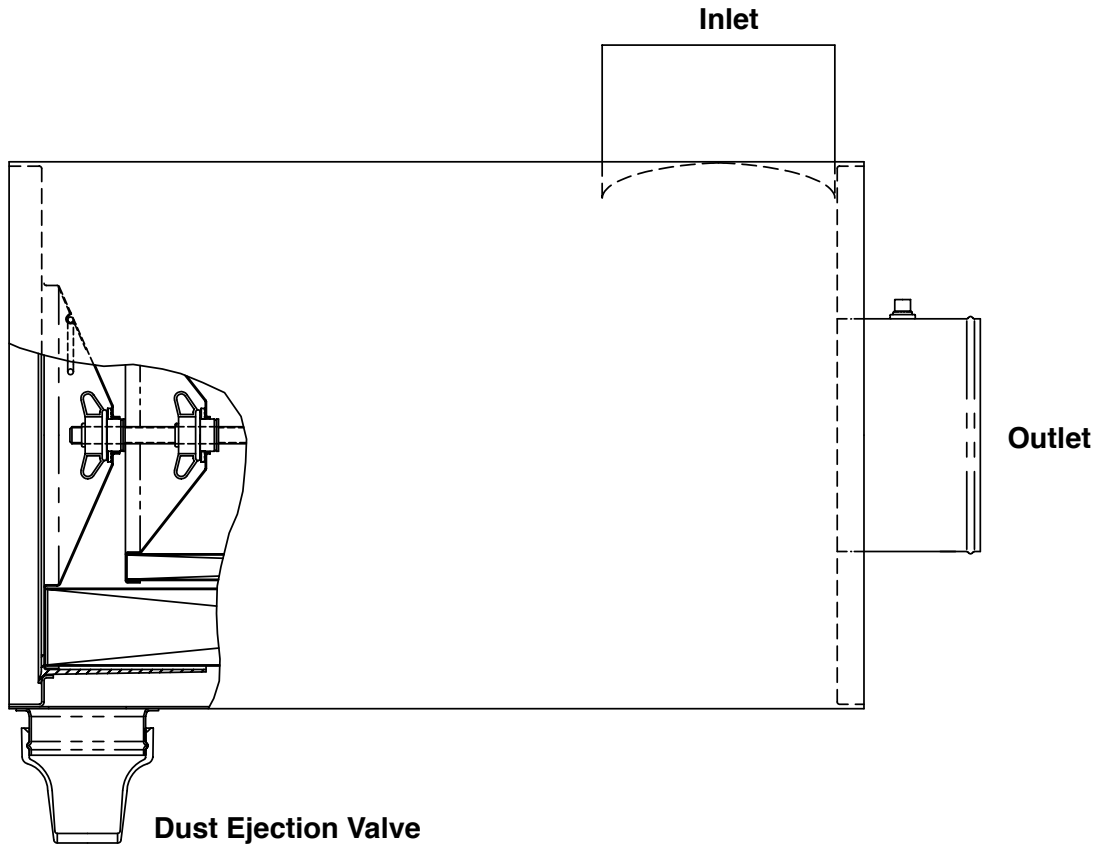
Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m³/min	grams
6	1.5	532 (480)	15.07 (13.59)	10442 (9294)
8	2.0	612 (557)	17.33 (15.77)	8749 (8263)
10	2.5	692 (625)	19.60 (17.70)	6036 (7100)
12	3.0	772 (686)	21.86 (19.43)	2303 (5844)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19259
Length Overall	25.1" (636.3 mm)
Body OD	14.1" (358.1 mm)
Flow, Min. (2" Restriction)	355 CFM (10.1 m ³ /min)
Flow, Max. (12" Restriction)	897 CFM (25.4 m ³ /min)
Secondary Element	Yes
Housing Material	Metal
Pre-cleaner Integral	Yes

Dust Holding Capacity per Cummins® Specification

Specification	AH19259
Allowable Flow for 10 g/CFM	< 897 CFM (25.4 m ³ /min)*
Allowable Flow for 25 g/CFM	< 841 CFM (23.8 m ³ /min)

* Flow rate limited by restriction.

Specifications subject to change without notice.

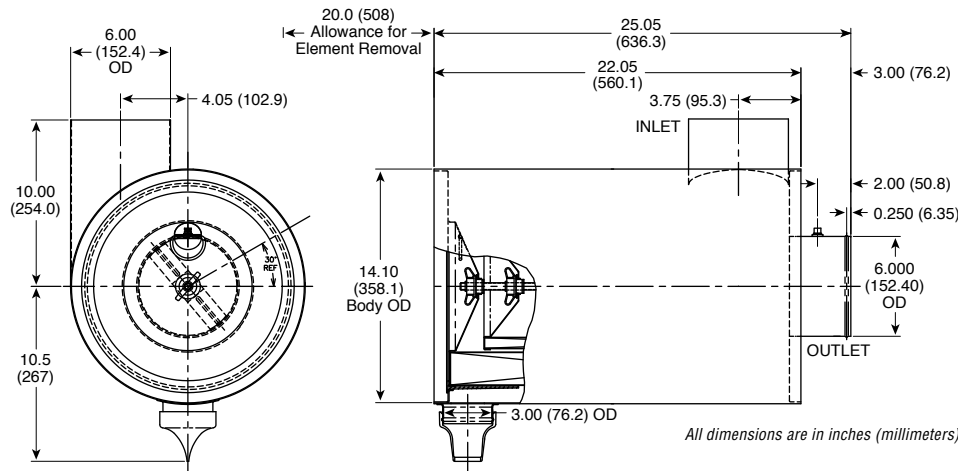
Ordering Information

Air Cleaner	
Part Number	Description
AH19259	Metal Air Cleaner

Accessories	
Part Number	Description
3918234 S	Mounting Bracket
2	No. of Brackets Required
3316662 S	Outlet Band Clamps
3918206 S 3918207 S	Weather Hood
3316612 S	Hump-Hose
3316573 S	90° Elbow
3316589 S 3316590 S	90° Reducing Elbow
3946326 S	Restriction Indicator

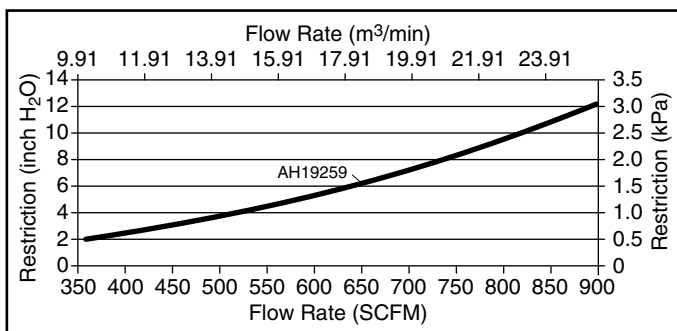
Service Parts	
Part Number	Description
AF1828	Primary Element
N/A	Magnum Primary Element
AF1894M	Secondary Element
3947069 S	Dust Ejection Valve
3955490 S	Wing Nut/Clips
N/A	Cover Assembly

Dimensions

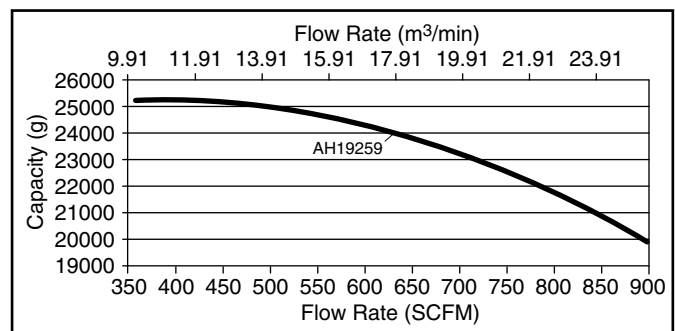


Performance

System Restriction vs Flow Rate



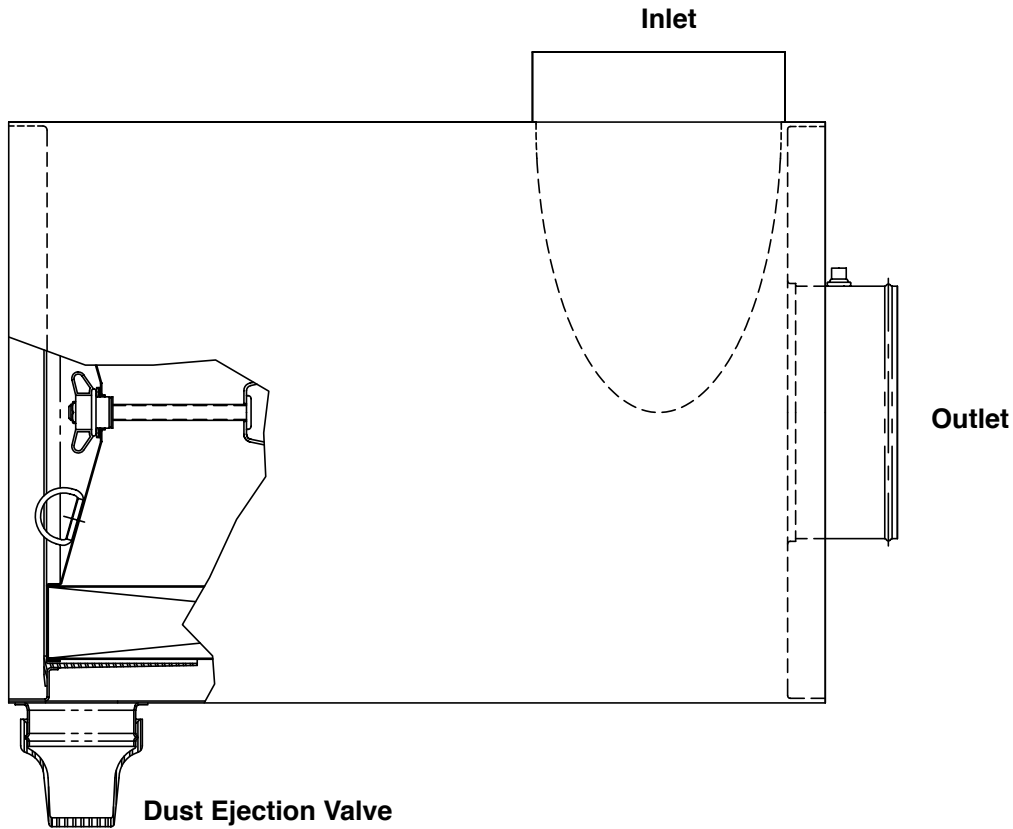
Typical System Capacity vs Flow Rate



Restriction		Flow Rate		Typical Capacity
in H ₂ O	kPa	CFM	m³/min	grams
6	1.5	640	18.12	23918
8	2.0	737	20.87	22728
10	2.5	821	23.25	21390
12	3.0	897	25.40	19950

ISO Coarse Dust
 2.0 g/m³ Feed Rate
 6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19073	AH19074
Length Overall	24.6" (625.9 mm)	24.6" (625.9 mm)
Body OD, Max.	16.1" (408.9 mm)	16.1" (408.9 mm)
Flow, Min. (2" Restriction)	570 CFM (16.4 m ³ /min)	555 CFM (15.7 m ³ /min)
Flow, Max. (12" Restriction)	1275 CFM (36.1 m ³ /min)	1224 CFM (34.7 m ³ /min)
Secondary Element	No	Yes
Housing Material	Metal	Metal
Pre-cleaner Integral	Yes	Yes

Dust Holding Capacity per Cummins® Specification

Specification	AH19273	AH19074
Allowable Flow for 10 g/CFM	< 1275 CFM (36.1 m ³ /min)*	1224 CFM (34.7 m ³ /min)*
Allowable Flow for 25 g/CFM	< 938 CFM (26.6 m ³ /min)	917 CFM (26.0 m ³ /min)

* Flow rate limited by restriction.

Specifications subject to change without notice.

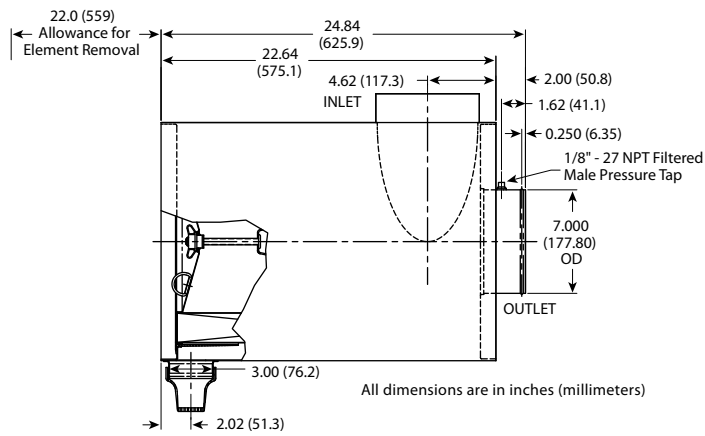
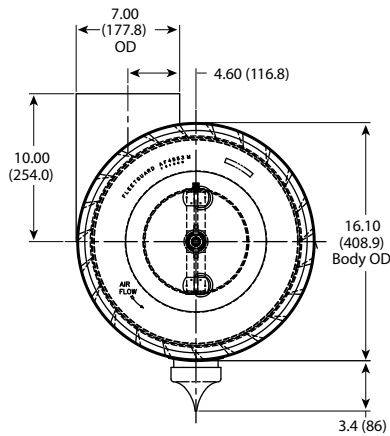
Ordering Information

Air Cleaners	
Part Number	Description
AH19073	Metal Air Cleaner – without Secondary Element
AH19074	Metal Air Cleaner – with Secondary Element

Accessories	
Part Number	Description
3918236 S	Mounting Bracket
2	No. of Brackets Required
3316663 S	Outlet Band Clamps
3918208 S 3918209 S	Weather Hood
3316613 S	Hump-Hose
3316576 S	90° Elbow
3316591 S 3316592 S 3316593 S	90° Reducing Elbow
3946326 S	Restriction Indicator

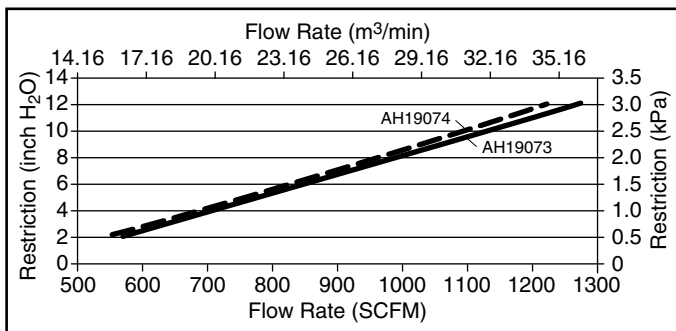
Service Parts	
Part Number	Description
AF4553M	Primary Element
AF4553M	Magnum Primary Element
AF4554M	Secondary Element
3947069 S	Dust Ejection Valve
3955490 S	Wing Nut/Clips
N/A	Cover Assembly

