

The Next Generation of 2-stage Air Cleaners

PowerPleat™ air cleaners offer equipment manufacturers a powerful new filtration solution to protect engines from dust and contamination.

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PowerPleat air cleaners offer an optimal balance of air cleaner benefits, including:

Reliable Protection

Using Donaldson's proven sealing technology, PowerPleat air cleaners provide reliable engine protection to equipment manufacturers and end users in the harshest, most demanding applications on the planet.

Higher Capacity

Optimized first stage separation in PowerPleat air cleaners means larger dust capacity than competitive air cleaners of equal size.

Easy integration

The innovative plastic design allows for system simplification that saves money — there's no need for external pre-cleaners, scavenged systems or additional mounting brackets. Multiple inlet/outlet configurations make PowerPleat air cleaner system integration easy.

Contact Donaldson for PowerPleat availability in your region.



PowerPleat™ 05 — Compact, Durable All-plastic Housing

Servicing is quick and easy

Applications

- Provides up to 95 cfm airflow without a safety filter and 86 cfm airflow with a safety filter.
- Installation can be horizontal, vertical, or even at an angle (as long as Vacuator™ Valve points down)
- Temperature tolerance: -40 °F to 180 °F / -40 °C to 83 °C (Do not install next to turbocharger, muffler, exhaust pipes, or other high-temperature components.)

Equipment Types

- Skid Steers and light construction.
- Compressors and generator sets.
- Small to medium agriculture.
- All-Terrain Vehicles (ATVs).
- Lawn maintenance.

Air Cleaner Features

- Durable plastic housing — corrosion-free and lightweight.
- Two-stage air filtration. Built-in, tangential pre-cleaner ahead of primary filter removes up to 85% of incoming dust.
- Twist-on service cover with latch makes servicing easy — no tools required.
- Choose 90° or straight outlet to fit your application. Both outlets are rotatable to accommodate installation requirements.
- Filter service indicator port is included.

Filter Features

- One piece, molded urethane endcaps encase the filter media and liners.
- Safety filter protects engine during primary filter change outs. All PowerPleat models can accept safety filters. Specification table shows which air cleaner models ship with a safety filter installed.



Contact Donaldson for PowerPleat availability in your region.



G

Air in the Side, Out the End (standard flow filters)





PowerPleat 05

When Selecting an Air Cleaner . . .

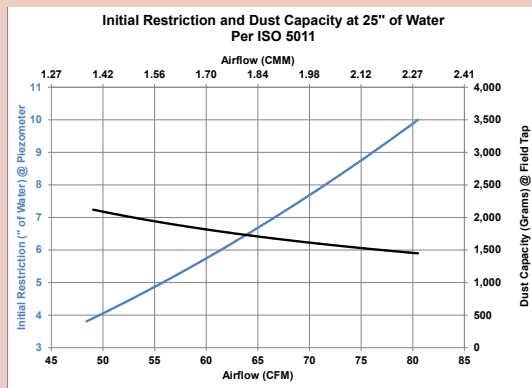
Determine the airflow requirements of your engine, then find the corresponding cfm airflow in the table at right. The restriction numbers (shown in inches of water) indicate the approximate initial restriction of each model air cleaner at that cfm. If there are two air cleaner models that fit your parameters, choosing the one with the lower restriction will provide longer filter service life. When calculating total initial restriction of the entire air intake system, include the restriction caused by ducting, elbows, and pre-cleaners. See pages 257-258 for ducting restriction estimates.

Initial Airflow Restriction

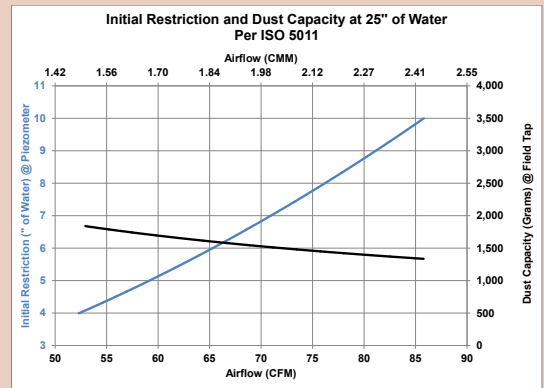
Airflow CFM @ H ₂ O			Air Cleaner Model
6"	8"	10"	
MODELS WITH PRIMARY & SECONDARY FILTERS			
61	72	81	G052741
65	76	86	G052742
MODELS WITH PRIMARY FILTER ONLY			
70	80	90	G052828
73	85	95	G052829

