

Cat[®] Turbine PreCleaner



Three Times the Filter Life Means Less Maintenance Downtime

Air filter life is directly related to the amount of debris ingested through the engine air intake. Installing a Cat[®] Turbine PreCleaner as the first stage of an air intake system prevents nearly all of the heavier-than-air particles from entering the system, which results in longer air filter life, more efficient engine performance, and decreased maintenance expenses.

Benefits

Significantly lower owning and operating costs

- Lowers cost per operating hour because cleaner air means longer filter life.
- Three times filter life with a reduction in labor, parts, and downtime.

No routine maintenance requirements

- Debris is immediately ejected from the unit, no cleaning required.

Built to last

- Rugged polymer construction gives the strength of steel with the light weight of plastic.
- Sealed bearing cavity eliminates wear due to moisture or corrosion.
- No spot welds that will break over time.



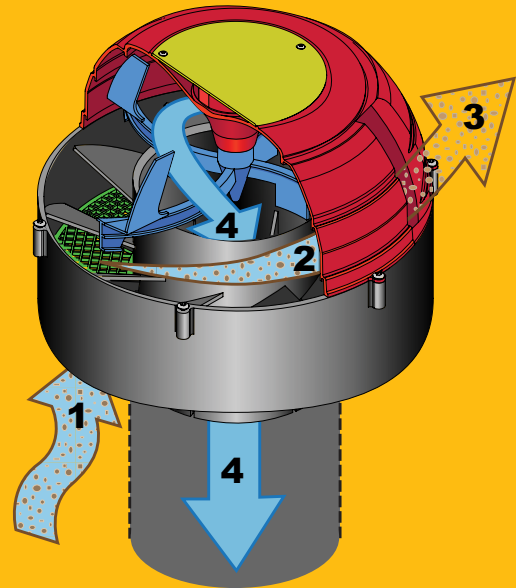
How it works:

Step 1: Air and debris pass through a prescreen on the underside, entering the unit through recessed vanes underneath the particle accelerator blades.

Step 2: The curved particle accelerator blades force air and debris into the sidewall.

Step 3: Strakes (angled fins) along the interior surface move heavier-than-air debris towards the ejection slot, where it is expelled back into the atmosphere.

Step 4: Clean air continues to spin upward until it is redirected and forced down into the engine air inlet pipe.



Features

Prescreen Eliminates Clogs – Inlet prescreen on the underside eliminates clogs and jams by preventing any debris larger than the ejection slot from entering the precleaner.

Internal Strakes (angled fins on sidewall) – catch debris in outer orbits and channel the debris horizontally to the ejection slot.

Toroidal Dome – Shape enhances separation process by preventing debris from being sucked in through the ejection port. Debris is ejected and clean air continues to rise, until the dome shape folds it and sends it into the engine air intake.

Rotor Technology – Large rotor arm cross-sectional area ensures rotor will not snap under load when impacted with mixed debris fields like wood chips, chaff, or small rocks. The rotor accelerates the airflow to improve the separation process and curved swept arms sling debris to the outer orbits of the toroidal dome.

Exclusive Sealed Bearing Cavity – Bearings are packed in a 20% grease concentration—instead of the typical 10-15% used by competitors—to allow operation in extreme cold. The bearings are protected with a labyrinth seal, an o-ring seal, and a top cap to keep debris and moisture out.

Break-away Technology – The dome is designed to break away from the base if heavily impacted by an obstacle on the jobsite. This feature prevents costly damage to the engine air intake system.

Heavy Debris Screen Kits – Kits are available for debris-laden applications, such as: Landfill, Forestry, etc.



Recommended Uses

Air Flow Range: Eight models in sizes that range from 3" to 8" to handle 50 – 1,400 Cubic Feet per Minute (CFM), and much higher CFMs with multiple-unit installations (contact your dealer for assistance).

Mounting & Equipment Types: Contact your Cat dealer for mounting options.

Recommended Uses: Construction, mining, forestry, landfills, farming, military, and more.

Debris Types: Expels all types of mixed debris, including mud, snow, rain, leaves, sawdust, chaff, dust, etc. Debris-laden applications may require an optional Heavy Debris Basket Screen.

