

Accessories Help You . . .

Set a Filter Service Schedule:

- Restriction indicators — go-no-go, lock-up styles, electric, in-field manometers, safety filter indicator

Aspirate (or scavenge) an intake system:

- Strata™ Cap
- Donaspin™
- Exhaust Ejectors
- Air Stack Extension
- Check Valve

Evacuate air cleaner dust:

- Vacuator™ Valves
- Quick Release Dust Cups
- Dust Dumpa
- Donaspin™
- STB Air System

Solve air intake water problems:

- Air Ram™ Inlet Hood
- In-line Moisture Skimmer
- In-line Moisture Separator
- Stack Top Moisture Eliminator

Pre-clean or protect air inlet from debris:

- Pre-cleaners
 - Strata™ Cap
 - TopSpin™ Pre-Cleaner
 - TopSpin™ HD Pre-Cleaner
 - Full-View Pre-Cleaner
 - In-line Separator
 - Donaspin™
- Air Ram™ Inlet Hood
- Inlet Hoods

Connect intake components:

- Rubber Elbows and Connectors
- Clamps
 - Aluminum Tubing
 - Rubber and Silicone Hump/Reducers
 - Charge Air Connectors

Mount or install an air cleaner:

- Mounting Bands
- Straight Pipe



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No Matter What Dust Condition, Pre-cleaners Extend Air Filter Life

Pre-cleaners remove contaminant of varying sizes from entering the intake duct, and they don't require any engine power to operate. Some devices collect the contaminant (Full-View), others just eject or drop the contaminant (TopSpin™, TopSpin™ HD, in-line separator), or are connected via a scavenge system and route debris out the exhaust system (Donaspin, Strata™ Cap).

Product Offering

- Six pre-cleaner styles offer the broadest product range in the industry
- Strata™ Cap is the new scavenge system option for operating in heavy dust environments
- TopSpin™ HD is the new all-metal option for heavy-duty applications where a rugged and durable pre-cleaner is needed
- Pre-cleaners extend life of vehicle air filters and serve as rain caps
- Units are made of durable materials — either metal or impact resistant plastic
- Most units install outside of engine compartment — leaving more space under hood for other components (exception-in-line separator)
- No wires or power requirements
- Please note: Strata Cap and Donaspin require additional components for scavenge system — hoses, check valves, clamps and exhaust ejector

To Scavenge or Not To Scavenge . . .

Air cleaners are designed to operate with or without aspiration. Aspiration (otherwise known as scavenging) is accomplished by introducing a secondary airflow in the intake ducting (generally through the use of an exhaust ejector or ejector muffler). This secondary airflow pulls the separated contaminant from the pre-cleaner and ejects it into the exhaust stream.



The advantages to scavenging are:

- Higher pre-cleaner efficiency (resulting in longer primary filter service life)
- Completely self-servicing (no regular maintenance needed on pre-cleaner)
- Drop tube can be located in a variety of orientations (not just straight down as is necessary on non-scavenged systems)

Aspirating an intake system through the use of a scavenging device adds more components (an ejector and some plumbing) to the overall system, but will enhance the separator efficiency of the pre-cleaner and consequently extend the primary filter service life.

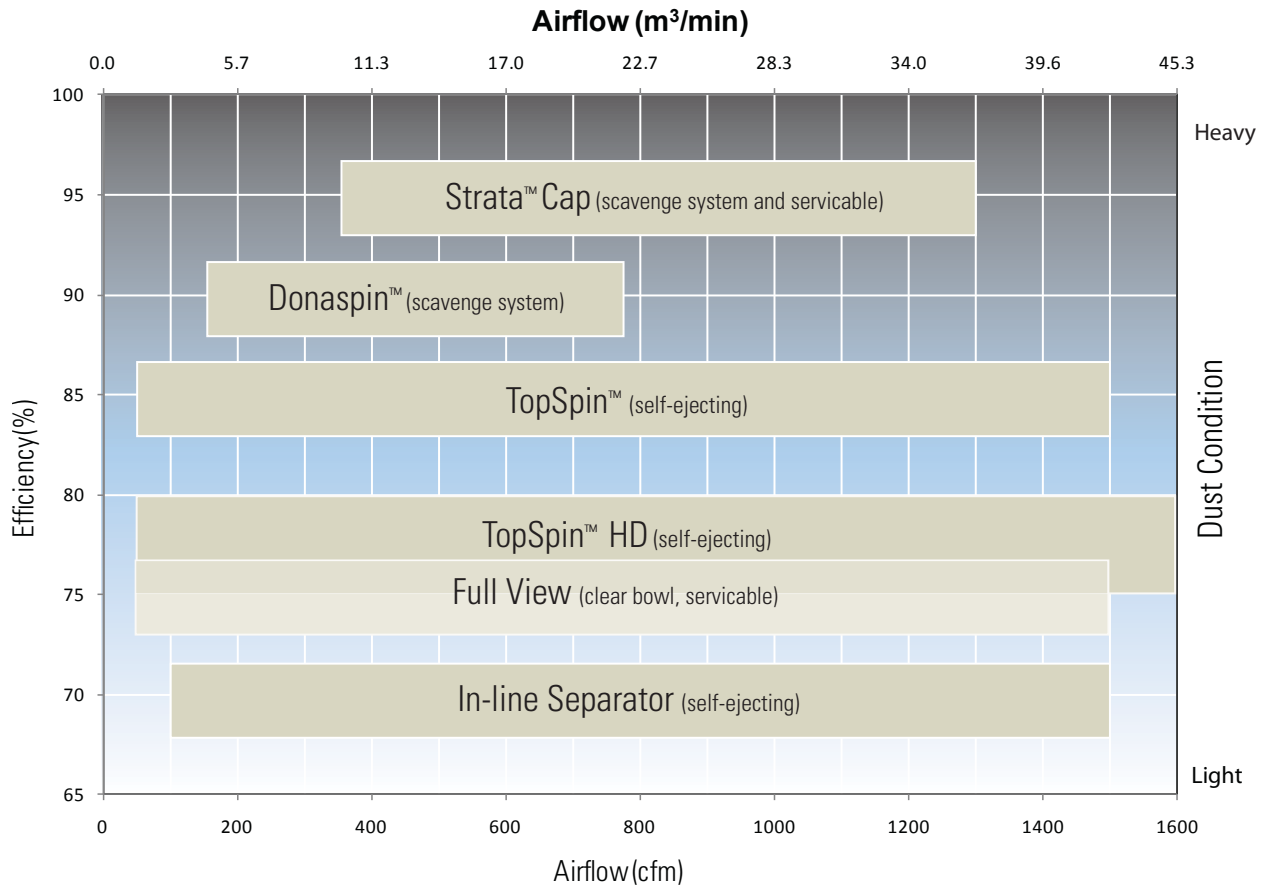
An alternative . . . Air Cleaners with Built-in Pre-Cleaning

Before you decide on adding a pre-cleaner. Take a look at our PowerCore® air cleaner housings — the PowerCore PSD Series. PowerCore air cleaners have a pre-cleaning section built directly into the housing. If you have the room, choosing a PowerCore air cleaner will reduce the number of components in your intake system — fewer parts to track, maintain and manage. And, some PSD air cleaner models can also be used in scavenged systems.

See the PowerCore PSD Series section for more information.

Selection

Select the style that matches dust conditions, airflow and desired efficiency level. Each pre-cleaner family is presented on the following pages.



Compare – Weight, Scavenge, Service and Materials

Additional characteristics about our pre-cleaner line to help you decide on the style that’s best for you.

Dust Condition	Max. Sepr Efficiency	Unit Weight Range lbs.	Unit Weight Range kg.	Pre-Cleaner Family	Scavenge Required	Service Required	Material
Heavy	96%	6.2 – 9.1	2.82 – 4.14	Strata™ Cap	Yes	Yes	Plastic
	90%	8.0 – 10.0	3.63 – 4.54	Donaspin™	Yes	No	Steel
Medium	85%	1.0 – 6.0	0.45 – 2.72	TopSpin™	No	No	Plastic
	80%	1.0 – 9.5	0.5 – 4.3	TopSpin™ HD	No	No	Aluminum/ Stainless Steel
Light	70%	11.5 – 14.8	5.23 – 6.70	In-Line Separator	No	No	Steel
	75%	0.8 – 9.2	0.37 – 4.17	Full-View	No	Yes	Steel/Plastic

Low Profile Pre-cleaner and Rain Cap in One!

The scavenged Strata™ Cap pre-cleaner removes up to 96% of incoming contaminant — the highest efficiency compared to all other Donaldson pre-cleaners. It is designed for the most demanding heavy dust environments in the construction and mining industry.

Features

Separates up to 96% of incoming contaminant per ISO 5011/SAE J726

- Significantly extends air filter life
- Reduces air filter servicing and replacement
- Lowers cost per operating hour
- Separates more than 99% of 20 micron and above particles

Low profile for maximum operator visibility

Robust design for heavy-duty environments

- No moving parts
- Both a rain cap and pre-cleaner
- No bowl to clean or empty
- UV resistant plastic construction

Simple installation

- Unit installs outside of engine compartment, leaving more space under hood for other components
- No wires or power requirements
- Requires additional standard components for scavenge

Lighter Weight

- Low profile
- Lighter weight compared to other Donaldson scavenge systems; e.g., STB System and Donaspin™ pre-cleaner

Application

- Accommodates a range of airflows from 350 to 1,300 cfm (9.9-36.8 m³/min).
- Primarily used in heavy dust environments
- Great for off-road vehicles and equipment from crawler tractors to farm tractors to skid steer loaders
- Recommended mounting: outside of engine compartment on top of the air cleaner inlet stack



The scavenged Strata™ Cap pre-cleaner removes up to 96% of incoming contaminant — the highest pre-cleaning efficiency ever invented by Donaldson.

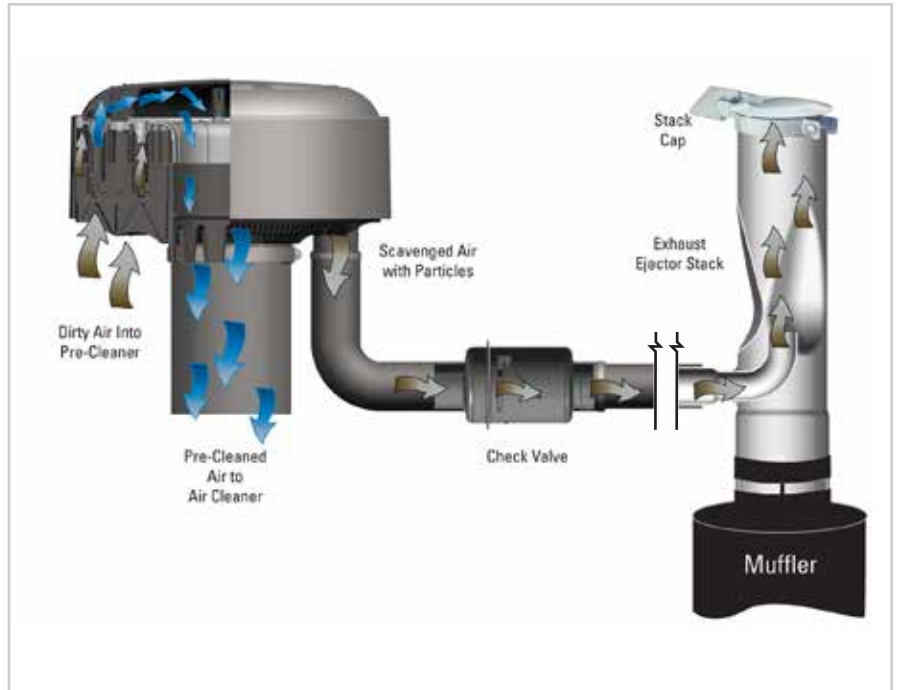


Advantages of Scavenging

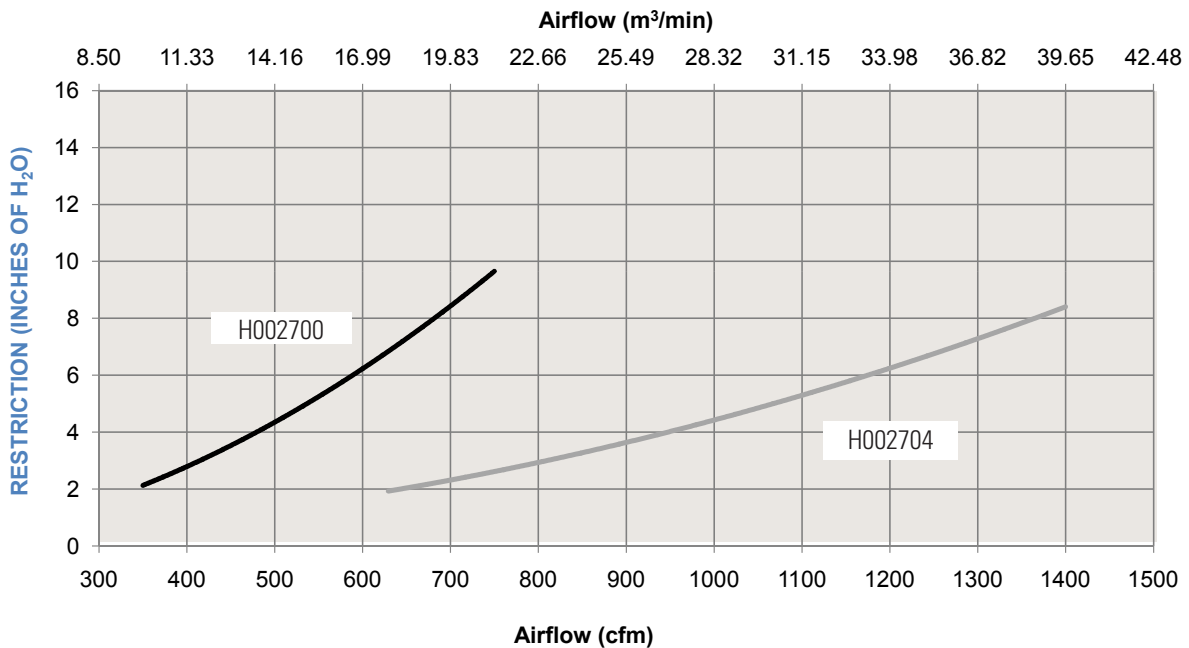
Scavenging is accomplished by introducing a secondary airflow to the drop tube on the air cleaner (generally through the use of an ejector or ejector muffler). This flow pulls the separated contaminant from the pre-cleaner and inserts it into the exhaust stream.

