In the REAL WORLD, air is contaminated with a mixture of debris in all sizes from large particles down to superfine dust, as you can see in this video clip.

When the engine is pulling in this much air, the intake is actually acting like a vacuum cleaner, sucking in air and debris from the surrounding environment.

This mixture of air and debris enters the CAT Turbine PreCleaner through a prescreen which eliminates the possibility of clogs, as nothing can enter the unit larger than the ejection slot.

Once through the prescreen, debris is immediately separated into bands by the angled louvers, as seen in this clear demonstration unit, directing it into the sidewall of the dome. Angled fins along the sidewalls, known as strakes, channel debris directly towards the ejection slot.

Only CLEAN air rises to the top of the CAT Turbine PreCleaner, where the dome's shape directs it down into the engine's intake pipe. None of the debris is going down through the pipe and air filter life is dramatically extended.

Because the debris is ejected from the unit, the CAT Turbine Precleaner is selfcleaning and requires no routine maintenance. Increasing uptime, extending filter life, and decreasing maintenance costs are all compelling cost savings reasons to utilize the CAT Turbine PreCleaner.