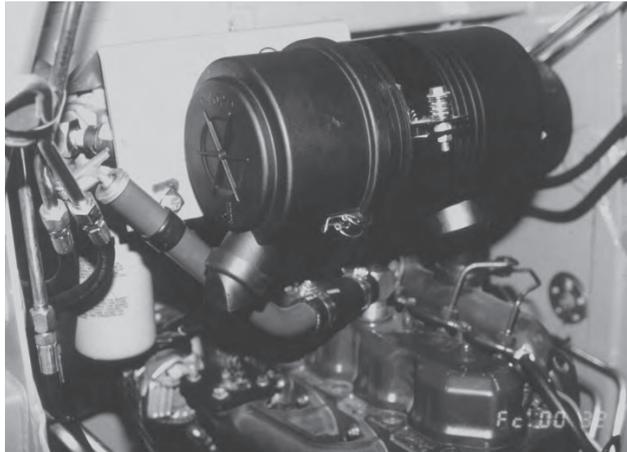


## Advanced Sealing Technology in Compact Two-Stage Design For the Most Reliable Engine Protection

The FPG Air Cleaner series are two-stage full-plastic air cleaners with a built-in Pre-Cleaner and RadialSeal™ Sealing Technology. They are used on medium-duty applications line generator sets, agricultural tractors, bulldozers, drilling equipment, marine engines, trucks, loaders, backhoe, liftruck, construction and industrial equipment. The FPG series offers improved reliability and durability with reduced weight and costs.



Despite its compact size, the FPG Air Cleaner offers complete engine air protection – removing 99.99+% of the dust and dirt particulate that enters the engine airstream.

Ever since Donaldson developed the first air cleaner in 1915, we have worked closely with original equipment manufacturers to provide filtration solutions to meet changing design and specification requirements for diesel engines.

Because they are made of injection molded high-strength plastic, FPG air cleaners offer the flexibility to overcome space limitations for underhood air cleaners. Donaldson employs innovative plastic materials and production techniques that result in air cleaners that are corrosion-free and lighter in weight than traditional metal air cleaners - yet without sacrificing sturdiness. Our extensive vibration testing reveals this to be a more durable design than most metal air cleaners.



The filter inside the air cleaner is also quite different from the traditional design: one-piece molded urethane endcaps encase the ends of the media and filter liners, eliminating the metal caps and plastisol potting compound that were traditionally used. The glued-on gasket found on conventional filters is gone – now, the inside surface of the open end is actually the radial sealing surface.

## Small, Durable and Corrosion-Free The World's Easiest to Service Air Cleaner

### Applications

- Provides up to 16 m<sup>3</sup>/min airflow per air cleaner - double throughput by using two units
- Installation can be horizontal, vertical, or even at an angle (as long as Vacuator™ Valve points down)
- 4", 5", 7", & 10" diameter sizes
- Temperature tolerance: to 83°C sustained

(Do not install next to turbocharger, muffler, exhaust pipes, or other high-temp component.)

### Air Cleaner Features

- Easy to service! No tools needed! Usually done in 5 minutes or less!
- 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
- Choose 90° or straight outlet to fit your application
- Easy to fasten latches (no bolts!) retain dust cup/cover
- 45° Vacuator™ Valve orientation permits either vertical or horizontal air cleaner mounting (the dust cup can be incrementally rotated to suit specific application)
- Safety filter protects engine during in-field filter changeouts
- Already tapped to accept filter service indicator (see the Accessories section for indicator options)
- Indicator thread size = 1/8-27NPT (MALE)



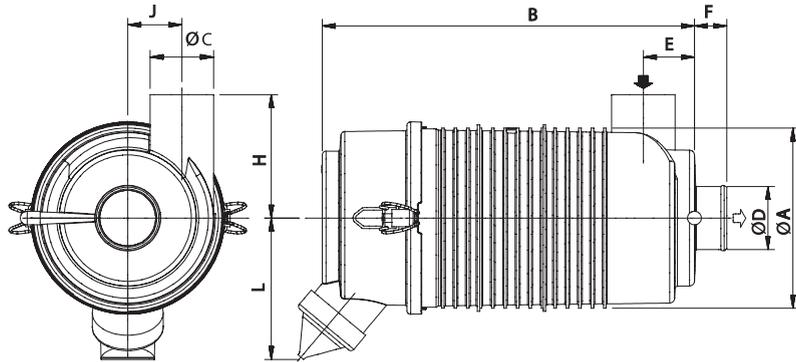
### Filter Features

- Exclusive Radial Seal Sealing Technology means reliability and easy service - the filter is self-centering and self-aligning!
- One piece, molded urethane endcaps encase the filter media and liners - reducing components, adding reliability and lowering cost

