

FLUIDIZATION NOZZLE

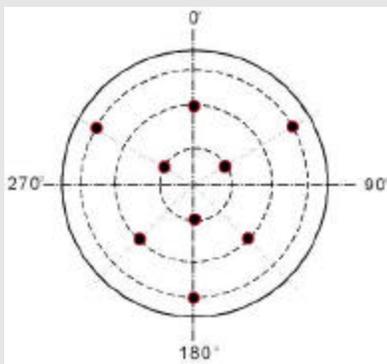
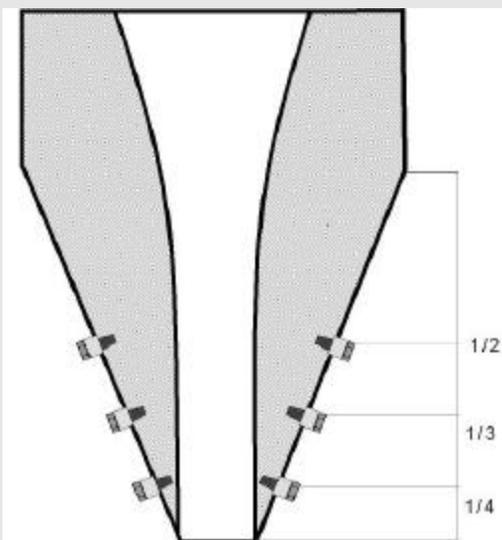
The Powtek **U-2** Fluidization Nozzle is used to aid the flow of product out of bins and silos.

It is fast and easy to install - just drill a hole, weld a bushing and insert the nozzle.

With the Powtek nozzle the installation and maintenance is made from the outside. The operator does not need to get inside the silo.



Installation Layout



How it works

By adding air to the powder inside the silo's cone the friction between the wall and the product is reduced enhancing a more balanced material discharge.

Since the entire body is made of carbon steel, it can be extracted and applied again as many times as necessary as opposed to other models on the market made of plastic that can only be cleaned once or twice.

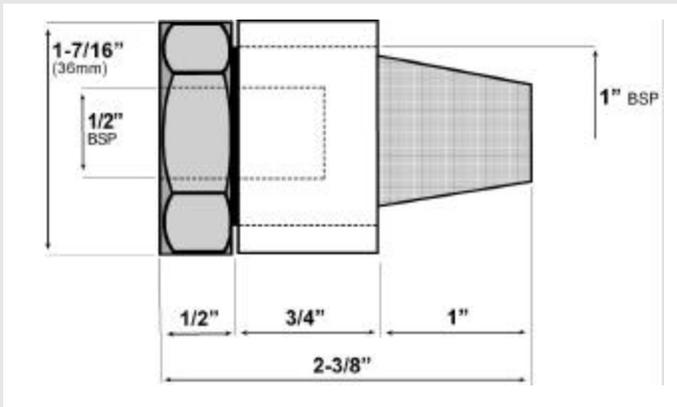
The number of nozzles to be used depends on the size of the cone. Nozzles are usually applied in rows of 3.

The operation cycle can be:

- continuous** with a constant flow of air at 5 psi
 - intermittent** using higher 10-20 psi air pressure.
- In this case a timer and a solenoid valve are required.



Dimensions



HOW TO INSTALL

1. Drill a 1-7/16" diameter hole on bin's cone.
2. Insert bushing in the hole so that the edge of the bushing is aligned with the inside wall.
3. Weld bushing to the bin's wall.
4. Insert nozzle.
5. Insert air fitting.

AIR FITTINGS OPTIONS

SINGLE: Barbed 1/2" (12mm) x Male Pipe 1/2 BSP

TEES: 2 x Barbed 1/2"(12mm) x Male Pipe 1/2 BSP

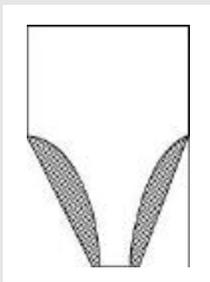
TECHNICAL SPECS

Pressure	2 to 5 PSI
Air Consumption	0.1 cfm at 5 PSI
Weight	10 Ounces
Housing	Nickel Coated Carbon Steel
Bushing construction	Carbon Steel
Exhaust port material	Bronze Alloy
Inlet air port size	1/2" BSP

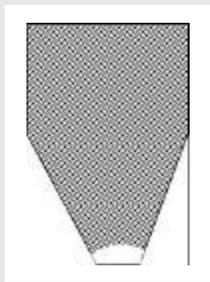
AIR NOZZLES or VIBRATORS?

There are many **products** that do not respond well to vibration. Since they are **highly compactible**, if vibrated, the discharge is inhibited. By making the material more fluid and without any shaking, aerators are much more capable of achieving a better flow.

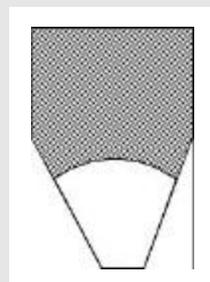
COMMON BIN PROBLEMS WITHOUT FLUIDIZATION



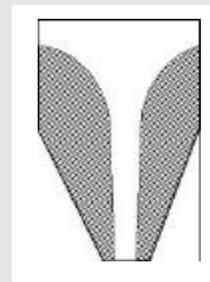
Clinging



Bridging



Arching



Ratholing

POWTEK

3060 BRISTOL ROAD - SUITE 236 BENSLEM, PA 19020
 PH: 215-752-9901 FAX: 215-702-1607
powtek@powtek.us www.powtek.us