



Donaldson
FILTRATION SOLUTIONS

**COMPLETE AIR INLET
SYSTEM MAINTENANCE**
FIELD SERVICES & SERVICE PRODUCTS

Gas Turbine Systems



COMPLETE AIR INLET SYSTEM MAINTENANCE

Filter System Inspection

Annual inspection of your Donaldson air inlet filter system will ensure that you receive optimal performance. Self-cleaning systems are inspected to ensure the pulsing mechanisms and electrical systems are functioning properly. A typical inspection takes only one day, after which you will receive a full report with our recommended action items.

To save money, have us perform an inspection of your evap cooler at the same time. Donaldson can also provide additional repair work upon request.

Filter/Pre-Filter Changeout

Free up your maintenance staff for other duties by asking Donaldson to change out the air filters in your inlet systems. Our experienced, factory-trained crews can perform a variety of maintenance services. Call us for a quote on any or all of the following services:

- Stage new filters and necessary equipment to perform changeout
- Pressure wash inlet system
- Remove old filters
- Dispose of old filters
- Install new filters and pre-filters



Upgrades and Repair Work

When it is time to enhance your inlet system with available ancillary products or perform component repairs, call upon Donaldson to do the work. Our team of engineers has the knowledge and experience to repair and modify most inlet systems (including non-Donaldson units) to achieve your performance targets. Donaldson offers standard replacement/upgrade kits as well as custom modifications.

Call Donaldson for:

- Exterior access hatches at walkway level for removal of used filters at service time
- Inlet hood modifications – moisture eliminator, pre-filter, and/or birdscreen installation
- Evaporative cooler work (see evap section)
- Filter support tripod upgrades to stainless steel
- Instrumentation repair, replacement, or upgrade
- Customized system upgrades or modifications



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Evap Cooler Inspection

Call on the Donaldson experts to ensure that you are achieving optimal cooling performance from your evap cooler.

We verify proper installation of the drift eliminator and ensure sufficient caulking. We also check for gaps between media sections and verify proper functionality of all sump components (pump, flow meters, etc).

Many turbine manufacturers recommend annual evap cooler inspections. Donaldson's factory trained service crews can complete this work and provide a complete report following the inspection. Combine your evap cooler inspection with the inspection of your entire inlet system for maximum value.



Media Replacement for Evap Cooler

When should you replace your evap cooler media? Evap media generally lasts 3 – 5 years under normal operating conditions. Below are some signs of evap media deterioration that indicate immediate attention is required. Call us for pricing on replacement media, distribution pads, drift eliminator panels, and installation service.

Signs of Media Deterioration:

- 1) Excessive scale or "white frost" on the face of the media
- 2) The ΔP across the evap cooler has doubled compared to its original pressure drop
- 3) The media has softened or feels *mushy*
- 4) There is water downstream of the evap cooler
- 5) There is staining on the sidewalls of the evap downstream of the media



Scaling or "white frost" on evap media surface.

Annual Recommissioning of Evap Cooler

Annual recommissioning of evap coolers is recommended by some of the major turbine manufacturers. Donaldson can provide this service which typically involves a full inspection to ensure that everything is working properly. All necessary repairs will be performed by Donaldson before the evap cooler is put back into operation.

The scope of this work covers:

- Sump/pump/meter tune-up
- Media evaluation and replacement (if necessary)
- Seals, gaskets, caulking
- Dry-run and wet-run testing
- Other repairs as required or requested

Access (Hobbit) Door to Evap Cooler

For convenient physical inspection and service, install a 30" hatch that allows internal access to the ducting downstream of the evap cooler section.

Manufactured with stainless steel, the Donaldson 'hobbit' door is engineered with a positive seal to prevent leaks. The door is bolted in and does not require welding.



Access Door Kit Includes:

- 1) Stainless steel door
- 2) Installation hardware
- 3) Drawings and installation instructions

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Mineral Content Monitor for Evap Water

The characteristics of your evap cooler water are critical to the performance of your evap and the life of your evap media and other evap components. Add a conductivity controller to continuously monitor and regulate mineral concentrations in your evap cooler water. When mineral concentrations exceed a set value, the controller opens a solenoid valve, which initiates "blow down." The valve remains open until the mineral concentrations drop below a set value. Required parts: one (1) conductivity controller (either 110 or 220 VAC) and one (1) installation kit.

Inlet Hood Screens and Panels

Birds and bats tend to nest in the inlet hoods of air filtration systems. The mess they generate can cause filter plugging and pre-mature failure. Help to prolong the life of your filters by installing Donaldson bird screen or moisture eliminator panels in the inlet hoods.

Bird screen or moisture eliminator panels, bracket supports, and fasteners are available in convenient retrofit kits.



Birds nesting on filter surface.

Lexan Window Set

A window kit installed in the system outlet transition allows visual inspection of the evap cooler or cooling coils. These windows are rated to -20" w.g. and are constructed of heavy-gauge materials to ensure safety and durability. Two window sets are recommended, one for each side of the transition.

Superior Filter Media

If you are currently using air filters other than Donaldson, you may be sacrificing system performance. At your next outage, upgrade to premium Donaldson media such as our patented high-performance Spider-Web® or D-Salt™. These premium filters from Donaldson can offer improved turbine performance and lower maintenance costs.

PART NUMBERS

Conductivity Controller with stainless steel electrode 3/4" NPTF

61096-01	110 VAC
61096-02	220 VAC

Retrofit Kit for adding conductivity. Includes valve, piping, flow meter, couplings, clamps, etc.

89205-01	Retrofit Kit
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PART NUMBERS

For most GDx & GDS style hoods

39569	Galvanized
83768	Stainless Steel

For Composite-Filter System

80457

Lexan Window Kit Includes:

- 1) Window set with mounting frame
- 2) Installation hardware and gasket
- 3) Drawings and installation instructions



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