Dimensions

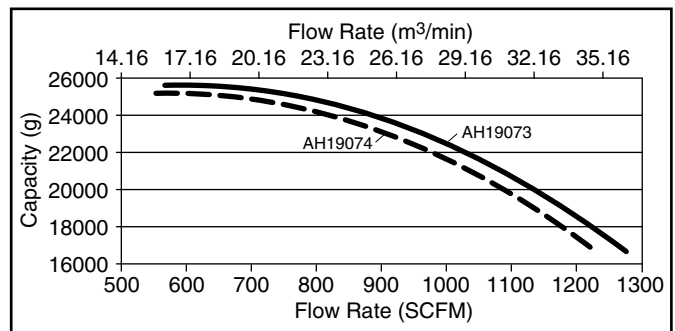


Performance

System Restriction vs Flow Rate



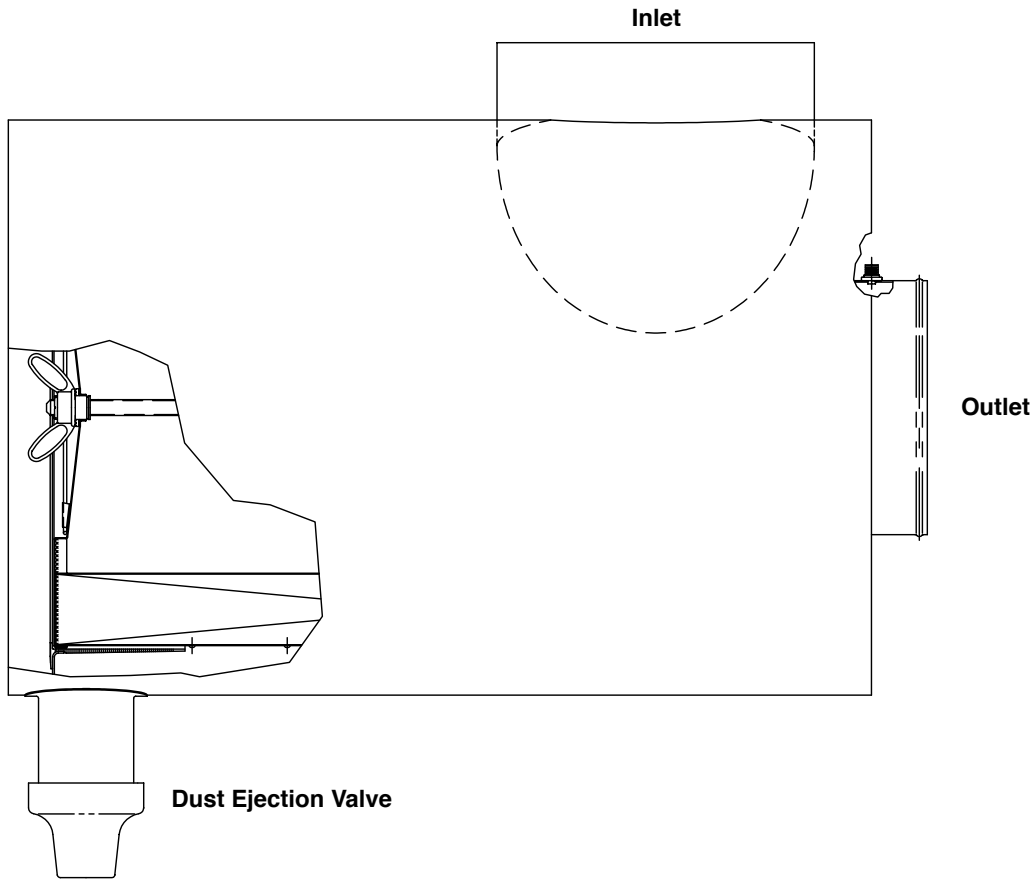
Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Flow Rate () = with Secondary
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	844 (832)	23.90 (23.56)	24507 (23938)
8	2.0	987 (967)	27.95 (27.39)	22726 (22166)
10	2.5	1131 (1098)	32.03 (31.10)	20130 (19751)
12	3.0	1275 (1224)	36.11 (34.66)	16719 (16757)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19075	AH19076
Length Overall	27.3" (693.0 mm)	27.3" (693.0 mm)
Body OD, Max.	18.1" (460.2 mm)	18.1" (460.2 mm)
Flow, Min. (2" Restriction)	700 CFM (19.8 m ³ /min)	650 CFM (18.4 m ³ /min)
Flow, Max. (12" Restriction)	1815 CFM (51.4 m ³ /min)	1765 CFM (50.0 m ³ /min)
Secondary Element	No	Yes
Housing Material	Metal	Metal
Pre-cleaner Integral	Yes	Yes

Dust Holding Capacity per Cummins® Specification

Specification	AH19273	AH19074
Allowable Flow for 10 g/CFM	< 1815 CFM (51.4 m ³ /min)*	1765 CFM (50.0 m ³ /min)*
Allowable Flow for 25 g/CFM	< 1320 CFM (37.4 m ³ /min)	1260 CFM (35.9 m ³ /min)

* Flow rate limited by restriction.

Specifications subject to change without notice.

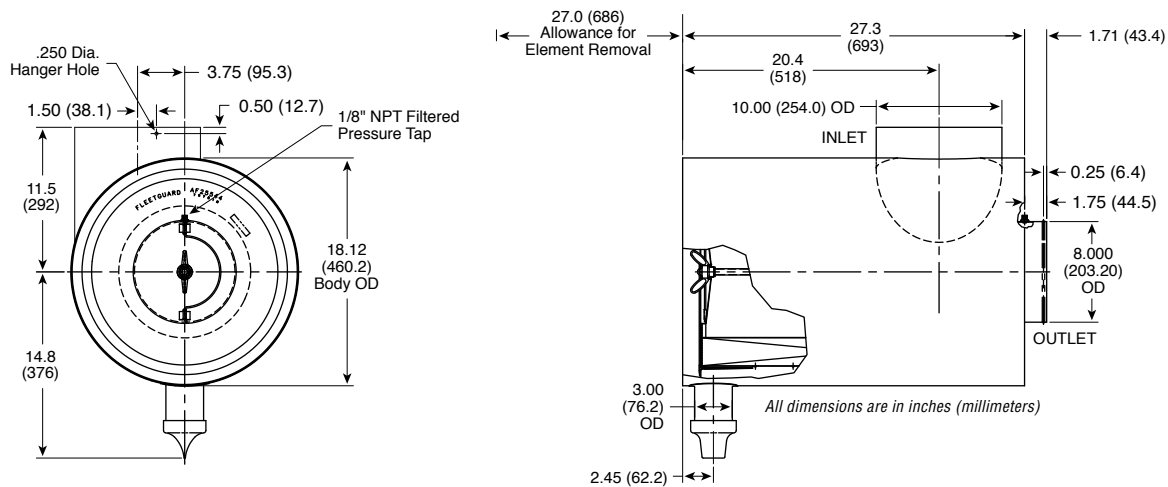
Ordering Information

Air Cleaners	
Part Number	Description
AH19075	Metal Air Cleaner – without Secondary Element
AH19076	Metal Air Cleaner – with Secondary Element

Accessories	
Part Number	Description
3918237 S	Mounting Bracket
2	No. of Brackets Required
3316664 S	Outlet Band Clamps
3940356 S	Weather Hood
3316614 S	Hump-Hose
3316577 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

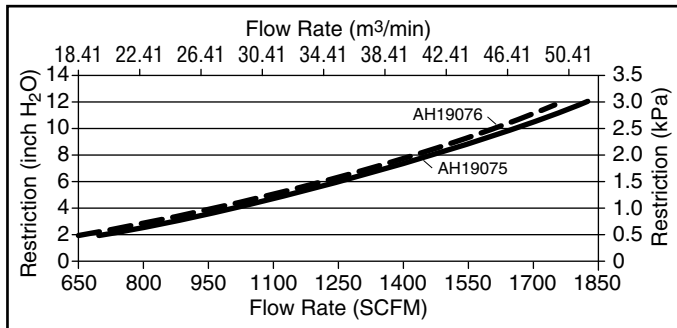
Service Parts	
Part Number	Description
AF25544	Primary Element
N/A	Magnum Primary Element
AF25545	Secondary Element
3947069 S	Dust Ejection Valve
3955479 S	Wing Nut/Clips
N/A	Cover Assembly

Dimensions

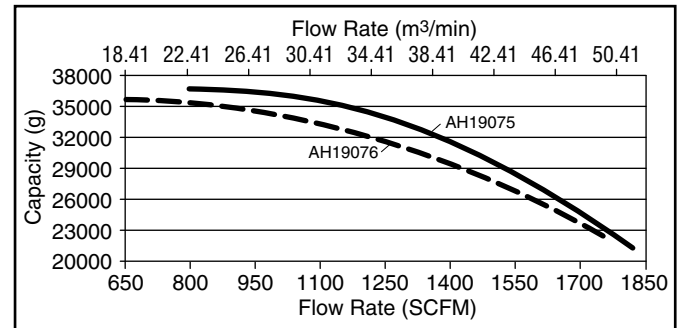


Performance

System Restriction vs Flow Rate



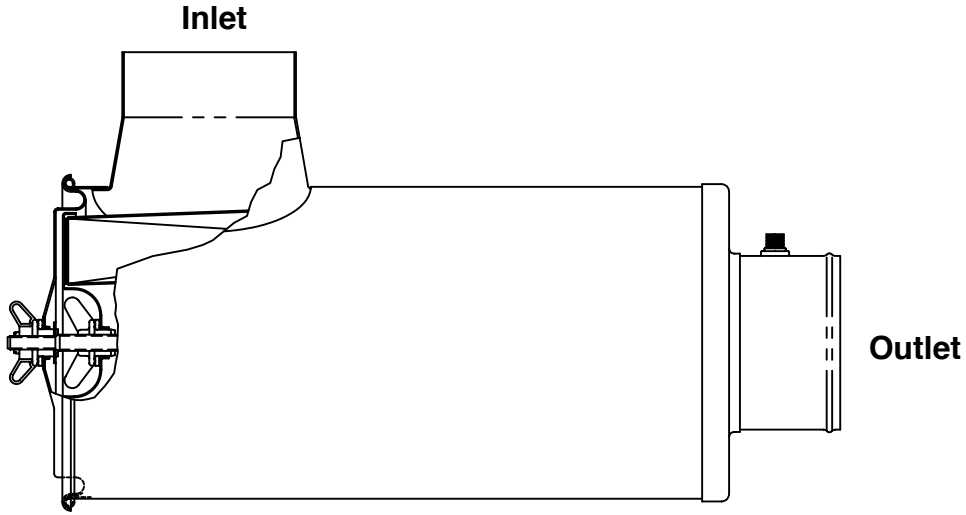
Typical System Capacity vs Flow Rate



Restriction		Flow Rate () = with Secondary		Typical Capacity () = with Secondary
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	1250 (1211)	35.40 (34.30)	33992 (32113)
8	2.0	1461 (1418)	41.38 (40.16)	30490 (29169)
10	2.5	1650 (1600)	46.73 (45.31)	26181 (25850)
12	3.0	1821 (1765)	51.57 (49.98)	21281 (22266)

ISO Coarse Dust
2.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19077
Length Overall	17.9" (454.9 mm)
Body OD	7.2" (182.4 mm)
Flow, Min. (2" Restriction)	188 CFM (5.3 m ³ /min)
Flow, Max. (12" restriction)	468 CFM (13.3 m ³ /min)
Secondary Element	No
Housing Material	Metal
Pre-cleaner Integral	No

Dust Holding Capacity per Cummins® Specification

Specification	AH19077
Allowable Flow for 3 g/CFM	< 329 CFM (9.3 m ³ /min)
Allowable Flow for 10 g/CFM	< 181 CFM (5.1 m ³ /min)

Specifications subject to change without notice.

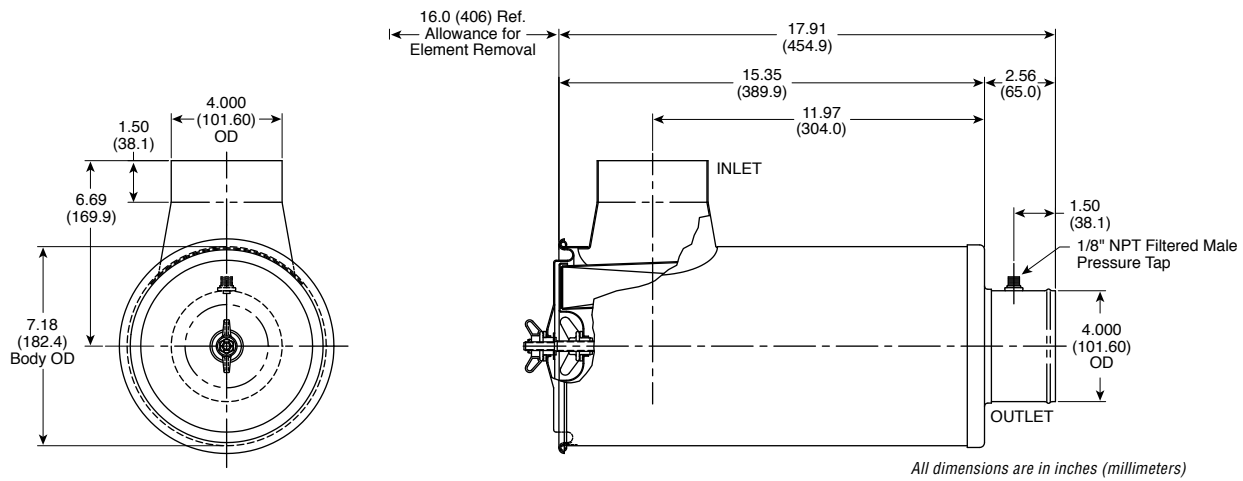
Ordering Information

Air Cleaner	
Part Number	Description
AH19077	Metal Air Cleaner

Accessories	
Part Number	Description
3918221 S	Mounting Bracket
2	No. of Brackets Required
3316658 S	Outlet Band Clamps
3918204 S	Weather Hood
3316608 S	Hump-Hose
3316568 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

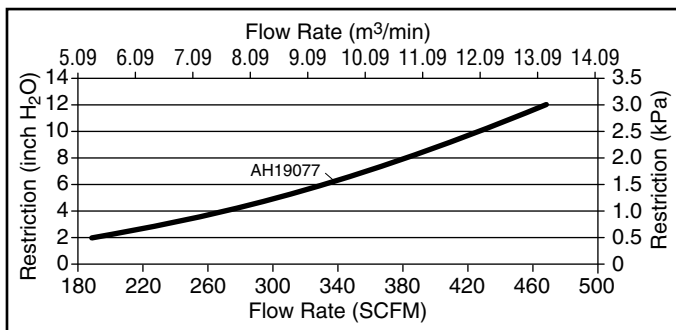
Service Parts	
Part Number	Description
AF25546	Primary Element
N/A	Magnum Primary Element
N/A	Secondary Element
N/A	Dust Ejection Valve
3955488 S	Wing Nut/Clips
3955489 S	
3955471 S	Cover Assembly