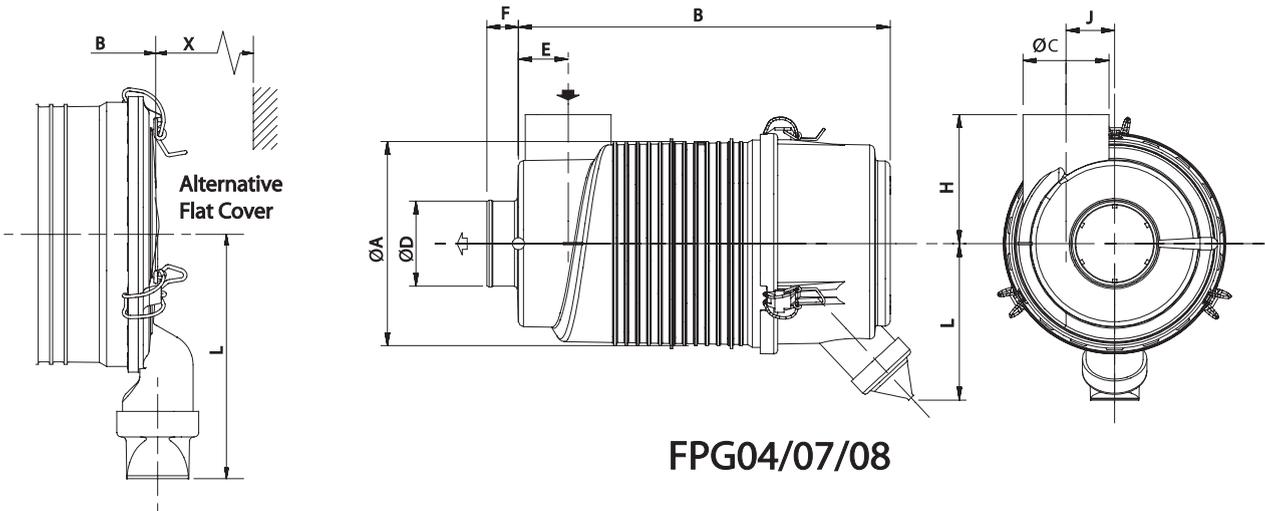


Some models are available with the twist and lock cover design and called FPG Alexin™. See page 70-77.

