

### Designed for the Worst Dust Conditions New Choice for Construction and Off-Highway Applications

#### The SSG Air Cleaner offers design improvements and therefore replaces our older SRG Air Cleaner models.

SSG Model
G200087
G200086
G290057
G290052
G290053

#### **Design Improvements**

 The SSG Air Cleaner has filters that use RadialSeal<sup>™</sup> Sealing Technology, compared to axial seal style filters. This single design improvement eliminates the need to replace filter and cover gaskets - less service time and fewer parts to inventory.

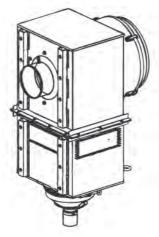


The large, massive mining vehicle in the picture above is an ideal match for the Donaldson SSG Air Cleaner.

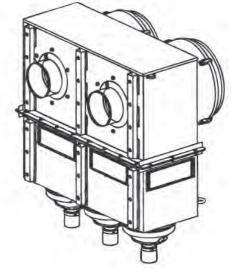


• The access cover for filter service now has quick release cover latches and a chain that connects the air cleaner service cover to the housing!





Mounting (back) side view of an SSG 20 model



Mounting (back) side view of an SSG 29 model

Covered by issued and pending patents, both U.S. and Internationally



# Donaldson. SSG Donaclone<sup>™</sup> Air Cleaner

### Versatile SSG Provides Airflow to 135 m<sup>3</sup>/min. With Improved Design Features Compared to our Older SRG Model

#### **Applications**

- Allows 48 to 68 m<sup>3</sup>/min. airflow throughput for the SSG 20 model and 73 to 135 m<sup>3</sup>/min. airflow throughput for the SSG 29 models
- Horizontal installation
- Off-road, heavy or extreme dust conditions
- Ideal for scrapers, earth movers, graders

#### **Air Cleaner Features**

- Single and dual outlet models two high-flow models available
- Inlet has perforated holes on three sides; rain shrouds available if required
- Filters have urethane end caps with radial seal sealing technology
- Built-in pre-cleaning tubes separate up to 97% of the in-coming dust
- Latch-style cover with attached safety chain for faster and simpler filter service
- Constructed of heavy-gauge steel with a primed, ready-to-paint finish
- Same overall package size as older Donaldson SRG axial seal style housings
- Drop down tube accessory available simplifies routine air cleaner inspections
- Indicator thread size = 1/8-27NPT (MALE)

#### **Filter Features**

- Replacement main filter choices: Standard life filters (for scheduled maintenance) and Donaldson Endurance™ extended service high efficiency filters. Air cleaners ship with the standard filters.
- Grab handles on the main filter to help remove
- the loaded filter during service
- Safety filter on all models





The large, massive mining vehicle in the picture above is an ideal match for the Donaldson SSG Air Cleaner.

#### **Powerful Two-Stage Filtration**

The first stage of this powerful air cleaner consists of hundreds of Donaclone<sup>™</sup> pre-cleaner tubes (over 130 tubes in the SSG 20 and over 25 tubes in the SSG 29 models). Each tube spins the incoming air to create a centrifugal force that separates up to 97% of the dust and dirt in the airstream (see image on right). Donaclone<sup>™</sup> tubes have no moving parts – so there is nothing to break down or maintain. They function properly whenever the engine is running.

The pre-cleaned dust is automatically ejected from the dust cup with a Vacuator<sup>TM</sup> Valve located below in the lower housing body, below the Donaclone tubes.

The second stage of filtration is the primary filter. A safety filter, which fits inside the primary filter, is standard on all models for protection during primary filter changeout.

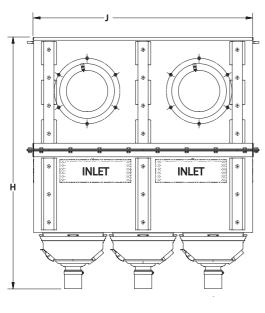


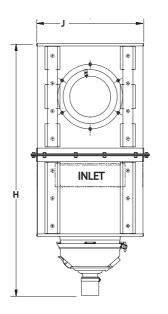
Side view of three Donaclone precleaning tubes.