Dimensions

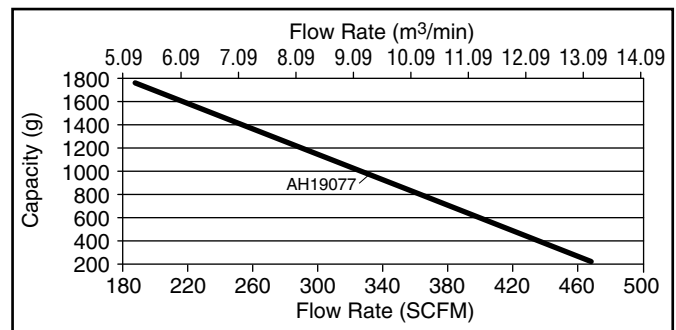


Performance

System Restriction vs Flow Rate



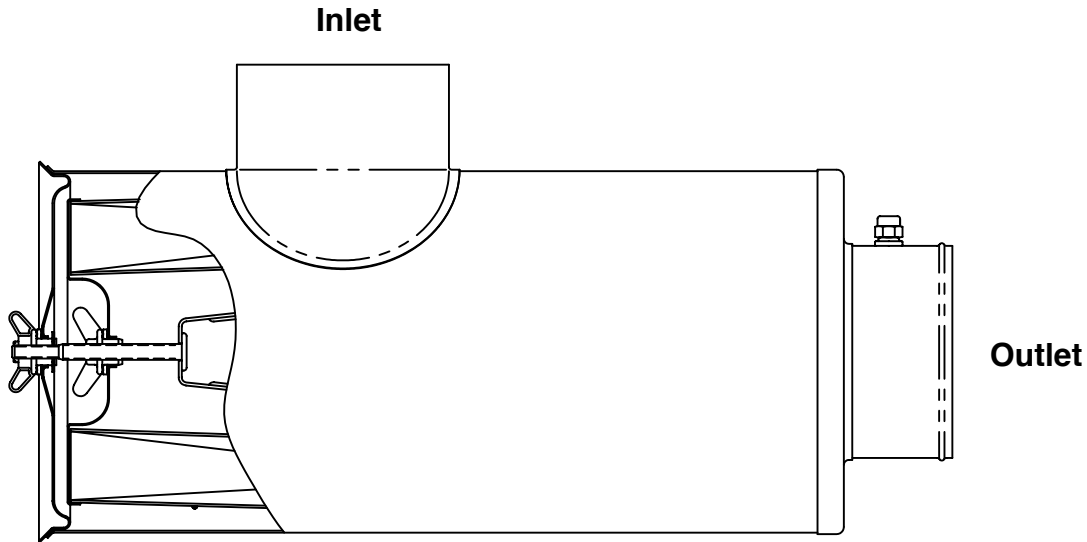
Typical System Capacity vs Flow Rate



Restriction		Flow Rate		Typical Capacity
in H ₂ O	kPa	CFM	m³/min	grams
6	1.5	331	9.37	980
8	2.0	382	10.82	696
10	2.5	428	12.12	447
12	3.0	468	13.25	223

ISO Fine Dust
 1.0 g/m³ Feed Rate
 6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19078
Length Overall	21.5" (547.1 mm)
Body OD	8.5" (216.4 mm)
Flow, Min. (2" Restriction)	310 CFM (8.8 m ³ /min)
Flow, Max. (12" Restriction)	791 CFM (22.4 m ³ /min)
Secondary Element	No
Housing Material	Metal
Pre-cleaner Integral	No

Dust Holding Capacity per Cummins® Specification

Specification	AH19078
Allowable Flow for 3 g/CFM	< 520 CFM (14.7 m ³ /min)
Allowable Flow for 10 g/CFM	< 250 CFM (7.1 m ³ /min)

Specifications subject to change without notice.

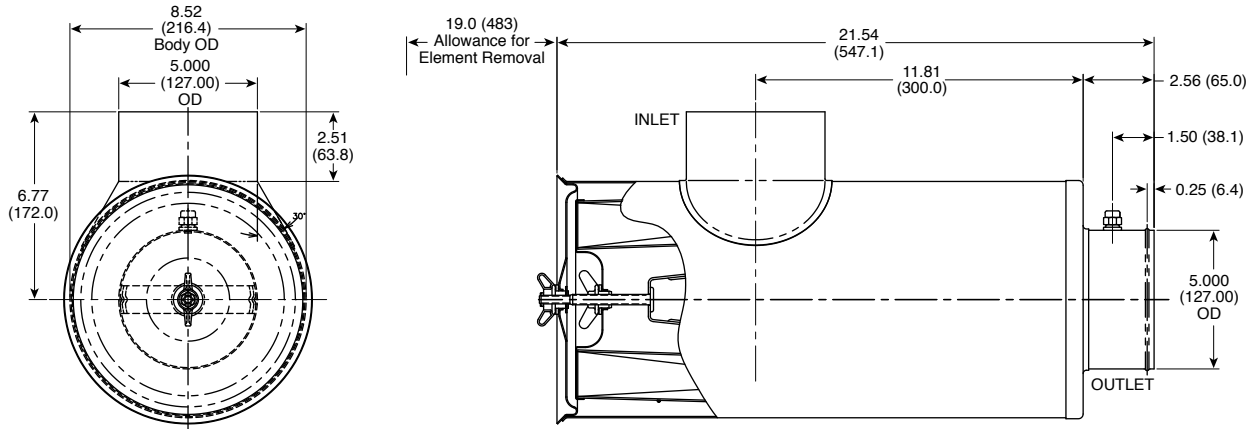
Ordering Information

Air Cleaner	
Part Number	Description
AH19078	Metal Air Cleaner

Accessories	
Part Number	Description
3918224 S	Mounting Bracket
2	No. of Brackets Required
3316660 S	Outlet Band Clamps
3918205 S	Weather Hood
3316610 S	Hump-Hose
3316570 S	90° Elbow
N/A	90° Reducing Elbow
3946326 S	Restriction Indicator

Service Parts	
Part Number	Description
AF25547	Primary Element
N/A	Magnum Primary Element
N/A	Secondary Element
N/A	Dust Ejection Valve
3955488 S	Wing Nut/Clips
3955489 S	
3955473 S	Cover Assembly

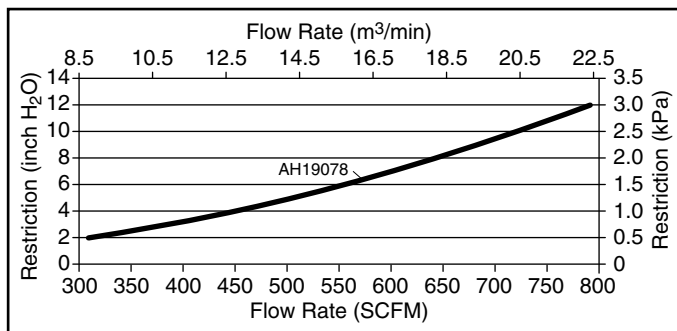
Dimensions



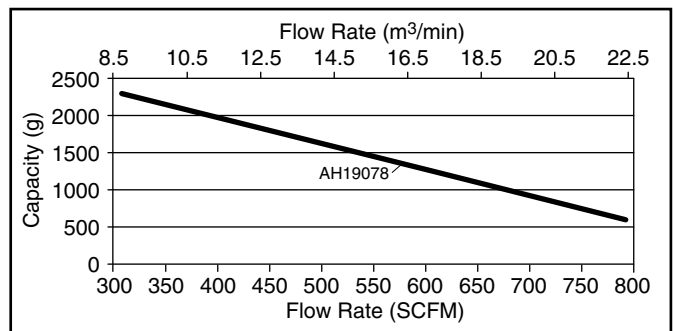
All dimensions are in inches (millimeters)

Performance

System Restriction vs Flow Rate



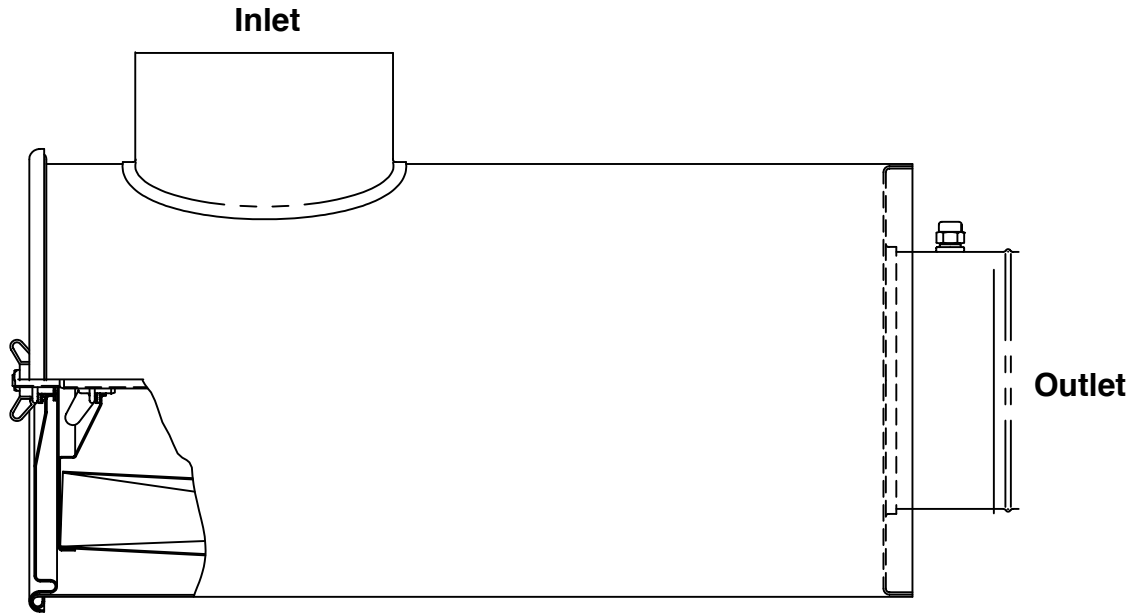
Typical System Capacity vs Flow Rate



Restriction		Flow Rate		Typical Capacity
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	555	15.72	1434
8	2.0	643	18.21	1125
10	2.5	721	20.42	853
12	3.0	791	22.40	608

ISO Fine Dust
 1.0 g/m³ Feed Rate
 6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19079
Length Overall	23.16" (585.7 mm)
Body OD	10.1" (256.5 mm)
Flow, Min. (2" Restriction)	465 CFM (13.2 m ³ /min)
Flow, Max. (12" Restriction)	1156 CFM (32.7 m ³ /min)
Secondary Element	No
Housing Material	Metal
Pre-cleaner Integral	No

Dust Holding Capacity per Cummins® Specification

Specification	AH19079
Allowable Flow for 3 g/CFM	< 692 CFM (19.6 m ³ /min)
Allowable Flow for 10 g/CFM	< 329 CFM (9.3 m ³ /min)

Specifications subject to change without notice.

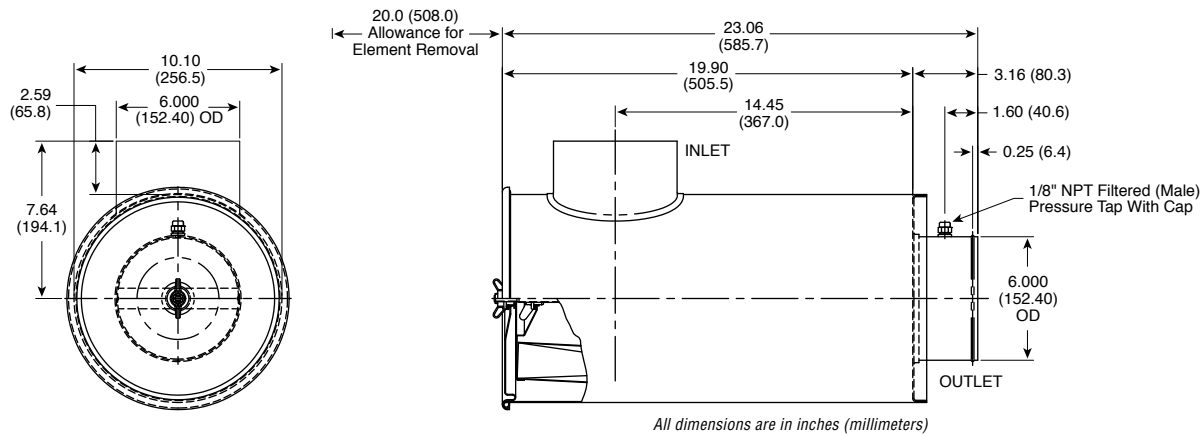
Ordering Information

Air Cleaner	
Part Number	Description
AH19079	Metal Air Cleaner

Accessories	
Part Number	Description
3918226 S	Mounting Bracket
2	No. of Brackets Required
3316662 S	Outlet Band Clamps
3918206 S 3918207 S	Weather Hood
3316612 S	Hump-Hose
3316573 S	90° Elbow
3316589 S 3316590 S	90° Reducing Elbow
3946326 S	Restriction Indicator

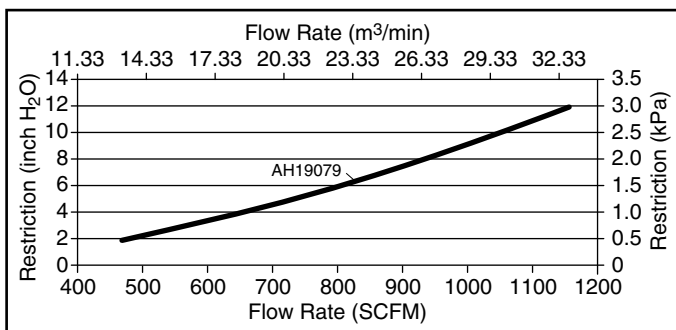
Service Parts	
Part Number	Description
AF25548	Primary Element
N/A	Magnum Primary Element
N/A	Secondary Element
N/A	Dust Ejection Valve
3955488 S 3955489 S	Wing Nut/Clips
3955474 S	Cover Assembly

Dimensions

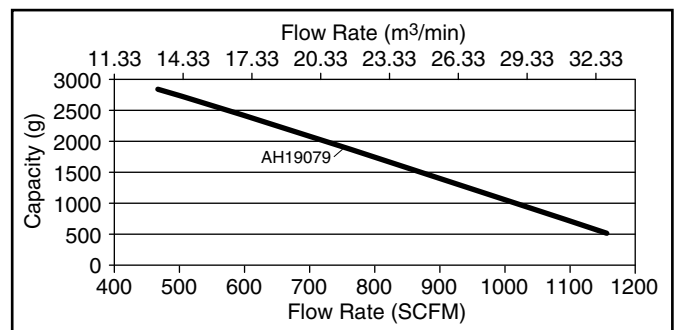


Performance

System Restriction vs Flow Rate



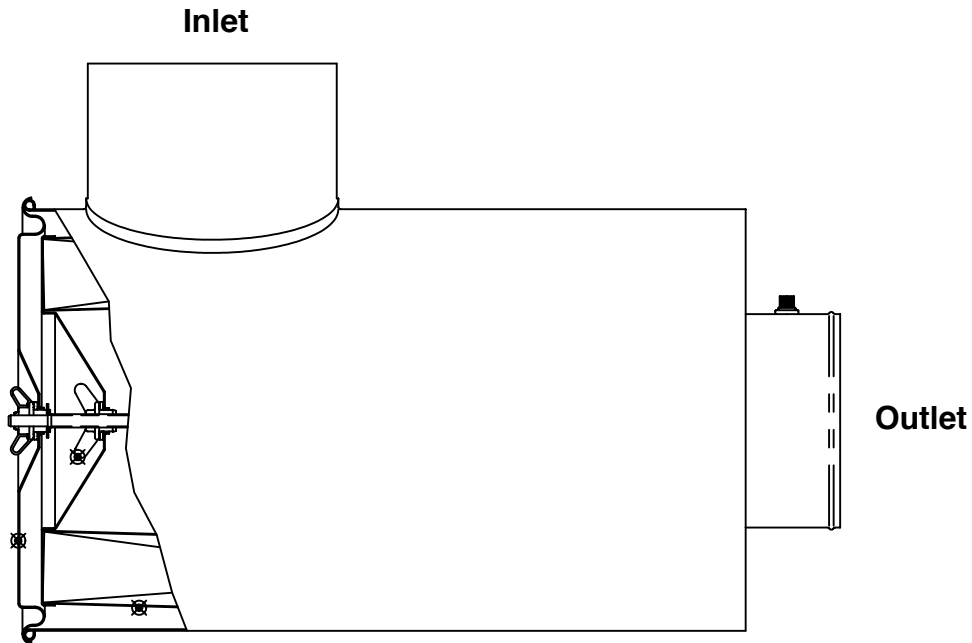
Typical System Capacity vs Flow Rate



Restriction		Flow Rate		Typical Capacity
in H ₂ O	kPa	CFM	m³/min	grams
6	1.5	805	22.80	1697
8	2.0	935	26.48	1262
10	2.5	1051	29.76	874
12	3.0	1156	32.74	521

ISO Fine Dust
1.0 g/m³ Feed Rate
6.25 kPa (25" H₂O) Terminal Restriction





Specifications

Specification	AH19080
Length Overall	23.0" (583.2 mm)
Body OD	10.0" (255.0 mm)
Flow, Min. (2" Restriction)	470 CFM (13.3 m ³ /min)
Flow, Max. (12" Restriction)	1217 CFM (34.5 m ³ /min)
Secondary Element	No
Housing Material	Metal
Pre-cleaner Integral	No

Dust Holding Capacity per Cummins® Specification

Specification	AH19080
Allowable Flow for 3 g/CFM	< 956 CFM (27.1 m ³ /min)
Allowable Flow for 10 g/CFM	< 473 CFM (13.4 m ³ /min)

Specifications subject to change without notice.