- Higher pre-cleaner efficiency (resulting in longer filter service life)
- Completely self-servicing (no regular maintenance needed on pre-cleaner)

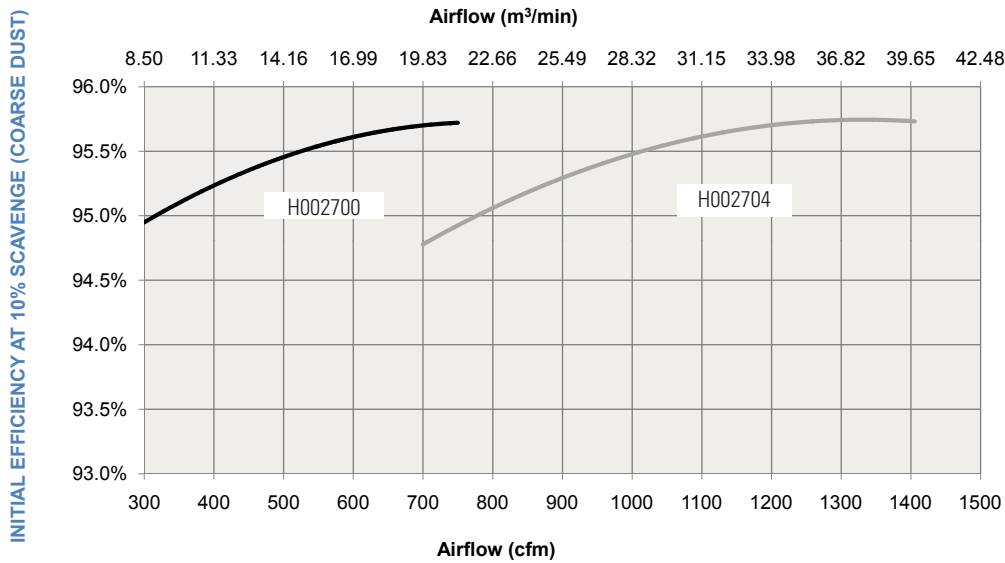
Aspirating an intake system through the use of a scavenging device adds more components (an ejector and some plumbing) to the overall system, but will enhance the separator efficiency of the pre-cleaner and consequently extend the filter service life.



Performance — Restriction at 10% Scavenge



Performance – Initial Efficiency at 10% Scavenge



Dimensional Specifications



Overall Height (A)		Body Dia. (B)		Outlet I.D. (C)		Scavenge Hose I.D. (D)		Part Number	Weight		Rated Air Flow @ 6" H ₂ O
in	mm	in	mm	in	mm	in	mm		lbs.	kg.	
8.00	218	14.00	356	5.00	127	2.00	51	H002700	13.6	6.2	600 cfm / 17.0 m³/m
8.60	218	17.20	437	8.00	203	2.00	51	H002704	19.4	8.8	1140 cfm / 32.3 m³/m

Installation

For proper function, the pre-cleaner/rain cap installs over a 5.0" or 8.0" OD metal intake tube and connects to a 2.0" I.D. scavenge hose. The scavenge hose should be secured from movement within 12.0" / 305mm of the pre-cleaner/rain cap.

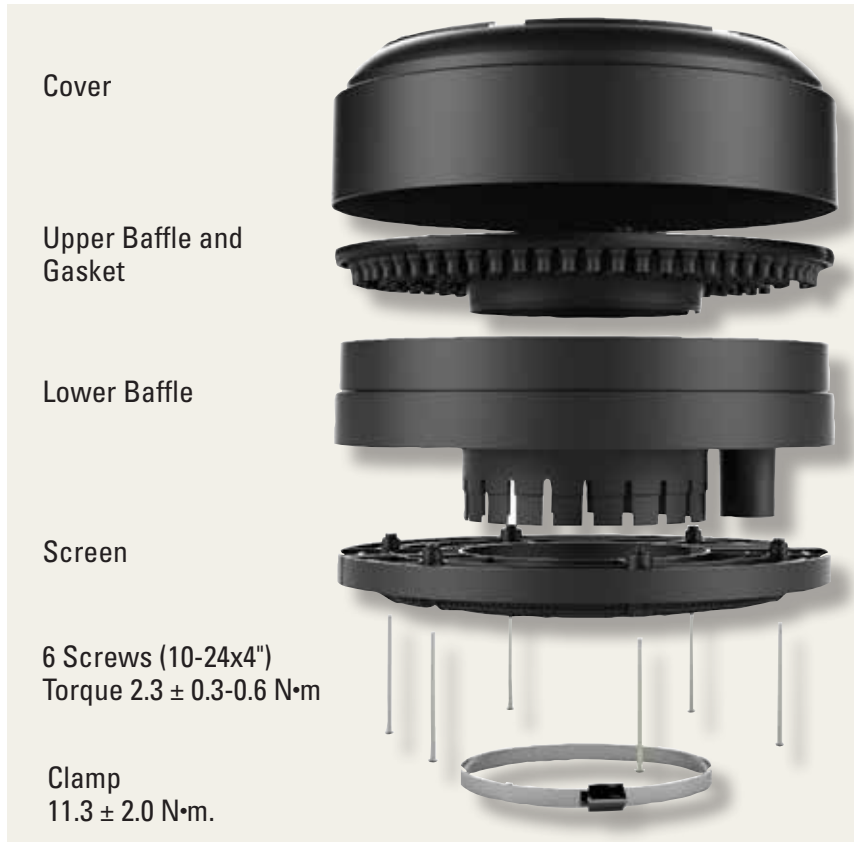
Additional components are required for proper installation:

- Scavenge hose (2.0" / 51mm I.D.) need enough for two cut lengths connecting to the Strata™ Cap to check valve and the check valve to exhaust ejector
- Hose clamps (x 4) (Part No. P115200)
- Check Valve (Part No. H000722)
- Metal Intake Tube (O.D.) to mount Strata™ Cap to Air Cleaner (5.0" / 127 mm or 8.0" / 203 mm Dia. — depends on your Strata™ Cap size)
- Standard and expanded I.D. exhaust ejectors available



Service Procedure

The pre-cleaner/rain cap may need to be cleaned over time. The procedure below recommends removal and disassembly of the unit to clean. The unit can be cleaned with either water, mild-soapy water or compressed air. Tapping or hitting the components to dislodge contaminant should be avoided. It may cause damage and prevent reassembly.



Cover

Upper Baffle and Gasket

Lower Baffle

Screen

6 Screws (10-24x4")
Torque 2.3 ± 0.3-0.6 N•m

Clamp
11.3 ± 2.0 N•m.

1. Turn off engine.
2. Loosen both connecting clamps (metal pipe and scavenge hose) and remove the Strata™ Cap pre-cleaner.
3. Turn unit upside down. Remove the screws (save for reassembly) and disassemble the unit (screen is two pieces).

Note: Cover or plug intake pipe to protect air intake system from contamination during service.

4. Clean all the parts to remove dust and debris from each component.
5. After cleaning, inspect the gasket on the perimeter of the upper baffle. If damaged in any way replace with new gasket. Check gasket position, make sure it is installed evenly around upper baffle perimeter.

Note: Using the unit without gasket properly installed will affect Strata Cap pre-cleaning performance.

Service Parts

Strata Cap Model No.

H002700

H002704

Gasket

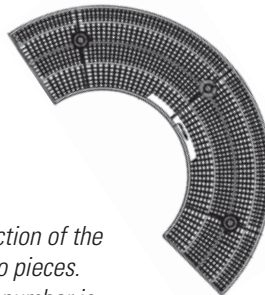
P617476

P167475

1/2 Screen

P617922

P617923



Entire screen section of the Strata Cap is two pieces. The service part number is one screen only.

6. With cover upside down, reassemble components. Unit has alignment guides to aide reassembly.
7. With all components together, reinstall and torque the 6 screws to 2.3 ± 0.3-0.6 N•m

Note: Removable screw adhesive is to be used on the screws if original blue patch has been worn off.

8. Replace Strata Cap on intake stack, reconnect scavenge hose. Tighten clamps to torque specifications. If scavenge support was disconnected, reconnect.

TopSpin™ Can Extend Filter Life in Heavy Dust Conditions

Donaldson TopSpin™ will extend primary air filter life, boost system efficiency, and extend engine life.

Features

Separates up to 85% of incoming contaminant per ISO 5011/SAE J726

- Greatly extends air filter life
- Reduces air filter usage
- Lowers cost per operating hour
- Automatically ejects mixed debris
- Separates more than 99% of 20 micron and above particles

Self-cleaning/self-scavenging

- No maintenance to clean bowl
- No exhaust ejector required

Easy installation

- Quick installation
- One clamp to tighten
- No wires or power requirements

Dual mounted bearings

- More robust design
- Extends bearing life

Lighter Weight

- Lighter than competitive pre-cleaners
- Lighter than Donaldson full-view pre-cleaner

Application

- Engine airflows of 80 to 1500 cfm (2.3-42.5 m³/min).
- Primarily used in medium to heavy dust environments
- Great for off-road vehicles and equipment from crawler tractors to farm tractors to skid steer loaders
- Recommended mounting: on top of the air cleaner inlet stack

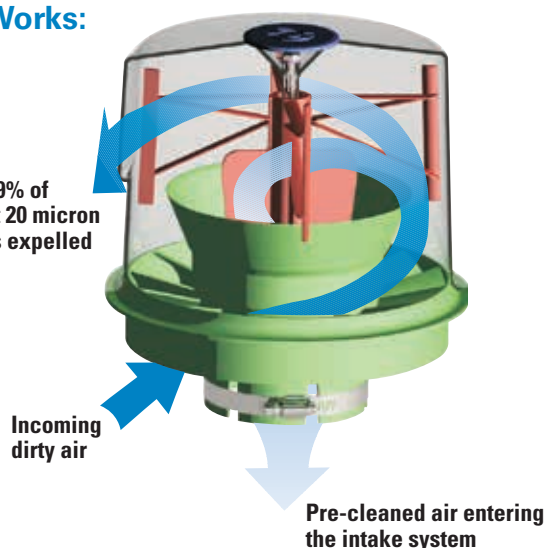


Donaldson TopSpin™ in Action

Upper left, TopSpin on excavator; **upper right**, military ground vehicle in middle east; **left**, TopSpin on pumper truck in Australia.

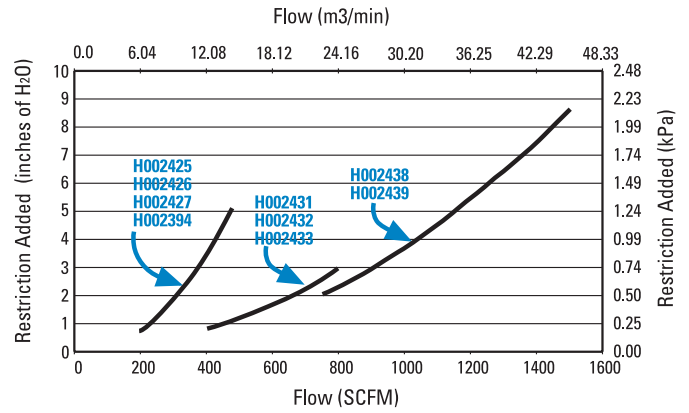
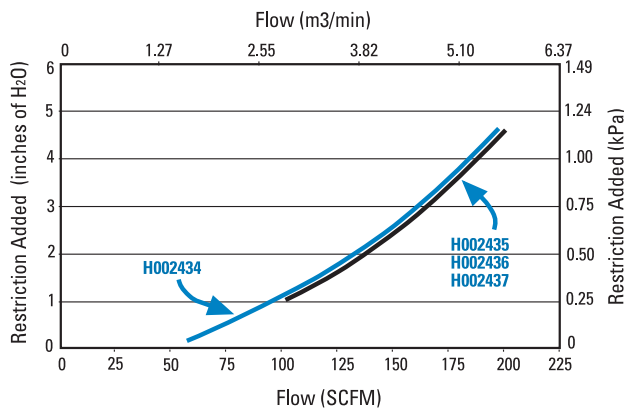
How it Works:

More than 99% of contaminant 20 micron and larger is expelled



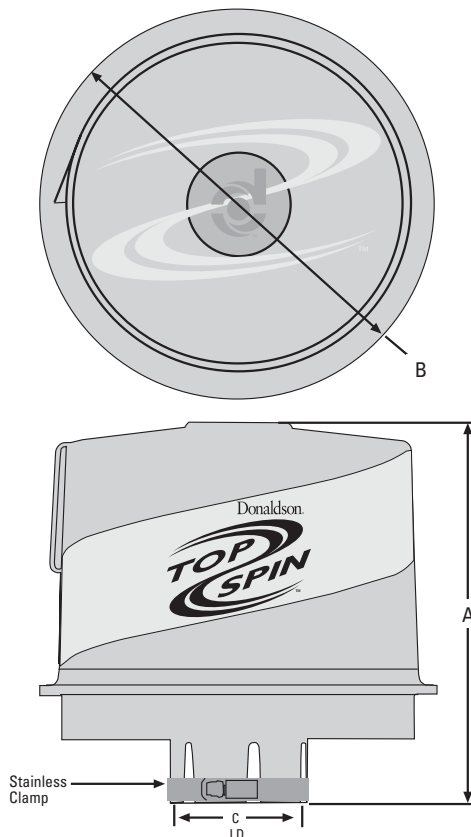
Performance Curves

Multiple tests conducted per ISO 5011/SAE J726 and average results are shown in charts below.



