

## **FPG Offers Advanced Sealing Technology**

## Most Reliable Engine Protection in Small, Two-Stage Air Cleaner

The FPG Air Cleaner series is Donaldson's latest concept in two-stage engine air cleaners operating in medium-heavy dust conditions. The FPG series offers improved reliability and durability with reduced weight and costs.

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 RadialSeal™ sealing surface.



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.



FPG Air Cleaners, with RadialSeal™ Sealing Technology, provide thorough two-stage cleaning of incoming engine air on industrial and construction vehicles operating in medium to heavy dust environments.



## **Small, Durable, and Corrosion-Free**

#### The World's Easiest-To-Service Air Cleaner!

## **Applications**

- Provides up to 346 cfm airflow per air cleaner – double throughput by using two units
- Installation can be horizontal, vertical, or even at an angle (as long as Vacuator<sup>™</sup> Valve points down)
- 4", 5", 6", 7", 8", 9" & 10" diameter sizes
- Temperature tolerance: 180°F / 83°C sustained

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

#### **Ideal** for

- Compressors & generator sets
- Construction & in-plant vehicles
- On/Off-Highway vehicles
- Marine & offshore equipment

#### **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)
- Four models have twist-off cover design
- Safety filter protects engine during in-field filter changeouts
- Already tapped to accept filter service indicator (see the Accessories section for indicator options)



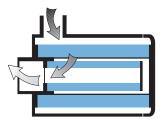
## **Filter Features**

- Exclusive RadialSeal<sup>™</sup> Sealing Technology means reliability and easy service – the filter is selfcentering and self-aligning!
- One piece, molded urethane endcaps encase the filter media and liners – reducing components, adding reliability and lowering cost





## Airflow pattern "G" Air in the side, out the end.



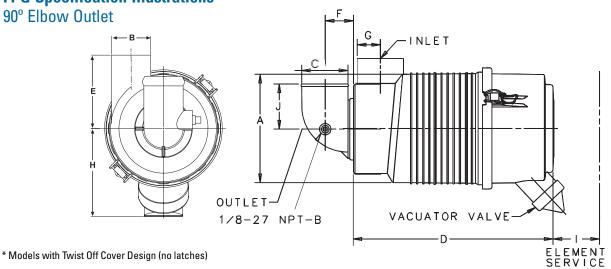
## When spec'ing an FPG Air Cleaner.....

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 lowest restriction will provide the longest filter service life. When calculating total initial restriction of the entire air intake system, include the restriction caused by ducting, elbows, pre-cleaners, etc.

Initial Restriction						
Ai 6"H₂0	rflow CF 8"H₂0	M @ 10"H₂0	-Air Clean 90° Elbow	er Model- Straight		
Models with Primary Filter Only						
55	65	70	G042545	G042544		
80	95	105	G057514	G057513		
120	135	155	G065433	G065432		
150	170	190	G070020	G070019		
205	245	275	G082528	G082527		
Models	with Prim	ary and S	afety Filter			
65	80	90	G057512	G057511		
110	125	145	G065411	G065424		
125	145	165	G070018	G070017		
165	190	215	G082526	G082525		
247	282	314	G100317*			
259	297	328		G100319*		
265	300	335		G090225*		
256	317	346	G090219*			

<sup>\*</sup> Models with Twist-off cover design (no latches)