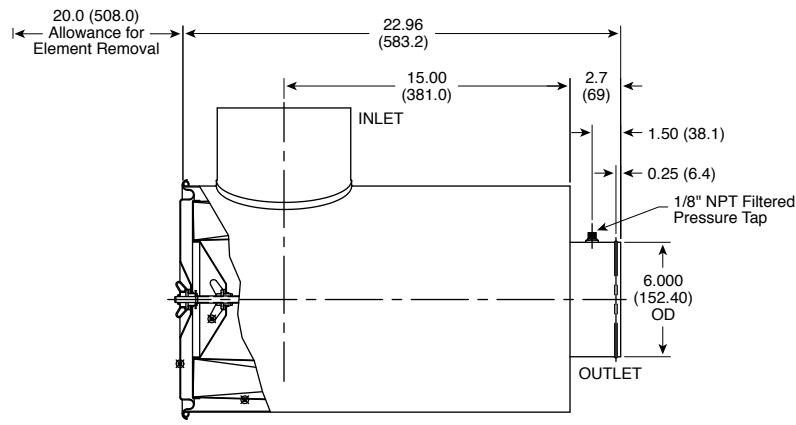
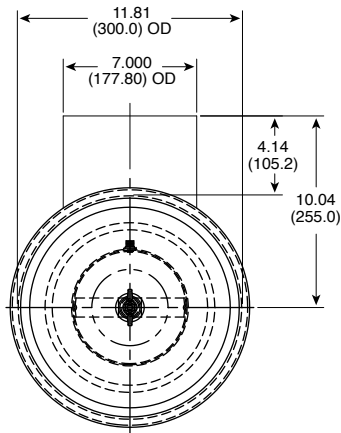
Ordering Information

Air Cleaner	
Part Number	Description
AH19080	Metal Air Cleaner

Accessories	
Part Number	Description
3918230 S	Mounting Bracket
2	No. of Brackets Required
3316662 S	Outlet Band Clamps
3918208 S	Weather Hood
3918209 S	Weather Hood
3316612 S	Hump-Hose
3316573 S	90° Elbow
3316589 S	90° Reducing Elbow
3316590 S	90° Reducing Elbow
3946326 S	Restriction Indicator

Service Parts	
Part Number	Description
AF25549	Primary Element
N/A	Magnum Primary Element
N/A	Secondary Element
N/A	Dust Ejection Valve
3955488 S	Wing Nut/Clips
3955489 S	Wing Nut/Clips
3955475 S	Cover Assembly

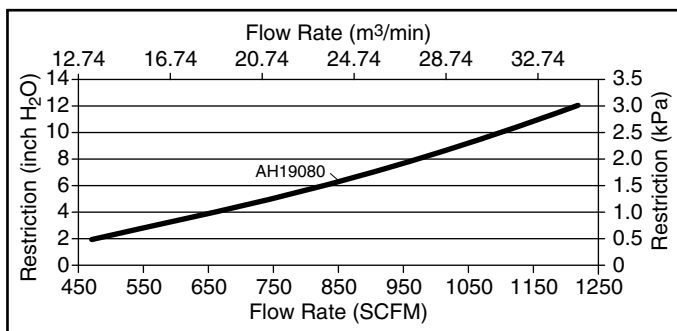
Dimensions



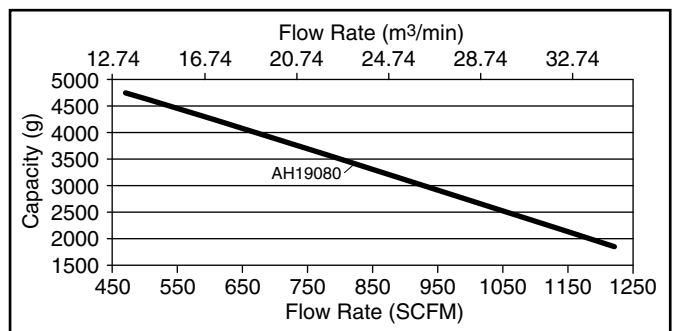
All dimensions are in inches (millimeters)

Performance

System Restriction vs Flow Rate



Typical System Capacity vs Flow Rate



Restriction		Flow Rate		Typical Capacity
in H ₂ O	kPa	CFM	m ³ /min	grams
6	1.5	825	23.36	3374
8	2.0	968	27.41	2822
10	2.5	1098	31.10	2323
12	3.0	1217	34.47	1864

ISO Fine Dust
 1.0 g/m³ Feed Rate
 6.25 kPa (25" H₂O) Terminal Restriction

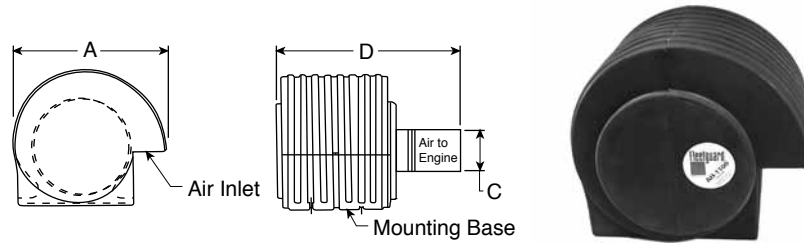


Disposable Air Cleaners

Throw-Away Style

Features

- Disposable “Throw-Away” Plastic Housing
- Over 99% Efficiency
- Wide Range of Low to Medium Dust Concentration Applications
- Low Initial Cost
- Filter Elements Included



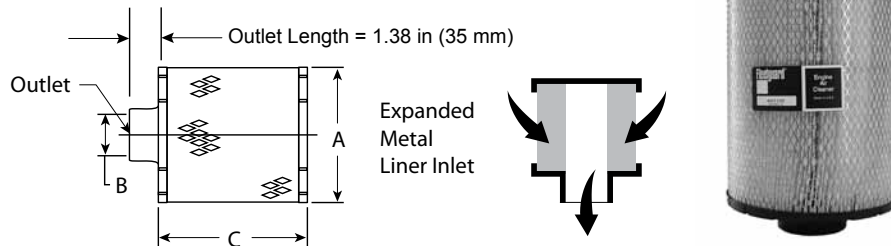
Part Number	Body Dia. in (mm) A	OD in (mm) C	Length in (mm) D	Airflow CFM			Airflow m³/min		
				6" H ₂ O	8" H ₂ O	10" H ₂ O	1.5 kPa	2.0 kPa	2.5 kPa
AH1100	17.4 (442)	5.5 (140)	14.6 (370)	700	820	920	19.8	23.2	26.0
AH1101	19.8 (503)	5.5 (140)	17.8 (453)	798	920	1040	22.6	26.0	29.4

ECB Style

Replaces Donaldson® ECB Duralite™ Style Disposable Housings and Filters

Applications

- Light and Medium Duty Engines
- Gas and Diesel Powered Vehicles and Equipment



Part Number	Body Dia. in (mm) A	Outlet ID in (mm) B	Length in (mm) C	Airflow CFM			Airflow m³/min			Media Type*
				4" H ₂ O	6" H ₂ O	8" H ₂ O	1 kPa	1.5 kPa	2 kPa	
AH1136	8.5 (215.9)	3 (76.2)	11 (279.4)	275	335	390	7.79	9.49	11.04	A
AH1141	8.5 (215.9)	4 (101.6)	11 (279.4)	280	400	470	7.93	11.33	13.30	A
AH1185	8.5 (215.9)	3 (76.2)	3 (76.2)	83	124	150	2.36	3.52	4.24	A
AH1188	8.5 (215.9)	3 (76.2)	8.5 (215.9)	176	256	300	4.90	7.25	8.50	A
AH19002	8.5 (215.9)	4 (101.6)	11 (279.4)	280	400	470	7.93	11.33	13.30	B
AH19003	8.5 (215.9)	3 (76.2)	11 (279.4)	275	335	390	7.20	9.16	11.89	B
AH19004	10.5 (266.7)	4 (101.6)	10.5 (266.7)	380	440	480	10.76	12.46	13.59	B
AH19037	10.5 (266.7)	4 (101.6)	10.5 (266.7)	450	590	680	12.74	16.70	19.25	A
AH19042	12.5 (317.5)	6 (152.4)	15 (381.0)	500	650	800	14.15	18.40	22.65	C

* A = Standard

B = Treated for higher humidity (marine applications, for example)

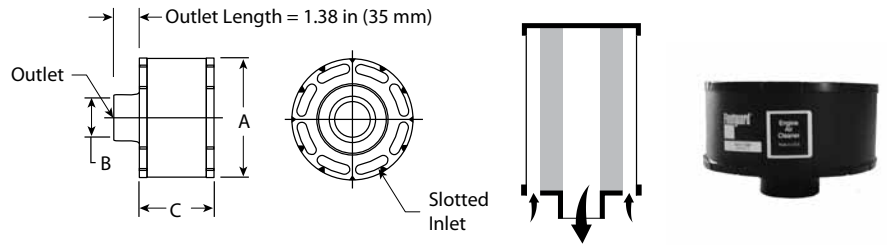
C = Reinforced to withstand higher pulsation applications

ECC Style

Replaces Donaldson® ECC Duralite™ Style Disposable Housings and Filters

Applications

- Light and Medium Duty Engines
- Gas and Diesel Powered Vehicles and Equipment



Part Number	Body Dia. in (mm) A	OD in (mm) B	Length in (mm) C	Airflow CFM			Airflow m³/min			Media Type
				4" H ₂ O	6" H ₂ O	8" H ₂ O	1 kPa	1.5 kPa	2 kPa	
AH1107	8.5 (215.9)	3 (76.2)	9.5 (241.35)	170	205	245	4.81	5.80	6.94	C
AH1138	8.5 (215.9)	3 (76.2)	5 (127.0)	150	180	215	4.25	5.10	6.09	C
AH1140	10.5 (266.7)	4 (101.6)	6 (152.4)	325	400	480	9.20	11.32	13.59	A
AH1190	8.5 (215.9)	2.5 (63.5)	6.5 (165.1)	130	165	188	3.68	4.67	5.32	C
AH1196	10.5 (266.7)	4 (101.6)	10.5 (266.7)	400	500	620	11.33	14.16	17.56	A
AH1198	8.5 (215.9)	2.5 (63.5)	4 (101.6)	112	145	170	3.17	4.11	4.81	C
AH1199	8.5 (215.9)	2.5 (63.5)	9.5 (241.3)	135	170	195	3.82	4.81	5.52	C
AH19000	5.5 (139.7)	1.75 (44.45)	4 (101.6)	64	82	94	1.81	2.32	2.66	C
AH19001	4.5 (114.3)	1.5 (38.1)	4.5 (114.3)	42	55	64	1.19	1.56	1.81	C
AH19220	12.5 (317.5)	5 (127.0)	11 (279.4)	485	620	760	13.73	17.55	21.52	A
AH19232	6.5 (165.1)	2 (50.8)	7.5 (190.5)	108	137	162	3.05	3.87	4.58	C

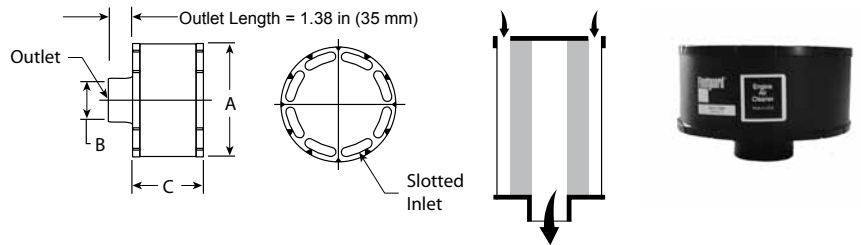
* A = Standard
 B = Treated for higher humidity (marine applications, for example)
 C = Reinforced to withstand higher pulsation applications

ECD Style

Replaces Donaldson ECD Duralite Style Disposable Housings and Filters

Applications

- Light and Medium Duty Engines
- Gas and Diesel Powered Vehicles and Equipment



Part Number	Body Dia. in (mm) A	OD in (mm) B	Length in (mm) C	Airflow CFM			Airflow m³/min		
				4" H ₂ O	6" H ₂ O	8" H ₂ O	1.0 kPa	1.5 kPa	2.0 kPa
AH19228	4.5 (114.3)	1.5 (38.1)	4.5 (114.3)	44	56	65	1.24	1.58	1.84

ECO II Single-Stage Air Cleaner for Medium-Duty Service

Its unique, tapered, offset, and oversized element in a highly efficient, compact design makes the ECO II today's leading choice for many stationary engine applications. The revolutionary design results in greatly reduced intake air restriction, and provides maximum airflow to the engine.