Dimensional Specifications

Donaldson TopSpin™ can be mounted horizontally or vertically. Installation instructions, stainless clamp and warranty are included. Operating temperature range: -40 °F to 180 °F (-40 °C to 82 °C)



Outlet I.D. (C)		Overall Height (A)		Body Dia. (B)		Part Number	Weight	
in	mm	in	mm	in	mm		lbs.	kg.
2.03	52	5.75	146	6.38	162	H002434	1.0	0.4
2.27	58	5.75	146	6.38	162	H002435	1.0	0.4
2.53	64	5.75	146	6.38	162	H002436	1.0	0.4
3.03	77	5.75	146	6.38	162	H002437	1.0	0.4
3.07	78	9.39	238	9.51	242	H002425	2.2	1.0
3.83	97	9.39	238	9.51	242	H002426	2.2	1.0
4.06	103	9.39	238	9.51	242	H002394	2.2	1.0
		11.30	287	11.32	288	H002431	2.7	1.2
4.56	116	9.39	238	9.51	242	H002427	2.2	1.0
		11.30	287	11.32	288	H002432	2.7	1.2
5.03	128	11.30	287	11.32	288	H002433	2.7	1.2
6.03	153	13.57	345	15.62	397	H002438	6.0	2.7
7.03	179	13.57	345	15.62	397	H002439	6.0	2.7

Cross reference from a full-view pre-cleaner to a TopSpin pre-cleaner can be found on the Full-view Pre-cleaner page.

All-Metal Pre-cleaner is Durable Solution for Punishing Conditions

Donaldson TopSpin™ HD will extend primary air filter life, boost system efficiency and extend engine life in medium to heavy dust environments.

Features

Separates up to 80% of incoming contaminant per ISO 5011

- All-metal construction
- Greatly extends air filter life
- Reduces air filter usage
- Lowers cost per operating hour
- Automatically ejects mixed debris

Self-cleaning/self-scavenging

- No maintenance to clean bowl
- No exhaust ejector required

Easy installation

- Quick installation
- One clamp to tighten
- No wires or power requirements

Application

- Engine airflows of 50 to 1600 cfm (1.4-45.3 m3/min).
- Primarily used in medium to heavy dust environments
- Great for off-road vehicles and equipment, including crawler tractors, farm tractors, skid steer loaders, mining, and fracking machines
- Recommended mounting: on top of the **metal** air cleaner inlet stack. Do not mount on non-metal inlet stack



Built as tough as your equipment

Rugged one-piece **aluminum hood** with recessed discharge louver sheds flying debris.

One-piece **stainless steel impeller** is the only moving part. Dual bearings ensure reliable performance.

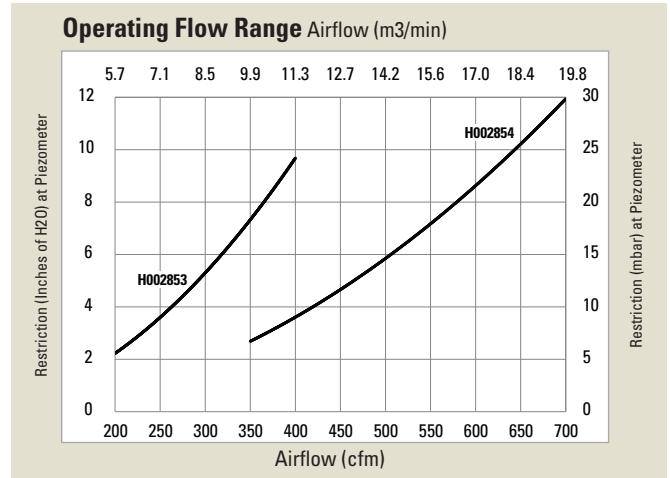
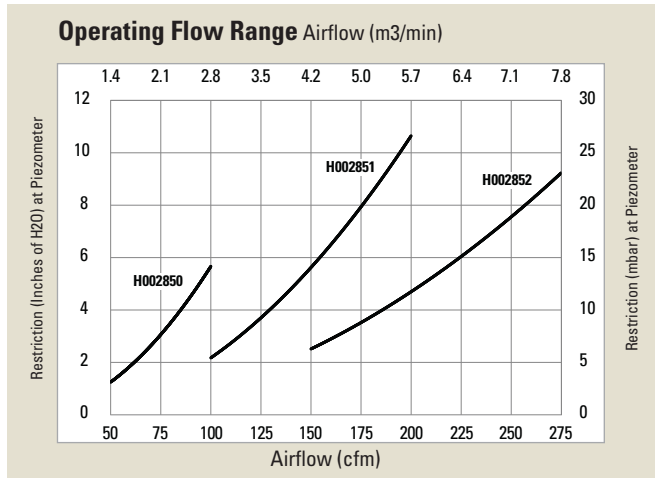


Stainless steel clamp with locking nut makes installation quick and secure. Clamp is included with each TopSpin HD.

All the interior components are solid stainless steel to resist dirt, water, heat, and debris encountered in demanding environments.

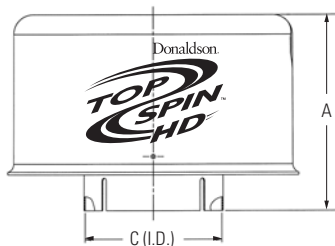
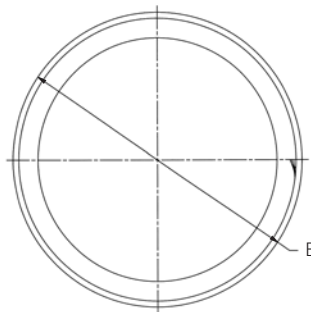


TopSpin HD Performance Curves

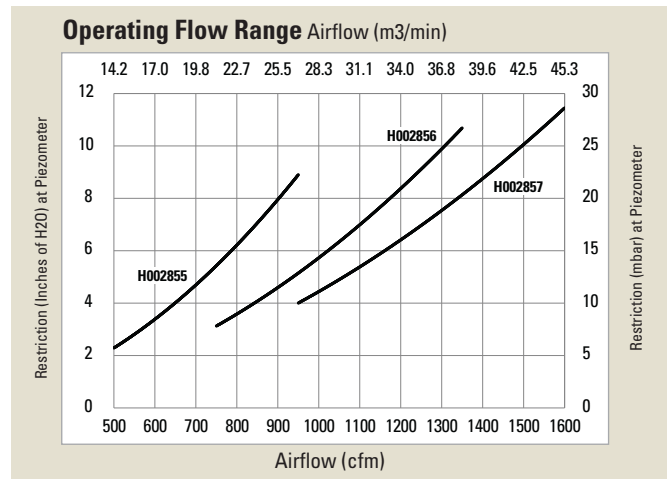


Dimensional Specifications

Donaldson TopSpin™ HD can be mounted in an upright position or horizontally with louver opening at the bottom. Installation instructions, stainless steel clamp and limited lifetime warranty are included. Operating temperature range: -40 °F to 180 °F (-40 °C to 82 °C).



Cross reference from a Full-View pre-cleaner to a TopSpin™ HD pre-cleaner can be found on the Full-view Pre-cleaner page.



Outlet I.D. (C)		Overall Height (A)		Body Dia. (B)		Operating Flow Range		Part Number	Weight	
in	mm	in	mm	in	mm	SCFM*	m3/min.		lbs.	kg.
2.06	52.3	3.41	86.5	5.4	137.2	50-100	1.4-2.8	H002850	1.0	0.5
2.58	65.5	4.25	108	6.3	160	100-200	2.8-5.6	H002851	1.75	0.8
3.07	78	4.96	125.9	7.2	182.9	150-275	4.2-7.8	H002852	2.75	1.2
4.10	104.1	5.81	147.6	8.72	221.6	200-400	5.6-11.3	H002853	3.75	1.7
5.08	129	7.56	192.1	11.19	284.2	350-700	10-20	H002854	6.5	3.0
6.10	154.9	7.72	196	12.78	324.6	500-950	14-27	H002855	7.25	3.3
7.10	180.3	8.38	212.7	14.75	374.6	750-1350	21-38	H002856	9.5	4.3
8.08	205.2	8.38	212.7	14.75	374.6	950-1600	26.6-44.8	H002857	9.5	4.3

*SCFM = Standard Cubic Feet per Minute. The ISO 5011/SAE J726 test procedure was used to extract the results in the charts above. The ISO 5011/SAE J726 is a widely accepted industry test used by OEMs to evaluate the efficiency of the intake system components. Test results are an average from testing several units.

Full-View Pre-Cleaner Helps Extend Filter Life on Agricultural & Construction Equipment

Features

- Recommended mounting: on top of the engine intake stack
- Centrifugal force in bowl separates up to 75% of incoming dust **before** it enters the engine air intake system
- Low maintenance
- Durable, lightweight, noncorrosive construction
- Full-view plastic bowl lets operator easily see when service is needed
- One-bolt cover retention for easy service. When dirt reaches the level of the arrow, remove top nut and plastic body, then empty — no tools required
- Mounting clamp included



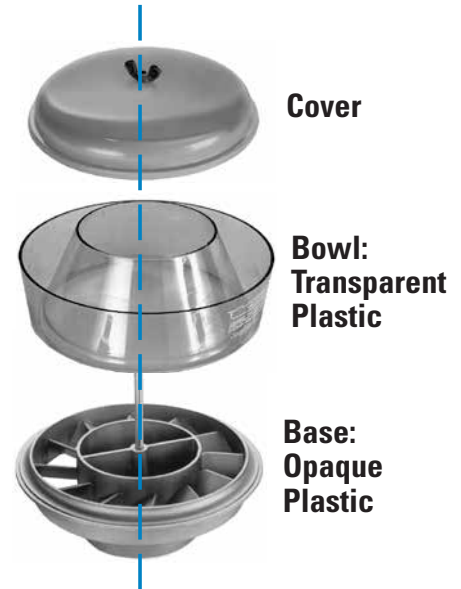
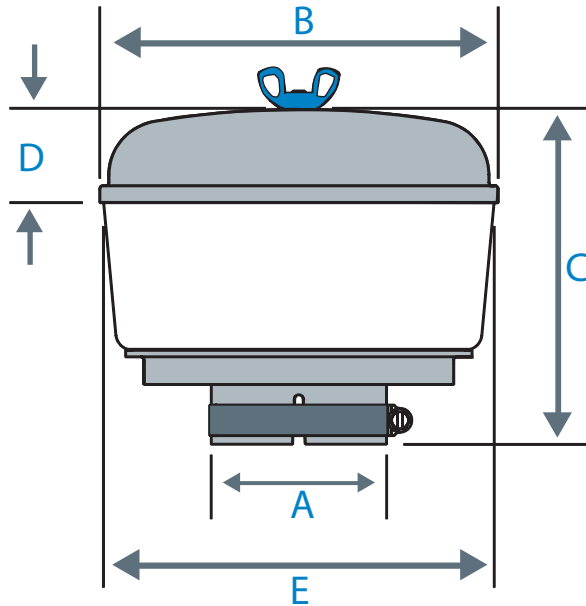
Tired of Emptying the Cup?

Before you consider replacing your full-view pre-cleaner with another one, check out the TopSpin™ and TopSpin™ HD models on the previous pages.



Pre-cleaner Upgrade Path

Full-View	TopSpin	TopSpin™ HD
H000820.....	H002425	
H000821.....	H002426	
H000858.....	H002394.....	H002853
H000823.....	H002427	
H001250.....	H002435	
H001251.....	H002436.....	H002851
H001249.....	H002437.....	H002852
H001823.....	H002434.....	H002850
H002043.....	H002433.....	H002854
H002044.....	H002432	
H002045.....	H002431	
H002223.....	H002438.....	H002855
H002224.....	H002439.....	H002856
N/A	N/A	H002857



Full-View Pre-Cleaners Specifications

Inlet (ID/OD)		B		C		D		E		Weight		Entire F.V. Pre-Cleaner	Replacement		Max. Airflow CFM
A											Cover		Bowl		
in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg				
1.75	44	5.59	142	4.75	121	1.72	44	5.50	140	0.8	0.37	H002042	P020116	P020115	80
2.00	51	5.59	142	4.75	121	1.72	44	5.50	140	0.9	0.41	H002040	P020116	P020115	90
		7.34	186	6.19	157	1.72	44	7.25	184	1.4	0.64	H001823 ¹	P020648	P020227	110
2.25	57	7.34	186	6.19	157	1.72	44	7.25	184	1.5	0.68	H001250	P020648	P020227	130
2.50	64	7.34	186	6.19	157	1.72	44	7.25	184	1.5	0.68	H001251	P020648	P020227	150
3.00	76	7.34	186	6.19	157	1.72	44	7.25	184	1.6	0.73	H001249	P020648	P020227	170
		10.63	270	7.66	195	1.84	47	10.50	267	3.4	1.54	H000820 ¹	P016548	P016330	320
3.75	95	10.63	270	7.66	195	1.84	47	10.50	267	3.4	1.54	H000821	P016548	P016330	330
4.00	102	10.63	270	7.66	195	1.84	47	10.50	267	3.4	1.54	H000858	P016548	P016330	340
		12.06	306	8.19	208	2.00	51	11.94	303	4.5	2.04	H002045 ¹	P020345	P020344	660
4.50	114	10.63	270	7.66	195	1.84	47	10.50	267	3.4	1.54	H000823	P016548	P016330	340
		12.06	306	8.19	208	2.00	51	11.94	303	4.5	2.04	H002044 ¹	P020345	P020344	700
5.00	127	12.06	306	7.69	195	2.00	51	11.94	303	4.5	2.04	H002043	P020345	P020344	740
6.00	152	16.25	413	10.00	254	2.81	71	15.94	405	9.2	4.17	H002223	P104691	P158324	1300
7.00	178	16.25	413	10.00	254	2.81	71	15.94	405	9.2	4.17	H002224	P104691	P158324	1500

1 - Heavy Duty Option

Extends Filter Life in Extremely Heavy Dust Conditions

The Donaspin™ Pre-Cleaner extends the life your air filter by removing up to 90% of the dirt and contaminant before it reaches the filter and ejecting it automatically via the exhaust system.

Donaspin is designed especially for equipment operating in very heavy dust/debris environments.