# **FPG Specification Illustrations**



## FPG Specifications: Models with 90° Elbow Outlet

Air Cleaner Models	with Safety Filter?	Body Dia. (A)	Inlet Dia. (B)	Outlet Dia. (C)	Housing Length (D)	Inlet Height (E)	Outlet Length (F)	Inlet Loca- tion (G)	Center Line to Valve (H)	Service Clear. (I)	Weight Ibs. kgs.	Restr. Tap Loc. (J)
G042545	no	4.8"	1.75"	1.75"	7.45"	3.27"	1.23"	1.48"	3.96"	5.39"	1.3 њ	1.94"
		122mm	44 <sub>mm</sub>	44 <sub>mm</sub>	189 <sub>mm</sub>	83mm	31 <sub>mm</sub>	<i>38</i> mm	101 <sub>mm</sub>	137 <sub>mm</sub>	. <b>6</b> kg	48mm
G057512	yes	5.75"	2.0"	2.0"	10.87"	3.82"	1.36"	1.65"	4.66"	10.68"	2.5 <i>lb</i>	2.6"
		146mm	51 <sub>mm</sub>	51 <sub>mm</sub>	276mm	97 <sub>mm</sub>	35mm	42mm	118 <sub>mm</sub>	271 <sub>mm</sub>	1.1 kg	66mm
G057514	no	5.75"	2.0"	2.0"	10.87"	3.82"	1.36"	1.65"	4.66"	7.95"	2.2 lb	2.6"
		146mm	51 <sub>mm</sub>	51 <sub>mm</sub>	276mm	97 <sub>mm</sub>	35 <sub>mm</sub>	42mm	118 <sub>mm</sub>	202 <sub>mm</sub>	1.0 kg	66mm
G065411	yes	6.74"	2.5"	2.5"	12.61"	4.41"	1.6"	1.7"	5.35"	12.24"	3.9 <i>lb</i>	3.06"
		171 <sub>mm</sub>	64 <sub>mm</sub>	64 <sub>mm</sub>	320 <sub>mm</sub>	112 <sub>mm</sub>	41 <sub>mm</sub>	43 <sub>mm</sub>	136 <sub>mm</sub>	311 <sub>mm</sub>	1.8 kg	78 <sub>mm</sub>
G065433	no	6.74"	2.5"	2.5"	12.61"	4.41"	1.6"	1.7"	5.35"	8.5"	3.5 <i>lb</i>	3.06"
		171 <sub>mm</sub>	64 <sub>mm</sub>	64 <sub>mm</sub>	320 <sub>mm</sub>	112 <sub>mm</sub>	41 <sub>mm</sub>	43 <sub>mm</sub>	136 <sub>mm</sub>	216 <sub>mm</sub>	1.6 kg	78 <sub>mm</sub>
G070018	yes	7.19"	3.0"	3.0"	13.09"	4.88"	1.88"	1.72"	5.45"	12.5"	4.3 <i>lb</i>	3.62"
		183 <sub>mm</sub>	76 <sub>mm</sub>	76 <sub>mm</sub>	332mm	124 <sub>mm</sub>	48 <sub>mm</sub>	44 <sub>mm</sub>	137 <sub>mm</sub>	318 <sub>mm</sub>	1.9 kg	92 <sub>mm</sub>
G070020	no	7.19"	3.0"	3.0"	13.09"	4.88"	1.88"	1.72"	5.45"	8.87"	3.8 lb	3.62"
		183 <sub>mm</sub>	76 <sub>mm</sub>	76 <sub>mm</sub>	332mm	124 <sub>mm</sub>	48 <sub>mm</sub>	44 <sub>mm</sub>	137 <sub>mm</sub>	225 <sub>mm</sub>	1.7 kg	92 <sub>mm</sub>
G082526	yes	8.35"	3.75"	3.5"	14.23"	5.43"	2.11"	2.1"	6.01"	13.91"	5.8 lb	4.13"
		212mm	95 <sub>mm</sub>	89 <sub>mm</sub>	361 <sub>mm</sub>	138 <sub>mm</sub>	54 <sub>mm</sub>	53mm	153 <sub>mm</sub>	353 <sub>mm</sub>	<b>2.6</b> kg	105mm
G082528	no	8.35"	3.75"	3.5"	14.23"	5.43"	2.11"	2.1"	6.01"	9.57"	5.2 <i>lb</i>	4.13"
		212mm	95 <sub>mm</sub>	89 <sub>mm</sub>	361 <sub>mm</sub>	138 <sub>mm</sub>	54 <sub>mm</sub>	53mm	153 <sub>mm</sub>	243 <sub>mm</sub>	2.3 kg	105mm
G090219*	yes	9.53"	4.49	3.50"	15.76	6.78	2.11	2.42"	10.44		8.8 <sub>lb</sub>	4.12"
		242mm	114 <sub>mm</sub>	89 <sub>mm</sub>	400 <sub>mm</sub>	172 <sub>mm</sub>	54 <sub>mm</sub>	62mm	260mm		<b>4</b> kg	105mm
G100317*	yes	10.56	4.49	3.99"	16.78"	7.23"	3.45"	2.78"	10.60"		11.1"	4.79"
		268mm	114 <sub>mm</sub>	102mm	426mm	185 <sub>mm</sub>	88mm	71 <sub>mm</sub>	269 <sub>mm</sub>		5,05 kg	120 <sub>mm</sub>

