



# WHITLOCK-MATERIAL HANDLING

## POWDRPUMP SERIES DENSE PHASE CONVEYOR



**MODEL 31S  
(STAINLESS STEEL)**

AEC's PowdrPump™ conveyor is a low velocity, pneumatic conveying system designed to move a wide variety of difficult powdered materials cleanly and efficiently. The finer the powder, the more effectively it works. Powered by compressed air, the conveyor moves large volumes of powder — up to 25 cu. ft./hr. with the 1" model and up to 100 cu. ft./hr. with the 2" model — at distances up to 200 feet. For applications requiring greater conveying rates, multiple units may be operated in sequence.

The PowdrPump™ operates on very low volumes of compressed air at supply pressures of 60-80 psig. Conveying air pressures vary between 25-80 psig, depending upon the conveying characteristics of particular powders.

### Trouble-Free Operation

The conveying sequence begins when the material valve opens to allow powder to flow by gravity into a pressurizing chamber. The valve closes and injected compressed air pumps the powder, pushing it through the conveying line. This sequence is automatically repeated to "pump" the powder to its end use point.

Four easy-to-operate timers control the conveying rate of the PowdrPump™ by varying the time for material filling and unloading of the pressurizing chamber. The proper setting of these controls is determined by the conveying characteristics of the particular powder and the rate and distance required for the application.

The PowdrPump™ utilizes small amounts of compressed air, which makes it economically feasible to use inert gas in hygroscopic and explosive material applications. Plus, low conveying air velocity (1200-2000 ft./min.) creates minimal dusting of conveyed powders, minimal material degradation and no need for exotic conveying lines to resist premature abrasion and wear.

The PowdrPump's low maintenance design features the air piston and material valve as the only moving parts. This virtually eliminates the replacement of worn or failed components. Plus, lubrication or special tools are not required for normal periodic maintenance.



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**WHITLOCK/  
MATERIAL  
HANDLING**



**HEAT & COOL**



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**DOWNSTREAM  
EXTRUSION**



**AUTOMATE**



**SYSTEMS  
CONTRACTING**



**SERVICE**



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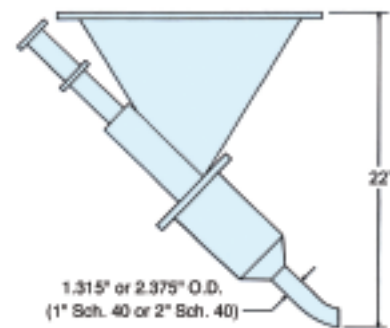
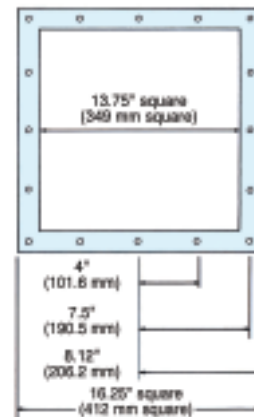
**BDS-7 BAG DUMP STATION**  
(with dust collection option)

### PowdrPump™ Features

- Epoxy-coated, mild steel construction
- Minimal moving parts
- No lubrication or special tools required for maintenance
- Simple-to-operate controls to regulate powder conveying rate
- Small conveying air requirement makes it economically feasible to use inert gas in hygroscopic and explosive material applications
- Low conveying air velocity creates minimal dusting of conveyed powders and eliminates material degradation
- Slugs of materials are conveyed rather than individual particles so mixes are kept intact

### Options

- Fluidizing pads
- Stainless steel construction
- 7-cubic-foot bag dump station
- Polished interior surfaces for sanitary applications
- NEMA 4 electric panel and solenoids



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