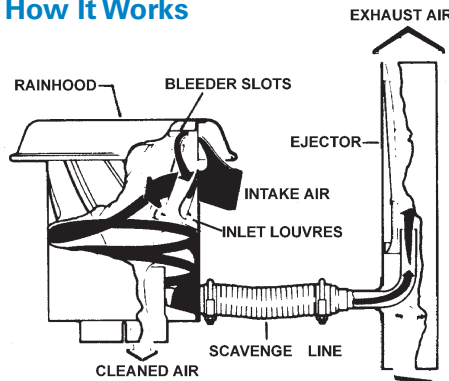
Application

- Vehicles: agricultural equipment, construction and waste haul vehicles
- For engine airflows of 305 to 800 cfm
- Recommended mounting: on top of the air inlet stack

Features

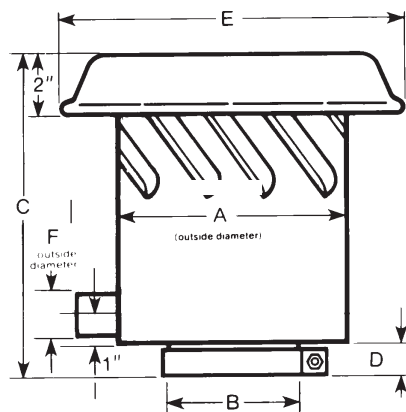
- Built-in louvers spin air to separate up to 90% of incoming dirt and debris from the air intake system
- Works as part of a scavenged flow system to continuously expel pre-cleaned contaminants through the exhaust flow
- Durable, corrosion-resistant steel construction
- High efficiency with low restriction
- No maintenance. Self-cleaning. No moving parts.
- Mounting clamp is included

How It Works



To create a scavenged flow system, combine the Donaspin with a Donaldson exhaust ejector and ejector check valve.

The Donaspin installed on this combine removes most of the incoming dirt, then directs the contaminant out of the system with the exhaust gases.



Donaspin™ Pre-Cleaner

A		B (I.D.)		C		D		E		F		Rated Airflow @ 5" H ₂ O Added	Approx. Weight		Part Number
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm		lbs	kgs	
8.00	203	3.00	76	11.98	304	2.15	55	12.00	305	1.25	32	305	8	3.6	H001212
8.00	203	4.50	114	10.93	278	1.10	28	12.00	305	1.25	32	465	8	3.6	H001215
8.00	203	5.00	127	11.14	283	1.31	33	12.00	305	1.25	32	530	8	3.6	H001308
9.00	229	6.00	152	14.68	373	1.10	28	13.00	330	1.25	32	770	10	4.5	H001375

Two-stage Cleaning for Unexpected Dust/Moisture Conditions

When your truck is being used in heavier-than-anticipated dust or moisture conditions, you may not have to replace the entire air cleaner. The problem may be solved by adding a Donaldson in-line separator.

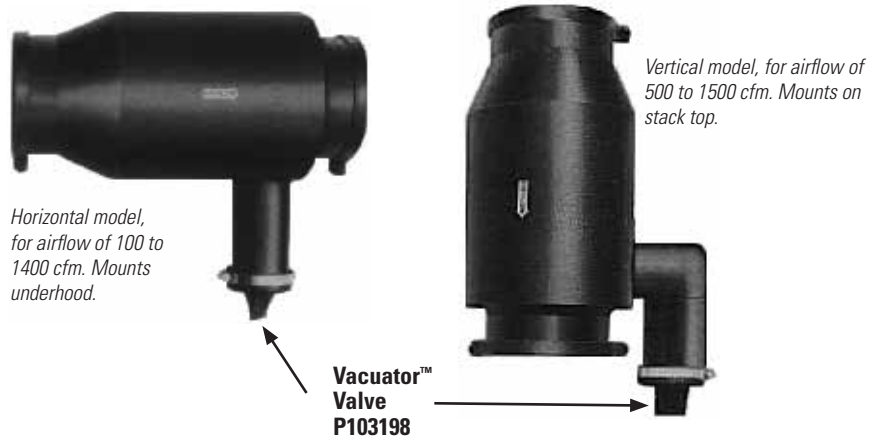
Installing this unit on your single-stage system **creates a two-stage air filtration system**. This enables an over-highway vehicle, which usually sees only light dust, to be easily and economically adapted to off-road medium to heavy dust conditions.

Applications

- **Vertical model:** On/off road, mounted on inlet tubing or cowl mounted directly to air cleaner
 - Compatible with engine airflows of 500 to 1500 cfm
- **Horizontal model:** On/off road, typically mounted underhood
 - Compatible with engine airflows of 100 to 1400 cfm

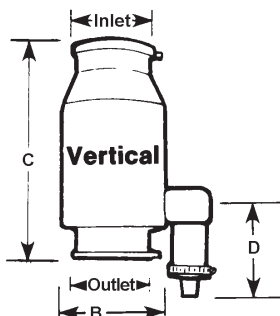
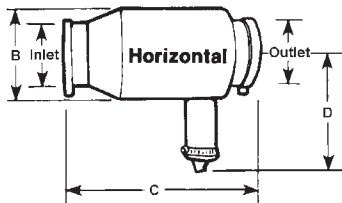
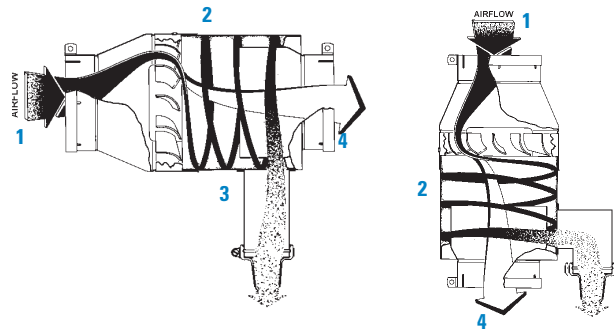
Features

- 80% water removal efficiency
- 70% dust removal efficiency



How It Works

1. When moisture — and/or dust-filled air — enters at one end, the built-in, stationary vanes cause the air to spin.
2. This spin creates centrifugal force, which pushes all moisture and dust to the outside wall where it separates from the air.
3. Moisture and dust are thrown into the Vacuator Valve tubing, then automatically released by the Vacuator Valve.
4. Clean air (acceptable for maximum filter life and engine performance) passes to the air cleaner.



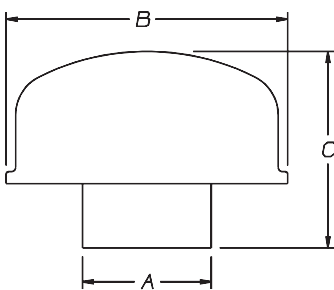
In-Line Separators

Part Number	CFM Range	Inlet		Outlet		Diameter (B)		Length (C)		Diameter (D)	
		in	mm	in	mm	in	mm	in	mm	in	mm
HORIZONTAL STYLE											
H001474	100-400	4 OD ¹	102 OD	4 OD	102 OD	5.50	140	11.50	292	7.18	182
H000875	500-1,000	6 ID ²	152 ID	6 ID	152 ID	8.56	217	17.25	438	11.58	294
H001906	700-1,400	7 ID	178 ID	7 ID	178 ID	9.59	244	17.0	432	12.02	305
VERTICAL STYLE											
H000878	500-1,100	6 ID	152 ID	6 ID	152 ID	8.56	217	17.25	438	7.80	198
H000886	750-1,100	7 ID	178 ID	7 ID	178 ID	8.56	217	17.25	438	7.80	198
H001220	900-1,500	8 OD	203 OD	8 ID	203 ID	9.59	244	17.0	432	4.56	115

1 - Outer diameter
2 - Inner diameter

Protection Against Rain and Debris Ingestion

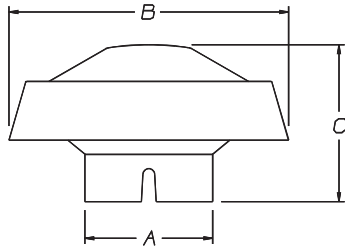
- Protects engine air intake from rain, snow, birds, and other large contaminants
- Mounts on stack or directly to air cleaner for on-road and off-road equipment
- Four styles in a wide variety of sizes
- Installs easily with one clamp. Clamp included with hood on styles B, C and D



Inlet Hood — Style A¹

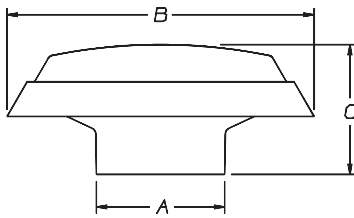
Fits O.D. (A)		Hood Dia. (B)		Height (C)		Add to Stack		Mat'l	Weight		Part Number
inch	mm	inch	mm	inch	mm	inch	mm		lbs	kgs	
1.75	44	4.13	105	3.31	84	2.75	70	Metal	0.50	0.22	X002017
2.00	51	4.13	105	3.25	83	2.75	70	Metal	0.50	0.22	X002018
2.25	57	5.24	133	3.97	101	3.50	89	Metal	0.80	0.36	X002019
2.50	64	5.25	133	3.97	101	3.50	89	Metal	0.80	0.36	X001966
3.00	76	6.13	156	5.06	129	3.75	95	Metal	1.10	0.50	X002014
3.75	95	8.06	205	7.75	197	6.00	152	Metal	2.10	0.95	X001988
4.00	102	8.06	205	7.88	200	6.00	152	Metal	2.00	0.90	X002015

¹ - Clamps must be ordered separately for this style.



Inlet Hood — Style B

Fits O.D. (A)		Hood Dia. (B)		Height (C)		Add to Stack		Mat'l	Weight		Part Number
inch	mm	inch	mm	inch	mm	inch	mm		lbs	kgs	
1.75	44	6.00	152	3.37	86	2.05	52	Plastic	0.20	0.09	H002068
2.00	51	6.00	152	3.31	84	2.50	64	Plastic	0.20	0.09	H001377
2.50	64	6.00	152	3.31	84	2.50	64	Plastic	0.20	0.09	H001378
3.00	76	6.00	152	3.31	84	2.50	64	Plastic	0.20	0.09	H001379

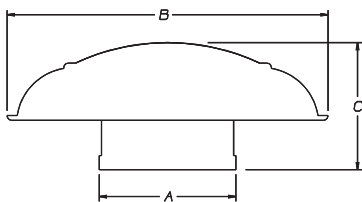


Inlet Hood — Style C

Fits O.D. (A)		Hood Dia. (B)		Height (C)		Add to Stack		Mat'l	Weight		Part Number
inch	mm	inch	mm	inch	mm	inch	mm		lbs	kgs	
3.00	76	11.50	292	5.88	149	3.63	92	Plastic	1.10	0.50	H001063
3.75	95	11.50	292	5.13	130	3.63	92	Plastic	0.80	0.36	H000466
		11.50	292	5.13	130	3.63	92	Plastic	1.00	0.45	H000473 ²
4.00	102	11.50	292	5.06	129	3.38	86	Plastic	0.90	0.40	H000467
		11.50	292	5.06	129	3.38	86	Plastic	1.00	0.45	H000472 ²
4.50	114	11.50	292	4.88	124	3.38	86	Plastic	0.80	0.36	H000468
		11.50	292	4.88	124	3.38	86	Plastic	1.00	0.45	H000471 ²
5.00	127	11.50	292	4.88	124	3.31	84	Plastic	0.80	0.36	H000469
		11.50	292	4.88	124	3.31	84	Plastic	1.00	0.45	H000470 ²
5.50	140	16.00	407	5.75	146	3.31	104	Plastic	1.80	0.80	H000605 ²
		16.00	407	5.75	146	4.94	125	Plastic	1.80	0.80	H000604 ²
6.00	152	16.00	407	5.75	146	4.94	125	Plastic	1.80	0.80	H000606 ²
		13.00	330	4.06	103	2.69	68	Bright	1.50	0.68	H001756
6.00	152	16.00	406	5.69	145	4.25	108	Bright	1.50	0.68	H001948 ²
		12.81	325	4.81	122	3.44	87	Bright	1.50	0.68	H001773
7.00	178	13.00	330	3.88	99	2.50	64	Bright	1.50	0.68	H001742
		16.00	406	5.75	146	4.09	104	Plastic	1.80	0.80	H000607 ²
7.00	178	16.00	406	5.69	145	4.25	108	Bright	1.50	0.68	H001947 ²
		8.00	203	16.00	406	6.19	157	4.69	119	Plastic	1.80
8.00	203	16.00	406	6.19	157	4.60	117	Bright	1.50	0.68	H001946 ²

Air Inlet Hood Style C offers more models that provide added rain/water protection. While all inlet hoods offer top rain/water there are some that offer additional protection from splash on the underside of the hood.

2 - Hood has rain shroud on underside of hood style.



Inlet Hood — Style D

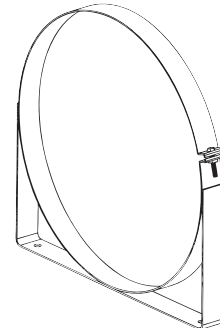
Fits O.D. (A)		Hood Dia. (B)		Height (C)		Add to Stack		Mat'l	Weight		Part Number
inch	mm	inch	mm	inch	mm	inch	mm		lbs	kgs	
4.50	114	9.50	241	4.69	119	3.69	94	Metal	3.20	1.44	H000170
5.00	127	9.50	241	4.69	119	3.69	94	Metal	3.30	1.50	H000165
6.00	152	9.50	241	4.69	119	3.69	94	Metal	3.10	1.40	H000275
		9.50	241	4.69	119	3.69	94	Metal	3.20	1.44	H000276 ²
7.03	179	17.00	432	6.75	171	5.75	146	Metal	4.60	2.08	H000339
10.00	256	15.98	406	7.42	188	5.28	134	Metal	5.0	2.27	H770082

W-Foot Mounting Bands Designed For Donaldson Air Cleaners

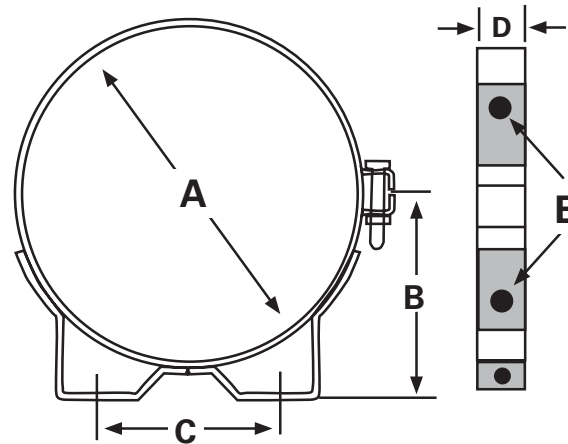
- Durable, corrosion-resistant, steel construction
- Fully engineered and tested to resist the adverse effects of vibration
- Mounting band feet are designed to ensure maximum torque pressure, continuously
- Air cleaners require minimum of two mounting bands per housing
- Gauge of steel increases as diameter of mounting band increases
- Bright stainless models available
- Bolt and nut included with mounting band



Most of our air cleaners with metal housings require two mounting bands.



Two models (H770068, H770037) have different foot band compared to others.