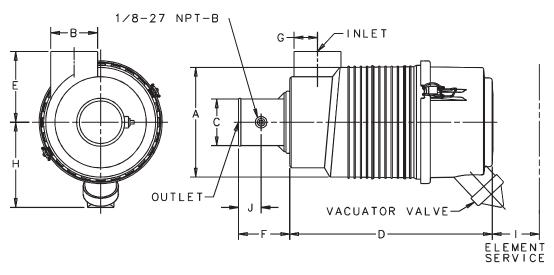
## **FPG**



# for Medium Dust Conditions

## **FPG Specification Illustrations**

Straight Outlet Tube Model



## **FPG Specifications: Models with Straight Outlet Tube**

Air Cleaner Models	with Safety Filter?	Body Dia. (A)	Inlet Dia. (B)	Outlet Dia. (C)	Housing Length (D)	Inlet Height (E)	Outlet Length (F)	Inlet Loca- tion (G)	Center Line to Valve (H)	Service Clear. (I)	Weight Ibs. kgs.	Restr. Tap Loc. (J)
G042544	no	4.8" <i>122</i> mm	1.75" <i>44<sub>mm</sub></i>	1.75" <i>44<sub>mm</sub></i>	7.45" <i>189</i> mm	3.27" <i>83</i> mm	3.24" <i>82</i> mm	1.48" <i>38</i> mm	3.96" <i>101<sub>mm</sub></i>	5.39" <i>137<sub>mm</sub></i>	1.3 lb 0.6 kg	1.88" <i>48<sub>mm</sub></i>
G057511	yes	5.75" 146mm	2.0" 51 <sub>mm</sub>	2.0" 51 <sub>mm</sub>	10.87" 276mm	3.82" 97 <sub>mm</sub>	3.25" 83 <sub>mm</sub>	1.65" 42mm	4.66" 118 <sub>mm</sub>	10.68" 271 <sub>mm</sub>	2.5 lb 1.1 kg	1.88" 48 <sub>mm</sub>
G057513	no	5.75" 146mm	2.0" 51 <sub>mm</sub>	2.0" 51 <sub>mm</sub>	10.87" 276mm	3.82" <i>97<sub>mm</sub></i>	3.25" 83 <sub>mm</sub>	1.65" <i>42<sub>mm</sub></i>	4.66" 118 <sub>mm</sub>	7.95" 202 <sub>mm</sub>	2.2 lb 1.0 kg	1.88" 48 <sub>mm</sub>
G065424	yes	6.74" 171 <sub>mm</sub>	2.5" 64mm	2.5" 64mm	12.61" 320 <sub>mm</sub>	4.41" 112mm	3.23" 82mm	1.7" 43 <sub>mm</sub>	5.35" 136 <sub>mm</sub>	12.24" 311 <sub>mm</sub>	3.9 lb 1.8 kg	1.63" 41 <sub>mm</sub>
G065432	no	6.74" 171 <sub>mm</sub>	2.5" 64mm	2.5" 64mm	12.61" 320 <sub>mm</sub>	4.41" <i>112mm</i>	3.23" 82 <sub>mm</sub>	1.7" 43 <sub>mm</sub>	5.35" 136 <sub>mm</sub>	8.48" 216 <sub>mm</sub>	3.5 lb 1.6 kg	1.63" 41 <sub>mm</sub>
G070017	yes	7.19" 183 <sub>mm</sub>	3.0" 76mm	3.0" 76mm	13.09" 332mm	4.88" 124 <sub>mm</sub>	3.26" 83 <sub>mm</sub>	1.72" 44 <sub>mm</sub>	5.45" 138 <sub>mm</sub>	12.5" 318 <sub>mm</sub>	4.3 lb 1.9 kg	1.88" 48 <sub>mm</sub>
G070019	no	7.19" 183 <sub>mm</sub>	3.0" 76mm	3.0" 76mm	13.09" 332mm	4.88" 124 <sub>mm</sub>	3.26" 83 <sub>mm</sub>	1.72" 44 <sub>mm</sub>	5.45" 138 <sub>mm</sub>	8.87" 225 <sub>mm</sub>	3.8 lb 1.7 kg	1.88" 48 <sub>mm</sub>
G082525	yes	8.35" 212mm	3.75" 95 <sub>mm</sub>	3.5" 89 <sub>mm</sub>	14.23" 361 <sub>mm</sub>	5.43" 138mm	3.27" 83 <sub>mm</sub>	2.1" 53mm	6.01" 153 <sub>mm</sub>	13.91" 353 <sub>mm</sub>	5.8 lb 2.6 kg	1.91" 49mm
G082527	no	8.35" 212mm	3.75" 95 <sub>mm</sub>	3.5" 89 <sub>mm</sub>	14.23" 361mm	5.43" 138 <sub>mm</sub>	3.27" 83 <sub>mm</sub>	2.1" 53mm	6.01" 153 <sub>mm</sub>	9.57" 243 <sub>mm</sub>	5.2 lb 2.3 kg	1.91" 49 <sub>mm</sub>
G090225*	yes	9.53" 242mm	4.49 114 <sub>mm</sub>	3.99" 102mm	15.76 400 <sub>mm</sub>	6.78 172mm	3.43 87 <sub>mm</sub>	2.42" 62mm	10.44 260 <sub>mm</sub>		8.7 <sub>lb</sub>	n/a n/a
G100319*	yes	10.56 268mm	4.49 114 <sub>mm</sub>	3.99" 102mm	16.78" 426mm	7.23" 185mm	3.45" 88 <sub>mm</sub>	2.78" 71 <sub>mm</sub>	10.60" 269mm		10.9" 4,95 <sub>kg</sub>	n/a n/a