### **SSG Specifications**

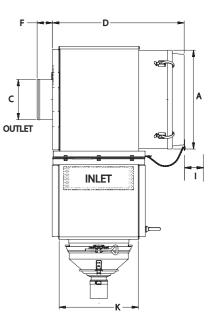
#### **Front View Dual Outlet**





Front View Single Outlet

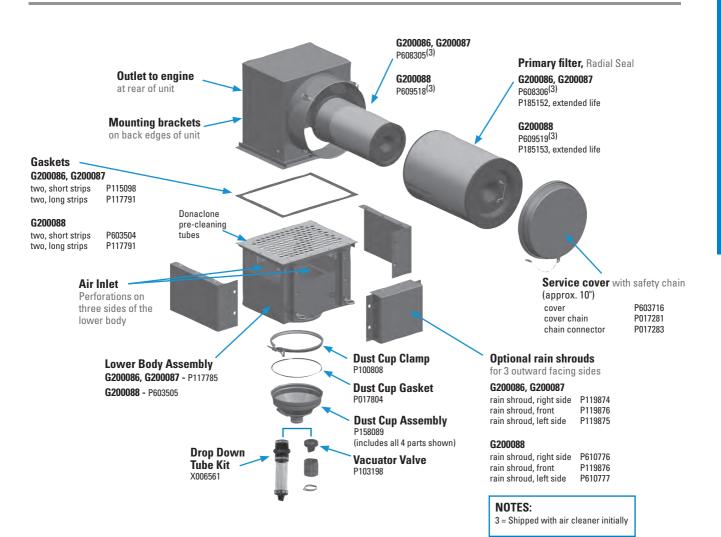
#### **Side View Dual and Single**



Air Cleaner	Airflow	Range Dimensions (mm)								
Model No.	m <sup>3</sup> /min.	А	С	D	F	Н	I	J	K	
Single Outlet Models										
G200087	48 - 56	500	203	665	76	1274	559	533	400	
G200086	50 - 58	500	254	665	76	1274	559	533	400	
G200088*	59 - 68	500	254	798	76	1274	686	533	597	
Dual Outlet Models										
G290057	73 - 85	500	203	665	76	1255	559	1092	400	
G290052	95 - 108	500	203	665	76	1255	559	1092	400	
G290053	102 - 116	500	254	665	76	1255	559	1092	400	
G290055*	119 - 135	500	254	798	76	1255	686	1092	597	
* Sized to accomodate higher airflow										



### Single Outlet Model - SSG 20 Service Parts



#### **Drop Down Tube Extension**

**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.

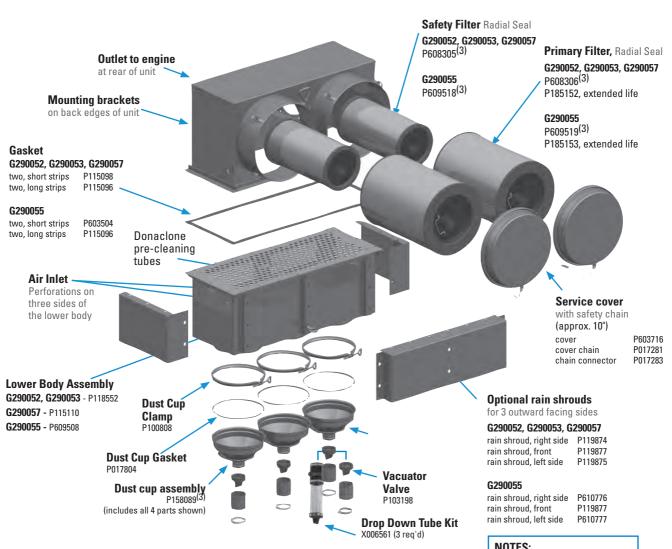
- Improves dust evacuation from the air cleaner
- Clear tube allows for visual inspection of dust collection
- Reduces air cleaner inspection time
- Ships fully assembled
- Proper conversion requires drop down tube for every dust cup

For more information features and dimensions, see the Accessories Section.