Online Savings Calculator

Make your own cost-saving case study with the Cat Turbine PreCleaner online Savings Calculator.

www.cat.com/parts/precleaner



Enter your own data and costs to see how much time and money the Cat Turbine PreCleaner can save you each year.

Find out how quickly the precleaner will pay for itself.

Email the results to yourself or your purchasing department.

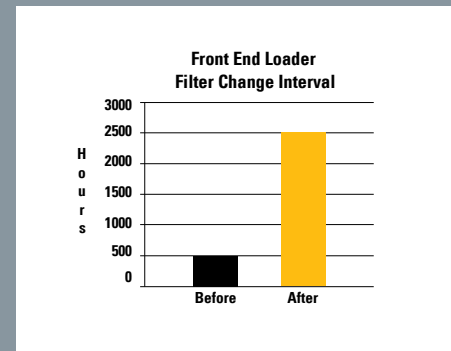
Case Studies Demonstrate At Least 3x Filter Life

5x Filter Life With Concrete Dust

Location: Ready-Mix Plant, FL
USA Machine: Medium Wheel Loader
Test Period: 5,000 hours

Before precleaner installation, filters were blown-out every 250 hours (not recommended) and changed every 500 hours in accordance with planned maintenance schedule.

After precleaner installation, only two filters were used during 5,000 hours of operation. The filters were never blown out and were only changed when the restriction gauge indicated a change was necessary.



4x Filter Life Improvement With Quarry Dust and Debris

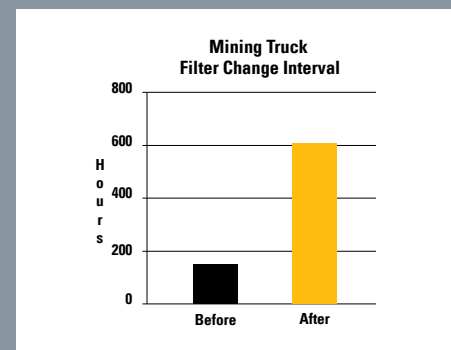
Location: Rock Quarry in England

Machine: 777D Large mining truck with dual air filters

Test Period: 2,000 operating hours

Before precleaner installation, both filters were changed every 150 hours and blown out every 60 hours. Filters were changed when the restriction light came on.

After precleaner installation, both filters were changed at 610 hours, even though there was no restriction indicated by the signal light.



Sizing Information

Air Flow Range	Part Number	Intake Size (inches)	Height (inches)	Weight (pounds)
50 – 120 CFM (1.42 - 3.40 m ³ /m)	143-7753	3	4.20	0.80
100 – 275 CFM (2.83 - 7.79 m ³ /m)	130-3279	4	6.28	2.57
275 – 350 CFM (7.79 - 9.91 m ³ /m)	070-0195	4	6.28	2.40
350 – 500 CFM (9.91 - 14.16 m ³ /m)	343-5645	5	7.90	2.00
500 – 650 CFM (14.16 - 18.41 m ³ /m)	130-3280	6	11.10	6.50
650 – 800 CFM (18.41 - 22.65 m ³ /m)	070-0107	6	11.10	6.43
800 – 1,150 CFM (22.65 - 32.56 m ³ /m)	130-3281	8	14.44	11.80
1,150 – 1,400 CFM (32.56 - 39.64 m ³ /m)	130-3282	8	14.44	11.00

Heavy Debris Screen Kit

Debris-laden applications may require the optional Landfill/Forestry Heavy Debris Basket Screen:

- 5-inch kit:** 271-0259
- 6-inch kit:** 153-1277
- 8-inch kit:** 153-1278



Field Installation Kits Make It Easy

The precleaner fits directly onto the engine air inlet pipe. Adapter kits are available if reduction, expansion, or extension is needed.



CAT DEALERS DEFINE WORLD-CLASS PRODUCT SUPPORT.

We offer you the right parts and service solutions, when and where you need them.

The Cat Dealer network of highly trained experts keeps your entire fleet up and running to maximize your equipment investment.

BUILT FOR IT.™