PowerPleat 05 Air Cleaner Performance Curves*

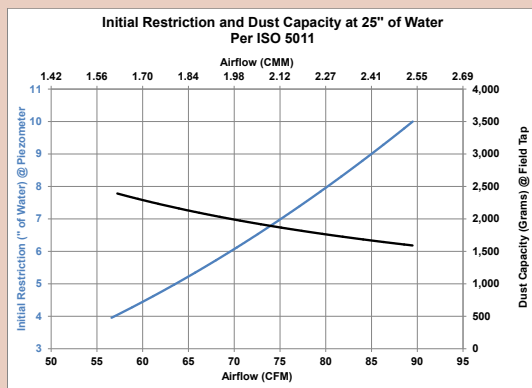
G052741 90° Outlet



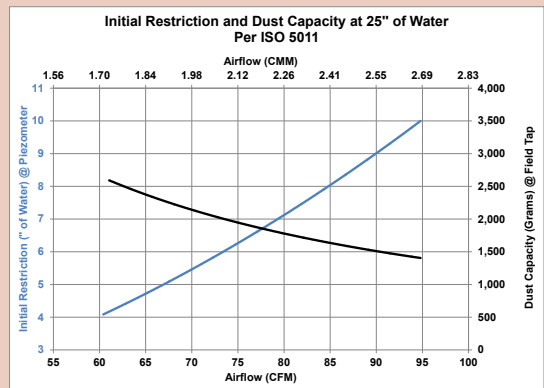
G052742 Straight Outlet



G052828 90° Outlet



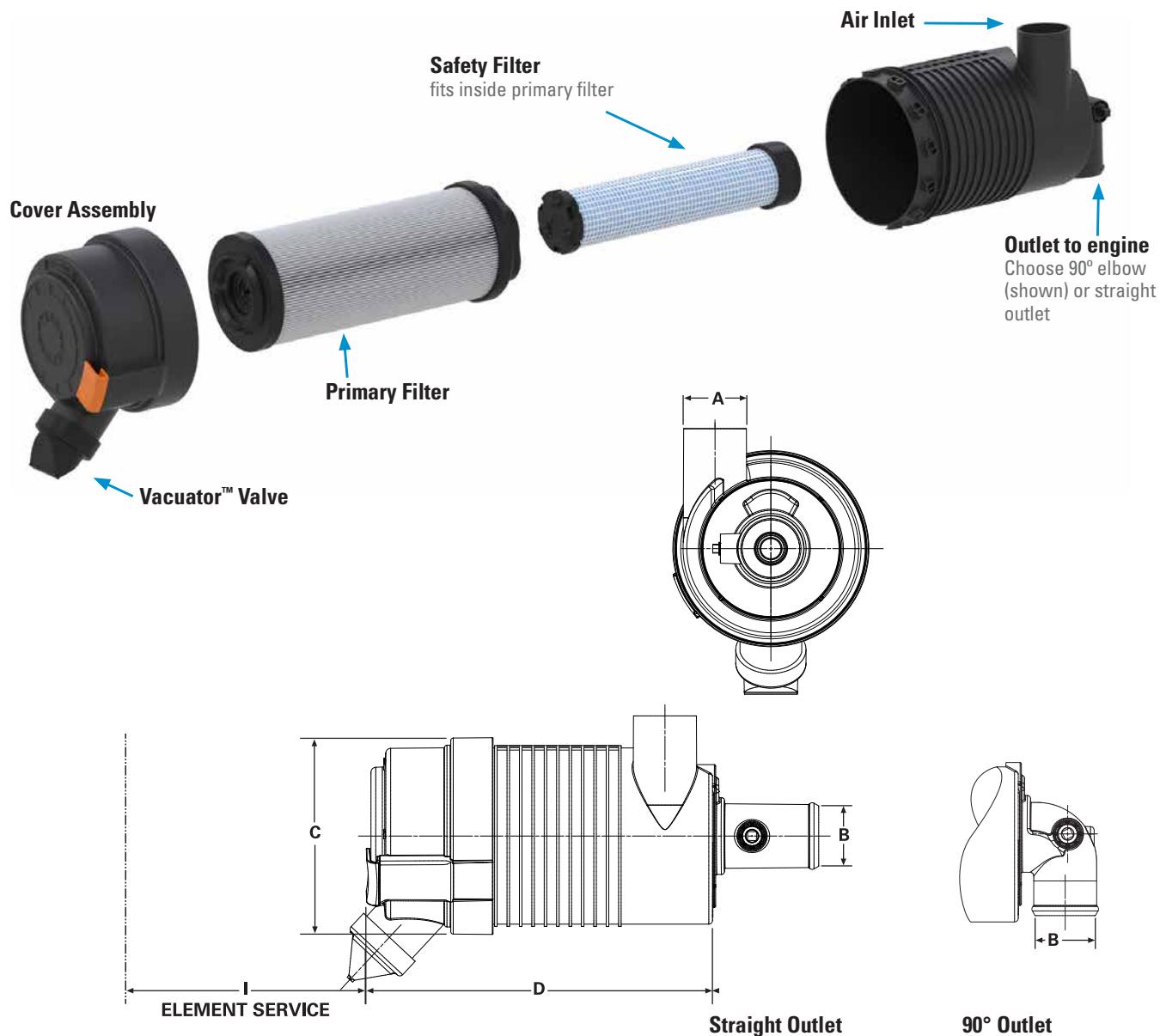
G052829 Straight Outlet



*Results generated using laboratory testing pursuant to ISO5011. Actual performance during use may vary depending on multiple factors, including specific product configuration, external conditions and application.



