Donaldson’s STG Donaclone™ air cleaner has been applied to a wide variety of heavy-duty equipment around the world. Its broad application is a testament to its reliability and durability.

**Powerful Two-Stage Filtration**

The first stage of this powerful air cleaner consists of a cluster of our Donaldson Donaclone™ tubes. They spin the incoming air to create a centrifugal force that separates up to 97% of the dust and dirt in the airstream. Donaclone™ tubes have no moving parts — so there is nothing to break down or maintain. They function properly whenever the engine is running.

Pre-cleaned dust falls into the dust cups and expels through Vacuator™ Valves at the bottom of the air cleaner.

The second stage of filtration is the primary filter, a cylindrical-shaped unit of specially-developed pleated filter media, designed to trap and stop dust particles, both large and small. The result is air to your engine that is up to 99.9% contaminant free!

A safety filter, which fits inside the primary filter, is standard on all models for protection during primary filter changeout. Physical orientation does not affect the proper functioning of either cleaning stage. The STG can be mounted horizontally or vertically. If mounting horizontally, the Vacuator™ Valve option on the dust cup is required.

**How the Two-Stage STG Donaclone Works**

Air is drawn in through the perforations in the lower part of the unit and forced down through a bank of Donaclone tubes. The Donaclone tubes spin the air so that centrifugal force causes the heavier dust particles to separate from the airstream.

While these particles fall into the cup at the bottom, the partially cleaned air is directed upward, into the primary filter in the upper portion of the unit for the second stage of filtration.
**Versatile STG Provides Airflow to 1760 cfm**

*Choose Peripheral or Tubular Inlet, Horizontal or Vertical Mount*

**Applications**
- Allows 390 to 1760 cfm airflow throughout per air cleaner
- Horizontal or vertical installation
- Off-road, high dust conditions
- Ideal for scrapers, earth movers, graders

**Air Cleaner Features**
- Very reliable. Only one critical filter seal.
- Airflow throughput can be doubled by using two air cleaners
- Two body styles (peripheral inlet, shown on right, and tubular inlet) to accommodate location and ducting
- Optional inlet shroud available for peripheral style
- When the air cleaner is mounted directly on the engine and there is clearance around it for airflow, choose the peripheral inlet style (shown on right)
- When the air cleaner is mounted above the cab or somewhere far from the engine to get above the dust cloud, choose the tubular inlet style, which will accept ducting into the inlet
- Built-in Donaclone pre-cleaning tubes separate up to 97% of incoming dust to the dust cup before it reaches the filter, resulting in more thorough cleaning and fewer filter changes.
- Choose the dust cup best suited to your maintenance practices. For choices see Accessories section.
- All models include a fitting for a filter service indicator

**Filter Features**
- Replacement primary filter choices:
  - Standard life filters (for scheduled maintenance) and Donaldson Blue® Ultra-Web® HD ultra-high efficiency, extended service filters for servicing by restriction
  - Uses standard airflow filters
  - Safety filter on all models

Air in the side, through the pre-cleaner, out the end of the air cleaner (upper) portion.
STG Donaclone™ Air Cleaners

STG Air Cleaner Performance Curves (Restriction & Dust Capacity)*

Determine the airflow requirements of your engine, then find the corresponding cfm airflow in the table on the next page. 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.

*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.
STG Donaclone™ Air Cleaners

Initial Airflow Restriction

<table>
<thead>
<tr>
<th>CFM @ &quot;H2O&quot; 6&quot;</th>
<th>Air Cleaner Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>710</td>
<td>G140076</td>
</tr>
<tr>
<td>1015</td>
<td>G160077</td>
</tr>
<tr>
<td>1360</td>
<td>G161006</td>
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</table>

<table>
<thead>
<tr>
<th>CFM @ &quot;H2O&quot; 8&quot;</th>
<th>Air Cleaner Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>900</td>
<td>G120332</td>
</tr>
<tr>
<td>1175</td>
<td>G160445</td>
</tr>
<tr>
<td>1385</td>
<td>G161020</td>
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</tbody>
</table>