<sup>\*</sup> Models with Twist Off Cover Design (no latches)

#### **Application Notes**

- 1) **Safety filters**: All FPG models can accept safety filters. This table shows which air cleaner models are shipped with a safety filter installed. If you want to add a safety filter to an existing model that did not originally have one, order the safety filter listed in the Service Parts table on page 34.
- 2) Mounting band specifications and ordering information are on next page.
- 3) **Inlet Hoods:** A plastic inlet stack up to 18" (457mm) tall may be added, supporting a plastic inlet hood. See the Accessories section for information on optional inlet hoods and filter service indicators. **Warning:** Do not add a pre-cleaner or any intake accessory other than a lightweight inlet hood. Use of unapproved intake accessories will void your Donaldson warranty.
- 4) Service Indicators. See the Accessories section for information on filter service indicators.



## **Mounting Bands Designed Exclusively for the FPG**

## Available in Polymer and Metal

Donaldson offers two styles of mounting bands specially designed for FPG Air Cleaners: (1) metal with a bolt and (2) high tech polymer.

## **Polymer Mounting Band**

The one-piece, high tech polymer mounting band will securely hold the housing in position.

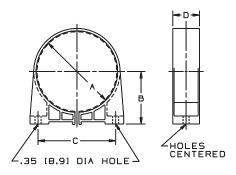
The band has tabs on the inside circumference which fit exactly into notches on the FPG housing.

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.

Donaldson polymer bands are completely non-corrosive, lightweight, easy to install, and economical.

WARNING: Do not use any other mounting bands or straps with FPG Air Cleaners. Use of an unapproved mounting band voids warranty.





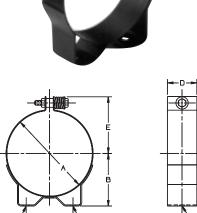
#### **Application Note:**

To accommodate even hard-to-fit applications, polymer bands allow the air cleaner housings to be rotated and positioned at various increments, depending upon the size:

<u> Housing Diameter</u>	Degree of Increm
4.8" (122mm)	11°
5.75" (146mm)	10°
6.74" (171mm)	7.5°
7.19" (183mm)	7°
8.35" (212mm)	5°