PowerPleat 05 Specifications



PowerPleat 05

Air Cleaner Models	With Safety Filter?	Inlet Dia. (A)	Outlet Dia. (B)	Body Dia. (C)	Housing Length (D)	Service Clear. (I)	Weight lbs kg
POWERPLEAT™ MODELS WITH 90° OUTLET TUBES							
G052741	Yes	2.00" 51mm	2.00" 51mm	5.60" 142mm	10.85" 276mm	8.27" 210mm	1.9lb .9kg
G052828	No	2.00" 51mm	2.00" 51mm	5.60" 142mm	10.85" 276mm	8.27" 210mm	1.9lb .9kg
POWERPLEAT™ MODELS WITH STRAIGHT TUBES							
G052742	Yes	2.00" 51mm	2.00" 51mm	5.60" 142mm	10.85" 276mm	8.27" 210mm	1.9lb .9kg
G052829	No	2.00" 51mm	2.00" 51mm	5.60" 142mm	10.85" 276mm	8.27" 210mm	1.9lb .9kg

PowerPleat 05 Service Parts & Accessories

G052741, G052742 PowerPleat 05

Cover	P6285888
Filter, primary	P6283903
Filter, safety	P6281703
Informer™ indicator 25" H ₂ O	X002277	
Inlet hood, plastic	H002068	
Mounting bands, metal	H008442	
Mounting Bands, plastic	P777151	
Outlet band clamp	P115200	
Vacuator™ Valve	P522958	

G052828, G052829 PowerPleat 05

Cover	P6285888
Filter, primary	P6283903
Filter, safety	P6281704
Informer™ indicator 25" H ₂ O	X002277	
Inlet hood, plastic	H002068	
Mounting bands, metal	H008442	
Mounting Bands, plastic	P777151	
Outlet band clamp	P115200	
Vacuator™ Valve	P522958	

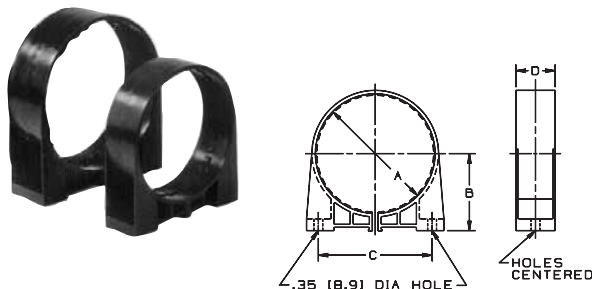
NOTES:

- 3 = Shipped with air cleaner initially
- 4 = Safety filter is designed to fit this air cleaner, but was not originally shipped with it (note that adding a safety filter will decrease the maximum airflow throughput)
- 8 = Cover assembly includes latches but no Vacuator™ Valve

Polymer Mounting Band

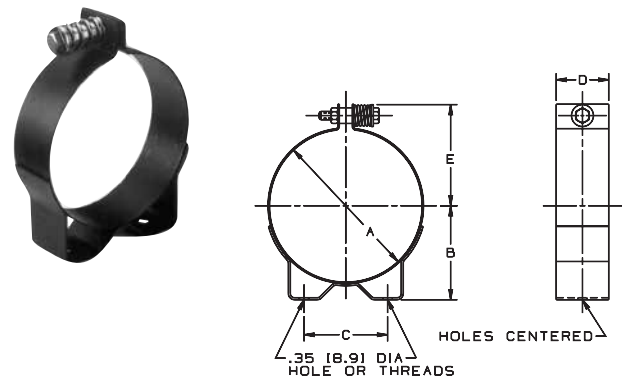
The one-piece, durable polymer mounting band will securely hold the housing in position. The band has tabs on the inside circumference which fit exactly into notches on the PowerPleat housing. Donaldson polymer bands are completely non-corrosive, lightweight, easy to install, and economical.

The band tightens around the air cleaner when the base of the band is bolted to a support, providing a fixed, stable mounting — even in high vibration applications.



Metal Mounting Band

The metal mounting band has a spring-loaded bolt at the top to maintain a constant hold on the housing throughout high and low temperature extremes.



