EVASSER BIN AERATOR

FEATURES & ADVANTAGES

- Fluidizes materials in vessels to maximize and maintain flowability by introducing air into stored materials.
- Versatile, compact design capable of aerating many types of bulk powders and granular solids in bins, hoppers, silos, etc.
- Low cost with virtually no maintenance due to no moving parts or filters to clean / replace.
- No damaging vibration or noise caused by pneumatic or electric vibrators.
- External mounting available for ease of installation without entering the vessel.
- Available in cast iron or 316 stainless steel to fit appropriate applications.
- Typical effective radius of 12 inches (305mm) allows air to “sweep” the bin wall.

PRINCIPLE OF OPERATION

The single Evasser bin aerator operates by continuously introducing air into a mass of stored powder. When first conveyed into a storage vessel, the powder is a highly aerated mixture of air and particulate. In this state, the mixture flows quite easily. As the material settles, the particulate and air separate. The material decreases in volume and increases in density (it packs), and in turn it begins to behave like one solid mass rather than a fluid mixture of particles. The Evasser replaces the naturally lost air and increases and maintains the air-to-particulate mixture ratio, thus allowing the material to flow.

The Evasser can discharge air up to 80 psi (5.5 bar) to move settled materials. Once material is fl owing the Evasser can be used to maintain flowability of material with a constant 2 to 5 psi (0.14 to 0.35 bar) supply of air. Unlike other types of aerators that use cotton or canvas to diff use the air, the Evasser is less likely to be bound or clogged due to moisture and can be more effective as it directs air fl ow to “sweep” the bin wall. In addition, the Evasser is not as prone to back-fl ow of material as the standard neoprene boot expands to let the pressurized air out and contracts when the air is shut off blocking the air outlets from material backflow.

PRACTICAL APPLICATIONS

- Use to promote the fl ow of dry bulk powders from storage vessels without the noise and damaging vibration caused by pneumatic or electric vibrators.
- Most effective aeration of dry bulk materials is typically achieved by the use of four rows of Evassers, one row located in each quadrant of the sloping bin bottom.
- To aerate dry powders the Evassers will normally be spaced 18” on centers, with the lowermost units located close to the outlet where most of the bridging starts.
- For granular materials the location of the Evassers will vary with the material being aerated and the configuration of the bin. Please consult with the Monitor application engineers to verify the best recommendation for your specific material flow situation.
- Typical target materials include but are not limited to: cement, bentonite, gypsum, soda ash, lime, fl our, carbon black, fl y ash and more.

OPTIONS

- Choice of cast iron or 316 Stainless Steel for evasser construction.
- Standard black Neoprene boot or optional FDA approved white boot.
- For high pressure or high temperature applications a sintered metal insert can be provided.
- Available with or without an external mounting plate.

AIRMATIC® WE'LL HANDLE IT.

MONITOR TECHNOLOGIES LLC

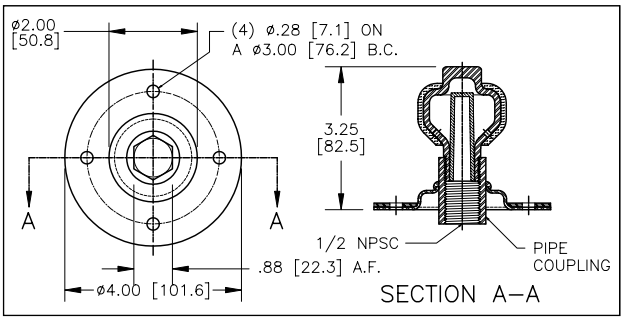
EVASSER BIN AERATOR

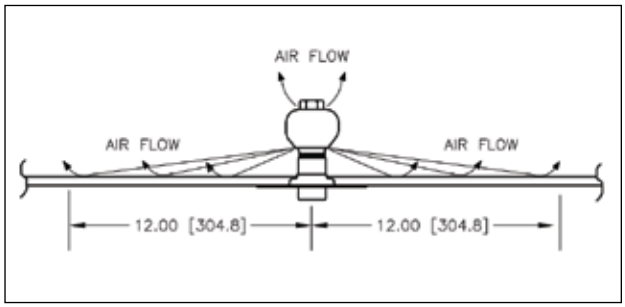
SPECIFICATIONS

Air Supply/Configuration: **Air Supply:** **Air Consumption:**	**Continuous clean, dry air 3 to 5 psid (0.2 to 0.35 bar) (the difference between the air feed pressure and the internal vessel pressure)** **Typically 3psi (0.2 bar) / 3scfm (0.085m3/min)**
AZConstruction: **Body:** **Mounting Plate (opt.)** **Gasket (mounting plate):** **Boot (standard):** **Boot (optional FDA):** **Sintered Metal Insert:**	**Cast iron (Option 1, 1A, 3 and 3A); 316 stainless steel (Option 1SS, 1ASS, 3SS and 3ASS)** **Mild steel (Option 3, 3A); 316 stainless steel (Option 3SS, and 3ASS)** **Cork (up to 175°F/80°C) for mild steel mounting plate; White Nitrile (up to 175°F/80°C) for stain-less steel mounting plate** **Black Neoprene (up to 175°F/80°C)** **White EPDM (up to 175°F/80°C)** **Bronze 90 micron (up to 900°F/480°C or 40 (optional) micron filter for extra fine materials (up to 900°F/480°C)**
Air Inlet Connection:	**1/2" NPT coupling**

SENSOR MECHANICALS

DIMENSIONS ARE SHOWN IN INCHES WITH MILLIMETER EQUIVALENT IN BRACKETS





Installation Example

ORDERING INFORMATION

Part #	Description
8-8009	Option 1, single cast iron Evasser with black boot
8-8018	Option 1A, single cast iron Evasser with sintered bronze 90 micron insert
8-8048	Option 1C, single cast iron Evasser with sintered bronze 40 micron insert
8-8021	Option 1SS, single 316 stainless steel Evasser with FDA white boot
8-8011	Option 3, single cast iron Evasser with black boot and steel mounting plate
8-8016*	Option 3A, single cast iron Evasser with sintered bronze 90 micron insert and steel mounting plate
8-8020	Option 3SS, single 316 stainless steel Evasser with FDA white boot and stainless steel mounting plate
8-8022	Single SS evasser, 40 micron fltr insert,1/2" NPT
8-8025	Single cast iron evasser w/black boot, 90 micron fltr insert, 1/2" NPT
8-8026	Single cast iron evasser w/black boot, 90 micron fltr insert & mtg. plate
8-8027	Single cast iron evasser w/FDA white boot, 90 micron fltr insert & mtg. plate
8-8037	Option 3B, cast iron evasser w/FDA white boot
8-8039	Option 3BB, cast iron evasser w/FDA white boot and mild steel mounting plate

*Assemblies also available with 40 micron filter insert for finer materials. Please consult factory.