Air Cleaner Mounting Bands

A		B		C		D		E		Weight		Max. Bolt Torque		Part Number
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lbs	kg	lbs-ft	N-m	
4.00	102	2.56	65	2.50	64	.75	19	.31	8	0.30	0.14	1.50	2.03	P007189
5.25	133	3.19	81	3.25	83	.88	22	.34	9	0.70	0.32	1.50	2.03	P002348
6.00	152	3.56	90	3.25	83	1.00	25	.34	9	0.80	0.36	1.50	2.03	P002351
6.50	165	3.88	99	3.75	95	.88	22	.41	10	0.70	0.32	2.00	2.71	P007191
7.00	178	4.13	105	4.50	114	.88	22	.30	8	0.80	0.36	3.00	4.07	P004906
7.75	197	4.44	113	4.25	108	1.00	25	.34	9	0.90	0.41	3.50	4.75	P003245
8.00	203	4.50	114	4.25	108	1.00	25	.34	9	1.10	0.50	4.00	5.42	P004307
9.00	229	5.13	130	4.5	114	1.25	32	.45	11	1.50	0.68	4.00	5.42	P004073
10.19	259	5.75	146	5.00	127	1.25	32	.45	11	1.50	0.68	4.00	5.42	P004076
11.00	279	6.13	156	5.00	127	1.25	32	.45	11	1.70	0.77	4.00	5.42	P004079
11.81	300	6.88	175	6.00	152	1.50	38	.41	10	2.50	1.13	4.00	5.42	H000349
13.00	330	7.25	184	6.00	152	1.50	38	.41	10	2.80	1.50	4.00	5.42	P013722
		7.25	184	6.00	152	1.50	38	.41	10	2.80	1.50	4.00	5.42	P522439*
14.00	356	8.13	207	8.00	203	1.50	38	.47	12	3.70	1.68	5.00	6.78	H000350
15.00	381	8.00	203	8.00	203	1.50	38	.47	12	4.10	1.86	6.00	8.14	P016845
		8.00	203	8.00	203	1.50	38	.47	12	4.10	1.86	6.00	8.14	P524552*
16.00	406	9.13	232	10.00	254	1.50	38	.47	12	4.75	2.16	5.00	6.78	H000351
18.00	457	9.2	234	15.75	400	1.96	50	.55	14	5.25	2.38	5.00	6.78	H770037
19.29	490	10.97	279	19.29	490	1.96	50	.55	14	6.39	2.9	5.00	6.78	H770068

*Bright Stainless Model

Worm-Drive Hose Clamps

- Versatile clamps for wide size range of hose connections
- Made of strong, durable, noncorrosive stainless steel
- Inside of clamp is lined so that hose doesn't bulge through clamp holes
- Narrow band enables easy installation in confined areas

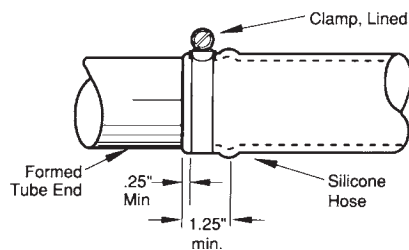


Lined Hose Clamp

-- Min. to Max. Size -- inch	mm	Part Number
9/16 – 13/16	14–21	P532919
11/16 – 15/16	17–24	P532920
13/16 – 1-1/16	21–27	P532921
13/16 – 1-1/2	21–38	P532923
13/16 – 1-3/4	21–44	P532924
15/16 – 1-1/4	29–32	P532922
1-9/16 – 2-1/2	40–62	P115200
2-1/16 – 3	52–76	P115201
2-13/16 – 3-3/4	71–95	P143422
3-5/16 – 4-1/4	84–108	P115202
4-5/16 – 5-1/4	109–133	P115203

Recommended application up to 40 in·lb torque

Donaldson lined hose clamps seal silicone and other soft hoses without damage. The inner liner extends under the perforations to protect the hose and prevents extrusions through the worm-gear perforations.



Initial torque on lined hose clamp should be 40 in·lb. If retorquing is required, limit to 20 in·lb.



Constant Torque Clamp

--- Min. to Max. Size --- inch	mm	Part Number
2-1/4 – 3-1/8	57–79	P532925
2-3/4 – 3-5/8	70–92	P532926
3-1/4 – 4-1/8	83–105	P532927
3-3/4 – 4-5/8	95–117	P532928
4-1/4 – 5-1/8	108–130	P532929

Recommended application up to 90 in·lb torque

Donaldson constant torque lined clamps are the best choice for systems where clamps cannot be retightened and have difficult access. Perfect for applications requiring higher torque, large diameters, temperature extremes, or where expansions and contractions within the system are common. This clamp is a good choice for critical coolant and charge-air connections.



High Torque Clamp

---- Min. to Max. Size ---- inch	mm	Part Number
4-1/4 – 5-1/8	108–130	P115204
5-1/4 – 6-1/8	133–156	P115205
6-1/4 – 7-1/8	159–181	P115206
7-1/4 – 8-1/8	184–206	P115207
8-1/4 – 9-1/8	210–232	P115208
10-1/4 – 11-1/8	260–286	P115209

Recommended application up to 150 in·lb torque

This EXTRA heavy-duty clamp ensures total protection against leakage . . . eliminates the need for double clamping.

T-Bolt Clamps



Nominal I.D. ¹	Min. to Max. Size inch	mm	Part Number
2.00	2.25–2.53	57–64	P148337
2.25	2.50–2.78	63–70	P148338
2.50	2.81–3.09	71–78	P148339
2.75	3.06–3.34	78–85	P148340
3.00	3.31–3.59	84–91	P148341
3.50	3.81–4.09	98–104	P148342
4.00	4.31–4.59	109–116	P148343
4.50	4.81–5.09	122–129	P148344
5.00	5.31–5.59	135–142	P148345
5.50	5.94–6.21	151–158	P148346
6.00	6.38–6.65	162–169	P148347
7.00	7.38–7.78	187–198	P148348
8.00	8.25–8.56	216–226	P148349
10.00	10.50–10.91	267–277	P148350

¹ - Nominal I.D. dimension, shown in inches, corresponds to I.D. dimension of rubber part being clamped.

Filter Service Indicators Maximize Filter Life

Typical mounting options: on the air cleaner outlet tube, on the intake duct, or remote

Replacing filters based on restriction readings can reduce your maintenance costs significantly. Visual inspection of air filters is not adequate and should not dictate service life. Filters that appear very dirty may still contain a great amount of service life.

Over-servicing and excessive handling of the filter can result in serious consequences: filter damage, improper installation, intake contamination from ambient dust, and/or increased service cost, time and material. In contrast, filter service based on restriction readings can enable you to obtain the longest life possible from the filter, and the best engine protection.

Restriction Readings, Where & When

Restriction readings are normally taken at the air cleaner on the clean side of the air filter. If the air cleaner does not have a restriction tap, readings can be taken anywhere in the system between the air cleaner and the engine. To measure restriction of a naturally aspirated



Filter service indicators are very effective when mounted on the outlet tube of the air cleaner, see The Informer™ above. This gives the operator constant and accurate visibility of filter life.

diesel engine, the reading is taken at full-governed RPM with no load.

Choose Restriction Measurement Tools that Best Fit Your Applications

Donaldson offers a variety of restriction measuring devices that help you get maximum filter utilization. All measure restriction in inches of water vacuum. All are resistant to vibration, breakage, weather, corrosion, dust and dirt to assure reliable filter restriction readings.



Continuous Reading devices that show how much life is left in the filter are:

- The Informer™
- Service Gauge for Instrument Panel

Go/No-Go restriction readings on heavy-duty vehicles are:

- ServiSignal™
- Visual Restriction Indicator
- Electrical Indicator
- SafetySignal™ for safety filters

In-Field restriction readings on light- and medium-duty vehicles are:

- In-Field Service Gauge Kit
- Water manometer

Maximum Engine Manufacturers Recommended Restriction Limits

Maximum allowable restriction limits are set by the engine manufacturers. If your maximum limit is unknown, contact your engine manufacturer for the maximum limits. Maximum levels are measured at high idle with no load for naturally aspirated and super-charged diesel engines. Turbo-charged diesel, gasoline and carbureted engines are measured at full load with a wide open throttle.

Examples shown in Inches of Water (H₂O) and kiloPascals

Engine Maker	Diesel, Naturally Aspirated	Diesel, Turbo Charged	Compressed Natural Gas
Detroit Diesel	25" / 6.2 kPa	20" / 5 kPa	20" / 5 kPa
Cummins	20" / 5 kPa	25" / 6.2 kPa	15" / 3.7 kPa
Caterpillar	30" / 7.5 kPa	30" / 7.5 kPa	15" / 3.7 kPa
Mack		E7: 20" / 5 kPa E9: 25" / 6.2 kPa	
Navistar		30" / 7.5 kPa	
Volvo		30" / 7.5 kPa	

NOTE: These figures are general guidelines. Restriction limits on specific engine models may vary. Consult your engine manufacturer for definite figures.

The Informer™ for Graduated, Continuous Readings

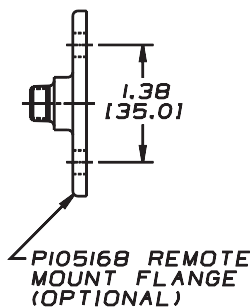
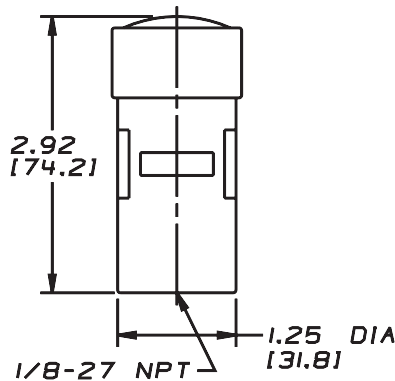


The Informer, when mounted on the air cleaner or the dashboard, provides a continuous reading whether the engine is running or is shut down. Reset button is on top. Kit includes

full installation instructions and a P100089 safety filter fitting. For remote mounting, order a P105168 flange and a P105622 90° elbow.

The Informer™

Restriction Limit	Gauge Only	Kit (gauge & fitting)
20" H ₂ O/5 kPa	X002278	X002103
25" H ₂ O/6.2 kPa	X002277	X002102
30" H ₂ O/7.5 kPa	X002275	X002101



The Mini-Informer™ for Light & Medium Trucks

The Mini-Informer restriction gauge is designed to mount in the plastic air cleaners of passenger cars, light trucks, and sport utility vehicles. It's an accurate, durable, easy-to-read "go/no go" style indicator, smaller than the original Informer.

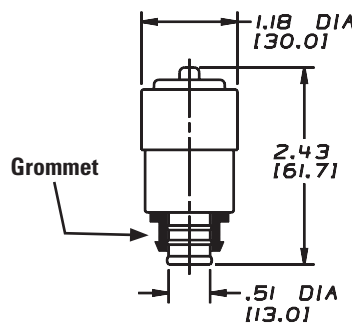


Through the clear window, a green flag shows when air filter restriction is below the service point. When the restriction reaches its limits, an orange flag imprinted with "change filter" pops up.

The Mini-Informer mounts in the air cleaner ducting in a rubber grommet.

The Mini-Informer™

Restriction Limit	Gauge & Grommet	Gauge Only
25" H ₂ O/6.2 kPa	X007276	X007335



Hand tighten filter service indicators (30 – 40 in·lb maximum).

ServiSignal™ Mini Indicator

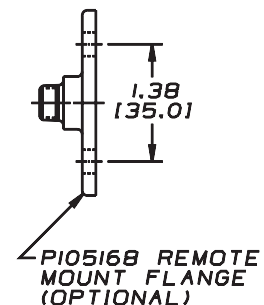
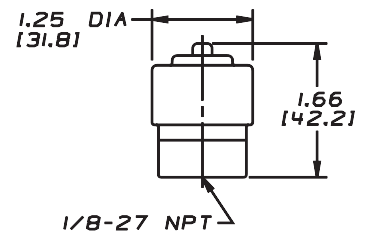
Small enough to fit just about anywhere (only 1.66" high), the Donaldson ServiSignal shows a highly visible, bright red flag in the full-view window when restriction limit is reached. Resets manually via top button after air cleaner service.



Kit includes 1/8" NPT threaded brass fitting for mounting on the air cleaner. For remote mount, also order P105168 flange. Hoses not included.

The ServiSignal™ Mini Indicator

Restriction Limit	Gauge Only	Kit (gauge & fitting)
15" H ₂ O/ 3.7 kPa	X002250	X002350
20" H ₂ O/ 5 kPa	X002251	X002351
25" H ₂ O/ 6.2 kPa	X002252	X002352
30" H ₂ O/ 7.5 kPa	X002254	X002354



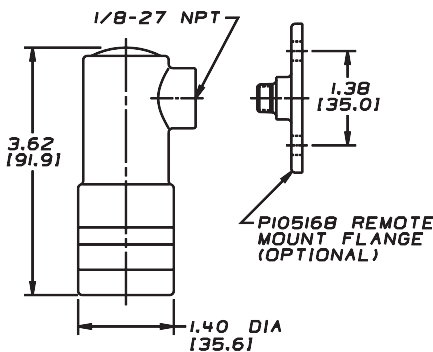
Visual Restriction Indicator

The Donaldson standard restriction indicator can be mounted directly on the air cleaner or remotely on the instrument panel or firewall. When restriction limit is reached and filter service is needed, easily-visible, bright red shows through the full-view window. After the filter is serviced, reset via rubber button on top. For remote mount, also order a flange, P105168. Hoses not included.



Visual Restriction Indicator

Restriction Limit	Gauge Only	Kit (gauge & fitting)
15" H ₂ O/ 3.7 kPa	X002215	X002315
20" H ₂ O/ 5 kPa	X002220	X002320
25" H ₂ O/ 6.2 kPa	X002225	X002325
30" H ₂ O/ 7.5 kPa	X002230	X002330



Hand tighten filter service indicators (30 – 40 in·lb maximum).