Maximum Torque

Polymer Bands:
11 lbs-ft / 14.8 N•m

Metal Bands:
12 lbs-ft / 16.2 N•m

Application Note:

Polymer bands allow the air cleaner housing to be rotated and positioned at 10° increments.

PowerPleat Mounting Bands (Order one band per PowerPleat air cleaner)

Part Number	A		B		C		D		E		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kgm
POLYMER BAND												
P777730	5.75	146	3.52	90	5.35	136	1.99	51	n/a		0.37	167
METAL BAND												
H008443	5.75	146	3.54	90	3.15	80	1.99	51	3.83	97	1.30	590

WARNING: Do not use any other mounting bands or straps with PowerPleat air cleaners. Use of an unapproved mounting band voids warranty.



PowerPleat 05 servicing information is provided as a best practices guide. It is not intended to replace or supersede the service instructions supplied by your engine or vehicle manufacturer.

1 Check the Restriction

Replace the filter only when the restriction level has reached the maximum recommended by the engine or equipment manufacturer or on a regular service schedule.



2 Clean Out the Vacuator™ Valve

If your air cleaner is equipped with a Vacuator™ Valve, visually check and physically squeeze it. Make sure the valve is flexible and not inverted, damaged or plugged. If damaged or missing, replace it.



3 Remove the Primary filter

Make sure engine is shut off. Pull orange latch handle outward from service cover, rotate cover counterclockwise until it stops turning, pull the cover straight away from the air cleaner body.

Grasp the end of the primary filter and pull it from the air cleaner while applying a slight side to side motion. **Do not** try to rotate the filter when removing it from the air cleaner.



4 Visually Check the Safety Filter and Clean Both Surfaces of the Outlet Tube

If your air cleaner has a safety filter, visually check it for signs of damage while in place. Do not remove the safety filter unless it is damaged or due for replacement. Also verify that the safety filter is properly seated in the housing.

The safety filter should be replaced every three primary filter changes, unless it has become excessively contaminated. Should it be necessary to wipe excessive contaminant from the primary seal surface, remove the safety element, block the outlet tube with a damp towel to gain access to clean primary seal surface. Inspect the outlet tube sealing area to make sure it is undamaged.

Contaminant on the sealing surface could hinder an effective seal and cause leakage. If the safety filter is to be replaced, avoid leaving the outlet tube exposed to the air. If there is to be a delay in installing the new safety filter, cover the air cleaner outlet tube to avoid admitting any dust.



Continued on next page

5 Inspect the Old Filter and New Filters

Inspect the old primary filter for any signs of leaks. A streak of dust on the inside of the filter is a telltale sign of a possible leak.

If you suspect a possible leak, verify the safety element is in good condition as it may need to be changed as well. If there is no safety element, make sure that there is no dust trails in the outlet tube. Also make sure to follow Step 8 to ensure all connections are tight so that dirty outside air cannot bypass the air cleaner.

Inspect the new filter for any damage that may have occurred through mishandling. NEVER install a damaged filter. Visually check the inside of the open end, which is the sealing area.

Do not wipe the filter's sealing area. PowerPleat filters have a lubricant on the seal to aid installation.



6 Insert the New Filter

First, if you're servicing the safety filter at this change-out, grasp the end of the filter and pull it out of the air cleaner while applying a slight side-to-side motion.

Block the outlet tube of the air cleaner using a small dampened towel prior to cleaning the seal and locking surfaces to avoid contaminating the induction system. With a clean damp cloth, thoroughly clean the inside of the housing, seal and locking surfaces if required.

After removing the dampened towel, seat the new safety filter properly into position by aligning the open end of the filter with the inside diameter of the outlet tube. Push filter into outlet tube while applying a slight side to side motion on the filter until it is fully seated in the tube.

Insert new filters carefully. To install primary filter, insert filter into air cleaner while rotating it until you feel the alignment ribs on the inside of the filter drop into the receiving slots in the outlet tube.

No cover pressure is required to hold the seal in place and you should NEVER use the service cover to apply pressure. This could damage the housing and fasteners and void the warranty. If the service cover presses against the filter before the cover is fully in place, the filter is not properly seated. Remove the cover and make sure the alignment ribs have connected with the receiving slots. Filters must be properly seated in order for service cover to be properly installed. Once the filter(s) is in place, secure the service cover.



If you perform filter maintenance service on a schedule versus using service indicators, you may want to write the service date on the end cap of both filters.

7 Install Service Cover

Slide cover onto the end of the air cleaner body with the vacuator valve positioned slightly counterclockwise from vertical until cover stops on end of body. Rotate the cover clockwise until it stops, and then push the latch handle into the cover. For best vacuator valve performance, it should be located in the six o'clock position.



8 Check Connectors for Tight Fit

Make sure service indicators are reset and in proper working order. Check that all mounting bands, clamps, bolts, and connections in the entire air cleaner system are tight. Check for holes in piping and repair or replace as needed. Any leaks in the intake piping will admit dust directly to the engine.