Features

- **99.9% Efficiency**



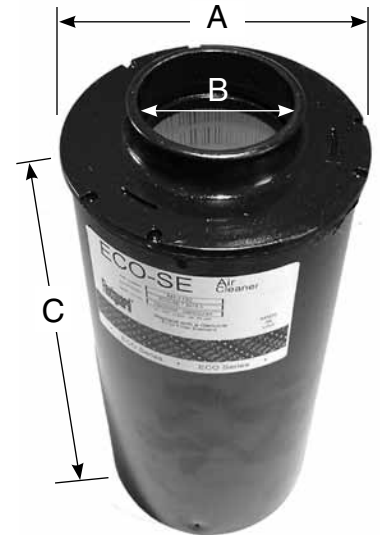
Component	Diameter in (mm)	Length in (mm)	Normal Rated Airflow CFM 8 in H ₂ O	Normal Rated Airflow m ³ /min 8 in H ₂ O	Intake Dia in (mm)	Outlet Dia in (mm)	Part Number
ECO II Air Cleaner	9.75 (248)	24 (610)	1100	–	Grid	6 (152)	AH1194
	11.0 (279)	24 (610)	1380	–	Grid	7 (178)	AH1103F/ AH1103
	13.5 (343)	15 (381)	1600	–	Grid	7 (178)	AH1195
	13.5 (343)	18 (457)	1600	–	Grid	7 (178)	AH1183
	13.5 (343)	24 (610)	1600	–	Grid	7 (178)	AH1135
Optional Inlet Adapter	9.75 (248)	–	–	–	6 (152)	–	3836943 S
	11.0 (279)	–	–	–	6 (152)	–	3836944 S
	11.0 (279)	–	–	–	7 (178)	–	3836945 S
	13.5 (343)	–	–	–	7 (178)	–	3836946 S
Combination Water Separator and Inlet Adapter	9.75 (248)	–	–	–	6 (152)	–	3836947 S
	11.0 (279)	–	–	–	6 (152)	–	3836948 S
	11.0 (279)	–	–	–	7 (178)	–	3836949 S
	13.5 (343)	–	–	–	7 (178)	–	3836950 S
Hose Clamps (2 Required)	9.75 (248)	–	–	–	–	–	3836951 S
	11.0 (279)	–	–	–	–	–	3836952 S
	13.5 (343)	–	–	–	–	–	3836953 S
Pressure Tap Sleeve (with Service Indicator) 1/8" NPT Tap	–	–	–	–	6 (152)	6 (152)	3836954 S
Pressure Tap Sleeve (with Service Indicator) 1/8" NPT and 3/4" NPT Taps	–	–	–	–	6 (152)	6 (152)	3836955 S
Pressure Tap Sleeve (with Service Indicator) 1/8" NPT Tap	–	–	–	–	7 (178)	7 (178)	3836956 S
Pressure Tap Sleeve (with Service Indicator) 1/8" NPT and 3/4" NPT Taps	–	–	–	–	7 (178)	7 (178)	3836957 S

ECO-SE For Light and Medium Duty Applications

The ECO-SE is perfect for today's smaller fleet and stationary engines up to 250 hp. Its compact size, light weight, ease of service, and high efficiency combine to provide the critical engine protection and simplified maintenance cost-conscious equipment operators now require.

Features

- Integral neoprene outlet for easy installation and service
- 99.9% efficiency

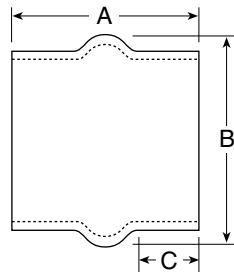


Component	Body Dia. in (mm) A	Outlet ID in (mm) B	Length in (mm) C	Airflow CFM			Airflow m ³ /min			Part Number
				4" H ₂ O	6" H ₂ O	8" H ₂ O	1.0 kPa	1.5 kPa	2.0 kPa	
ECO-SE Air Cleaner	6.8 (171.5)	3 (76.2)	14.16 (360)	240	300	330	6.80	8.50	9.63	AH1191
	7.8 (169.9)	4 (101.6)	17.16 (435)	355	440	510	10.05	12.50	14.44	AH1192
	9.7 (247.7)	5 (127.0)	20.16 (512)	610	760	890	17.27	21.52	25.20	AH1193
	9.7 (152.4)	5 (127.0)	19.40 (493)	600	840	900	16.99	23.78	25.50	AH1197

Component	Diameter in (mm)	Part Number
Mounting Clamps (2 Required)	6.75 (171.5)	3836931 S
	7.75 (169.9)	3836932 S
	9.75 (247.7)	3836933 S

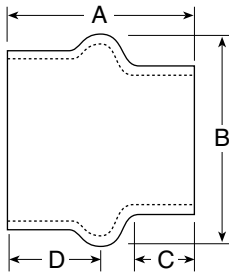
Notes

Lined area for taking notes, consisting of multiple horizontal lines.



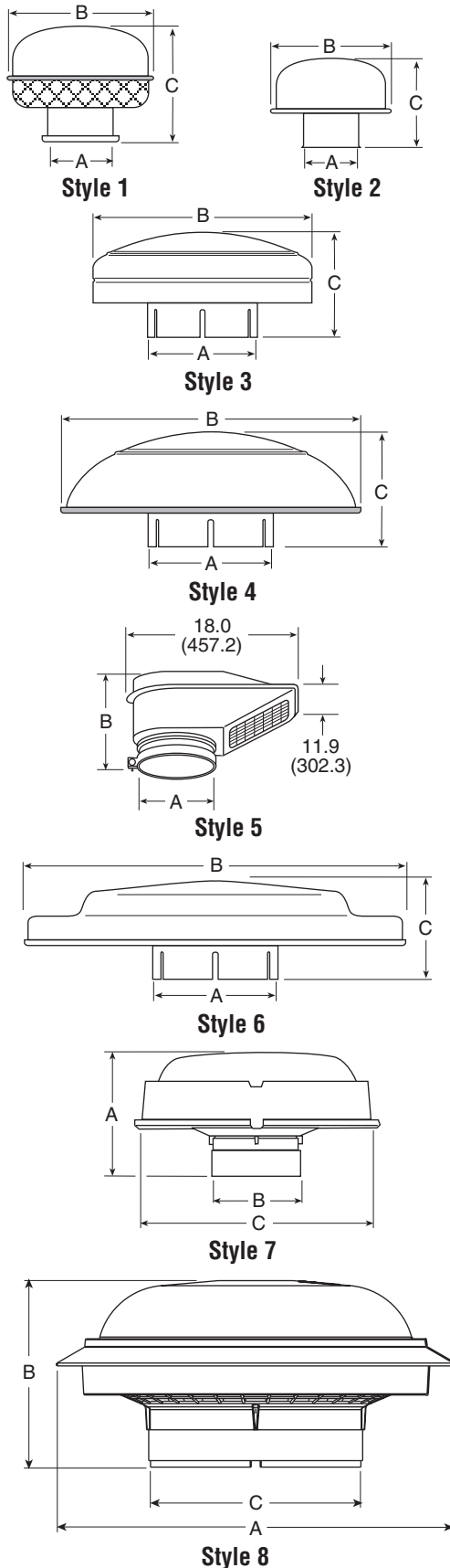
Hump Hoses

ID in (mm)	A in (mm)	B in (mm)	C in (mm)	Part Number
3.00 (76.20)	5.25 (133.35)	4.50 (114.30)	2.00 (50.80)	3316606 S
3.50 (88.90)	5.25 (133.35)	5.00 (127.00)	2.00 (50.80)	3316607 S
4.00 (101.60)	5.25 (133.35)	5.37 (136.40)	2.00 (50.80)	3316608 S
4.50 (114.30)	5.25 (133.35)	5.87 (149.10)	1.75 (44.45)	3316609 S
5.00 (127.00)	6.00 (152.40)	6.12 (155.45)	2.25 (57.15)	3316610 S
5.50 (139.70)	6.00 (152.40)	7.00 (177.80)	2.25 (57.15)	3316611 S
6.00 (152.40)	6.00 (152.40)	7.50 (190.50)	2.75 (69.85)	3316612 S
7.00 (177.80)	7.00 (177.80)	8.50 (215.90)	2.50 (63.50)	3316613 S
8.00 (203.20)	5.00 (127.00)	9.50 (241.30)	1.50 (38.10)	3316614 S
10.00 (254.00)	6.00 (152.40)	11.50 (292.10)	2.00 (50.80)	3316615 S



Hump Hose Reducers

ID in (mm)	A in (mm)	B in (mm)	C in (mm)	D in (mm)	Part Number
3.00 x 2.50 (76.20 x 63.50)	4.50 (114.30)	4.25 (107.95)	2.12 (53.85)	3.00 (76.20)	900012K
3.50 x 3.00 (88.90 x 76.20)	5.00 (127.00)	5.00 (127.00)	2.12 (53.85)	2.12 (53.85)	3316616 S
4.00 x 3.00 (101.60 x 76.20)	5.25 (133.35)	5.50 (139.70)	1.50 (38.10)	1.75 (44.45)	3316617 S
5.00 x 4.00 (127.00 x 101.60)	6.00 (152.40)	6.50 (165.10)	1.50 (38.10)	1.75 (44.45)	3316618 S
5.50 x 4.00 (139.70 x 101.60)	6.00 (152.40)	7.00 (177.80)	1.87 (47.50)	2.00 (50.80)	3316619 S
5.50 x 5.00 (139.70 x 127.00)	6.00 (152.40)	7.00 (177.80)	1.87 (47.50)	2.00 (50.80)	3316620 S
6.00 x 5.00 (152.40 x 127.00)	6.00 (152.40)	7.50 (190.50)	1.87 (47.50)	2.00 (50.80)	3316621 S
6.00 x 5.50 (152.40 x 139.70)	6.00 (152.40)	7.50 (190.50)	2.00 (50.80)	2.00 (50.80)	3316622 S
7.00 x 5.50 (177.80 x 139.70)	7.00 (177.80)	8.50 (215.90)	2.25 (57.15)	2.75 (69.85)	3316623 S
7.00 x 6.00 (177.80 x 152.40)	6.00 (152.40)	8.50 (215.90)	1.44 (36.58)	1.50 (38.10)	3316624 S
8.00 x 5.50 (203.20 x 139.70)	7.00 (177.80)	9.50 (241.30)	1.75 (44.45)	1.75 (44.45)	3316625 S
8.00 x 6.00 (203.20 x 152.40)	6.00 (152.40)	9.50 (241.30)	1.38 (35.05)	1.50 (38.10)	3316626 S
8.00 x 7.00 (203.20 x 177.80)	6.00 (152.40)	9.50 (241.30)	1.44 (36.58)	1.50 (38.10)	3316627 S
10.00 x 8.00 (254.00 x 203.20)	6.00 (152.40)	11.50 (292.10)	1.75 (44.45)	2.00 (50.80)	3316628 S



Weather Hoods (Styles 1 – 6)

Style	A (ID) in (mm)	B in (mm)	C in (mm)	Material	Finish	Part Number
2	2.0 (50.8)	4.6 (116.8)	3.3 (83.8)	Metal	Black	3918200 S
2	2.5 (63.5)	5.8 (147.3)	3.9 (99.1)	Metal	Primer	3918201 S
2	3.0 (76.2)	6.6 (167.6)	5.0 (127.0)	Metal	Primer	3918202 S
1	3.7 (94.0)	9.5 (241.3)	8.0 (203.2)	Metal	Black	3918203 S
1	4.0 (101.6)	9.5 (241.3)	8.0 (203.2)	Metal	Black	3918204 S
3	5.0 (127.0)	9.5 (241.3)	5.0 (127.0)	Metal	Black	3918205 S
3	6.0 (152.4)	9.5 (241.3)	5.0 (127.0)	Metal	Black	3918206 S
6	6.0 (152.4)	13.0 (330.2)	4.1 (104.1)	Plastic	Stainless*	3918207 S
6	7.0 (177.8)	13.0 (330.2)	3.8 (96.5)	Plastic	Stainless*	3918208 S
4	7.0 (177.8)	17.0 (431.8)	6.8 (172.7)	Metal	Black	3918209 S
3	7.0 (177.8)	16.2 (411.5)	7.9 (200.7)	Metal	Black	3940357 S
3	10.0 (254.0)	19.2 (487.7)	7.9 (200.7)	Metal	Black	3940356 S

* Stainless cap is polished to match chrome appearance.

Weather Hoods (Style 5)

Style	A (ID) in (mm)	B in (mm)	Part Number	
			Black Finish	Chrome Finish
5	5.5 (139.7)	9.6 (244.6)	3918210 S	3918214 S
5	6.0 (152.4)	9.5 (241.3)	3918211 S	3918215 S
5	7.0 (177.8)	9.3 (236.5)	3918212 S	3918216 S
5	8.0 (203.2)	8.1 (206.4)	3918213 S	3918217 S

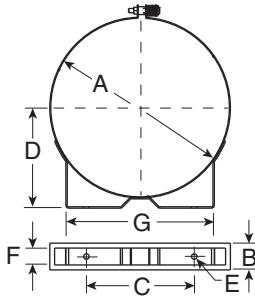
Weather Hoods (Style 7, Composite)

Style	B (ID) in (mm)	C in (mm)	A in (mm)	Part Number
7	1.75 (44.45)	5.51 (139.95)	2.81 (71.37)	3918195 S
7	2.00 (50.80)	5.54 (140.72)	2.86 (72.64)	3918194 S
7	2.50 (63.50)	5.54 (140.72)	2.86 (72.64)	3918193 S

Weather Hoods (Style 8, Composite)

Style	C (ID) in (mm)	A in (mm)	B (ID) in (mm)	Part Number
8	3.00 (76.20)	8.00 (203.20)	3.75 (95.25)	3946322 S
8	3.75 (95.25)	8.00 (203.20)	3.75 (95.25)	3946458 S
8	4.50 (114.30)	13.50 (342.90)	4.98 (126.49)	3946464 S
8	5.00 (127.00)	13.50 (342.90)	4.87 (123.70)	3946466 S
8	6.00 (152.40)	11.57 (293.88)	5.15 (130.81)	3949015 S
8	7.00 (177.80)	13.50 (342.90)	4.45 (113.03)	3946468 S

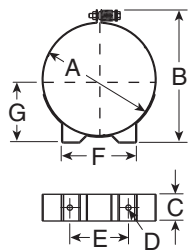
Metal Mounting Brackets



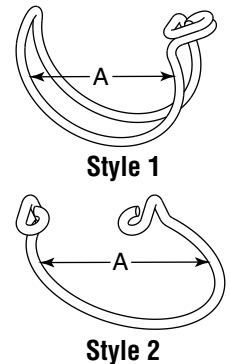
A in (mm)	B in (mm)	C in (mm)	D in (mm)	E in (mm)	F in (mm)	Part Number
4.40 (111.76)	0.88 (22.35)	4.00 (101.6)	2.50 (63.50)	0.344 (8.74)	0.50 (12.70)	3918218 S
5.25 (133.35)	0.88 (22.35)	3.25 (82.55)	3.12 (79.25)	0.344 (8.74)	0.50 (12.70)	3918219 S
6.50 (165.10)	0.88 (22.35)	3.75 (95.25)	3.75 (95.25)	0.344 (8.74)	0.50 (12.70)	3918220 S
7.30 (185.42)	0.88 (22.35)	4.25 (107.95)	4.15 (105.41)	0.344 (8.74)	0.50 (12.70)	3918221 S
7.89 (200.41)	0.88 (22.35)	4.25 (107.95)	4.44 (112.78)	0.344 (8.74)	0.50 (12.70)	3918222 S
8.00 (203.20)	1.25 (31.75)	4.25 (107.95)	4.88 (123.95)	0.406 (10.31)	0.88 (22.35)	3918223 S
8.50 (215.90)	0.88 (22.35)	4.25 (107.95)	4.75 (120.65)	0.344 (8.74)	0.50 (12.70)	3918224 S
9.00 (228.60)	1.25 (31.75)	4.50 (114.30)	5.38 (136.65)	0.406 (10.31)	0.88 (22.35)	3918225 S
10.20 (259.08)	1.25 (31.75)	5.00 (127.00)	5.98 (151.89)	0.406 (10.31)	0.88 (22.35)	3918226 S
10.30 (261.62)	1.25 (31.75)	5.00 (127.00)	6.03 (153.16)	0.406 (10.31)	0.88 (22.35)	3918227 S
11.00 (279.40)	1.25 (31.75)	5.00 (127.00)	6.38 (162.05)	0.406 (10.31)	0.88 (22.35)	3918228 S
11.00 (279.40)	1.25 (31.75)	5.00 (127.00)	6.38 (162.05)	0.406 (10.31)	0.88 (22.35)	3918229 S*
11.80 (299.72)	1.25 (31.75)	6.00 (152.40)	6.78 (172.21)	0.406 (10.31)	0.88 (22.35)	3918230 S
12.10 (307.34)	1.50 (38.10)	8.00 (203.20)	7.12 (180.85)	0.469 (11.91)	1.06 (26.92)	3918231 S
13.00 (330.20)	1.50 (38.10)	6.00 (152.40)	7.56 (192.02)	0.469 (11.91)	1.06 (26.92)	3918232 S*
13.00 (330.20)	1.50 (38.10)	6.00 (152.40)	7.56 (192.02)	0.469 (11.91)	1.06 (26.92)	3918233 S
14.00 (355.60)	1.50 (38.10)	8.00 (203.20)	8.06 (204.72)	0.469 (11.91)	1.06 (26.92)	3918234 S
15.00 (381.00)	1.25 (31.75)	8.00 (203.20)	8.38 (212.85)	0.406 (10.31)	0.88 (22.35)	3918235 S
16.00 (406.40)	1.25 (31.75)	10.00 (254.00)	8.88 (225.55)	0.406 (10.31)	0.88 (22.35)	3918236 S
18.10 (459.74)	1.50 (38.10)	8.00 (203.20)	10.12 (257.05)	0.469 (11.91)	1.06 (26.92)	3918237 S