STG Specification Illustrations

Peripheral Inlet Side View

Tubular Inlet Side View

STG Donaclone™ Specifications

<table>
<thead>
<tr>
<th>Air Cleaner Models</th>
<th>Body Diameter (A)</th>
<th>Inlet Diameter (B)</th>
<th>Outlet Diameter (C)</th>
<th>Length (D)</th>
<th>Width (E)</th>
<th>Service Clearance (L)</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>G140076</td>
<td>14.00</td>
<td>356</td>
<td>n/a</td>
<td>n/a</td>
<td>6.00</td>
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<tr>
<td>G150077</td>
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<td>26.16</td>
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<td>n/a</td>
<td>8.00</td>
<td>203</td>
<td>26.93</td>
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</table>

STG WITH TUBULAR INLET

<table>
<thead>
<tr>
<th>Air Cleaner Models</th>
<th>Body Diameter (A)</th>
<th>Inlet Diameter (B)</th>
<th>Outlet Diameter (C)</th>
<th>Length (D)</th>
<th>Width (E)</th>
<th>Service Clearance (L)</th>
<th>Weight</th>
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<tbody>
<tr>
<td>G120332</td>
<td>11.81</td>
<td>300</td>
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<tr>
<td>G160445</td>
<td>16.00</td>
<td>406</td>
<td>7.00</td>
<td>178</td>
<td>7.00</td>
<td>178</td>
<td>26.31</td>
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<tr>
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<td>16.00</td>
<td>406</td>
<td>6.00</td>
<td>152</td>
<td>8.00</td>
<td>203</td>
<td>26.31</td>
</tr>
</tbody>
</table>

1 - G161020 has two inlets, each 6" (152mm) in diameter

NOTE: All STG models are tapped to accept a filter service indicator

Accessory Recommendations

<table>
<thead>
<tr>
<th>Air Cleaner Model</th>
<th>Mounting Band Metal</th>
<th>Outlet Band Clamp</th>
<th>Hump-hose Connector</th>
<th>45°</th>
<th>90°</th>
<th>90° Reducing</th>
<th>Restriction Indicator</th>
<th>Inlet Hood Metal</th>
</tr>
</thead>
<tbody>
<tr>
<td>G120332</td>
<td>H000349</td>
<td>P148345</td>
<td>P105610</td>
<td>P10921</td>
<td>P107844</td>
<td>P143895</td>
<td>X002277</td>
<td>H000469</td>
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<td>G140076</td>
<td>H000350</td>
<td>P148347</td>
<td>P105612</td>
<td>P105547</td>
<td>P105535</td>
<td>P143895</td>
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<td>H000469</td>
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<td>P112608</td>
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<tr>
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<td>P105547</td>
<td>P105535</td>
<td>P143895</td>
<td>X002277</td>
<td>H000469</td>
</tr>
</tbody>
</table>
**STG Donaclone™ Air Cleaners**

**STG Peripheral Service Parts**

### G140076  STG-PERIPHERAL

- **Body, lower** .................. P102256
- **Clamp, cup** ................. P100866
- **Cover latch assembly** ...... P017617
- **Dust cup** ...................... P100860
- **Elbow, 45°** ................. P105547
- **Elbow, 90°** ................. P105535
- **Filter, primary** ............ P182041
- **Filter, primary-Donaldson Blue®** DBA7041
- **Filter, primary - SM** ....... P181041
- **Filter, safety** .............. P119370
- **Gasket kit** ................. X003538
- **Gasket washer** ............ P105740
- **Gasket, body or cup** ...... P017335
- **Gasket, cover** .............. P016972
- **Inlet shroud** ............... P102270
- **Mounting band** ............ H000350
- **SafetySignal indicator** .... X004816
- **Spring clip & pin** .......... X005555
- **Wing nut** ................. P109062

### G160077  STG-PERIPHERAL

- **Body, lower** .................. P119023
- **Clamp, body** ............... P100780
- **Clamp, cup** ............... P100789
- **Cover** ..................... P109153
- **Cover latch assembly** ...... P017617
- **Dust cup** .................. P100794
- **Dust cup, quick release** ... P107377
- **Dust cup, VacValve, horz** ... P103530
- **Dust cup, VacValve, vert** ... P104973
- **Filter, primary** ............ P182039
- **Filter, primary-Donaldson Blue®** DBA7039
- **Filter, primary - SM** ....... P181039
- **Filter, safety** .............. P119370
- **Gasket kit** ................. X003538
- **Gasket washer** ............ P105740
- **Gasket, body or cup** ...... P017336
- **Gasket, cover** .............. P017367
- **Inlet shroud** ............... P101759
- **Mounting band** ............ H000351
- **Outlet band clamp** ........ P148348
- **SafetySignal indicator** .... X004816
- **Spring clip & pin** .......... X005555
- **Wing nut** ................. P109062