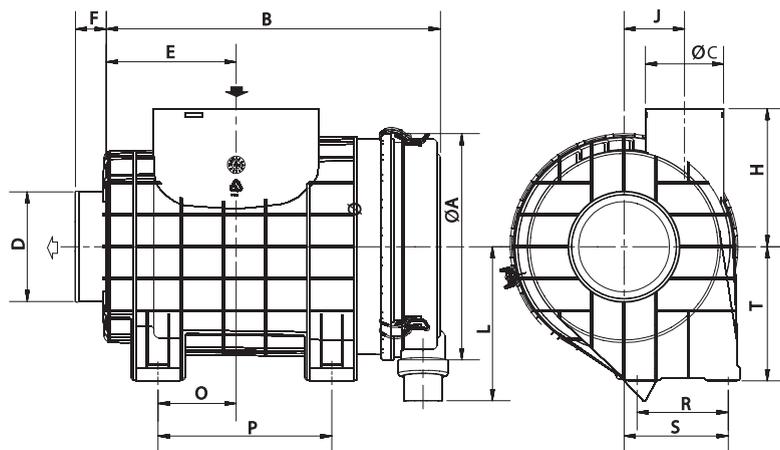
**FPG Specifications**



**FPG05**



**FPG04/07/08**



**FPG10**

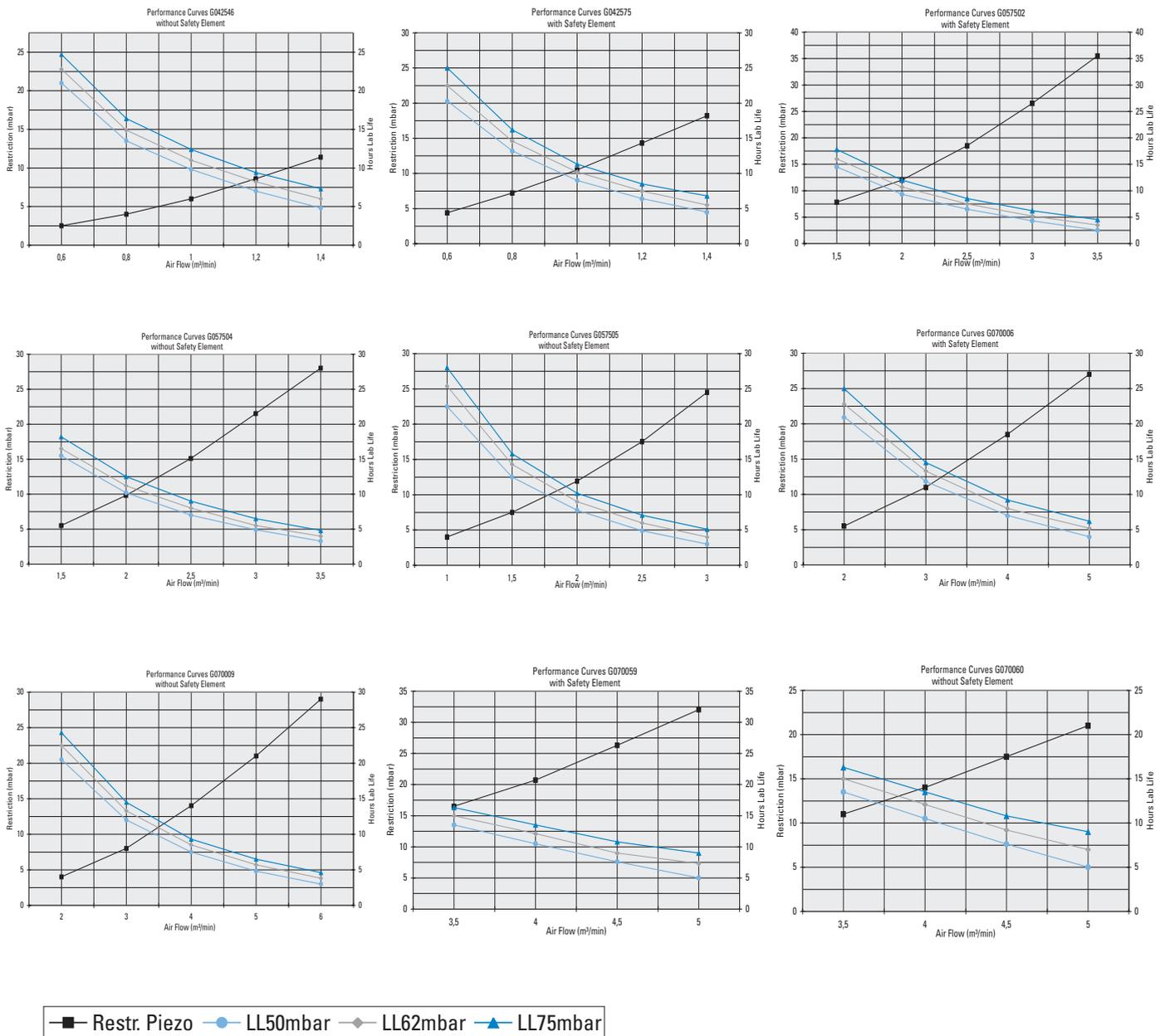
Medium Dust Conditions



## When specifying an Air Cleaner...

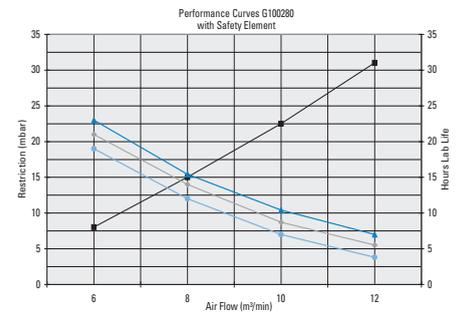
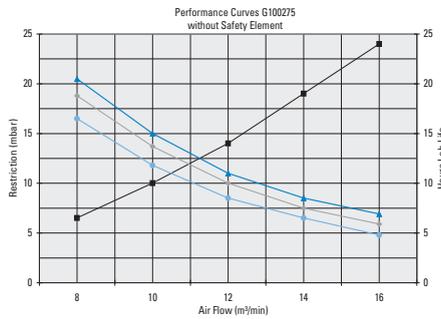
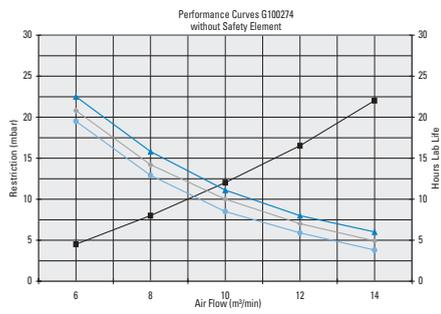
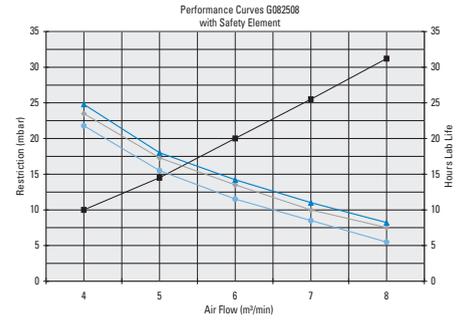
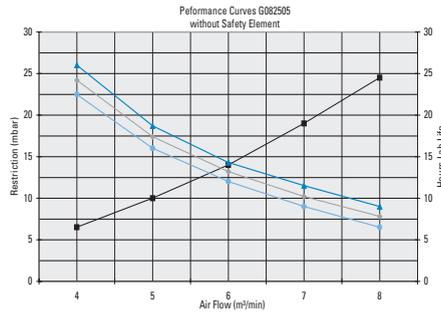
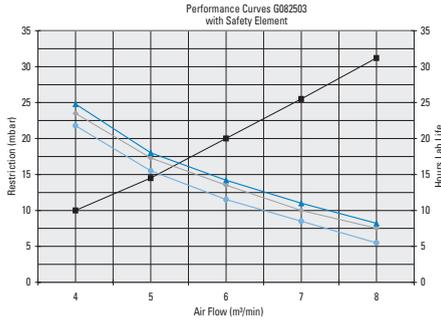
Determine the Airflow Requirements of your engine, then find the corresponding  $m^3/min.$  airflow in the charts below. The restriction numbers - shown in mbar at the left side of the chart - indicate the approximate initial restriction of each model air cleaner at that  $m^3/min.$  When calculating total initial restriction of the entire air intake system, include the restriction caused by ducting, elbows, pre-cleaners, etc. The estimated lab life hours are indicated at the right side of the chart.

