

Ten Years of Conveying Service - With No Maintenance

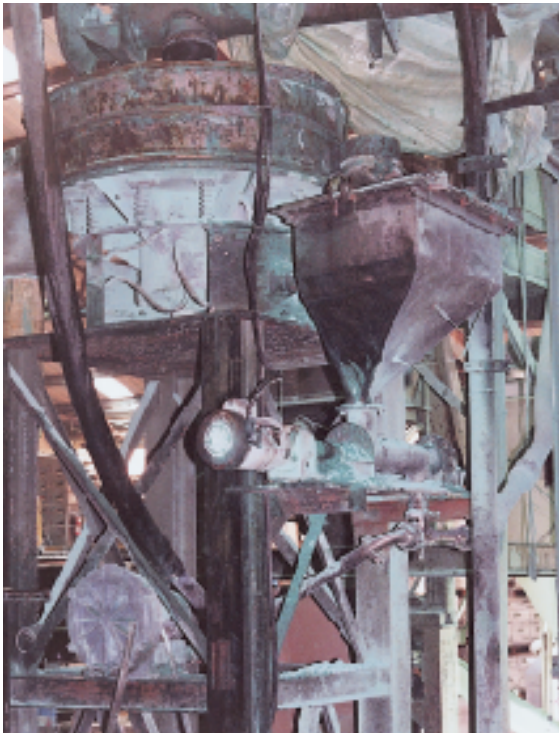
The pneumatic conveying specialists of **Fox Valve** were recently able to photograph a Fox eductor/blower conveying system that was installed ten years ago, and which, with no maintenance, has been in continuous service in a metal reclaim facility in New Jersey, USA.

Fox venturi eductors have been used for over thirty five years to transport powders with no moving parts. For about fifteen years, Fox Valve has been utilizing small side-channel blowers to provide the conveying air to their eductors.

These blowers require no maintenance are very quiet - requiring no special noise abatement - and are so small that they can be located very near the outlet of conveyed product. This is very different from conventional positive displacement (p-d) blowers, which typically

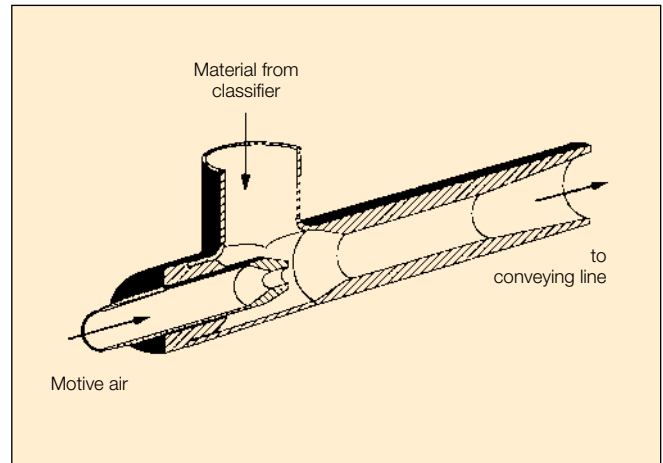
- a) require regular lubrication and maintenance,
- b) noise control accessories, such as silencers, mufflers, if not an entire acoustic enclosure, and
- c) take up substantial floor space and are often located away from process equipment.

In the first photo, we can see an overview of the installation. Note that the blower, shown in the lower left corner, is so small that it is mounted on a cross beam - taking up zero floor space.



General view of the installation

It is connected with rigid tubing to a 3" Fox eductor, which is mounted beneath a screw conveyor, which handles the output from a large classifier.



Cross section of a venturi eductor

The Fox equipment - the Rotron blower and venturi eductor, were installed in 1987 and have been in continuous service transporting copper sulfate - the bluish colored powder - for over ten years. Plant operators report this equipment has needed no maintenance - except for occasional replacement of filter elements on the blower.

The second photo shows a close-up of the Fox eductor after ten years of pneumatically handling and conveying copper sulfate from a screw conveyor.



Close-up of the eductor

If the plant operators had, instead of the Fox approach, used an airlock driven by a p-d blower, that equipment would have required much more space, required an additional motor starter, taken up more plant floor space, and - would it work, without any maintenance for ten years?

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