PowerPleat™ 11, 13 — Protection for Large Equipment

RadialSeal™ technology for quick and easy servicing

Applications

- PowerPleat 11 air cleaner provides up to 437 cfm airflow. The PowerPleat 13 air cleaner provides up to 597 cfm airflow.
- Temperature tolerance: -40 °F to 180 °F / -40 °C to 83 °C (Do not install next to turbocharger, muffler, exhaust pipes, or other high-temp components.)

Equipment Types

- Compressors and generator sets.
- Excavators, bull dozers, cranes and large construction.
- On- and off-highway vehicles.
- Marine and offshore equipment.

Air Cleaner Features

- Durable plastic housing — corrosion-free and lightweight
- Two-stage air filtration. Built-in, tangential pre-cleaner ahead of primary filter removes up to 85% of incoming dust.
- Easy to service. No tools needed. Usually done in 5 minutes or less.
- Clockwise and counterclockwise inlet orientation versions available.
- Easy-to-fasten latches secure cover.
- Service indicator port is included.
- Welded-on mounting bracket.
- A plastic inlet hood and stack (up to 18" /457mm tall) may be added.

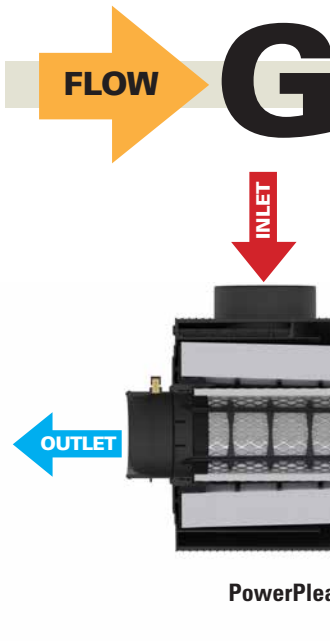


Filter Features

- Filters have RadialSeal™ Sealing Technology that creates a reliable, critical seal and makes servicing easy.
- One piece, molded urethane endcaps encase the filter media and liners.
- Metal-free primary filter element.
- Safety filter protects engine during in-field filter change outs.



Contact Donaldson for PowerPleat availability in your region.



Air in the Side, Out the End (standard flow filters)

When Selecting an Air Cleaner . . .

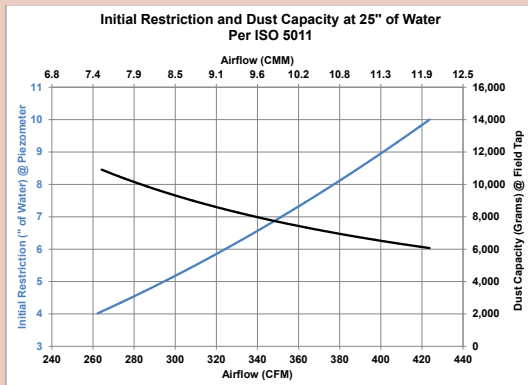
Determine the airflow requirements of your engine, then find the corresponding cfm airflow in the table at right. The restriction numbers (shown in inches of water) indicate the approximate initial restriction of each model air cleaner at that cfm. If there are two air cleaner models that fit your parameters, choosing the one with the lower restriction will provide longer filter service life. When calculating total initial restriction of the entire air intake system, include the restriction caused by ducting, elbows, and pre-cleaners. See pages 257-258 for ducting restriction estimates.

Initial Airflow Restriction

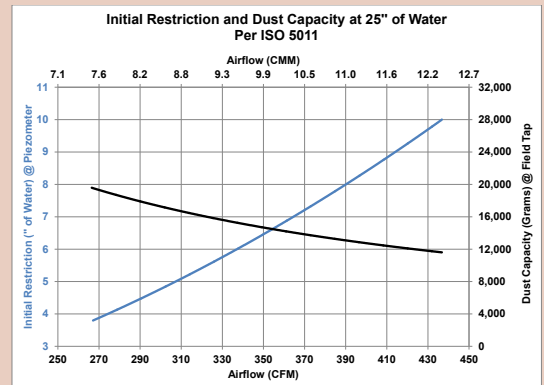
Airflow CFM @ H ₂ O	6"	8"	10"	Air Cleaner Model
324	377	424		G110468 / G110469 (Short body)
337	390	437		G110474 / G110475 (Long body)
443	516	580		G130374 / G130375 (Short body)
463	534	597		G130372 / G130373 (Long body)