### G161006  STG-PERIPHERAL

- **Body, lower** .................. P119023
- **Clamp, body** ............... P100780
- **Clamp, cup** ............... P100789
- **Cover** ..................... P109153
- **Cover latch assembly** ...... P017617
- **Dust cup** .................. P100794
- **Dust cup, quick release** ... P107377
- **Dust cup, VacValve, horz** ... P103530
- **Dust cup, VacValve, vert** ... P104973
- **Filter, primary** ............ P182042
- **Filter, primary-Donaldson Blue®** DBA7042
- **Filter, primary - SM** ....... P181042
- **Filter, safety** .............. P128408
- **Gasket kit** ................. X003539
- **Gasket washer** ............ P105740
- **Gasket, body or cup** ...... P017336
- **Gasket, cover** .............. P017367
- **Inlet shroud** ............... P101759
- **Mounting band** ............ H000351
- **Outlet band clamp** ........ P148348
- **SafetySignal indicator** .... X004816
- **Spring clip & pin** .......... X005555
- **Wing nut** ................. P109062

### Notes:

- **2** = Two required for proper installation
- **3** = Shipped with air cleaner initially
- **9** = Gasket Kit includes all gaskets listed

SM = Scheduled Maintenance

Donaldson Blue® = High Efficiency, Extended Service

---

**Simplify Service With Dust Dumpa Kits!**

If your current STG air cleaner has adequate clearance, one of the Dust Dumpa kits has the potential to save service time.

- **Alternate style Dust Cup for Vertical Mount**
- **Alternate style Dust Cup for Horizontal Mount**

---

**Gasket Washer** P105740

**Cover Gasket**

**Body Clamp**

**Primary Filter**

**Safety Filter**

**Safety Signal® X004816**

**Mounting Band**

**attached to housing**

**Cover**

**Wing Nut P109062**

---

**G160077 STG-PERIPHERAL**

**Length 22.55” / 5723mm**

Not for horizontal mounted air cleaners.

**G161006 STG-PERIPHERAL**

**Length 16.54” / 420mm**

Not for horizontal mounted air cleaners.

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**STG Peripheral Service Parts**

**G140076 STG-PERIPHERAL**

**Length 22.55” / 5723mm**

X006562 includes new gasket

**G160077 STG-PERIPHERAL**

**Length 16.54” / 420mm**

X006561 Length 22.55” / 5723mm

X006562 Length 16.54” / 420mm

---

**Cover Latch Spring Clip & Pin Repair Kit X005555**

Use it to repair the P017617 latch assembly.
STG Donaclone™ Air Cleaners

STG Tubular Service Parts

**G120332 STG-TUBULAR**
- Body, lower: P110875
- Dust cup, quick release: P107375
- Filter, primary: P182044
- Filter, primary-Donaldson Blue®: PDB5040
- Filter, primary - SM: P181044
- Filter, safety: P118371
- Gasket washer: P105740
- Gasket, body or cup: P017367
- Gasket, cover: P017365
- Safety Signal indicator: X004816
- Spring clip & pin: X005555
- Wing nut: P109062

**G140445 STG-TUBULAR**
- Body, lower: P114100
- Cover latch assembly: P017617
- Dust cup: P100860
- Filter, primary: P181041
- Filter, primary-Donaldson Blue®: PDB7041
- Filter, primary - SM: P181039
- Gasket kit: X003538
- Gasket washer: P105740
- Gasket, body or cup: P017367
- Gasket, cover: P017365
- Mounting band: H000350
- Safety Signal indicator: X004816
- Spring clip & pin: X005555
- Wing nut: P109062

**G160445 STG-TUBULAR**
- Cover: P109153
- Cover latch assembly: P017617
- Dust cup: P100860
- Dust cup, quick release: P107377
- Dust cup, VacValve, horz: P103530
- Dust cup, VacValve, vert: P104973
- Filter, primary: P181039
- Filter, primary-Donaldson Blue®: PDB7039
- Filter, primary - SM: P181039
- Gasket, body or cup: P017367
- Gasket, cover: P017365
- Gasket kit: X003539
- Mounting band: H000351
- Spring clip & pin: X005555