## FPG Performance Curves



All performance curves are according ISO 5011 standards - Restriction measured at Piezo  
 All tests are done with ISO Coarse at Dust Concentration of  $1g/m^3$

## FPG Performance Curves



Page 1



All performance curves are according ISO 5011 standards - Restriction measured at Piezo  
 All tests are done with ISO Coarse at Dust Concentration of 1g/m<sup>3</sup>

## Advanced Sealing Technology in Compact Two-Stage Design For the Most Reliable Engine Protection

The FPG Alexin™ Air Cleaner series are two-stage full-plastic air cleaners with a built-in Pre-Cleaner and RadialSeal™ Sealing Technology.

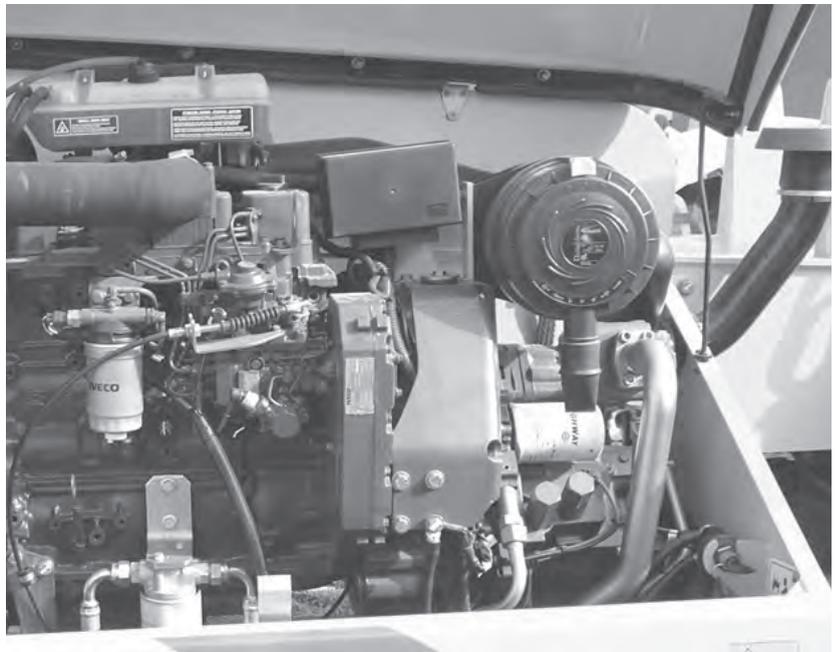
They are used on medium-duty applications line generator sets, agricultural tractors, bulldozers, drilling equipment, marine engines, trucks, loaders, backhoe, lifttruck, construction and industrial equipment. The FPG series offers improved reliability and durability with reduced weight and costs.

Ever since the introduction of the Donaldson RadialSeal™ product line in 1989 with the launch of the FPG Air Cleaner, Donaldson has developed many versions of this products and has continued to invest time and money in the further development of this RadialSeal filter concept, with the Alexin™ product line as one of the result.

The Donaldson Alexin brandname identifies Donaldson products using the proven, reliable Donaldson RadialSeal Technology for the filter elements combined with the ease of use of a Twist and Lock cover, that provides a convenient cover locking system with a design that saves space.



Despite its compact size, the FPG Air Cleaner offers complete engine air protection – removing 99.99+% of the dust and dirt particulate that enters the engine airstream.



## Small, Durable and Corrosion-Free The World's Easiest to Service Air Cleaner

### Applications

- Provides up to 14 m<sup>3</sup>/min airflow per air cleaner - double throughput by using two units
- Installation can be horizontal, vertical, or even at an angle (as long as Vacuator™ Valve points down)
- 6", 8", 9", & 10" diameter sizes
- Temperature tolerance: to 83°C sustained

(Do not install next to turbocharger, muffler, exhaust pipes, or other high-temp component.)

### Air Cleaner Features

- Easy to service! No tools needed! Usually done in 5 minutes or less!
- 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
- Choose 90° or straight outlet to fit your application
- Easy to fasten latches (no bolts!) retain dust cup/cover
- 45° Vacuator™ Valve orientation permits either vertical or horizontal air cleaner mounting (the dust cup can be incrementally rotated to suit specific application)
- Safety filter protects engine during in-field filter changeouts
- Already tapped to accept filter service indicator (see the Accessories section for indicator options)
- Indicator thread size = 1/8-27NPT (MALE)