PowerPleat 11 – 13 Air Cleaner Performance Curves*

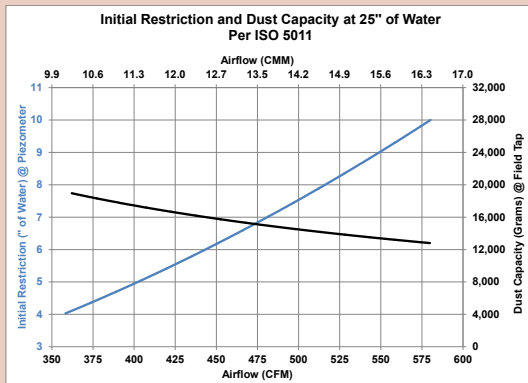
G110468/G110469



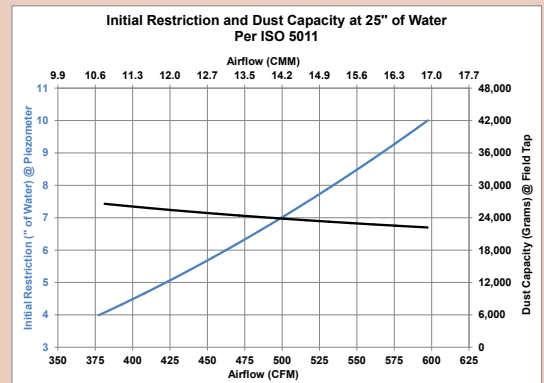
G110474/G110475



G130374/G130375



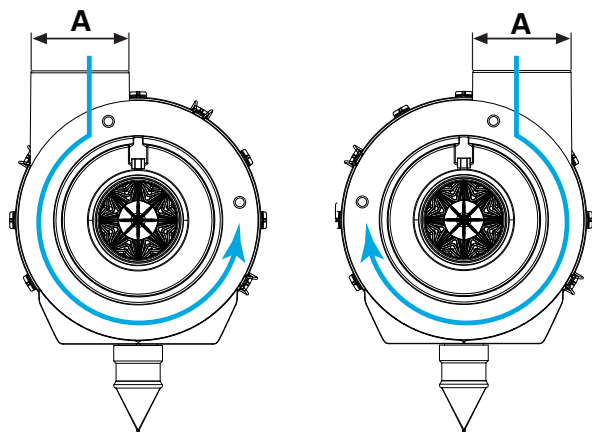
G130372/G130373



*Results generated using laboratory testing pursuant to ISO5011. Actual performance during use may vary depending on multiple factors, including specific product configuration, external conditions and application.



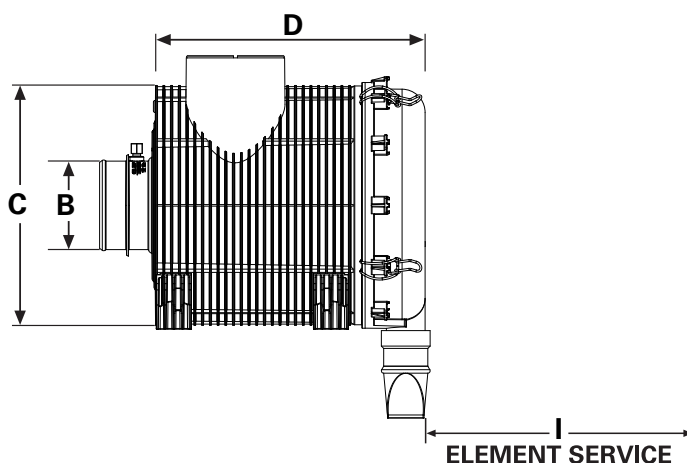
PowerPleat 11, 13 Specifications



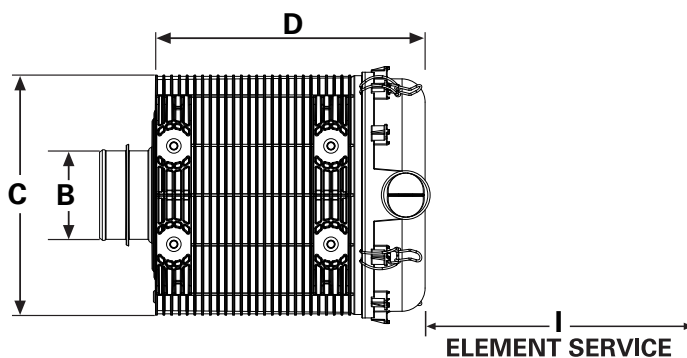
Counterclockwise (CCW) inlet

Clockwise (CW) inlet

Clockwise and counterclockwise inlet orientations are determined by the airflow path inside the air cleaner when looking into the outlet, as illustrated above with the blue arrows showing airflow.



