



AIRFLOOR®



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Airfloor® is a Registered Trademark

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FREQUENTLY ASKED QUESTIONS about AIRFLOOR® system installations

1. Please describe the basic design features of the Airfloor® system



The air distribution system is designed for optimal aeration flow, minimal blockage and simple and accurate installation. The AirFloor® was first designed and tested in 2000 in our own facilities, then placed under an aerated covered composting system in 2003, where it is still working flawlessly. We have been able to make improvements in the quality of manufacturing, and providing support to make the installation of these systems simpler for the contractors. The basic functional design of the AirFloor® has not changed. We have made the profile higher, so that the pipe is buried deeper in the concrete, we have designed support systems to allow

installation of rebar, and to support and restrain the Airfloor assembly during concrete placement, and we have improved the manufacturing and seal of the Airfloor® profile on the pipe.

The entire AirFloor® pipe is encased in concrete; there is no opportunity for breakage or air leakage, as has been the challenge with other systems.

2. Does the Airfloor® system require regular maintenance?

The need and time required to clean and maintain the air delivery/drainage system proposed is directly correlated with the moisture content of the composting blend. If the composting blend is at approximately 60% moisture or less, which is a moisture content where very little leachate develops, there is no maintenance required other than approximately 5 minutes to sweep and ensure that the holes are not plugged. Operators who have used the AirFloor® and competitors aeration floors in the same facility have found that the cleaning time between batches is faster with the AirFloor®, than with the competitor's aeration floors.



3. How is air-hole blockage avoided?

Potential blockage of holes is minimized by: (a) ensuring that the moisture content of the mix does not generate extensive amounts of leachate, and (b) using a small layer of bulking agent as a base to ensure that fine particles will not block the holes. We have operators who do not use the layer of bulking agent, who only provide a proper mix for composting, who have little concern with whole blockage.

The patented AirFloor® is designed in such a way that the narrowest point of the system is at the floor surface. This means that if organic material enters the hole, it drops immediately through to the base of the 4" or 6" pipe, where it can be flushed away, or the force of the air will direct it to the drainage end.



4. How is the Airfloor® system cleaned?

If the aeration pipe does require cleaning, it is as simple as putting a pressure line on the blower end of the pipe and flushing the lines. This could take 5-10 minutes per line. We can also provide automated flushing systems for the pipes.

5. How does the leachate drainage system work?

The drainage system is at the opposite end of the pipe from the aeration blower and consists of (a) the natural slope of the floor directing moisture towards the drainage end, (b) natural "pushing" of moisture by the aeration blower towards the drainage end, and (c) an Airlock that ensures that air pressure is maintained in the pipe without losing it through the drainage system. There is no opportunity for blockage in this airlock system as it consists only of a drainage elbow and downspout with the discharge below 10-12" of water. All of the drains are connected vertically to ensure that the proper level of water is maintained, and that any leachate is removed to a central tank or collection area. Each of these drainage pits or airlocks have a manhole or access cover / clean-out that allow cleaning as required.

6. Does the Airfloor® system work in biosolids composting facilities?

We have been working with biosolids for more than 15 years, and have developed equipment to properly and rapidly blend the material to prepare it for composting (we have mixing systems that will do 150 tonnes per hour), aeration systems to properly compost the material, and aeration control systems that provide accurate and user friendly control of the composting process (our beta version of the control system was installed in a biosolids compost facility in 2004, has never failed or even had a "bug"). We are constantly working with the industry to provide better technology and processes to reduce the cost and improve the efficiency of the composting process.

7. Is the Airfloor strip material affected by UV exposure, or damaged by loaders during cold temperatures?

The Airfloor riser strip is extruded from virgin PVC material and has proven to be very resistant to the temperature changes due to climatic conditions and from the heat generated by the composting process. Only the very top of the narrow Airfloor strip is potentially exposed to sunlight, and residue from normal composting operations effectively screens it from direct exposure. The exposed Airfloor® strip when installed in the concrete slab is slightly below the top surface of the concrete, and it does not come directly in contact with loading equipment.