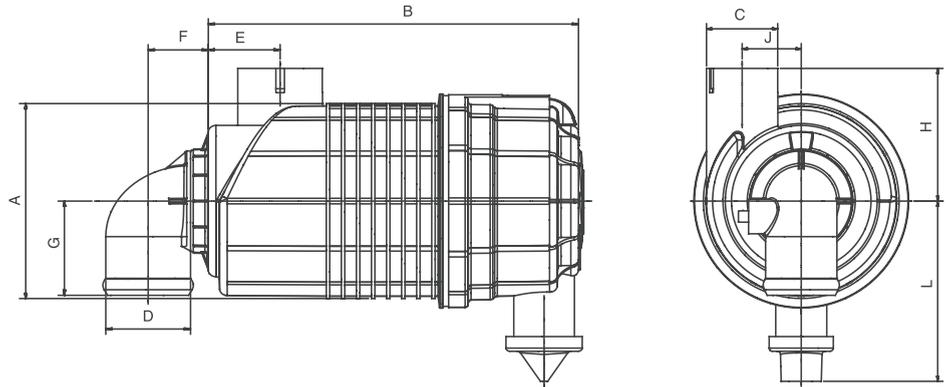


### Filter Features

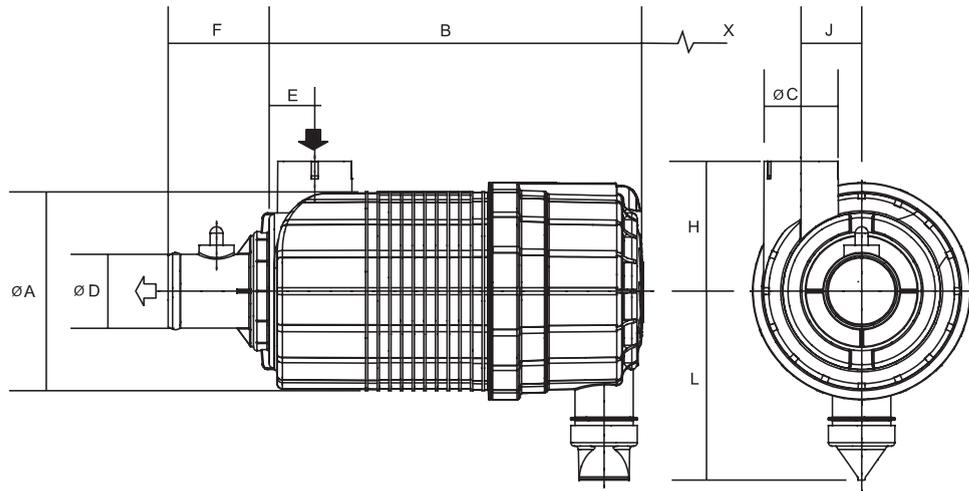
- Exclusive Radial Seal Sealing Technology means reliability and easy service - the filter is self-centering and self-aligning!
- One piece, molded urethane endcaps encase the filter media and liners - reducing components, adding reliability and lowering cost
- Cover is unlocked with a yellow "finger", twisted to the left and removed from the filter housing. It's that simple! To fit the cover housing, just reverse the sequence. Only one mounting band is needed per body size.

## FPG Alexin™ Specifications

**90° elbow outlet**



**Straight outlet**



Air Cleaner Model No.	Airflow Range m <sup>3</sup> /min.	Dimensions (mm)										
		A	B	C	D	E	F	G	H	J	L	X°
G065497 <sup>**</sup> *	1,5 - 4	172	326	63,5	63,5	43,5	40,8	78	112	52	163	300
G065498 "	1,5 - 4	172	326	63,5	63,5	43,5	40,8	78	112	52	163	300
G065499 •*	1,5 - 4	172	326	63,5	63,5	43,5	82,2	-	112	52	163	300
G065500 •	1,5 - 4	172	326	63,5	63,5	43,5	82,2	-	112	52	163	300
G082580 <sup>**</sup> *	4 - 7,5	213	369	95	89	53,4	53,5	105	138	57	183	355
G082581 "	4 - 8	213	369	95	89	53,4	53,5	105	138	57	183	355
G082582 •*	4 - 7,5	213	369	95	89	53,4	83	-	138	57	183	355
G082583 •	4 - 8	213	369	95	89	53,4	83	-	138	57	183	355
G090219 <sup>**</sup> *	5 - 10	242	409	114	89	61,5	53,5	105	170	60	260	370
G090220 "	5 - 10	242	409	114	89	61,5	53,5	105	170	60	260	370
G090225 •*	5 - 10	242	409	114	101,5	61,5	87	-	170	60	260	370
G090226 •	5 - 10	242	409	114	101,5	61,5	87	-	170	60	260	370
G100317 <sup>**</sup> *	8 - 11	268	432	114	101,5	70,5	60,2	120	185	72	269	390
G100318 "	8 - 12	268	432	114	101,5	70,5	60,2	120	185	72	269	390
G100319 •*	8 - 11	268	432	114	101,5	70,5	87,5	-	185	72	269	390
G100320 •	8 - 12	268	432	114	101,5	70,5	87,5	-	185	72	269	390