ELEMENT SERVICE



ELEMENT SERVICE

PowerPleat 11, 13

Air Cleaner Models	Inlet Orientation	Inlet Dia. (A)	Outlet Dia. (B)	Body Dia. (C)	Housing Length (D)	Service Clear. (I)	Weight lbs kg
G110468	CCW	5.0" 127 mm	4.5" 114 mm	12.2" 310 mm	13.8" 350 mm	13.8" 350 mm	10.1 lb 4.6 kg
G110469	CW	5.0" 127 mm	4.5" 114 mm	12.2" 310 mm	13.8" 350 mm	13.8" 350 mm	10.1 lb 4.6 kg
G110474	CCW	5.0" 127 mm	4.5" 114 mm	12.2" 310 mm	19.3" 490 mm	19.3" 490 mm	12.6 lb 5.7 kg
G110475	CW	5.0" 127 mm	4.5" 114 mm	12.2" 310 mm	19.3" 490 mm	19.3" 490 mm	12.6 lb 5.7 kg
G130374	CCW	6.0" 152 mm	5.0" 127 mm	13.5" 342 mm	16.7" 425 mm	19.3" 490 mm	14.3 lb 6.5 kg
G130375	CW	6.0" 152 mm	5.0" 127 mm	13.5" 342 mm	16.7" 425 mm	19.3" 490 mm	14.3 lb 6.5 kg
G130373	CCW	6.0" 152 mm	5.0" 127 mm	13.5" 342 mm	20.9" 530 mm	23.6" 600 mm	17.6 lb 8.0 kg
G130372	CW	6.0" 152 mm	5.0" 127 mm	13.5" 342 mm	20.9" 530 mm	23.6" 600 mm	17.6 lb 8.0 kg

PowerPleat 11, 13 Service Parts & Accessories

PowerPleat 11



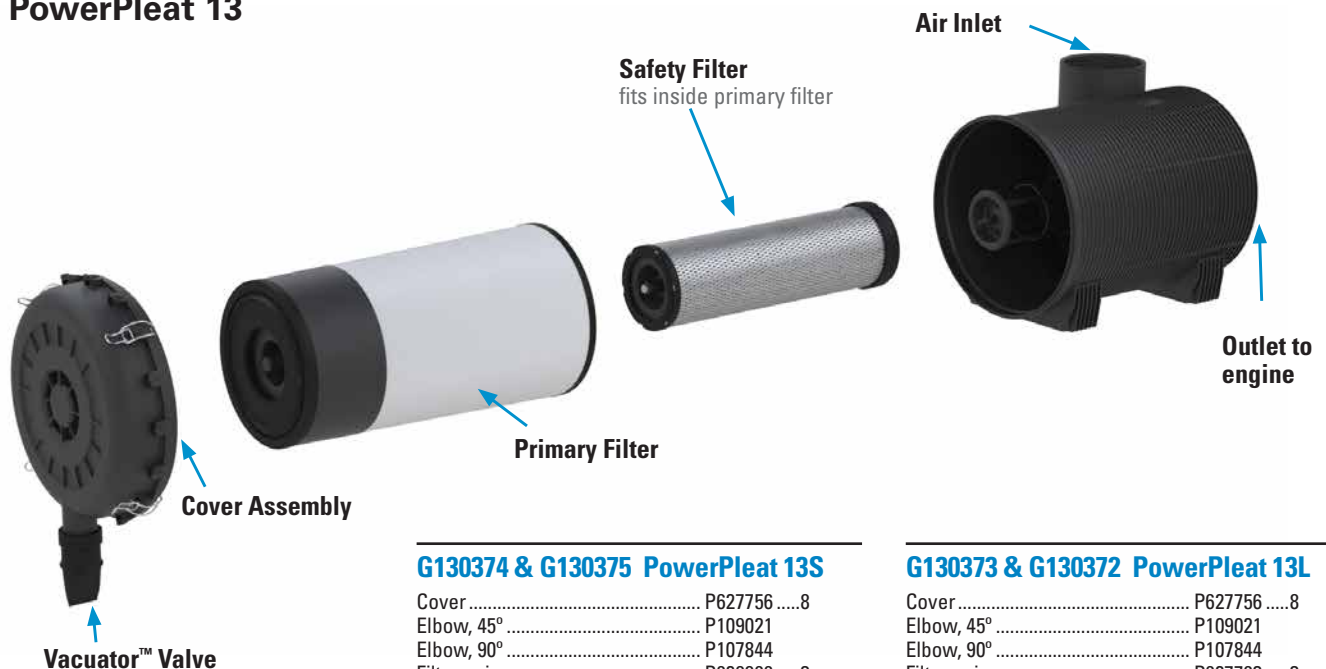
G110468 & G110469 PowerPleat 11S

Cover	P6260948
Elbow, 45°	P109021
Elbow, 90°	P107844
Filter, primary	P6260963
Filter, safety	P6261043
Informer™ indicator 25" H ₂ O	X002277
Inlet hood, plastic	H000468
Inlet hood, metal	H000170
O-ring seal	P625983
Outlet band clamp	P148344
Vacuator™ Valve	P776008