* = Stainless Steel

Wire Form Brackets for Plastic Air Cleaners



Style	For Use On	A in (mm)	Bolt Hole Diameter in (mm)	Part Number
2	OptiAir™ 400 Series	4.63 (117.6)	0.35 (9.0)	3956074 S
1	OptiAir 400 Series	4.63 (117.6)	0.35 (9.0)	3956073 S
2	OptiAir 500 Series	5.62 (142.8)	0.35 (9.0)	3956075 S
1	OptiAir 500 Series	5.62 (142.8)	0.35 (9.0)	3956076 S

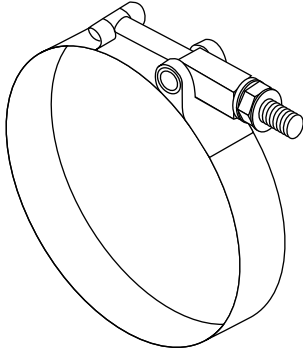


Mounting Brackets for Plastic Air Cleaners

For Use On	A in (mm)	B in (mm)	C in (mm)	D in (mm)	E in (mm)	F in (mm)	G in (mm)	Part Number
4" & OptiAir™ 400 Series	4.77 (121.16)	6.45 (163.83)	1.57 (39.88)	.35 (8.89)	2.76 (70.10)	4.00 (101.60)	3.07 (77.98)	3918199 S
5" & OptiAir 500 Series	5.72 (145.20)	7.39 (187.71)	1.98 (50.29)	.35 (8.89)	3.15 (80.01)	4.38 (111.25)	3.54 (89.92)	3918198 S
6" & OptiAir 600 Series	6.50 (165.10)	8.32 (211.33)	1.98 (50.29)	.35 (8.89)	3.54 (89.92)	4.75 (120.65)	3.95 (100.33)	3918196 S
7" Mounting Bracket	7.17 (182.12)	8.74 (222.00)	1.98 (50.29)	.35 (8.89)	3.94 (100.08)	5.25 (133.35)	4.15 (105.41)	3955477 S
8" & OptiAir 800 Series	8.32 (211.33)	9.88 (250.95)	1.98 (50.29)	.35 (8.89)	4.34 (110.24)	5.56 (141.22)	4.72 (119.98)	3918197 S
10" & OptiAir 1000 Series	9.83 (249.68)	11.68 (296.67)	1.25 (31.75)	.406 (10.31)	6.00 (152.40)	8.50 (215.90)	5.78 (146.81)	3946456 S
11" & OptiAir 1100 Series	11.35 (288.29)	13.16 (334.26)	1.25 (31.75)	.406 (10.31)	6.50 (165.10)	8.50 (215.90)	6.50 (165.10)	3932495 S
13" & OptiAir 1300 Series	13.23 (336.04)	15.07 (382.78)	1.25 (31.75)	.406 (10.31)	8.00 (203.20)	11.00 (279.40)	8.00 (203.20)	3936445 S



Hose Clamps

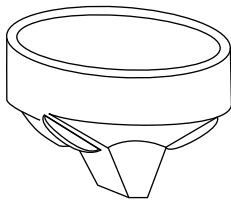


Nominal Connection* in (mm)	Actual Clamp ID in (mm)	Part Number
2.0 (50.8)	2.25 - 2.50 (57.15 - 63.50)	3316653 S
2.5 (63.5)	2.75 - 3.06 (69.85 - 77.72)	3316654 S
3.0 (76.2)	3.25 - 3.56 (82.55 - 90.42)	3316656 S
3.5 (88.9)	3.75 - 4.06 (95.25 - 103.12)	3316657 S
4.0 (101.6)	4.25 - 4.56 (107.95 - 115.82)	3316658 S
4.5 (114.3)	4.75 - 5.06 (120.65 - 128.52)	3316659 S
5.0 (127.0)	5.25 - 5.56 (133.35 - 141.22)	3316660 S
5.5 (139.7)	5.75 - 6.06 (146.05 - 153.92)	3316661 S
6.0 (152.4)	6.38 - 6.69 (162.05 - 169.93)	3316662 S
7.0 (177.8)	7.25 - 7.76 (184.15 - 197.10)	3316663 S
8.0 (203.2)	8.50 - 8.81 (215.90 - 223.77)	3316664 S
10.0 (254.0)**	10.50 - 11.00 (266.70 - 279.40)	3316665 S
10.0 (254.0)***	10.25-10.75 (260.35-273.05)	3316666 S

* Nominal ID dimension shown corresponds to ID dimension of rubber part being clamped.

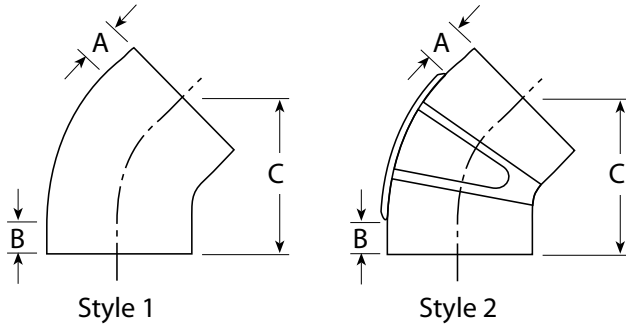
** For use with 45° and 90° Elbows.

***For use with Hump Hoses and Reducers.



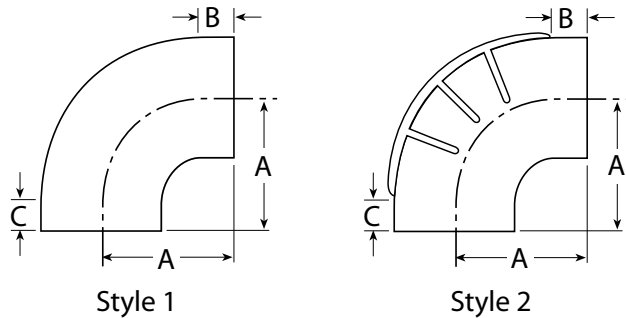
Dust Ejection Valves

Size in (mm)	For Use On	Part Number
1.5 (38.1)	Plastic and Metal	3946457 S
3.0 (76.2)	Metal Only	3947069 S



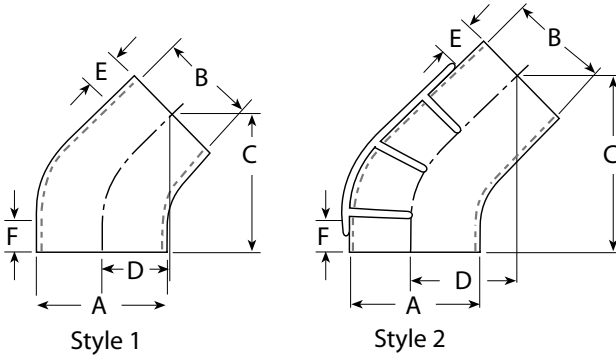
45° Elbows

Style	ID in (mm)	OD in (mm)	A in (mm)	B in (mm)	C in (mm)	Part Number
1	3.00 (76.2)	3.50 (88.90)	1.60 (40.64)	1.60 (40.64)	5.50 (139.70)	3316579 S
1	3.50 (88.9)	4.00 (101.60)	1.68 (42.67)	1.68 (42.67)	5.00 (127.00)	3316580 S
1	4.00 (101.6)	4.50 (114.30)	1.46 (37.08)	1.46 (37.08)	5.50 (139.70)	3316581 S
1	5.00 (127.0)	5.50 (139.70)	1.36 (34.54)	1.36 (34.54)	5.50 (139.70)	3316583 S
1	5.50 (139.7)	6.00 (152.40)	1.70 (43.18)	1.70 (43.18)	6.25 (158.75)	3316584 S
2	6.00 (152.4)	6.50 (165.10)	1.74 (44.20)	1.74 (44.20)	6.50 (165.10)	3316585 S
2	7.00 (177.8)	7.62 (193.55)	2.38 (60.45)	2.38 (60.45)	8.00 (203.20)	3316586 S
2	8.00 (203.2)	8.75 (222.25)	2.00 (50.80)	2.00 (50.80)	8.06 (204.72)	3316587 S
2	10.00 (254.0)	10.75 (273.05)	2.25 (57.15)	2.25 (57.15)	10.50 (266.70)	3316588 S



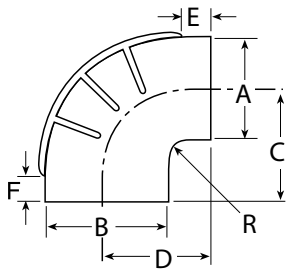
90° Elbows

Style	ID in (mm)	OD in (mm)	A in (mm)	B in (mm)	C in (mm)	Part Number
1	2.00 (50.80)	2.40 (60.96)	3.50 (88.90)	1.50 (38.10)	1.50 (38.10)	3316564 S
1	2.50 (63.50)	3.00 (76.20)	4.00 (101.60)	1.50 (38.10)	1.50 (38.10)	3316565 S
1	3.00 (76.20)	3.50 (88.90)	5.25 (133.35)	1.50 (38.10)	1.50 (38.10)	3316566 S
1	3.50 (88.90)	4.00 (101.60)	5.50 (139.70)	1.50 (38.10)	1.50 (38.10)	3316567 S
1	4.00 (101.60)	4.50 (114.30)	5.75 (146.05)	1.25 (31.75)	1.25 (31.75)	3316568 S
1	4.50 (114.30)	5.00 (127.00)	5.50 (139.70)	2.00 (50.80)	1.62 (41.15)	3316569 S
1	5.00 (127.00)	5.50 (139.70)	6.12 (155.45)	1.62 (41.15)	1.62 (41.15)	3316570 S
2	5.50 (139.70)	6.00 (152.40)	6.50 (165.10)	1.75 (44.45)	1.75 (44.45)	3316571 S
2	6.00 (152.40)	6.50 (165.10)	6.75 (171.45)	2.25 (57.15)	2.00 (50.80)	3316573 S
2	7.00 (177.80)	7.62 (193.55)	7.56 (192.02)	2.25 (57.15)	2.00 (50.80)	3316576 S
2	8.00 (203.20)	8.75 (222.25)	8.50 (215.90)	2.00 (50.80)	2.25 (57.15)	3316577 S
2	10.00 (254.00)	10.75 (273.05)	10.50 (266.70)	2.25 (57.15)	2.25 (57.15)	3316578 S



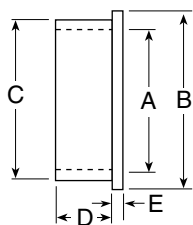
Reducing 45° Elbows

Style	A ID (mm)	B ID (mm)	C in (mm)	D (in mm)	E in (mm)	F in (mm)	Thickness	Part Number
1	6.00 (152.4)	5.00 (127.0)	6.44 (163.58)	TBD	1.75 (44.45)	1.75 (44.45)	0.25 (6.35)	3316594 S
2	7.00 (177.8)	6.00 (152.4)	7.38 (187.45)	TBD	2.00 (50.80)	2.00 (50.80)	0.31 (7.87)	3316595 S



Reducing 90° Elbows

A (ID) in (mm)	B (ID) in (mm)	Thickness	C in (mm)	D in (mm)	E in (mm)	F in (mm)	Part Number
5.00 (127.0)	6.00 (152.4)	0.25 (6.35)	7.00 (177.80)	6.00 (152.40)	1.50 (38.10)	1.70 (43.18)	3316589 S
5.50 (139.7)	6.00 (152.4)	0.25 (6.35)	6.75 (171.45)	6.75 (171.45)	1.75 (44.45)	1.75 (44.45)	3316590 S
5.00 (127.0)	7.00 (177.8)	0.25 (6.35)	7.00 (177.80)	6.25 (158.75)	1.75 (44.45)	2.75 (69.85)	3316591 S
5.50 (139.7)	7.00 (177.8)	0.31 (7.87)	5.75 (146.05)	6.25 (158.75)	1.50 (38.10)	1.50 (38.10)	3316592 S
6.00 (152.4)	7.00 (177.8)	0.38 (9.65)	9.00 (228.60)	7.56 (192.02)	3.00 (76.20)	3.00 (76.20)	3316593 S



Reducer Inlet Sleeves

A in (mm)	B in (mm)	C in (mm)	D in (mm)	E in (mm)	Part Number
1.75 (44.45)	2.50 (63.50)	2.00 (50.80)	1.00 (25.40)	0.25 (6.35)	3920175 S
1.38 (35.05)	2.50 (63.50)	2.00 (50.80)	1.00 (25.40)	0.25 (6.35)	3920138 S
2.50 (63.50)	3.50 (88.90)	3.00 (76.20)	1.00 (25.40)	0.25 (6.35)	3930250 S
2.25 (57.15)	3.50 (88.90)	3.00 (76.20)	1.00 (25.40)	0.25 (6.35)	3930225 S
2.00 (50.80)	3.50 (88.90)	3.00 (76.20)	1.00 (25.40)	0.25 (6.35)	3930200 S
3.75 (95.25)	4.50 (114.30)	4.00 (101.60)	1.50 (38.10)	0.25 (6.35)	3940375 S
4.00 (101.60)	5.00 (127.00)	4.50 (114.30)	1.50 (38.10)	0.25 (6.35)	3945400 S
3.75 (95.25)	5.00 (127.00)	4.50 (114.30)	1.50 (38.10)	0.25 (6.35)	3945375 S
3.00 (76.20)	5.00 (127.00)	4.50 (114.30)	1.50 (38.10)	0.25 (6.35)	3945300 S
4.50 (114.30)	5.50 (139.70)	5.00 (127.00)	1.50 (38.10)	0.25 (6.35)	3950450 S
4.00 (101.60)	5.50 (139.70)	5.00 (127.00)	1.50 (38.10)	0.25 (6.35)	3950400 S
5.00 (127.00)	6.00 (152.40)	5.50 (139.70)	1.50 (38.10)	0.25 (6.35)	3316631 S
5.00 (127.00)	6.50 (165.10)	6.00 (152.40)	1.50 (38.10)	0.50 (12.70)	3316632 S
5.50 (139.70)	6.50 (165.10)	6.00 (152.40)	1.50 (38.10)	0.25 (6.35)	3316633 S

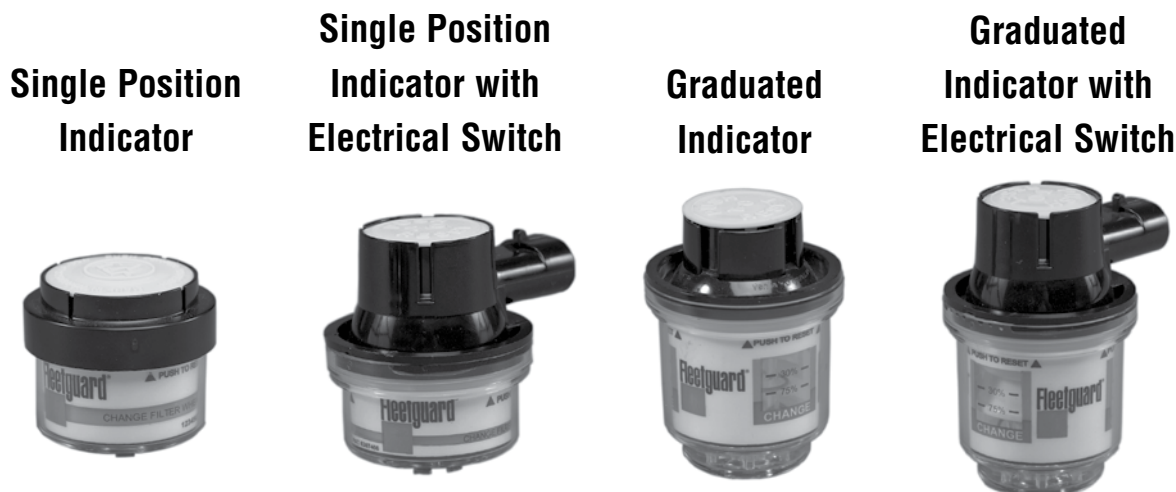
Restriction Indicators

Take the uncertainty and extra costs out of air filter maintenance. A Restriction Indicator automatically and continually monitors the condition of your air filters.