<sup>\*\*</sup> 90° elbow outlet  
• Straight outlet

\* Includes safety element  
X° Free space needed to remove main element

## FPG Alexin™ Service Parts

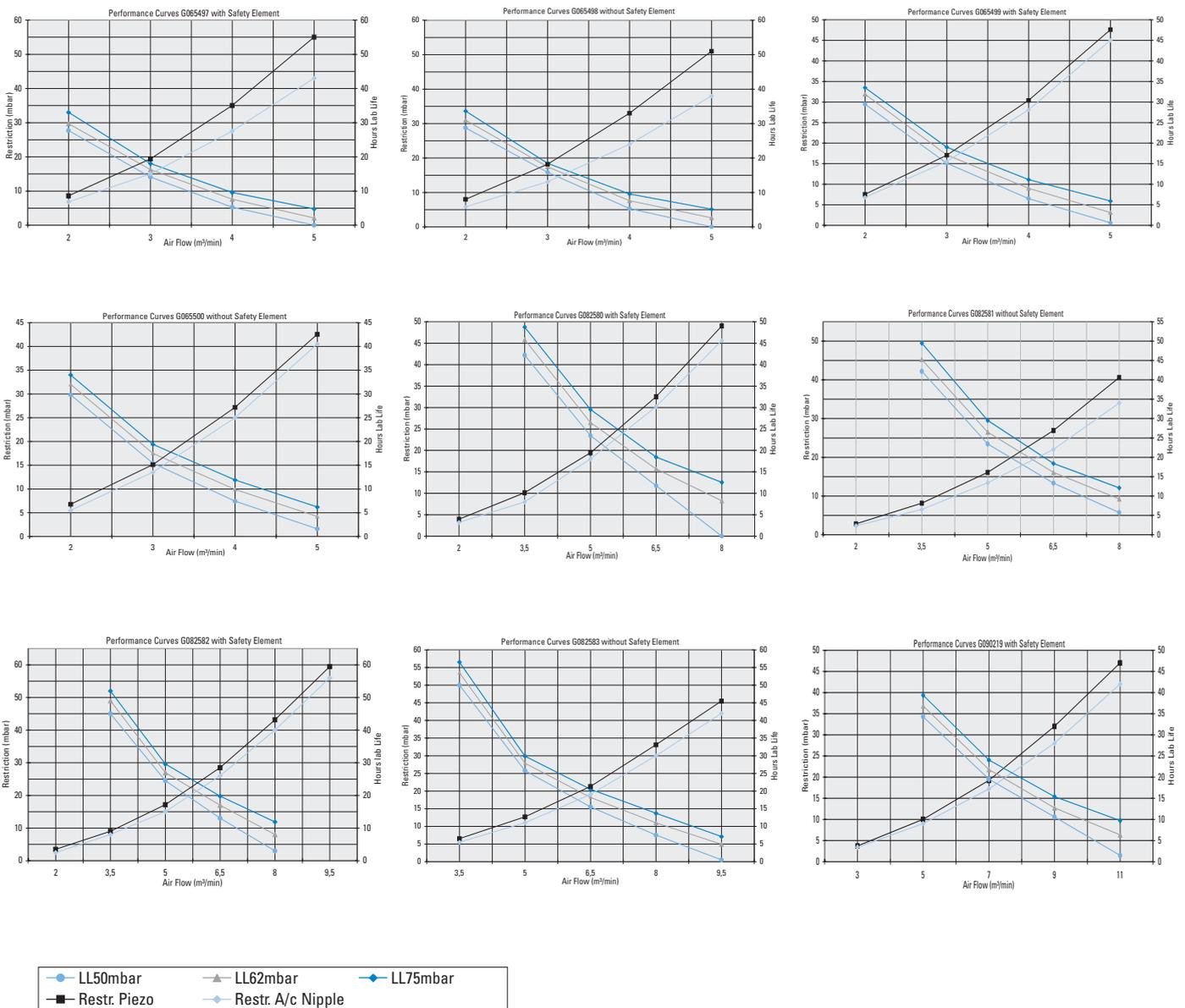
Service Parts						
Air Cleaner Model No.	Main Element	Safety Element	Access Cover Assy	Vacuator™ valve	Raincap	Plastic Mounting Band**
G065497	P822768	P822769	P780401	P522958	H001378	P778810
G065498	P822768	-	P780401	P522958	H001378	P778810
G065499	P822768	P822769	P780401	P522958	H001378	P778810
G065500	P822768	-	P780401	P522958	H001378	P778810
G082580	P828889	P829333	P780403	P158914	H770010	P777732
G082581	P828889	-	P780403	P158914	H770010	P777732
G082582	P828889	P829333	P780403	P158914	H770010	P777732
G082583	P828889	-	P780403	P158914	H770010	P777732
G090219	P780522	P780523	P780524	P776008	H770012	P780532
G090220	P780522	-	P780524	P776008	H770012	P780532
G090225	P780522	P780523	P780524	P776008	H770012	P780532
G090226	P780522	-	P780524	P776008	H770012	P780532
G100317	P781039	P777639	P780578	P776008	H770012	P780594
G100318	P781039	-	P780578	P776008	H770012	P780594
G100319	P781039	P777639	P780578	P776008	H770012	P780594
G100320	P781039	-	P780578	P776008	H770012	P780594

