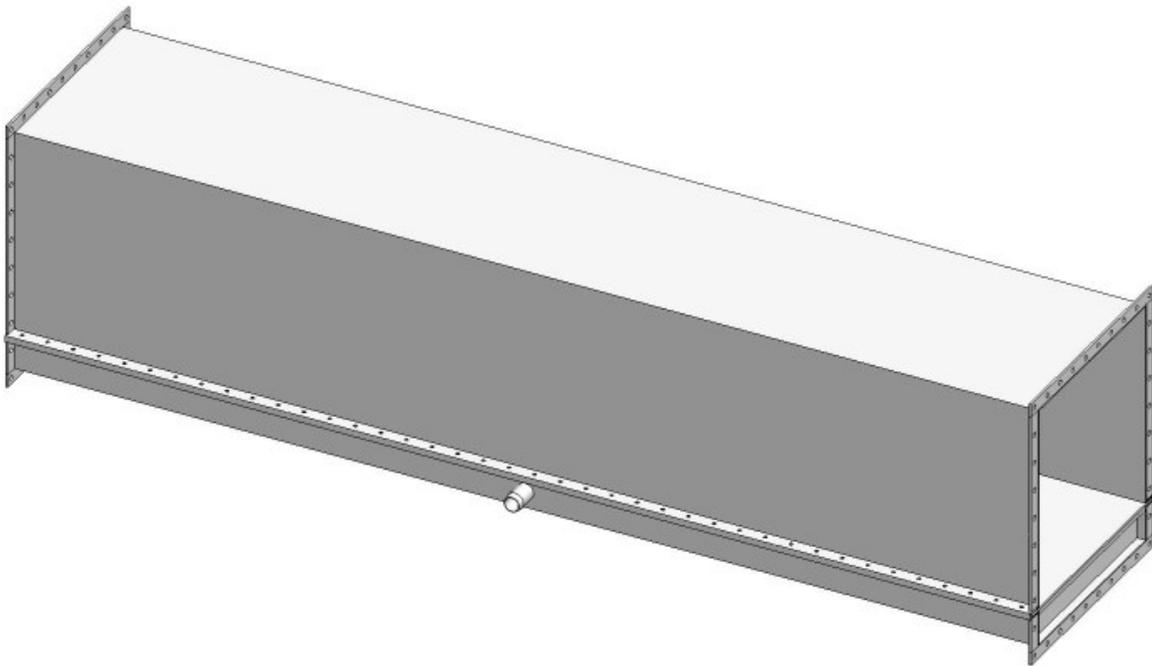




## **Air Slide Conveyor Systems**



W.G. Benjey's air slide conveyor systems will quickly and efficiently convey powdered materials such as raw and finished cement, fly ash, and precipitator dust. The simple combination of air pressure and gravity allows powdered materials to flow like a fluid. Air slide conveyors are very efficient and quiet. And with no moving parts, these conveyors are also extremely cost effective and require very little maintenance.

## **THE CONCEPT OF FLUIDIZATION:**

Fluidizing solid materials is the method of introducing pressurized air into the material, which causes the particles to separate and move. Once the particles are separated by these small gaps of air, the amount of friction between them is greatly reduced, and this allows the solid material to flow as if it were a fluid.

## **MATERIAL CHARACTERISTICS:**

Most powdered and small grain materials can be fluidized and moved using an air slide conveyor. The basic requirements are that the material is dry and consistent, meaning no lumps or large particles. The particle size must be similar to table salt (500 microns) or smaller. Particles larger than that will have trouble being fluidized.



## **FLUIDIZING FABRIC:**

The fabric we typically use for our air slide conveyors is a woven polyester, 6mm thick. This material works well for all common conveyor environments and situations. Should your conveyor need to run through harsh environments (namely high temperature) we will determine if a different fabric will need to be used.