### **Dual Outlet Model - SSG 29 Service Parts**



#### **Drop Down Tube Extension**

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.

- · Improves dust evacuation from the air cleaner
- · Clear tube allows for visual inspection of dust collection
- · Reduces air cleaner inspection time
- · Ships fully assembled
- Proper conversion requires drop down tube for every dust cup

For more information features and dimensions, see the Accessories Section.



NOTES:

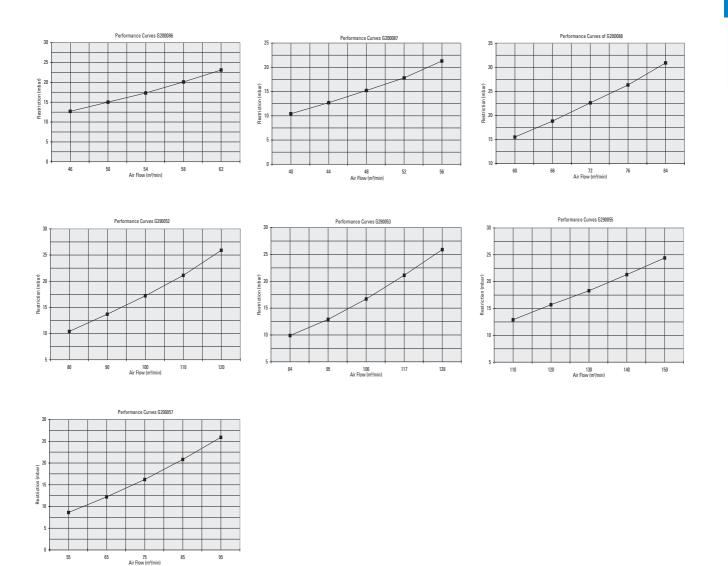
3 = Shipped with air cleaner initially



#### 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 - indicate the approximate initial restriction of each model air cleaner at that m<sup>3</sup>/min. If there are two air cleaner models that fit your paramaters, choosing the one with the lowest restriction will provide the longest service life. When calculating total initial restriction of the entire air intake system, include the restriction caused by ducting, elbows, pre-cleaners, etc.

### **SSG 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  $1g/m^3$ 

## SSG Donaclone<sup>™</sup> Service Instructions



## Measure Restriction

Measure the restriction of the air cleaner with a Donaldson filter service indicator, service gauge, or a water manometer via the restriction tap provided on the air cleaner or the transfer pipe. Replace the filter only when the restriction level has reached the maximum recommended by the engine or equipment manufacturer.



## 2 Check Vacuator<sup>™</sup> Valve

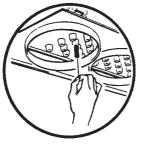
On dust cups with Vacuator Valve, dust cup service is minimal; just check the Vacuator Valve to see that it is not inverted, damaged or plugged. If it is damaged, replace it immediately.

# **3** Check Tubes for Plugging

When the dust cup is removed, check the tubes. Generally, Donaclone tubes are self-cleaning and need no service. Under rare circumstances, however, plugging can occur. Visual inspection is adequate. If the tubes carry light

dust, remove it with a stiff brush.

Cleaning Note: Never clean Donaclone tubes with compressed air unless both the primary and safety filters are installed in the air cleaner. Do not steam-clean Donaclone tubes.



# **4** Change the Filter

When restriction indicates that filter service is required, unfasten or unlatch the service cover. 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. Grasp the filter service handle and pull the filter out, gently moving the filter back and forth to break the seal.



Avoid knocking the filter against the housing during removal. If the new filter is not to be installed immediately, be sure to cover the seal tube with a cloth or the housing cover so that dirt is not ingested.

# **5** Inspect the New Filter before Installing

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 aide installation.

## **6** Insert New Radial Seal Filter Properly

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

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



The critical sealing area will compress 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 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 or cover fasteners and will void the warranty.

If the service cover contacts 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.



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.