CONVEYOR COMPONENTS COMPANY

130 Seltzer Road, PO Box 167 • Croswell, MI 48422 USA
PHONE: (810) 679-4211 • TOLL FREE (800) 233-3233 • FAX: (810) 679-4510
Email: info@conveyorcomponents.com • http://www.conveyorcomponents.com

MODEL AD BIN AERATOR

Introduction:
The Model AD Aerators provide positive flow of dry, finely ground materials from any bin using the proven principle of aeration.

Low-pressure air is introduced into the product, restoring its natural ability to flow. In this way, congestion, bridging and rat holing are overcome without resorting to brute force. Almost all flow problems inherent to dry, fine materials are caused by compaction. When low-pressure air is introduced into a finely ground material, it will flow like water – uniformly and quickly.

Model AD Aerators are non-clogging and provide equal distribution and consumption of air. They feature simple and quick installation: simply drill a 7/16” hole in the bin wall, insert the special tank nipple through the hole and secure with the lock nut.

Materials Responding to Aeration:
Aeration gives the best results on materials with a 60 mesh size or smaller and a 3% or less moisture content. Specific materials that respond well to aeration are: lime, Portland cement, carbon black, diatomaceous earth, flour, soda ash, gypsum, fly ash, pigments, soap powders, bentonite, bran, clay, cereals, fullers earth, detergents, and many others. For questionable materials, please contact or sales department.

Models:

AD-C	Zinc plated steel body with galvanized steel mesh and cotton diffuser. Includes brass tank nipple and locknut, with spacer washers and rubber gasket.
AD-F	Same as AD-C, except with fiberglass diffuser, recommended when material temperatures exceed 200°F.
AD-SSC	T316 stainless steel body with stainless steel mesh and cotton diffuser. Includes nickel-plated brass tank nipple and locknut, with spacer washers and rubber gasket.
AD-SSF	Same as AD-SSC except with fiberglass diffuser.
AD-K	Optional mounting kit includes two positive sealing gaskets, adapter, and clamp. Use with any of the above models when mounting from outside of the bin.

Aerator Selection:
For best results, locate lower aerators as close to the discharge outlet as possible. If material is held in the bin for long periods and/or compacted in transport, we recommend aerators be installed on 12" centers.

Aerators on 12" Centers		Aerators on 15" Centers	
Length of Sloping Bin Wall	Number of Aerators Per Row	Length of Sloping Bin Wall	Number of Aerators Per Row
1' 8" – 2' 7"	2	1' 11" – 3' 1"	2
2' 8" – 3' 7"	3	3' 2" – 4' 4"	3
3' 8" – 4' 7"	4	4' 5" – 5' 7"	4
4' 8" – 5' 7"	5	5' 8" – 6' 10"	5
5' 8" – 6' 7"	6	6' 11" – 8' 1"	6
6' 8" – 7' 7"	7	8' 2" – 9' 4"	7
7' 8" – 8' 7"	8	9' 5" – 10' 7"	8
8' 8" – 9' 7"	9	10' 8" – 11' 10"	9
9' 8" – 10' 7"	10	11' 11" – 13' 1"	10

Generally, four rows of aerators on 12" or 15" centers are recommended. On conical bins, these rows are spaced equally. On pyramidal bins, rows are spaced equally on sloping sides or in valleys if material tends to hang up in these valleys.

Air Supply:
Air supply must be clean and dry. We recommend positive displacement, low-pressure blowers. Plant air can be used, but the pressure must be reduced to 3-5 psi, and a filter or moisture trap used on the low-pressure side. The volume of air needed is a limiting factor on the use of plant air.

Manifold Piping Size Guide		Air Consumption Guide per Aerator	
Piping Size	Number of Aerators in a Row	Air Pressure, psi	Cubic Feet Per Minute
3/4"	1-5	1	4.2
		2	5.7
1"	6-9	*3	6.5
		4	7.1
1-1/4"	10-12	5	7.6
		*Recommended for most applications	

Installation:
Drill 7/16" holes through bin wall on predetermined centers (12" or 15" or customer's preference). Insert special tank nipple through hole and lock into place with locknut. Rubber gasket and spacer washers are furnished.

Figure 1: Typical Layouts

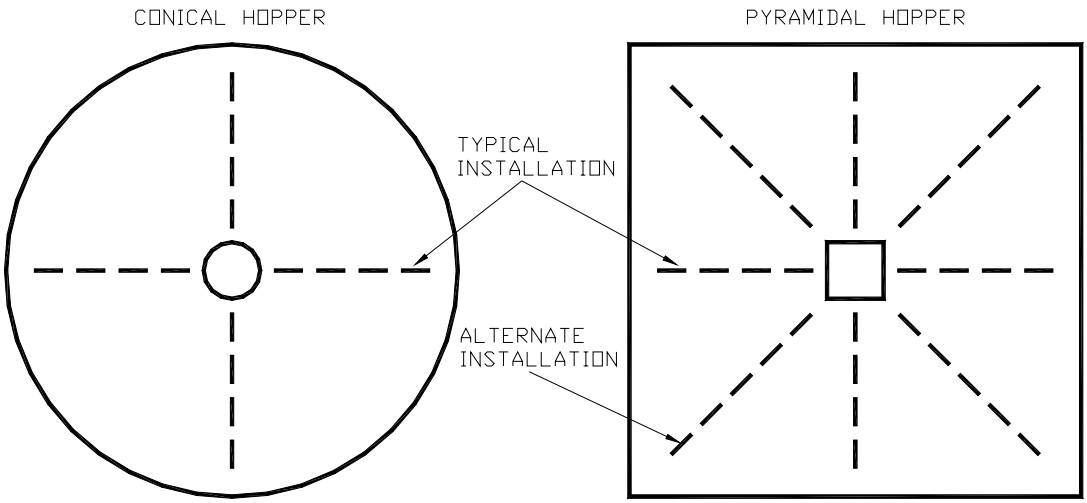

Figure 2: Model AD Aerator Installed