Electrical Indicator Connects to Light, Buzzer, or Computer

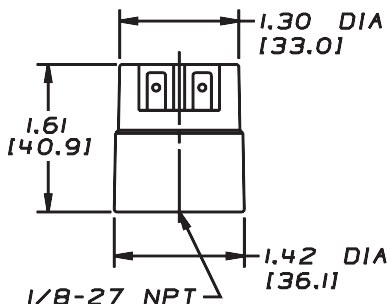
Our electrical indicator is designed for a variety of on- and off-highway applications within operating temperatures of -40 °F to +212 °F (-40 °C to +100 °C). When restriction level reaches the maximum recommended limit, an electrical signal activates a light, a buzzer, or a computer, as you choose. The indicator automatically resets itself after the filter is serviced.



- 12-24 Volts
- Maximum load: 6 watts (light or buzzer)
- Contacts have no polarity
- Switch contacts are normally in the open position
- Quick connectors and light, buzzer, or computer must be purchased separately

Electrical Indicator

Restriction Limit	Electrical Indicator
15" H ₂ O/ 3.7 kPa	X770037
20" H ₂ O/ 5.0 kPa	X770050
25" H ₂ O/ 6.2 kPa	X770062
30" H ₂ O/ 7.5 kPa	X770075



SafetySignal™ Wing Nut Indicator for Safety Filter

The Donaldson SafetySignal service indicator replaces the wing nut on the metal end cap safety filters and constantly monitors air restriction. When service is required, it locks red and can be reset after service. The SafetySignal requires no special fittings or adapters. Donaldson safety filters are designed to last through multiple primary filter change outs. The SafetySignal helps save time and money by preventing over-servicing.



SafetySignal™

PART NO.: X004814

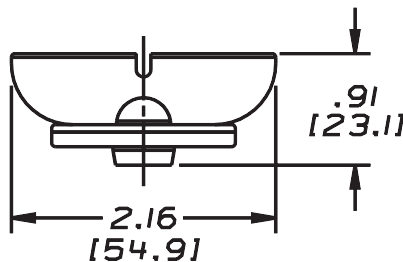
For Air Cleaners: FTG 13" & 15", FHG12" & 14", FVG16"
Fits Bolt: 7/16" - 20 UNF
Washer included: P111551

PART NO.: X004815

For Air Cleaners: FTG11
Fits Bolt: 7/16" - 20 UNF
Washer included: P101872

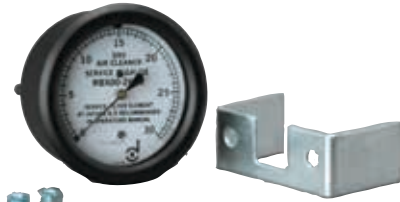
PART NO.: X004816

For Air Cleaners: FVG14-16", STG12-16"
& All SRG models
Fits Bolt: 1/2" - 13 UNC
Washer included: P105740

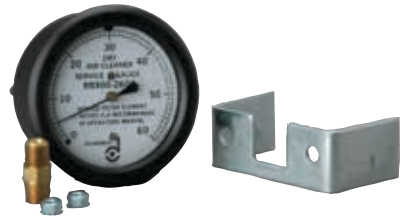


Service Gauge for Instrument Panel

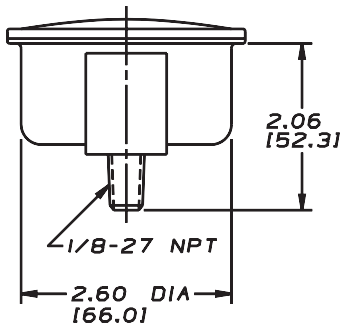
Continuously reads restriction in inches of water vacuum when engine is in operation and installs conveniently on instrument panel or wherever operator can easily see the dial. Mounts into a 2-5/8" diameter hole. Hoses not included.



Gauge Part No. X002730
Restriction Limit: 30" H₂O / 7.5 kPa
Kit includes nuts, mounting bracket and installation instructions.



Gauge Part No. X002700
Restriction Limit: 60" H₂O / 15 kPa
Kit includes restriction tap fitting (P112257), nuts, mounting bracket and installation instructions.



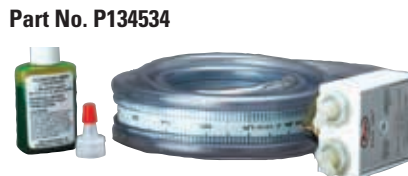
In-Field Service Gauge Kit

Equipped with three feet of vacuum hose to test the air cleaner restriction in the field. Sturdy, compact plastic case, measuring only 6" x 7.25" x 2.25", stores easily. Gauge reads in inches of water vacuum, up to 25" H₂O / 6.2 kPa. Full instructions included.



Part No. X003903

Water Manometer Kit



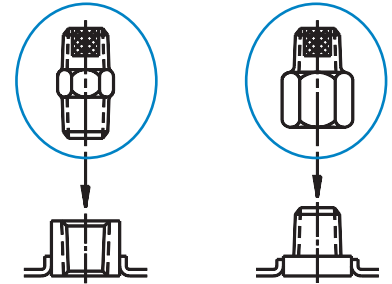
Part No. P134534

The Donaldson water manometer kit includes the manometer (flexible tubing), green dye, and full instructions. Manometer, range 18-0-18 in., 17-1/2 oz. mercury.



Magnets conveniently hold top and bottom ends of manometer to side of equipment or vehicle. Special shut-off valve eliminates the need to empty water after use.

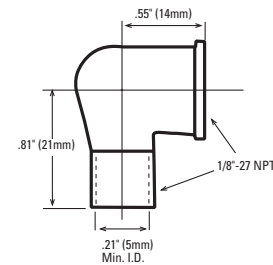
Restriction Tap Fittings



Part No. P100089
• Male threads both ends
• 1/8"-27 thread
• 0.44" (11mm) hex nut
• Internal sintered bronze safety filter

Part No. P122067
• Female threads on one end, male threads on opposite end
• 1/8"-27 thread
• Internal sintered bronze safety filter

Restriction Indicator Fitting



Part No. P105622
• 1/8"-27 threads
• 90° elbow with threaded end

Restriction Tap Sleeve

Install this sleeve in your intake system to convert from scheduled maintenance to more economical restriction maintenance practices.



Restriction Tap Sleeves

Fits Pipe O.D.	Part Number
5" / 127mm	P521639
6" / 152mm	P521641

90° Rubber Elbows & Reducing/Expanding Elbows



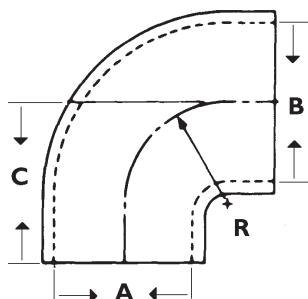
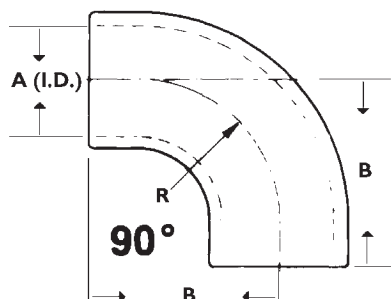
These flexible rubber adapters and elbows have smooth radii and inside surfaces to minimize flow resistance within the air intake system. These rubber products are heavy-duty.

Larger elbows (5"/125mm) are ribbed or compounded for added strength and durability. All Donaldson rubber products meet ASTM standards.

- Resist tears, punctures and vacuum collapse
- Absorb vibration
- Reduce intake noise levels under severe conditions
- Material: EPDM rubber construction
- Temperature range: -40 °F (-40 °C) to +212 °F (+100 °C)
- Application tip: A minimum 1½" of metal piping should be inserted into the rubber fitting.

90° Elbows

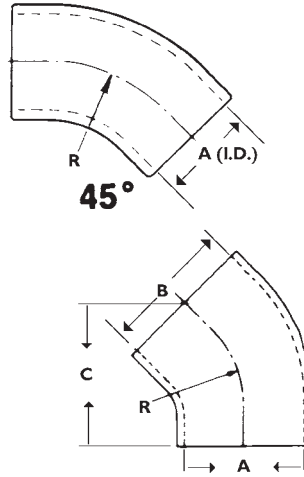
Inner Dia. (A) in mm	Center Height (B) in mm	Radius (R) in mm	Part Number
2.00 51	3.50 76	2.00 51	P105529
2.25 57	3.75 95	2.25 57	P105530
2.50 64	4.00 102	2.50 64	P105531
3.00 76	5.25 133	3.75 95	P105532
3.50 89	5.50 140	4.00 102	P114318
4.00 102	5.75 146	4.50 114	P105533
4.50 114	5.50 140	3.50 89	P113733
5.00 127	6.12 155	4.50 114	P107844
5.50 140	6.50 171	4.63 118	P105534
6.00 152	7.00 179	5.00 127	P105535
7.00 179	7.56 192	5.56 141	P105536
8.00 203	8.50 216	6.50 165	P112605
10.00 254	10.50 267	8.50 216	P114314



90° Elbow Reducers/Expanders

Inner Dia. (A) in mm	Inner Dia. (B) in mm	Center Height (C) in mm	Radius (R) in mm	Part Number
3.00 76	3.50 89	3.50 89	2.25 57	P123462
	4.00 102	4.50 114	3.00 76	P536163
4.00 102	5.00 127	6.00 152	3.75 95	P121482
	6.00 152	4.74 120	3.50 89	P537468
	6.00 152	6.00 152	4.25 108	P143895
5.00 127	7.00 179	6.25 159	4.25 108	P159820
	6.00 152	6.75 171	5.00 127	P117724
	7.00 179	6.25 159	4.38 111	P128990
7.0 179	6.0 152	9.0 229	4.37 111	P215307

45° Rubber Elbows, Reducing/Expanding Elbows and Hump Reducers

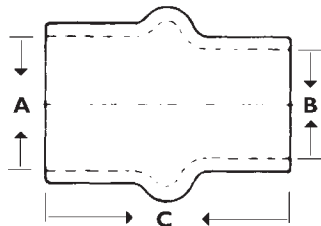


45° Elbows

Inner Dia. (A)		Radius (R)		Part Number
in	mm	in	mm	
2.00	51	2.00	51	P105541
2.25	57	2.25	57	P105542
2.50	64	2.50	64	P105543
3.00	76	3.75	95	P105544
3.50	89	3.50	89	P109331
4.00	102	4.25	108	P105545
4.50	114	3.50	89	P114316
5.00	127	4.50	114	P109021
5.50	140	4.75	121	P105546
6.00	152	5.00	127	P105547
7.00	178	5.56	141	P105548
8.00	203	6.50	165	P112606
10.00	254	8.50	216	P114313

45° Elbow Reducers/Expanders

Inner Dia. (A)		Inner Dia. (B)		Center Height (C)		Radius (R)		Part Number
in	mm	in	mm	in	mm	in	mm	
5.50	140	6.00	152	6.44	164	4.88	124	P133338
6.00	152	7.00	179	7.38	187	5.31	135	P133339



Rubber Hump Reducers/Expanders

Inner Dia. (A)		Inner Dia. (B)		Length (C)		Part Number
in	mm	in	mm	in	mm	
3.00	76	2.50	64	4.50	114	P102820
		2.75	70	3.50	89	P520883
3.50	87	3.00	76	5.00	127	P101290
		2.75	70	4.00	102	P520882
4.00	102	2.75	70	4.00	102	P520884
		3.00	76	5.25	133	P101291
		3.50	87	5.25	133	P101292
4.50	114	4.00	102	6.00	152	P540256
5.00	127	4.00	102	6.00	152	P101293
		4.50	114	6.25	159	P604045 ¹
		5.50	140	6.00	152	P101891
5.50	140	4.00	102	6.00	152	P103516
		5.00	127	6.00	152	P112611
6.00	152	5.00	127	6.00	152	P101294
		5.50	140	6.00	152	P101294
		7.00	179	7.00	179	P136494
7.00	179	5.00	127	7.00	179	P136494
		5.50	140	7.00	179	P126530
		6.00	152	6.00	152	P112610
8.00	203	5.50	140	7.00	179	P129660
		6.00	152	6.00	152	P114315
		7.00	179	6.00	152	P112609
10.00	254	8.00	203	6.00	152	P112607

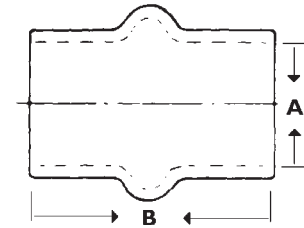
1 - Use clamp size for nominal 5" (127mm) I.D. each end.

Rubber Straight Humps, Reducing/Expanders & Cobra Adapters



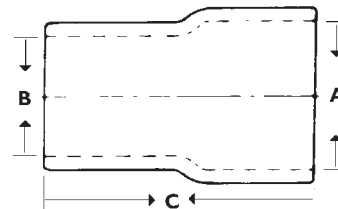
Rubber Straight Humps

Inner Dia. (A)		Length (B)		Part Number
in	mm	in	mm	
3.00	76	5.30	135	P105608
3.50	89	5.25	133	P114319
4.00	102	5.25	133	P105609
4.50	114	6.00	152	P114317
5.00	127	6.00	152	P105610
5.50	140	6.00	152	P105611
6.00	152	7.00	179	P105612
7.00	179	7.00	179	P105613
8.00	203	5.00	127	P112608
10.00	254	6.00	152	P111414



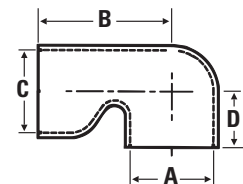
Rubber Reducers / Expanders

Inner Dia. (A)		Inner Dia. (B)		Length (C)		Part Number
in	mm	in	mm	in	mm	
2.00	51	1.50	38	2.50	64	P104087
		1.75	44			P102948
2.25	57	2.00	51	2.50	64	P104088
2.50	64	2.00	51	2.50	64	P104089
		2.25	57			P104090

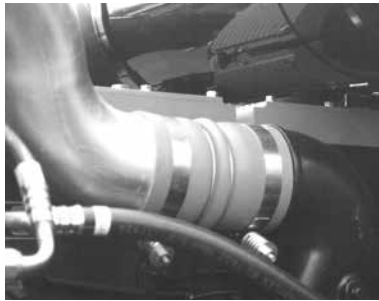


90° Cobra Adapters

Inner Dia. (A)		Inner Dia. (C)		Length (B)		(D)		Part Number
in	mm	in	mm	in	mm	in	mm	
2.75	70	4.00	102	6.50	165	1.81	46	P600328
3.00	76	3.00	76	5.22	133	1.91	49	P547694
4.00	102	4.00	102	6.44	164	2.69	68	P600325
		4.00	102	6.44	164	3.19	81	P600326
		5.00	127	6.44	164	3.19	81	P600327



Silicone Charge Air Connectors Isolate Intake Piping Vibration Durable and Easy To Install



Our three styles of charge air connectors are designed to ease connections in air intake system piping. They compensate for slight misalignment and isolate vibration between hose connections. The silicone elastomer material resists chemicals, steam, ozone, and coolants that are normally found in any engine operating environment.