\*\* Only one mounting band needed per air cleaner      \* Spare Part only

## When specifying an Air Cleaner...

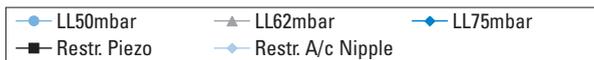
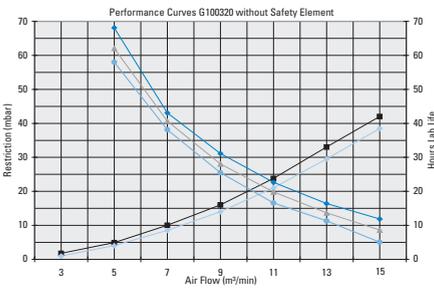
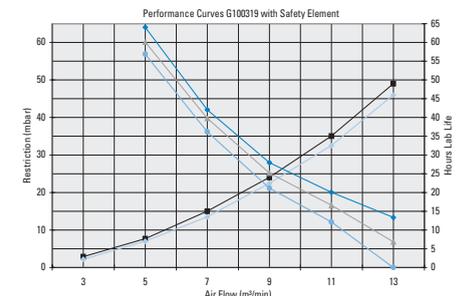
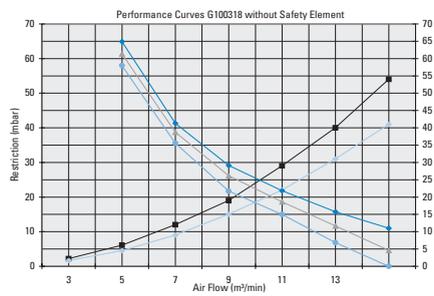
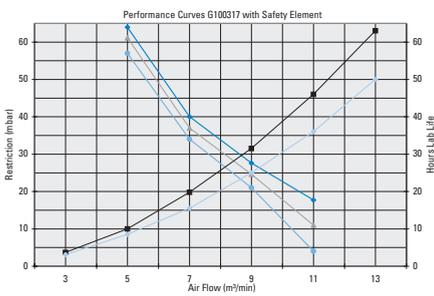
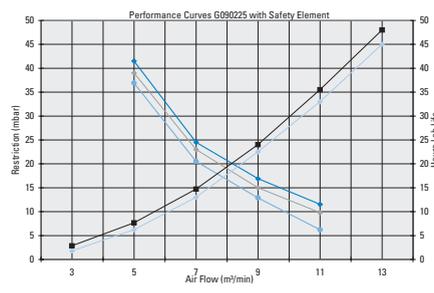
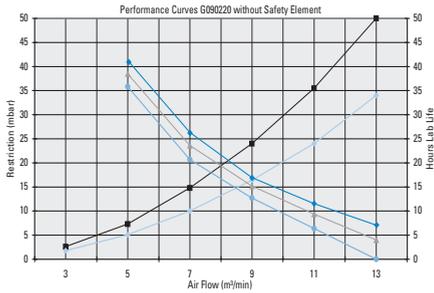
Determine the Airflow Requirements of your engine, then find the corresponding m<sup>3</sup>/min. airflow in the charts below. The restriction numbers - shown in mbar at the left side of the chart - indicate the approximate initial restriction of each model air cleaner at that m<sup>3</sup>/min. When calculating total initial restriction of the entire air intake system, include the restriction caused by ducting, elbows, pre-cleaners, etc. The estimated lab life hours are indicated at the right side of the chart.

## FPG Alexin™ Performance Curves



All performance curves are according ISO 5011 standards - Restriction measured at Piezo  
 All tests are done with ISO Coarse at Dust Concentration of 1g/m<sup>3</sup>

## FPG Alexin™ Performance Curves



All performance curves are according ISO 5011 standards - Restriction measured at Piezo  
 All tests are done with ISO Coarse at Dust Concentration of 1g/m³

Medium Dust Conditions

## 1 Remove the Filter

Unfasten or unlatch the service cover for the FPG models. For the FPG Alexin models, the cover is unlocked with a yellow "finger", twisted to the left and removed from the filter housing. Because the filter fits tightly over the outlet tube to create the critical seal, there will be some initial resistance, similar to breaking the seal on a jar. Gently move the end of the filter back and forth to break the seal then rotate while pulling straight out. Avoid knocking the filter against the housing.



Rotate the filter while pulling straight out.



If your air cleaner has a safety filter, replace it every third primary filter change. Remove the safety filter as you would the primary filter. Make sure you cover the air cleaner outlet tube to avoid any unfiltered contaminant dropping into the engine.

## 2 Clean Both Surfaces of the Outlet Tube and Check the Vacuator™ Valve

Use a clean cloth to wipe the filter sealing surface and the inside of the outlet tube. Contaminant on the sealing surface could hinder an effective seal and cause leakage. Make sure that all contaminant is removed before the new filter is inserted. Dirt accidentally transferred to the inside of the outlet tube will reach the engine and cause wear. Engine manufacturers say that it takes only a few grams of dirt to "dust" an engine! Be careful not to damage the sealing area on the tube.



Outer edge of the outlet tube

Wipe both sides of the outlet tube clean.



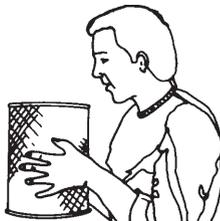
Inner edge of the outlet tube

**If your air cleaner is equipped with a Vacuator Valve** Visually check and physically squeeze to make sure the valve is flexible and not inverted, damaged or plugged.



## 3 Inspect the Old Filter for Leak Clues

Visually inspect the old filter for any signs of leaks. A streak of dust on the clean side of the filter is a telltale sign. Remove any cause of leaks before installing new filter.



## 4 Inspect the New Filter for Damage

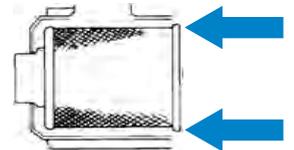
Inspect the new filter carefully, paying attention to the inside of the open end, which is the sealing area. NEVER install a damaged filter. A new Donaldson radial seal filter may have a dry lubricant on the seal to aid installation.