The best preventative engine maintenance practice would be to ensure that air filters are only replaced when necessary. Changing a filter more often than necessary increases the risk of dirt reaching the engine. The disturbed dust can enter the intake near the filter sealing gasket area within the housing as the old filter is removed. Most of the dust that passes through a new air filter occurs in the first third of its useful life. Changing a filter too early doesn't utilize the best dirt removal efficiency, which occurs in the last two thirds of its service life.

Features

- Constant restriction readings allow accurate checks on filter restriction, even after shutdown
- Eliminates air cleaner over-servicing
- Saves fuel – Saves costs
- Reduces the chance of engine failure due to dirt entering the system
- Easy and safe to use
- Quick to install
- Manual reset



Type	Inches of H ₂ O	kPa	Height in (mm)	Port Size in (mm)	Part Number
Single Position	20	5.00	1.8 (46)	0.125 (3.18)	3946324 S
	25	6.35	1.8 (46)	0.125 (3.18)	3946326 S
Single Position with Electrical Switch	25	6.35	2.3 (59)	0.125 (3.18)	3946327 S
Graduated	20	5.00	2.7 (70)	0.125 (3.18)	3946273 S
	25	6.35	2.7 (70)	0.125 (3.18)	3946328 S
Graduated with Electrical Switch	25	6.35	3.1 (79)	0.125 (3.18)	3946329 S



Non-Locking Electrical Air Switch

This Restriction Indicator with an electrical switch can turn a light on within the vehicle when the restriction reaches a level where the filter should be changed. No reset switch is required since the light turns off automatically when the air flow and restriction decrease.

Part Number
3951083 S

Remote Mount Kit

(Not Shown) Includes a 30" (762 mm) hose, male and female barb fittings, and a plastic mount bracket. This kit can be used with any of the Restriction Indicators shown here.

Part Number
3951084 S



Why Use a Pre-Cleaner?

Pre-Cleaners extend air filter life by reducing the amount of dust and/or debris that reaches the air filter

There are two types of pre-cleaners available – ingestive and ejective



Visibowl™ Pre-Cleaners (Ingestive) Ingestive systems collect debris and require maintenance, either emptying or cleaning.	Fleetguard® Pre-Cleaners (Ejective) Ejective systems eject debris and are maintenance free.
Removes 70 – 85% of dust and debris	Removes up to 88% of dust and debris
Collects all separated debris in bowl and stops when bowl is full	Ejects all separated debris – pre-cleans continuously
Variable efficiency curve dependent on air flow	High, flat efficiency curve
Simply empty the bowl when it is full	Maintenance free
Best suited for dust and smaller debris	Best suited for heavier than air debris, including dust, rain, sawdust, chaff, etc.
Bowl is made from a heavy duty polymer with increased UV protection to prevent cracking and discoloration.	Housing is made from high-quality, non-reflective, non-corroding Nylon 6-6 polymer
Must be mounted vertically	Can be mounted either vertically or horizontally
One (1) year warranty	Two (2) year warranty

Ordering Information



Visibowl™		Reducing Adapter			Flow Rate	
Part Number	Intake OD in (mm)	Part Number	From in (mm)	To in (mm)	CFM	m³/min
AP2000	2.00 (50.8)	AP2000	-	-	30 - 90	0.85 - 2.55
		3920175 S	2.00 (50.80)	1.75 (44.45)	30 - 60	0.85 - 1.70
		3920138 S	2.00 (50.80)	1.38 (35.05)	30 - 80	0.85 - 2.27
AP3000	3.00 (76.20)	AP3000	-	-	80 - 170	2.27 - 4.81
		3930250 S	3.00 (76.20)	2.50 (63.50)	80 - 110	2.27 - 3.12
		3930225 S	3.00 (76.20)	2.25 (57.15)	80 - 130	2.27 - 3.68
		3930200 S	3.00 (76.20)	2.00 (50.80)	80 - 150	2.27 - 4.25
AP4500	4.50 (114.30)	AP4500	-	-	150 - 340	4.25 - 9.63
		3945400 S	4.50 (114.30)	4.00 (101.60)	150 - 320	4.25 - 9.06
		3945375 S	4.50 (114.30)	3.75 (95.25)	150 - 330	4.25 - 9.35
		3945300 S	4.50 (114.30)	3.00 (76.20)	150 - 340	4.25 - 9.63
AP5000	5.00 (127.00)	AP5000	-	-	330 - 740	9.35 - 20.96
		3950450 S	5.00 (127.00)	4.50 (114.30)	330 - 660	9.35 - 18.69
		3950400 S	5.00 (127.00)	4.00 (101.60)	330 - 700	9.35 - 19.82

Expansion Adapter

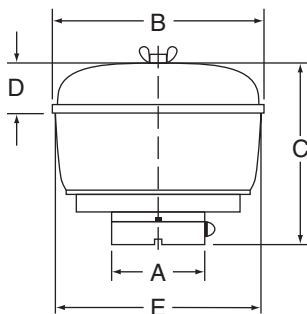
Visibowl™ Part Number	Expansion Adapter Part Number	From in (mm)	To in (mm)
AP5000	3950600 S	5.00 (127.00)	6.00 (152.40)

Replacement Lids

Visibowl™ Part Number	Replacement Lid Part Number
AP2000	3960200 S
AP3000	3960300 S
AP4500	3960450 S
AP5000	3960500 S

Replacement Bowls

Visibowl™ Part Number	Replacement Bowl Part Number
AP2000	3910200 S
AP3000	3910300 S
AP4500	3910450 S
AP5000	3910500 S



Dimensions

Part Number	Outlet OD in (mm) A	Cover Width in (mm) B	Height in (mm) C	Cover Height in (mm) D	Body Width in (mm) E
AP2000	2.0 (50.8)	5.6 (142.2)	4.8 (121.9)	1.8 (45.7)	5.5 (139.7)
AP3000	3.0 (76.2)	7.5 (190.5)	6.2 (157.5)	1.8 (45.7)	7.3 (185.4)
AP4500	4.5 (114.3)	10.7 (271.8)	7.7 (195.6)	1.9 (48.2)	10.5 (266.7)
AP5000	5.0 (127.0)	12.1 (307.3)	7.7 (195.6)	2.0 (50.8)	12.0 (304.8)



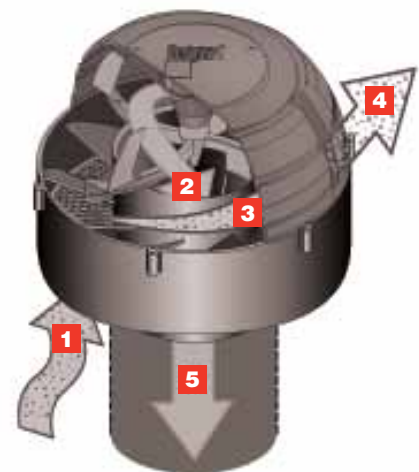
- Extended air filter life
- Increased engine protection
- Reduced downtime
- Reduced maintenance costs
- Self-cleaning
- Lightweight
- Easy to install
- Durable polymer design

The Benefits of Fleetguard Pre-Cleaners

Fleetguard Pre-Cleaners are state-of-the-art products that reduce maintenance costs and downtime for all diesel applications. They are recommended for the construction, farming, mining, forestry or any other segment where operating conditions are severe. Fleetguard Pre-Cleaners keep air filters clean, extend the life of the filter and maintain engine performance. Positioned at the beginning of the air intake, Fleetguard air Pre-Cleaners eject the majority of dust/dirt particles that are heavier than air.

How the Fleetguard Pre-Cleaner Works

- 1** Dirty air passes through prescreen and enters through recessed vanes at the bottom of the Fleetguard Pre-Cleaner.
- 2** The curved particle accelerator rotates much faster than the incoming air, capturing debris, which is passed down the length of the particle accelerator's straked vanes.
- 3** The debris is then deposited on the inner wall of the separator chamber.
- 4** As the particle accelerator spins, it sweeps debris that has deposited under the strakes onto the inner wall of the pre-cleaner, where it is ejected.
- 5** Clean air continues to spin upward, being compressed, and forced into the air inlet opening.





To properly size a Fleetguard Pre-Cleaner, you will need to know the correct airflow of the engine in CFM (m³/min) and the Outside Diameter (OD) of the air intake. For optimum efficiency, select the pre-cleaner where the CFM (m³/min) falls in the upper end of the ranges shown. **Do not size a Fleetguard Pre-Cleaner solely based on the air intake dimension.**

Pre-cleaners should not be mounted against any part of the machine as space is needed to allow air to enter into the pre-cleaner. Cummins Filtration® does not recommend putting pre-cleaners high in the air on an extended pipe as the further away the air intake is from the engine, the more added restriction.

Ordering Information

Part Number	A Outlet OD in (mm)	B Width in (mm)	C Height in (mm)	Flow Rate	
				CFM	m ³ /min
AP8407	2 (50.8)	4.5 (114.3)	3 (76.2)	10 - 50	0.3 - 1.4
AP8408	3 (76.2)	6.7 (170.18)	4.2 (106.68)	50 - 120	1.4 - 3.4
AP8403	4 (101.6)	8.5 (215.9)	6.28 (159.51)	100 - 275	2.8 - 7.8
AP8409	4 (101.6)	8.5 (215.9)	6.28 (159.51)	275 - 350	7.8 - 9.9
AP8421	5 (127.0)	10.6 (270)	7.9 (201)	350-500	9.91 - 14.16
AP8404	6 (152.4)	13.1 (332.74)	11.1 (281.94)	500 - 650	14.2 - 18.4
AP8410	6 (152.4)	13.1 (332.74)	11.1 (281.94)	650 - 800	18.4 - 22.7
AP8405	8 (203.2)	18 (457.2)	14.44 (366.776)	800 - 1150	22.7 - 32.6
AP8406	8 (203.2)	18 (457.2)	14.44 (366.776)	1150 - 1400	32.6 - 39.6

Installation Kits*

Part Number	Size in (mm)	Adapts to Intake Size	
		in	mm
3918239 S	2 (50.8)	1/1.5/1.75	25.4/38.1/44.45
3918240 S	3 (76.2)	2/2.5/2.75	50.8/63.5/69.85
3904837 S	4 (101.6)	3/3.5/3.75	76.2/88.9/95.25
3904838 S	4 (101.6)	4/4.5/4.75/5	101.6/114.3/120.65/127.0
3904839 S	4 (101.6)	5.25/5.5/6	133.35/139.7/152.4
3946049 S	4 (101.6)	6.5	165.1
3946050 S	6 (152.4)	4	101.6
3946051 S	6 (152.4)	4/5	101.6/127.0
3904840 S	6 (152.4)	5/5.25/5.5	127.0/133.35/139.7
3904841 S	6 (152.4)	6.25/6.5/7	158.75/165.1/177.8
3905073 S	6 (152.4)	9	228.6
3946055 S	6 (152.4)	7/10/11	177.8/254.0/279.4
3946053 S	6 (152.4)	5	127.0
3946056 S	8 (203.2)	6/7	152.4/177.8
3904842 S	8 (203.2)	7/9	177.8/228.6
3905074 S	8 (203.2)	10/11	254.0/279.4
3946075 S	8 (203.2)	12/13	304.8/330.2
3946057 S	8 (203.2)	6/7	152.4/177.8
3946058 S	8 (203.2)	Special Kit	

* Installation Kits do not contain pre-cleaners, only the necessary adapters for installing a pre-cleaner to the matched intake sizes.

Rubber Reducing Adapters

Use when your pre-cleaner is larger than your air intake pipe.

Part Number	From in (mm)	To in (mm)
3939407 S	2 (50.8)	1.5 (38.1)
3939406 S	2 (50.8)	1.75 (44.45)
3939405 S	3 (76.2)	2 (50.8)
3939404 S	3 (76.2)	2.5 (63.5)
3939403 S	3 (76.2)	2.75 (69.85)
3946102 S	4 (101.6)	2.5 (63.5)
3946101 S	4 (101.6)	2.75 (69.85)
3946100 S	4 (101.6)	3 (76.2)
3946099 S	4 (101.6)	3.75 (95.25)
3939396 S	4 (101.6)	3.23 (82.04)
3939398 S	5 (127.0)	4.33 (109.98)
3946097 S	5 (127.0)	4 (101.6)

Part Number	From in (mm)	To in (mm)
3939399 S	5 (127.0)	4.5 (114.3)
3939400 S	5 (127.0)	4.75 (120.65)
3918245 S	6 (152.4)	5 (127.0)
3939401 S	6 (152.4)	5.25 (133.35)
3939402 S	6 (152.4)	5.5 (139.7)
3946095 S	7 (177.8)	6 (152.4)
3946094 S	7 (177.8)	6.25 (158.75)
3946093 S	7 (177.8)	6.5 (165.1)
3918243 S	8 (203.2)	7 (177.8)
3946088 S	9 (228.6)	8 (203.2)
3946104 S	11 (279.4)	10 (254.0)
3946103 S	13 (330.2)	12 (304.8)

Metal Expansion Adapters

Use when your pre-cleaner is smaller than your intake. Metal Expansion Adapters are spun metal, designed to withstand the elements.

Part Number	From in (mm)	To in (mm)
3920523 S	4 (101.6)	5 (127.0)
3946110 S	4 (101.6)	6 (152.4)
3918242 S	6 (152.4)	7 (177.8)
3905073 S	6 (152.4)	9 (228.6)
3946109 S	7 (177.8)	9 (228.6)
3946108 S	8 (203.2)	13 (330.2)
3946106 S	8 (203.2)	16 (406.4)

Rubber Expansion Adapters

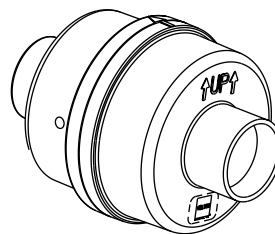
Use when your pre-cleaner is smaller than your intake. Rubber Expansion Adapters are rubber pieces, designed to withstand the elements.