All three charge air connectors are for installation on the pressure side with maximum operating temperatures up to 500 °F (260 °C). They are orange to be easily identifiable and to signify that they are tolerant of high temperatures. They carry a one-year warranty.



Connectors/Sleeves

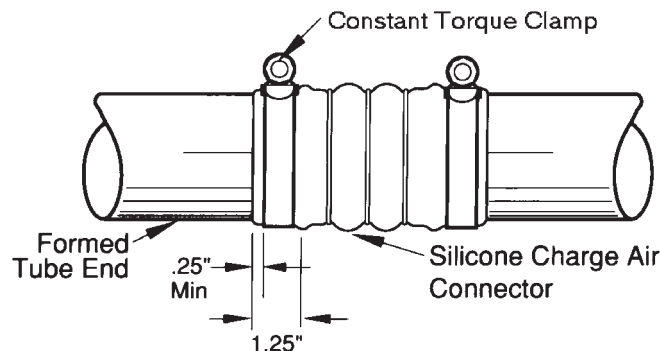
Inner Dia. in	mm	Length in	mm	Part Number
2.00	51	36.00	914	P532948
2.25	57	36.00	914	P532949
2.50	64	36.00	914	P532950
3.00	76	36.00	914	P532951
3.38	86	3.50	89	P532952
		6.00	152	P532953
		36.00	914	P532954
3.50	89	3.50	89	P532956
		4.50	114	P532957
		36.00	914	P532958
4.00	102	36.00	914	P532959

Hump Hose Connectors

Inner Dia. in	mm	Length in	mm	Part Number
2.50	66	5.50	140	P532960
2.75	70	4.25	108	P532961
3.00	76	4.38	111	P532962

4-Ply Bellows

Inner Dia. in	mm	Length in	mm	No. of Rings	Part Number
3.50	89	6.00	152	3	P535572
4.00	102	6.00	152	0	P532943
		6.00	152	2	P535571
		6.00	152	3	P532944
		7.50	191	3	P532945
8.00	203	3	3	P535573	



Use the illustration as a guide for installing your charge air connector. For proper installation, use Donaldson Constant Torque clamps to retain clamp load. Torque to 70-75 in·lb.

Vacuator™ Valves Automatically Expel Dust and Water

The Vacuator Valve, standard on the majority of Donaldson air cleaners, is an important part of the functionality of the air cleaner. It is an integral part of the pre-cleaning stage on two-stage air cleaners.

The dust cup, where pre-cleaned dust is collected, is normally under a slight vacuum when the engine is running. The normal engine pulsing of the vacuum causes the Vacuator Valve to open and close. This action automatically expels any collected dust and water. The Vacuator Valve also unloads when the engine is stopped.

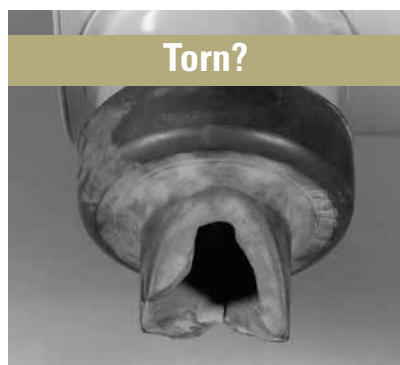
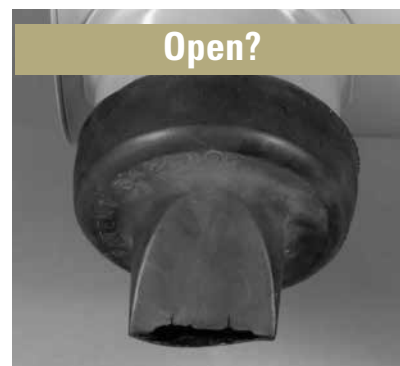
The Donaldson Vacuator Valve, also known as VacValve, is made in a variety of sizes and shapes to fit various applications. The Donaldson part number is molded into each part for easy identification.



If your air cleaner is equipped with a Donaldson Vacuator™ Valve, make sure your routine filter service includes checking it to make sure it's in good condition and not plugged. If the Vacuator Valve is plugged, clean it.

For the longest filter service life, replace damaged or missing Vacuator Valves immediately!

If your valve is cracked, torn, remains open, or is missing, dust particles that are normally expelled can deposit themselves onto the filter and will shorten air filter service life. Replace it!





The Donaldson Vacuator™ Valve can be found on the majority of Donaldson air cleaners.

Application Notes

For proper operation, the Vacuator Valve should be located at the lowest point on the air cleaner or dust cup pointing down.

Never paint the Vacuator Valve. Solvents and chemicals will shorten the usable life.

If the Vacuator Valve is torn, shredded or turned inside out, its durometer may be too soft for the application. Choose a model with a harder durometer (higher number). Conversely, if the Vacuator Valve doesn't empty itself properly, the durometer may be too hard. Choose one with a softer durometer (lower number.)



Vacuator™ Valves

Part Number	Diameter in	Diameter mm	Durometer	Used on Air Cleaner Styles
P103198	3.0	76	40	FRG 10", 12", 14" and 16"; FHG 10", 12", 14" and 16"; FTG; FWA 5" – 16"; FWG 4" – 16"; SRG; In-line Water Separators
P105220	3.0	76	60	FRG 18"; FHG 8"; FVG160587
P106593	3.0	76	60	FHG 6" – 8"; High Pulsation Models
P112803	3.0	76	40	FHG 6" – 8"; PSD 10", PSD 12"; SBG 14" – 16"; SDG; STG 12" – 16"
P149099	1.0	25	60	ERA; EBA; EBB; ECG
P158914	2.0	51	50	XRB, FKB; PSD 8"; PSD 9"; FPG 6" and 8"; FRG 5" – 9", 11"; FHG 5"; FWG; FWA; Moisture Skimmers
P522958	2.0	51	60	FPG 4" – 5"; FHG
P525956	1.0	25	60	EPG 11", 13", 15"
P617632	1.57	40	50	PSD 08"
P776008	2.0	51	60	FPG 9", 10" Twist-off cover; FRG 10", 13", and 15"

Dust Dumpa Tube Extension For PSD, SRG, STG & SSG Air Cleaners



Replacement to Your Existing Dust Cup Assembly



Application

- Donaldson SRG, SSG, STG and PowerCore® PSD Air Cleaners

How It Works

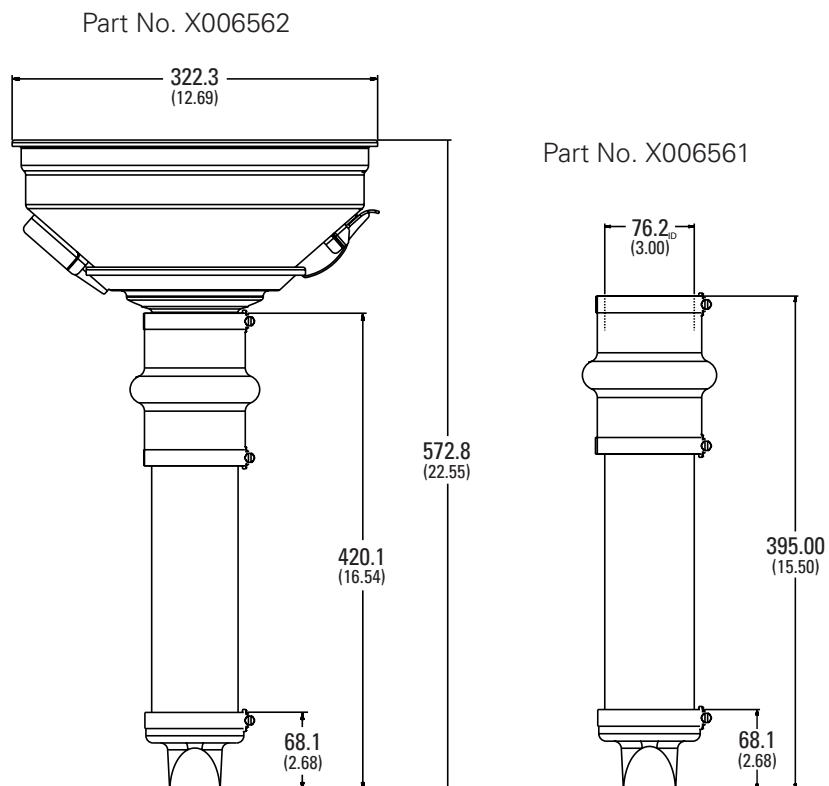
When installed on the dust cups on the lower assembly, the rubber connector vibrates during normal vehicle operation and gravity expels the pre-cleaned dust.

Features

- Improves dust evacuation from the air cleaner
- Clear tube allows for visual inspection of dust collection
- Improves safety of the air cleaner inspection process by eliminating the need for ladders or elevated platforms for daily inspections
- Allows operators to perform walk around inspections
- Keeps operators and maintenance personnel away from the nuisance dust normally encountered during air cleaner servicing operations.
- Improves vehicle up-time by minimizing pre/post-shift air cleaner inspections, thus facilitating increased air cleaner service intervals.
- Reduces air cleaner inspection time
- Ships fully assembled
- Proper conversion requires drop down tube for every dust cup



If the above maintenance practice looks familiar, adding the X006561 Dust Dumpa extension to the dust cups of the air cleaner will save you maintenance time and will minimize your employees exposure to nuisance dust during service.



Available for SRG and SSG Air Cleaners

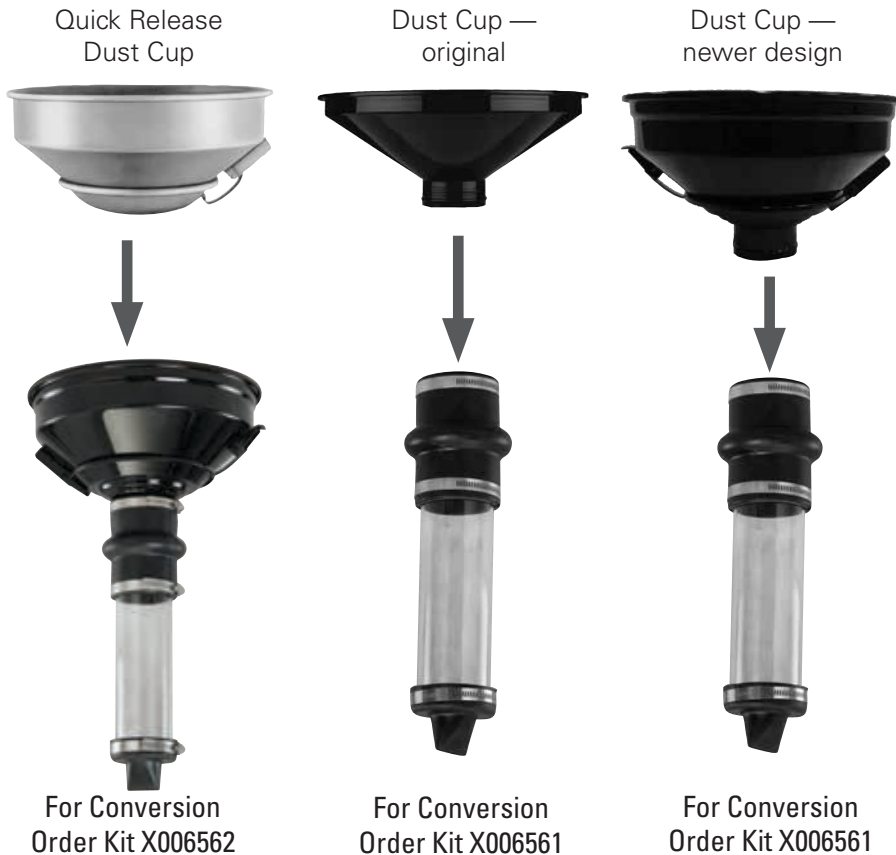


Three kits are required for S Series dual outlet models. For proper performance all dust cups must have the new Dust Dumpa installed.

Dust Dumpa applied to PSD PowerCore® Air Cleaners



Dust Dumpa + PSD air cleaners extended the filter service life for a geothermal drill rig in Australia.



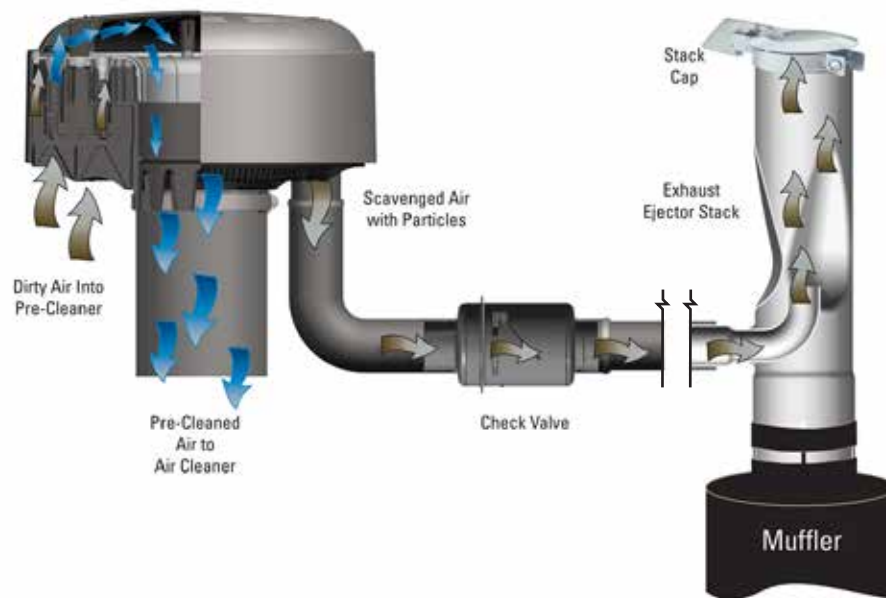
Components For Scavenged Air Systems — Exhaust Ejectors and Check Valves

Donaldson exhaust ejectors and check valves are key components to creating a scavenged or aspirated air system. The ejector is used with Donaldson Donaspin™ or Strata™ Cap pre-cleaners, Strata™ systems, or PowerCore® PSD air cleaners.