## 5 Insert the New Radial Seal Filter Properly

If you're servicing the safety filter, this should be seated into position before installing the primary filter.

Insert the new filter carefully. Seat the filter by hand, making certain it is completely into the air cleaner housing before securing the cover in place.



The critical sealing area will stretch slightly, adjust itself and distribute the sealing pressure evenly. To complete a tight seal, apply pressure by hand at the outer rim of the filter, not the flexible center. Avoid pushing on the center of the urethane end cap. No cover pressure is required to hold the seal. NEVER use the service cover to push the filter into place! Using the cover to push the filter in could cause damage to the housing, cover fasteners and will void the warranty.

If the service cover hits the filter before it is fully in place, remove the cover and push the filter (by hand) further into the air cleaner and try again. The cover should go on with no extra force.

Once the filter is in place, secure the service cover for the FPG models. For the FPG Alexin models, the cover is locked with a yellow "finger", twisted to the right.



**Caution**

**NEVER use the service cover to push the filter into place! Using the cover to push the filter in could cause damage to the housing, cover fasteners and will void the warranty.**

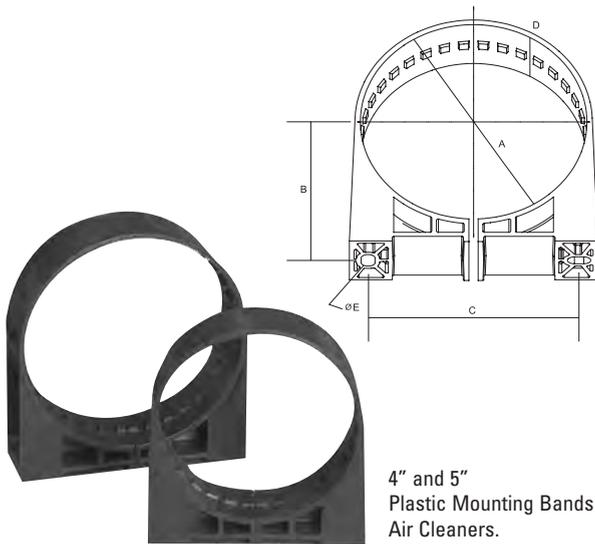


## 6 Check Connectors for Tight Fit

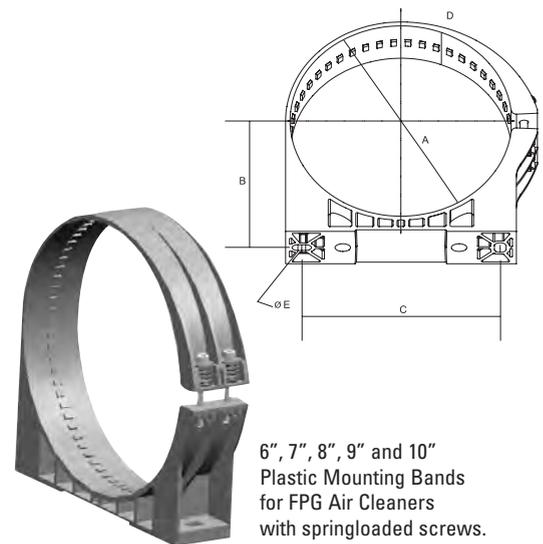
Make sure that all mounting bands, clamps, bolts, and connections in the entire air cleaner system are tight. Check for holes in piping and repair if needed. Any leaks in your intake piping will send dust directly to the engine!

## Designed Exclusively for the FPG + FPG Alexin™ Air Cleaners

- Band has tabs on the inside circumference which fit exactly into notches on the FPG housing to hold the housing in position.
- Tight fit between body and mounting band enhances components durability.
- The springs compensate for dimensional changes due to temperature fluctuations, maintaining a tight fit.
- Critical functions, i.e. Twist and Lock mechanism, remain unaffected.
- Fool proof installation: bolts are tightened to predetermined height.  
The band is under tension at all times. More user friendly as the base is no longer split.
- Donaldson polymer bands are completely non corrosive, lightweight, easy to install and economical.



4" and 5"  
Plastic Mounting Bands for FPG  
Air Cleaners.



6", 7", 8", 9" and 10"  
Plastic Mounting Bands  
for FPG Air Cleaners  
with springloaded screws.

Part Number	Diameter	Dimensions (mm)				
		A	B	C	D	E
<b>4" and 5" Mounting Bands for FPG Air Cleaners</b>						
P777151	4"	122	79	116	40	9
P777730	5"	146	90	136	50,5	9
<b>6", 7", 8", 9" and 10" Mounting Bands for FPG Air Cleaners with Springloaded Screws</b>						
P778810	6"	171,5	99,5	153,5	50,5	9
P778901*	6"	171,5	99,5	90	50,5	9
P781831*	6"	171,5	99,5	93	50,5	9
P777731	7"	182	104,5	163	50,5	9
P777732	8"	211,5	119,5	190	50,5	9
P780580*	8"	211,5	119,5	110	50,5	9
P780378**	8"	212	119,5	110	85	9
P780532	9"	241	136	143	50,5	9
P780594	10"	268	149,5	143	80	11
* With insert M8	** Double 8" Mounting Band needed					