G110474 & G110475 PowerPleat 11L

Cover	P6260948
Elbow, 45°	P109021
Elbow, 90°	P107844
Filter, primary	P6288053
Filter, safety	P6288023
Informer™ indicator 25" H ₂ O	X002277
Inlet hood, plastic	H000468
Inlet hood, metal	H000170
O-ring seal	P625983
Outlet Hump Hose	P105610
Outlet band clamp	P148344
Vacuator™ Valve	P776008

PowerPleat 13



G130374 & G130375 PowerPleat 13S

Cover	P6277568
Elbow, 45°	P109021
Elbow, 90°	P107844
Filter, primary	P6288663
Filter, safety	P6288623
Informer™ indicator 25" H ₂ O	X002277
Inlet hood, plastic	H000469
Inlet hood, metal	H000165
Outlet Hump Hose	P105610
Outlet band clamp	P148345
O-ring seal	P627758
Vacuator™ Valve	P776008

G130373 & G130372 PowerPleat 13L

Cover	P6277568
Elbow, 45°	P109021
Elbow, 90°	P107844
Filter, primary	P6277633
Filter, safety	P6282033
Informer™ indicator 25" H ₂ O	X002277
Inlet hood, plastic	H000469
Inlet hood, metal	H000165
Outlet Hump Hose	P105610
Outlet band clamp	P148345
O-ring seal	P627758
Vacuator™ Valve	P776008

NOTES:

- 3 = Shipped with air cleaner initially
- 8 = Cover assembly includes latches but no Vacuator™ Valve



PowerPleat 11, 13 servicing information is provided as a best practice guide. It is not intended to replace or supersede the service instructions supplied by your engine or vehicle manufacturer.

1 Check the Restriction

Replace the filter only when the restriction level has reached the maximum recommended by the engine or equipment manufacturer or on a regular service schedule.



2 Remove the Primary Filter and check the Vacuator™ Valve

Shut off the engine. Unlatch the service cover.

Visually inspect and check Vacuator™ Valve, and replace if needed.

Because of its RadialSeal™, the filter fits tightly over the outlet tube and there will be some initial resistance, similar to breaking the seal on a jar. Gently move the end of the filter back and forth slightly to break the seal while rotating. Pull straight out to avoid knocking the filter against the safety filter support frame.

Once the primary filter has been removed, clean the primary filter seal surface with a damp cloth.



Make sure the valve is flexible and not inverted, damaged or plugged. Replace it if damaged or if it looks like any of these images. A damaged or missing vac valve will disrupt the designed flow of air through the air cleaner.

3 Visually Check the Safety Filter and Clean Both Surfaces of the Outlet Tube

If your air cleaner has a safety filter, visually check the safety filter in place for signs of damage. Do not remove the safety filter unless it is damaged or due for replacement. Also verify that the safety filter is properly seated in the housing.

The safety filter should be replaced every three primary filter changes, unless it has become excessively contaminated. Use a clean damp cloth to wipe both the filter sealing surface and the inside of the outlet tube. Ensure that the outlet tube sealing area is undamaged.

Contaminant on the sealing surface could hinder an effective seal and cause leakage. If the safety filter is to be replaced, avoid leaving the outlet tube exposed to the air.

Never leave air cleaner sitting without a safety filter.



Note: The PowerPleat 13 is shown above. The PowerPleat 11 has a different style of safety. See image on page 63.

Continued on next page

4 Inspect the Old Filter

Inspect the old primary filter for any signs of leaks. A streak of dust on the inside of the filter is a telltale sign of a possible leak.

If you suspect a possible leak, verify the safety element is in good condition as it may need to be changed as well. Also make sure to follow Step 8 to ensure all connections are tight so that dirty outside air cannot bypass the air cleaner.



5 Inspect the New Filter

Inspect the new filter for any damage that may have occurred through mishandling. NEVER install a damaged filter. Visually check the inside of the open end, which is the sealing area.

Do not wipe the filter seal area as the new Donaldson filter may have a lubricant on the seal to aid installation.



6 Insert the New Filter

First, if you're servicing the safety filter at this change-out, seat it properly into position before installing the primary filter. Insert new filters carefully. Seat the primary filter by hand, making certain it is inserted completely into the air cleaner housing. To complete a tight seal, apply pressure by hand at the outer rim of the filter, not the flexible center.

No cover pressure is required to hold the seal in place and one should NEVER use the service cover to apply pressure. This could damage the housing and fasteners and void the warranty. If the service cover presses against the filter before the cover is fully in place, remove the cover. With cover off, push the filter farther into the air cleaner by hand and then the cover will go on with no extra force. Once the filter is in place, secure the service cover.