## **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.



.35 [8.9] DIA L HOLE OR THREADS

HOLES CENTERED

## FPG Mounting Bands (Order one band per FPG air cleaner)

Part			(L	etters	are keyed t	o drav	vings above	e)					
Number	А		E	3		C			E	Wei	ght	Maximum E	olt Torque
	in	mm	in	mm	in	mm	in	mm	in mm	lbs	gms		
Polymer Ba	ands												
P777151	4.80	122	3.09	79	4.56	116	1.57	40	n/a	0.26	118	11 lbsft.	14.8 N•m
P777730	5.75	146	3.52	90	5.35	136	1.99	51	n/a	0.37	167	11 lbsft.	14.8 N•m
P778810	6.79	173	3.94	100	6.00	154	1.99	51	n/a	0.40	182	11 lbsft.	14.8 N•m
P777731	7.17	182	4.11	105	6.50	165	1.99	51	n/a	0.45	206	11 lbsft.	14.8 N•m
P777732	8.35	212	4.70	120	7.48	190	1.99	51	n/a	0.56	253	11 lbsft.	14.8 N•m
P780532*	9.48	241	5.47	136	5.63	143	1.99	51					
P780594*	10.55	268	5.90	150	5.63	143	3.15	80					
Metal Ban	ds												
H008442	4.80	122	3.07	78	2.76	70	1.57	40	3.34 85	0.70	317	12 lbsft.	16.2 N•m
H008443	5.75	146	3.54	90	3.15	80	1.99	51	3.83 85	1.30	590	12 lbsft.	16.2 N•m
H008441*	6.79	173	3.94	100	3.54	90	1.99	51	4.35 111	1.40	635	12 lbsft.	16.2 N•m
H008444	6.79	173	3.94	100	3.54	90	1.99	51	4.35 111	1.40	635	12 lbsft.	16.2 N•m
H002070	7.19	183	4.09	104	3.74	95	1.99	51	4.55 116	1.50	680	12 lbsft.	16.2 N•m
H002023	8.13	207	4.72	120	4.33	110	1.99	51	5.14 97	1.60	726	12 lbsft.	16.2 N•m

<sup>\*</sup>Mounting bands (with spring-loaded screws) for FPG09 and FPG10 models with twist-off cover. \*\* Model H008441 has 8mm threads.

**FPG** 

## **FPG Service Parts**



## G070019 (straight outlet) G070020 (90° elbow outlet)

cover	P536202 8
filter, primary	P827653 3
filter, safety	P829332 4
latch	
Vacuator™ Valve	P158914

#### G082525 (straight outlet) G082526 (90° elbow outlet)

cover	P534048 8
filter, primary	
filter, safety	P829333 3
latch	P538928
Vacuator™ Valve	P158914

#### G082527 (straight outlet) G082528 (90° elbow outlet)

cover	P534048 8
filter, primary	P828889 3
filter, safety	P829333 4
latch	
Vacuator™ Valve	P158914

## G090219\* (90° elbow outlet) G090225\* (straight outlet)

filter, primary	P780522
filter, safety	P780523
Vacuator™Valve	P776008

#### G100317\* (90° elbow outlet) G100319\* (straight outlet)

filter, primary	P781039
filter, safety	P777639
Vacuator™ Valve	P776008

## G042544 (straight outlet) G042545 (90° elbow outlet)

cover	. P533685	8
filter, primary	. P822686	3
filter, safety		
latch		
Vacuator™ Valve	P522958	

## G057511 (straight outlet) G057512 (90° elbow outlet)

cover	P533761	8
filter, primary	P821575	3
filter, safety	P822858	3
latch		
Vacuator™ Valve	P522958	

## G057513 (straight outlet) G057514 (90° elbow outlet)

cover	P533761 8
filter, primary	P821575 3
filter, safety	P822858 4
latch	
Vacuator™ Valve	P522958

## G065411 (90° elbow outlet) G065424 (straight outlet)

cover	P539422	8
filter, primary	P822768	3
filter, safety	P822769	3
latch		
Vacuator™ Valve	P158914	

#### G065432 (straight outlet) G065433 (90° elbow outlet)

cover	P539422 8
filter, primary	
filter, safety	
latch	
Vacuator™ Valve	P158914

## G070017 (straight outlet) G070018 (90° elbow outlet)

cover	P536202	8
filter, primary		
filter, safety		
latch		
Vacuator™ Valve	P158914	

 Models with Twist Off Cover Design (no latches)

#### 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)
- $8 = \text{Cover assembly includes latches but no Vacuator}^{\text{TM}} \text{ Valve}$