

Contaminant/Volatile Drying System Filtration

Conair's Volatile Traps, sometimes referred to as Plasticizer traps or Demisters, are a solution for processors who find that they are dealing with a significant amount of volatiles or contaminants when they dry plastic resin. Often, these volatiles come from recycled resin, like RPET, and post consumer regrinds, however, it is possible that some virgin resins may also have plasticizers or additives that escape during the drying process. Capturing contaminants ensures your desiccant and drying system performs efficiently and effectively 24/7/365.

The Volatile Trap is installed on the return line of the drying system and filters out contaminants exiting the drying hopper. The hot return line air is exposed to the Demister cooling coils, and volatiles are expunged from the air and easily drained from the system.



Volatile Trap/
Demister
Model VT2

Compatible with new or existing drying systems

Even though the popularity and knowledge of demisters and volatile traps has significantly increased over the past few years (due to more processors utilizing recycled materials), Conair has been manufacturing and selling Volatile Traps for decades.

Conair's Volatile Traps are designed for long life and simple use in industrial applications.

The Volatile Traps are sized to provide the right amount of filtering for the size of the drying system.

The Volatile Trap extends desiccant life and performance, while filtering contaminants and volatile gases before they enter the dryer. The Volatile Trap is a necessary component for any drying system processing material that tends to transfer gases and other contaminants into the dryer.

Options include: Flexible or Jacobs ducting connections, line size reducers, and bypass pipe kit.

► Retrofittable

The Volatile Trap is great for use with new installations as well as existing systems. All that is required is to match the airflow rate with the proper model size and account for proper line size connections. Your Conair representative can help you properly size a Demister/Volatile Trap for your application.

► Extends desiccant life and performance

Volatiles can be small enough to be adsorbed within the desiccant wheel, and may not be totally removed during the regeneration cycle. This limits the desiccant performance and can reduce desiccant life. By filtering, condensing, and capturing volatile gases before they enter the dryer, the Volatile Trap can reduce maintenance costs and increase uptime.

► No moving parts

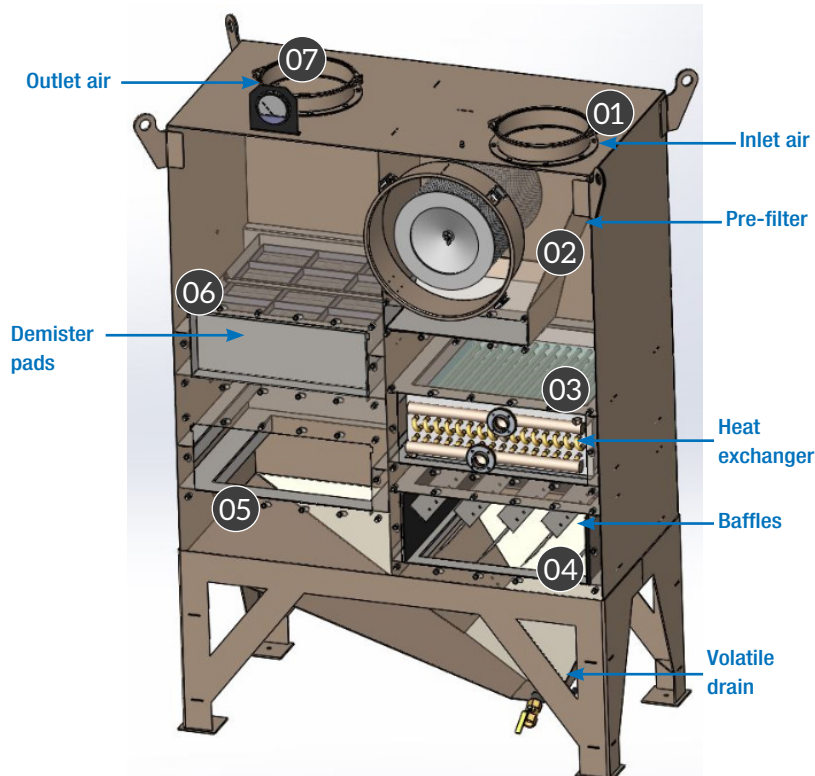
Aside from a water connection, the Volatile Trap requires no other utilities and has no moving parts. Ease of use and quick payoff in a simple-to-install, easy to maintain, highly beneficial package.

► Simple maintenance

The on-board pleated filter is used as a last stop for dust and fines before air enters the cooling coils. This ensures better heat transfer for the gases. The cooling coils and demister pads can be easily removed and cleaned as needed. Any volatiles that condense into liquid are easily drained from the system using a drain valve below the reservoir - both integrated into the Volatile Trap housing.



How it Works



Volatile Trap / Demister

Step 1: Warm air from the drying hopper return enters the inlet of the Volatile trap.

Step 2: This air is pre-filtered to remove fine dust from the air stream.

Step 3: Air is passed over a cooling coil to condense volatiles into a liquid, oil, or solid.

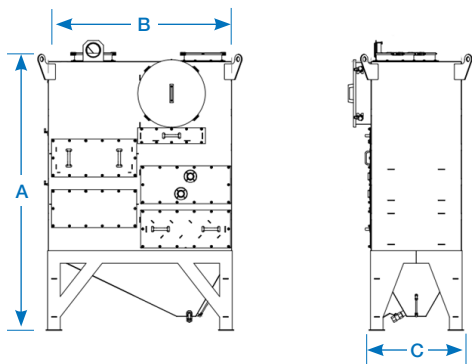
Step 4: Cold air is passed through a series of baffles which causes the condensate to drop out into the volatile catch basin. This condensate typically looks like and has the consistency of an oil.

Step 5: Air is redirected and velocity increased so that any additional heavy condensate will drop out of the air stream.

Step 6: Air is passed through the demister scrubbing filters to remove any fine oils and condensation that remains.

Step 7: Cleaned and filtered air exits the outlet of the Volatile trap and returns to the drying cycle.

Specifications



Model	VT1	VT2	VT3
Performance characteristics			
Compatible Conair D or W Series Dryers*	600-1000	1300-2400	3200-5000
Airflow Compatibility (maximum CFM)	500	1200	2500
Inlet/Outlet size OD in {mm}	8.0 {203.2}	12.0 {304.8}	12.0 {304.8}
Dimensions inches {mm}			
A - Overall Height	86.8 {2204}	89.5 {2273}	100.6 {2555}
B - Width	34.3 {871}	58.0 {1473}	64.3 {1633}
C - Depth	28.5 {724}	30.0 {762}	36.0 {914}
Drain connection	Contact Conair		
Approximate weight lb {kg}			
Shipping	1600 {726}	1700 {771}	1900 {862}
Water requirements			
Water temperature	45-85°F {7-29°C}		
Water flow gpm	6-25	12-40	15-50
Water connections	1.5-inch NPT		

Specification Notes

* Conair's D Series 600-5000 and W Series 600-5000 dryers are all compatible with these Volatile Traps. If you have an older dryer, or a dryer from another brand, please contact Conair to determine the best Volatile Trap for your process/application.

Some volatiles may not be condensable. Effectiveness of the Volatile Trap is dependent on off-gasses being condensable within the temperature range of the coil.

Specifications may change without notice. Consult with a Conair representative for the most current information.