**G161020 STG-TUBULAR**
- Dust cup: P100794
- Dust cup, quick release: P107377
- Dust cup, VacValve, horz: P103530
- Dust cup, VacValve, vert: P104973
- Filter, primary: P182042
- Filter, primary-Donaldson Blue®: PDB7042
- Filter, primary - SM: P181042
- Filter, safety: P128408
- Gasket kit: X003539
- Gasket washer: P105740
- Gasket, body or cup: P017367
- Gasket, cover: P017365
- Mounting band: H000351
- Outlet band clamp: P148347
- Safety Signal indicator: X004816
- Wing nut: P109062

**Inlet view of Donaclone™ pre-cleaning tubes inside the Lower Body Assembly.**

**NOTES:**
- 2 = Two required for proper installation
- 3 = Shipped with air cleaner initially
- 9 = Gasket Kit includes all gaskets listed
- SM = Scheduled Maintenance
- Donaldson Blue® = High Efficiency, Extended Service

**Simplify Service With Dust Dumpa Kits!**
- If your current STG air cleaner has adequate clearance, one of the Dust Dumpa kits has the potential to save service time.

**G120332 includes new gasket Length 22.55” / 572mm Not for horizontal mounted air cleaners.**

**G140445 includes new gasket Length 16.54” / 420mm**

**G160445 includes new gasket Length 22.55” / 572mm**

**G161020 includes new gasket Length 22.55” / 572mm**
STG Donaclone™ Air Cleaners
Service Instructions

This 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.

2. **Empty the Dust Cup and Check the Vacuator™ Valves**
   Switch off the engine. The dust cup should be emptied when 2/3 full. Frequency of dust cup service varies with the dust severity.

   On dust cups with a 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 or missing, replace it immediately.

   Visually inspect gasket between dust cup and lower body — if worn or damaged, replace.

   **Tip: Save Service Time — Install Dust Dumpa on Vertical STG Air Cleaners!**

3. **Inspect the Donaclone™ Pre-Cleaning Tubes**
   With the dust cup removed, check the tubes. Generally, the tubes are self-cleaning and need no service, but under unusual circumstances, plugging can occur. A visual inspection is usually adequate.

   If the tubes carry light dust, remove it with a stiff brush. If plugging with fibrous material is evident, remove the Strata” or Donaclone section. Clean it with compressed air or water no hotter than 160 °F / 72 °C.

   Any time the Donaclone tube lower body is removed, the body gaskets should be replaced. When reinstalling the dust cup, be sure it seals 360° around the air cleaner body.

   **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 or Strata tubes.**
4 Remove the Primary Filter and Visually Inspect the Safety Filter
Unlatch the service cover to access the filters.

Loosen the wing nut and remove the primary filter. The wing nut on the old filter should be held in place with a clip. Visually inspect the safety filter but do not remove the filter unless it is damaged or due for change-out.

The safety filter should be replaced every three primary filter changes.

5 Always Clean the Inside of the Filter Housing
Dirt left in the air cleaner housing can be harmful for your engine. Starting with the sealing surfaces, use a clean, damp cloth to wipe the inside surfaces clean. An improper gasket seal is one of the most common causes of engine contamination, so make sure that all hardened dirt ridges are completely removed.
Install the New Filters
The safety filter should be replaced every three primary filter changes or as denoted by the SafetySignal™ service indicator. When replacing the safety filter, install the new filter immediately or cover the inlet with a cloth so that dirt is not ingested.

Before installing the new filters, inspect them for shipping damage and gasket integrity. If a filter is damaged, do not install it. If the safety filter is being replaced, and a SafetySignal is used, secure it in place with a cotter (split) pin.

Secure the primary filter in place with the wing nut (hand tighten) using a new gasket washer. Use a new wing nut clip and reset the filter service indicator.

Inspect Air Cleaner System
Finally, inspect and tighten all air cleaner system connections. If there are holes or damage, replace immediately. Inspect all air ducting for worn spots or damage. Annual replacement of air cleaner system gaskets is recommended.