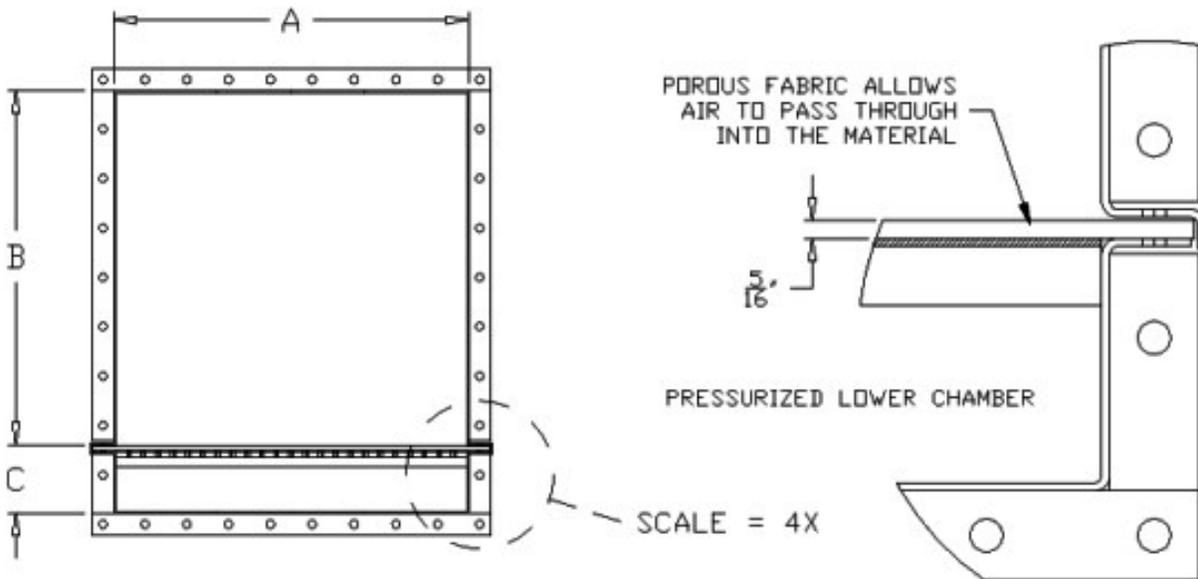
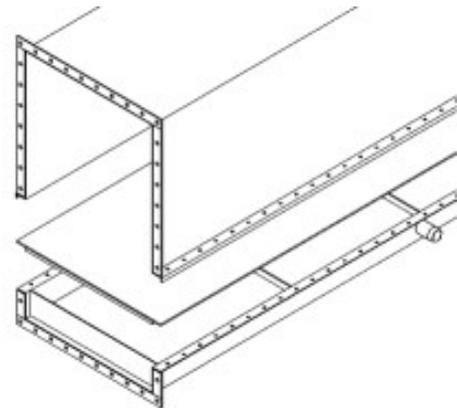


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**SPECIFICATIONS AND FEATURES:**

Upper and lower bodies are formed from 10 gage steel, with 1/4" steel end flanges. Maximum section length is 12'. Each section is independently pressurized and requires only a single air inlet.

- Flow regulation through air pressure regulation
- Extremely quiet operation
- Low maintenance, no moving parts



Type	Maximum Capacity	"A" (in.)	"B" (in.)	"C" (in.)
WGB-AS6	1200 cu.ft./hr.	6	7-7/8	4-5/8
WGB-AS12	7620 cu.ft./hr.	12	15-3/4	4-5/8
WGB-AS24	56000 cu.ft./hr.	24	23-5/8	4-5/8

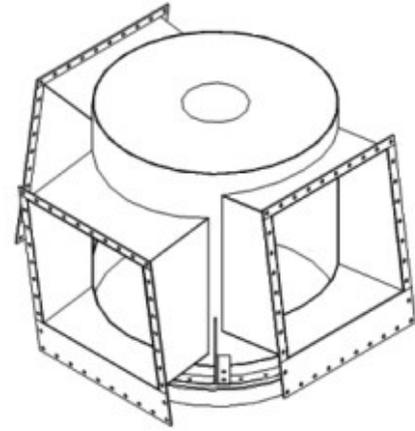
**\*\*This chart lists three standard sizes, however WGB offers air slides in virtually any size in-between. We build to your needs.**



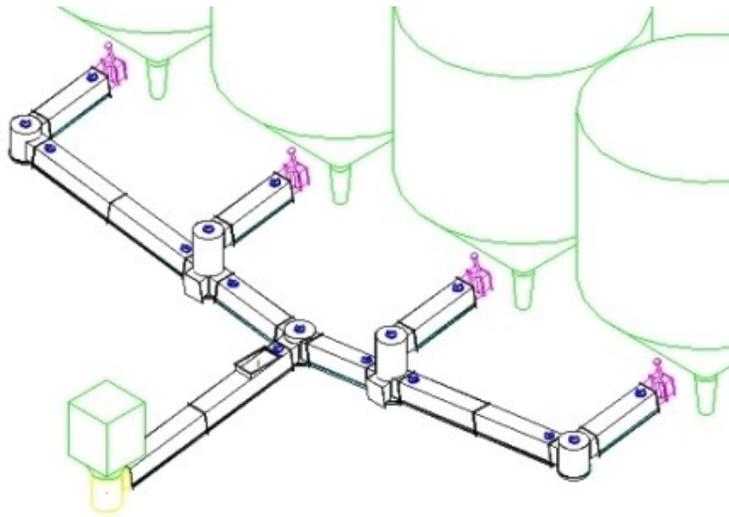
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## **SYSTEM DESIGN:**

Air slide conveyors can be used in a single straight run, but are equally as effective when used in large systems. Through the use of turn boxes, conveyors can easily change directions, merge, or split without the need for powered conveyors or diverters. Manual or powered shut off gates can be integrated into any point of the system to control flow.



The maximum range of the conveyors are limited only by the height of the source. Conveyors require a minimum of a 5 degree drop angle to function properly. A 10 degree angle is recommended for most applications. For every 20 ft of horizontal run, a 10 degree conveyor will drop 3 and a half feet.



Air slide conveyors also utilize traditional conveyor components such as diverter gates, flow controls, shut-off gates, and discharge chutes. Air slide technology can also be applied to your existing or newly manufactured storage bins.



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