Part Number	From in (mm)	To in (mm)
3946098 S	4.25 (107.95)	4.5 (114.3)
3946092 S	6.25 (158.75)	7 (177.8)

Check Valve

Use when your application requires the use of a Check Valve with the Fleetguard™ Pre-cleaner.

Part Number	Inlet (OD) in (mm)	Outlet (OD) in (mm)
3956072 S	1.50 (38.10)	1.50 (38.10)

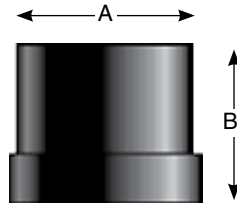


Material: Polypropylene (-40 to 180 °F (4.4 - 82.2 °C) temperature range)
 Caution: Not intended for high temperature applications.

Metal Extension Pipes

Use when your pre-cleaner is below the hood line or you need more hood clearance underneath the pre-cleaner.

Part Number	A Diameter in (mm)	B Length in (mm)
3939409 S	4 (101.6)	12 (304.8)
3939410 S	5 (127.0)	12 (304.8)
3939411 S	6 (152.4)	12 (304.8)
3946107 S	7 (177.8)	14 (355.6)
3946105 S	8 (203.2)	12 (304.8)



Basket/Mesh Screens

Use when operating in an environment with large debris (forestry, agriculture, landfill) to keep your pre-cleaner working at peak efficiency.

Part Number	Description	Pre-Cleaner Size in (mm)
3946112 S	Perforated Screen Kit	4 (101.6)
3946091 S	Perforated Screen Replacement	4 (101.6)
3939420 S	Perforated Screen Kit	6 (152.4)
3946090 S	Perforated Screen Replacement	6 (152.4)
3939418 S	Perforated Screen Kit	8 (203.2)
3946089 S	Perforated Screen Replacement	8 (203.2)
3939421 S	Wire Mesh Screen Kit	4 (101.6)
3939419 S	Wire Mesh Screen Kit	6 (152.4)
3939417 S	Wire Mesh Screen Kit	8 (203.2)

Dust Ejection Valve Plugs

Use to seal the dump valve portion of an internal or dust ejector pre-cleaner when the dump valve is removed.

Part Number	Size in (mm)
3939409 S	4 (101.6)
3939410 S	5 (127.0)
3939411 S	6 (152.4)
3946107 S	7 (177.8)
3946105 S	8 (203.2)



Should I change my air filter element on a distance, time, appearance, or weight basis?

Air filters should be changed according to the engine manufacturer's recommendation on air flow restriction as measured by an air filter restriction indicator gauge.

Does the efficiency of an air filter element change while it is being used?

Yes, air filter element efficiency changes over time. Air filter elements are least efficient when they are new. The build up of contaminant (dirt) on the medium will make it more efficient over time.

What is the difference between the Fleetguard® Magnum RS™ and the Standard line of air filters?

Magnum air filters have a larger surface area of filter medium and will therefore hold more contaminant, resulting in a longer service life.

What is the meaning of the “M” suffix used on some air filter part numbers?

The 'M' stands for Magnum, designating it as a long life element.

How often should I change my secondary air filter element?

Secondary or inner elements should be changed every third time the primary (main/outer) element is changed. The secondary (safety/inner) element should not be disturbed until this interval has been reached.

What is your recommended air filter element change interval?

We recommend changing Fleetguard air filter elements when they have reached about 80% of the engine manufacturer's maximum allowable restriction. As a general guide, this ranges from 375 to 500 mm (15 to 20") of water gauge restriction for naturally aspirated engines and 500 to 700 mm (20 to 30") for turbocharged engines.

What is the micron rating of Fleetguard air filter elements?

The performance of air filter elements is measured by testing their ability to remove particles across a broad spectrum of particle sizes using standard test dust and reporting the results as the percent efficiency for the given test dust.

How much should I tighten the clamps on the outlet tube connections?

The maximum clamp torque is 40 in-lb (4.5 N·m) on the outlet.

What is the meaning of the “K” suffix used on some air filter part numbers?

The “K” denotes that the filter is equipped with fins. The fins provide pre-cleaning by centrifuging out much of the contaminant before it reaches the air filter element. These elements are generally used in off-highway equipment (agriculture, construction, mining, etc.).

What is the Radial Sealing Type air filter element?

Conventional air filter elements are generally held in place inside the air cleaner housing by a wing nut on a threaded center post. This also seals the element to the housing by compressing a rubber seal (gasket), which is glued to the metal endplate of the filter against the base plate of the housing. In the case of Radial Sealing air filter elements, the sealing is complete by pushing the molded rubber (polyurethane) open end over a short tube built into the base of the air cleaner body. The filter is retained by the housing cover sitting against the closed upper endplate.

What is the advantage of a Radial Sealing style air cleaner housing/filter elements compared to a more conventional air cleaner?

The major advantages of the Radial Sealing filters are the ease and speed of service. Generally, Radial Sealing air filter elements can be changed without needing to use tools. The air cleaner cover usually twists off or is removed by undoing “flip over” clips or catches, and the element is simply pulled off. Conventional housings often require wing nuts to be undone and, in some cases, a whole series of nuts has to be undone before the element can be removed.

Can I use a Radial Sealing air filter element in a standard (conventional) air cleaner housing?

No, the conventional air cleaner housings are not designed to create a complete seal with the Radial Sealing air filters.

Can I use a conventional secondary/inner air filter element with a Radial Sealing primary filter and vice versa?

No. Conventional primary/outer air filters have to be used with conventional secondary/inner elements and housings. Radial Sealing primary/outer air filters have to be used with Radial Sealing secondary/inner elements and housings.

What does Two-Stage/Dual-Stage Air Cleaner mean?

A two-stage air cleaner has a pre-cleaner integral to the system. Most heavy duty applications, the air cleaner will have a dust ejection valve. The majority of the heavy dust particles are removed from the air cleaner by this valve (stage 1). The remaining dust is then removed from the air by the primary filter element (stage 2).

For a two-stage air cleaner, does the orientation of the dust ejection valve make a difference?

Yes. The dust ejection valve must be pointed within 15° of straight down to have proper pre-cleaning abilities.

Service and Maintenance Tips

Does it matter if the Dust Ejection Valve is cracked, torn, or remains open?

Yes. The dust ejection valve does not work as efficiently if it is not in good condition, which can reduce the efficiency of the pre-cleaner as it shortens its service life. Replace cracked, torn or otherwise damaged dust ejection valves for optimal performance.

Are OptiAir™ filter elements interchangeable with Radial Sealing filter elements?

No. Although the sealing on both styles of products is done radially, the sealing surface on the OptiAir products is located at a larger outer diameter for similar sizes of air housings.

What information is required to select a Fleetguard pre-cleaner™ ?

You will need to know the air flow rate (m³/min or CFM). If you are not sure of the engine air flow rate, please contact your Fleetguard distributor for further information. Do not size by the diameter of the intake piping.

If the Fleetguard pre-cleaner outlet size does not match the air cleaner intake diameter, what do I do?

There is a range of adapter kits available to convert the pre-cleaner to the size required.

How fast does the rotor of a Fleetguard pre-cleaner spin, and are the bearings shielded or sealed?

The rotor spins at about 3000 RPM on average and the bearings are sealed with an O-Ring to prevent contamination.

Does the top cap of a Fleetguard pre-cleaner come off for repairs? What maintenance is required?

No, there are no serviceable components inside the Fleetguard pre-cleaner. These units are self-cleaning ejective pre-cleaners that eject the contaminant they remove. They are maintenance free. Fleetguard pre-cleaners are covered by a two year unlimited hours warranty.

At what height should a Fleetguard pre-cleaner be mounted?

It should not be mounted flush against any part of the machine because space is needed beneath the unit to allow the air to enter.

What is a Fleetguard pre-cleaner made of?

They are manufactured from an engineering polymer that is more durable, lighter, and less expensive than any metal product.

Should I play it safe and go to the next size (higher flow rate) up when selecting a Fleetguard pre-cleaner unit?

No. These units work most efficiently within their stated flow range. Selecting an “oversized” unit can result in a lower pre-cleaning efficiency due to lower turbine speed. Select a pre-cleaner where the added initial restriction stays within acceptable limits to obtain maximum service life.

as well as horizontally?

Yes, these units can be mounted at any angle up to 90° from the horizontal.

Should I pay attention to the orientation of the Fleetguard pre-cleaner dust ejector slot during installation on the equipment?

Yes. For mobile equipment, make sure the ejector slot is oriented opposed to the most common driving direction. In cases where the Fleetguard pre-cleaner is not installed vertically, be sure that the ejector slot is oriented downward, as water may enter the air intake system. Where more than one unit is installed, make sure none of the units are expelling at each other. Also, face slots in the direction of the prevailing wind to avoid expelled air blowing back at the unit.

Can the Fleetguard pre-cleaner units be mounted vertically

The main reason for washing heavy duty air filter cartridges is to reduce the overall cost of filtration. However, this is often not the end result. Several studies have been conducted over the past few years, all with the similar conclusions, as follows:

- Cleaning air filters reduces the dust holding capacity compared to a new filter. Dust holding capacity can drop by up to 25% after the first cleaning, with additional capacity loss after each subsequent cleaning. Loss of dust capacity shortens the usable service life of the filter, which leads to more frequent service – which in turn adds additional risk of mis-service and/or accidental dust ingress.
- The air filter media can be weakened as a result of cleaning, which could cause ruptures. Even the smallest rupture will cause the filter to be less efficient and may allow enough dust into your engine/equipment to cause serious damage, downtime, and rebuilds.
- On-highway air filters should not be cleaned since the contamination encountered over the road (fine particles and soot material) is very difficult to remove from the air filter media.
- Secondary air filters should never be cleaned since the secondary element is the last barrier to contaminants before they reach your engine.
- Standard leak testing (light bulb) is not always conclusive in detecting faults in pleated filter elements.
- “Inside-out” washers are often used to wash opposite flow filters, actually bringing impurities to the clean air side of the filter during the washing process.
- The filter assembly and/or gaskets can be damaged in the washing process.
- A new, quality filter is about 99.9% efficient over its lifetime. A cleaned filter with an efficiency of 95% would actually allow 50 times more dirt to pass through to the engine than a typical good filter.

However, if you decide to clean your air filters, remember that there are a few risks. **Do-it-yourself cleaning techniques and improvised cleaning tools offer considerable risk to the air filter integrity and should be avoided.** Commercially available air filter cleaning services are most likely to be better equipped and have more reliable techniques for cleaning air filters than most maintenance shops.

Select a reputable commercial cleaning service that uses cleaning and handling practices proven to be effective for your filters and applications. It is recommended that this business offer a warranty for the cleaned filter, since Cummins Filtration® and most other air filter manufacturers, will not warrant a cleaned air filter.

Glossary of Terms

AA – Prefix denoting a Dual Pack Air Kit which is usually a package of two air filter elements in the Fleetguard® product line.

AF – Prefix denoting an Air Filter within the Fleetguard product line.

AH – Prefix denoting an Air Housing within the Fleetguard product line.

AK – Prefix denoting an Air Kit within the Fleetguard product line.

AS – Prefix denoting an Air Oil Separator Filter within the Fleetguard product line.

AP – Prefix denoting an Air Pre-cleaner unit within the Fleetguard product range.

Air Cleaner (Housing) – The assembly consisting of a housing usually made from metal or polymer/plastic containing one or more air filter elements to clean the air going into an engine.

CFM (ft³/min) – Volume of air flow expressed in cubic feet per minute.
1 ft³/min = 0.02831685 m³/min

Dual Stage Air Cleaner/ 2-Stage – An air cleaner where a pre-cleaner removes most of the contaminant before it reaches the primary filter. The primary filter is then the second means of contaminant removal.

Dust Ejection/Unloader Valve – A rubber valve that allows contaminant removed by the pre-cleaner stage to be removed from the air cleaner body.

Efficiency – The ability of an air cleaner/element to remove contaminant from the incoming air flow.

Heavy Duty – A two stage air cleaner/filter with a pre-cleaner and a secondary element. Typical applications would be construction, mining and agricultural equipment in a heavy dust environment.

ISO – International Standards Organization, the body that publishes many standards and oversees many of the national standards setting organizations around the World such as AFNOR, BSI, ANSI, etc.

ISO Ultra Fine – Very fine grade test dust used for special cases where an engine is consistently exposed to very small particles.

ISO Fine – Fine grade test dust generally used for single stage air cleaner evaluation.

ISO Medium – Medium grade test dust which is rarely used.

ISO Coarse – Coarse grade test dust generally used for dual stage air cleaner evaluation.

Initial Restriction – The resistance created by the air cleaner/filter element(s) to the air flow required by the engine measured under steady state flow conditions with a clean element (Ref. ISO 5011).

Inner Filter/Element – See “Secondary Element/Filter.”

K – Suffix denoting an Air Filter within the Fleetguard product range which has pre-cleaning fins attached.

Light Duty – A single stage air cleaner/filter. Typical applications would be on-highway and stationary engine applications exposed to light dust conditions.

Life (Capacity) – Quantity of test dust removed by the air cleaner under test conditions with a terminal restriction of

25 in H₂O/6.23 kPa. Ref. ISO 5011.

M - Suffix denoting a Magnum Air Filter within the Fleetguard product line.

Magnum – An Air Filter element within the Fleetguard product line with pleated media to increase the filtration area and therefore increase the dirt holding capacity and filter service life.

Medium Duty – A two-stage air cleaner/filter with an inertial or centrifugal first stage. Typical applications would be light industrial, on/off-highway vehicles, etc. which are used occasionally in a heavy dust environment.

Minder Gauge – See “Restriction indicator.”

m³/min – Volume of air flow expressed in cubic meters per minute.
1 m³/min = 35.31467 CFM

Outer Filter/Element – See “Primary Element/Filter.”

Primary Element/Filter – The replaceable filter element which the contaminant reaches first and accumulates.

Rain Cap – See “Weather Hood.”

Restriction Indicator – Gauge used to monitor the service life of an air filter element. Gauge notifies user of terminal restriction when filter element should be changed.

Safety Filter/Element – See “Secondary Element/Filter.”

Secondary Element/Filter – A replaceable filter element that usually fits inside the primary filter element. Purpose is to prevent contaminant that may fall off the primary element from getting into the clean air

ducting when servicing the primary. A secondary element is generally less efficient than the corresponding primary and should typically be changed once for every 3-5 primary change-outs.

Single Stage Air Cleaner – An air cleaner (with no pre-cleaner) where the primary filter element removes all the contaminant from the intake air.

Spark Arrestor – Unit that is connected to the intake pipe in place of an intake filter. It's purpose is to prevent any sparks from exiting the intake in the case of a backfire situation. This product is used mostly on marine applications where intake contaminants are of little concern, but fire is an ongoing risk.

Terminal Restriction – The maximum restriction across the air cleaner/filter element(s) recommended by the engine manufacturer, usually 5.0 - 6.2 kPa (20 to 25") water gauge.

Test Dust – Contaminant used under laboratory conditions to evaluate the performance of an air cleaner and filter assembly in terms of particle removal efficiency and filter life. These are “calibrated” test dusts where the chemical composition and particle size distribution is very carefully controlled and are available in different grades (see “ISO”).

Clean-Air Duct (Trunking) – the tube which connects the air intake to the air cleaner body and the air cleaner body to the engine.

Weather Hood – Cover or cowl to prevent rain and large debris from entering the air intake system.