A scavenged air system is typically used in off-highway equipment to extend air filter life. The exhaust ejector mounts as a stack at the end of exhaust system. It is recommended that the stack be covered with a curved exhaust stack or rain cap.

The redesigned ejector line offers a shorter length tube than our original standard and expanded ID offerings. With less space to work with, the new offering may work in applications where the previous models did not fit.

----- Basic Scavenged Air System -----



Standard Style



Expanded I.D. End Style



Exhaust Ejectors

- Can be used with any pre-cleaner that has scavenge tube connection.
- Adds only 4" (102 mm) to 8" (203 mm) H₂O (.3" to .6" Hg.) to exhaust backpressure
- Models all fit up to a muffler outlet tube outer diameter
- All models have a nominal OD outlet end for proper fit of stack caps and other accessories
- For proper structural support, muffler outlet tube length and stack engagement must be a minimum length of 1.5-2.0" / 38-51 mm
- Finish on all models is high temperature, black, semi-gloss finish

Interested in Scavenging a PowerCore® Air Cleaner?

See PowerCore Section for specific components and parts.



Exhaust Ejectors for Scavenged or Aspirated Air System

All exhaust ejectors are constructed of heavy-gauge, aluminized steel, and painted with a high-temperature black paint. Select the appropriate ejector by the intake airflow or exhaust flow (CFM) of your engine.

Engine Intake CFM		Exhaust CFM @ 900° F		Standard Ejectors			Expanded I.D. Ejectors			Length		Scavenge Tube O.D.	
Low	High	Low	High	Inlet Dia.*	Part	Number	Inlet Dia.*	Part	Number	inches	mm	inches	mm
220	365	554	919	3.02	77.0	H002612	3.16	80.3	H002762	12.00	304.8	1.25	32
315	450	793	1133	4.02	102.0	H002613	4.17	105.9	H002763	18.00	457.2	1.25	32
425	600	1070	1511	4.02	102.0	H002614	4.17	105.9	H002764	18.00	457.2	1.50	38
500	740	1259	1864	5.03	127.8	H002615	5.17	131.0	H002765	22.00	558.8	1.50	38
660	950	1662	2393	5.03	127.8	H002616	5.17	131.0	H002766	22.00	558.8	1.75	44
800	1150	2015	2896	6.04	153.4	H002617	6.19	157.0	H002767	24.00	609.6	2.00	51
950	1350	2393	3400	6.04	153.4	H002618	6.19	157.0	H002768	24.00	609.6	2.00	51
1100	1500	2770	3778	6.04	153.4	H002619	6.19	157.0	H002769	24.00	609.6	2.00	51

* This dimension only applies to 2.5" /64mm of length – not the full length of the ejector.

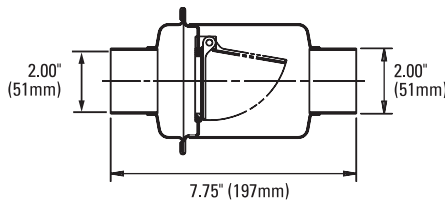
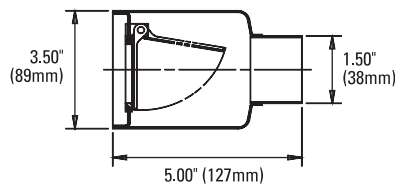
3 ft. / .91 m Silicone Scavenge Hose & Lined Hose Clamp for:

- 1.25" / 32 mm Scavenge Tube: Hose: P171376 and Lined Hose Clamp P532924
- 1.50" / 38 mm Scavenge Tube: Hose: P171378 and Lined Hose Clamp P115200
- 2.00" / 51 mm Scavenge Tube: Hose: P171381 and Lined Hose Clamp P115200

Ejector Check Valve Prevents Exhaust Backflow

The exhaust ejector check valve prevents backflow of damaging exhaust gases by way of an internal hinge flap. Add an ejector check valve when configuring the intake system to expel filtered contaminant through the exhaust system.

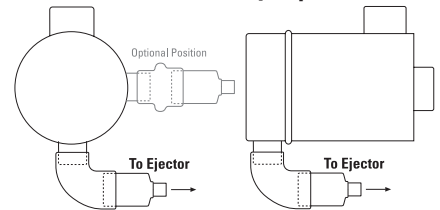
- Mounts horizontally (see installation diagrams)
- Durable, non-corrosive metal construction
- No servicing required



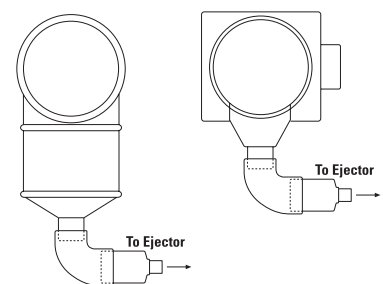
Check Valve Installation

The illustrations are side views of two-stage air cleaners, showing the position of the check valve. A 3" (76mm) inner diameter rubber reducing elbow or hump reducer is required for installation. See pages 94 – 96 for options.

Installation on F Series Cyclopac™



Installation on S Series Donacore™



3-in-1 Intake Accessory Protects Against Moisture

- Primarily over-highway trucks
- For engine airflow of 700 to 1000+ cfm
- Improves intake system airflow and fuel economy by reducing restriction. Examples:
 - at 33 mph, 53 kmh = 3.5" H₂O restriction
 - at 45 – 52mph, 72 – 74 kmh = 4" H₂O restriction
 - at 60 mph, 97 kmh = 5" H₂O restriction
- Lightweight, non-corrosive, and durable — no service needed
- Inlet screen prevents large debris from entering intake ducting
- Side louvers ensure continuous airflow to intake system
- Common inlet sizes fit most installations
- Eliminates water from air intake system
 - at 700 cfm airflow = 90%
 - at 800 cfm airflow = 93%
 - at 1000 cfm airflow = 93%*

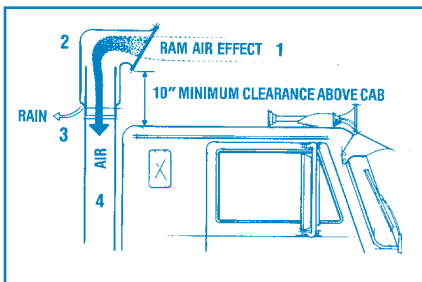
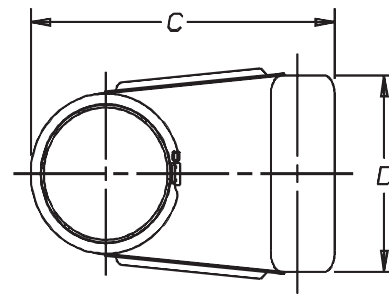
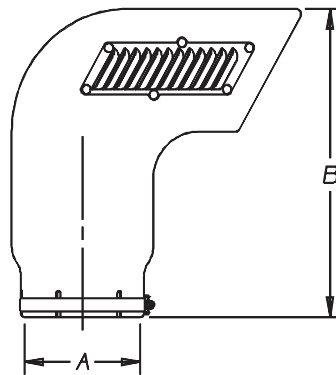
* based on item H001660



H001654
High profile model mounts on inlet stack, above and behind cab.



H001200
Low profile model designed for air cleaners mounted on the side of the cab.



How Air Ram™ Works

- 1-Moisture-filled air enters Air Ram.
- 2-Air is naturally forced against rear wall. Moisture sticks to the wall, separating from the air.
- 3-Moisture collects on the Air Ram wall and drains down to and out of the drain hole.
- 4-Virtually moisture-free air passes into air cleaner.

Air Ram Inlet Hood

Part Number	Inlet Diameter (A)		Height (B)		Depth (C)		Width (D)	
	in	mm	in	mm	in	mm	in	mm
MODELS WITH LOUVERS ON SIDE								
H001660	6.06	154	14.80	376	14.85	377	8.98	228
H001654	7.06	179	15.53	394	15.63	397	9.86	250
H001661	8.06	205	16.16	410	16.95	431	10.92	277
MODELS WITHOUT LOUVERS (LOW PROFILE)								
H001200	7.06	179	6.25	159	12.03	306	13.20	335

Note: One mounting band is included with each Air Ram

Installation Note

All Air Ram inlet hoods MUST be installed with the screen facing forward to ensure best performance. Airflow restriction will not be reduced if the Air Ram faces sideways; but if it faces backwards, restriction does increase and adversely affects engine performance.

Horizontal, In-Line Moisture Skimmer Removes Water

Applications

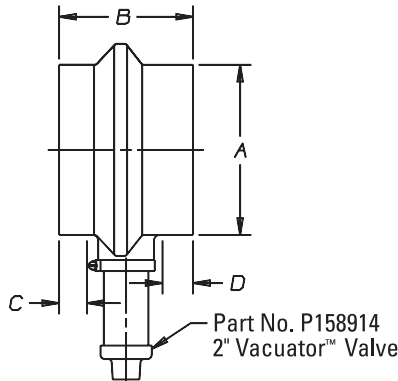
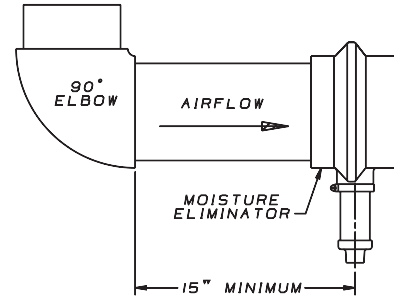
- Allows 600 to 1200 cfm airflow
- Horizontal mount in engine air intake ducting

Features

- Removes over 80% of water before it can reach and damage the filter
- No service needed
- Made of durable rubber
- Collected water is automatically released by Vacuator™ Valve
- Adds little or no restriction to airflow
- Common inlet sizes fit most installations



Mounting Position



Moisture Skimmer

Part Number	CFM	Inlet Dia. (A)		Height (B)		Depth (C)		Width (D)	
		in	mm	in	mm	in	mm	in	mm
X005822	600-1000	6.00	152	6.00	152	1.25	32	1.37	35
X005900	800-1200	7.00	178	6.00	152	1.25	32	1.37	35
X005901*	800-1200	7.00	178	6.00	152	1.25	32	1.37	35

*Angled spout (see image on right)



Stack-Top Moisture Eliminator Prevents Water Problems

- For cabover trucks, on/off road, mounted on top of an intake stack
- Over 80% water removal efficiency
- Includes clamp for installation



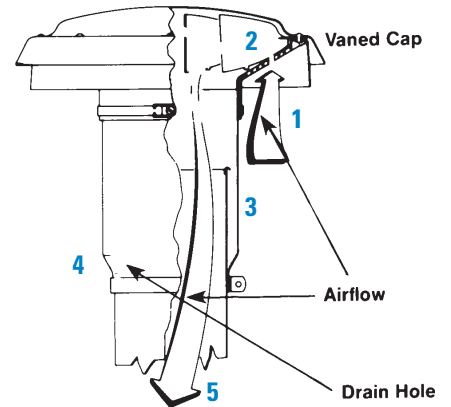
Part No. X003691

Airflow Range: 600-1200 cfm

I.D. 7.00" / 178mm

How It Works

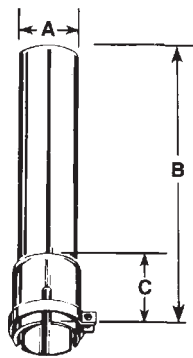
1. Moisture-filled air enters the moisture eliminator cap.
2. Built-in, stationary vanes cause the air to spin.
3. Moisture is forced to the outside wall, where it separates from the air and collects.
4. Water drains out through the drain hole.
5. As a result, drier air (acceptable for maximum filter life and engine performance) passes to the air cleaner.



Stack Extensions, Intake Tubing & Breathers

Air Stack Extensions

- For on-road and off-road trucks
- Helps extend filter life by elevating air inlet away from heavy dust concentrations and engine exhaust
- Installs easily and quickly with one clamp, which is included with unit
- Durable, corrosion-resistant steel construction



Air Stack Extension

-(A - O.D.)-		-----(B)----		-----(C)----		Part Number
in	mm	in	mm	in	mm	
3.75	95	29.00	737	1.50	38	X001744
4.50	114	30.25	768	1.50	38	X001746
5.00	127	29.00	737	1.50	38	X001747
6.00	152	31.50	800	1.50	38	H000484
7.00	178	28.62	727	1.50	38	H000483

Intake Tubing

- 16 gauge aluminum, unless footnoted
- 10 ft. (3m) length

Intake Tubing

-- O.D. --	Part Number
in mm	
3.00 76	P224684
3.50 89	P224691 ¹
4.00 102	P207367
5.00 127	P206849
5.50 140	P207368
6.00 152	P206850
7.00 178	P206851
8.00 203	P207369

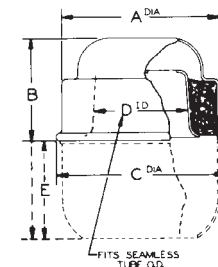
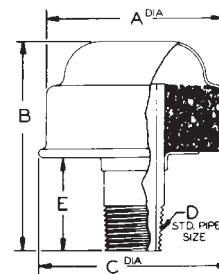
1 - 14 gauge



Breathers

As sealed machinery operates, its internal air heats and expands; later, this air cools and contracts. To allow hot air out and cool air in **safely**, use a Donaldson breather filter. These handy, spin-on filters use sturdy oil-wetted filter media that resists damage from vibration.

- Designed for engines, air compressors, crankcases, transmissions, gearcases, air cylinders, air presses, hydraulic reservoirs
- Mount either vertically or horizontally
- Can be cleaned and reused



Part Number	--- A ---		--- B ---		--- C ---		--- D ---		--- E ---	
	in	mm	in	mm	in	mm	in	mm	in	mm
STYLE A										
S000011	2.50	64	2.00	51	2.68	68	1/4" NPT	1.00	25	
S000072	2.50	64	2.97	75	2.68	68	1/2" NPT	1.12	28	
S000080	2.50	64	2.32	59	2.68	68	3/4" NPT	0.68	17	
S000183	3.06	78	3.50	89	3.50	89	1" NPT	1.18	30	
S000099	4.06	103	4.50	114	5.12	130	2" NPT	1.68	43	
STYLE B										
S000067	2.50	64	1.62	41	2.75	70	1.50		n/a	