

# PNEUMATIC AND FLUIDIZED PNEUMATIC OUTLET

Models 5131/5231 and 5134/5234



## Preparing Car for Return Transit

1. Shut off the vacuum system and the fluidizing system on Models 5134/5234.
2. Remove the hatch filters, check inside of the car to ascertain that the unloading is complete. Close the hatch and secure it in the closed position.
3. Disconnect the conveying hose from the discharge nozzle and fluidizing air line on Models 5134/5234.
4. Remove filter on the side of the car opposite the vacuum connection.
5. After making certain that the valve is in the closed position, apply caps to both discharge nozzles and secure. For Models 5134/5234, screw on the fluidizing air inlet cap.

## Special Note: Interrupted Unloading

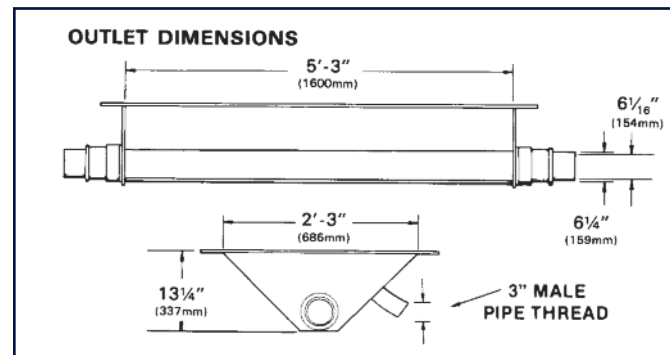
If unloading is to be discontinued before the compartment is empty, rotate the end adapter handles to the "closed" position. Allow the vacuum system to run for a short period (2 minutes) to clear product from the bottom of the control valve.

## Fluidizing operation, Models 5134/5234

400 cfm at 6 psi.

The stainless steel membrane cleans up easily with soap, water or stronger chemicals without harm.

The fluidizing membranes are located directly adjacent to the location where the material enters the pneumatic air stream to eliminate slugging of the unloading system. The unloading rate can be accurately controlled from either side of the outlet and, if desired, the fluidizing system may be utilized to pre-dry lading by introducing warm air through the system.



 SMBC RAIL SERVICES

# PNEUMATIC AND FLUIDIZED PNEUMATIC OUTLET MODELS 5131/5231 AND 5134/5234

Adjustable Pneumatic Outlet Models 5131/5231 are designed to provide easy and complete clean-out without disassembly; optimum flow control for pellets and powders; easier operation because of reduced torque requirements; an improved locking device for the end caps; high-strength handles; and the provision for product sampling from either side of the outlet. Air supply requirements for light commodities are 150 cfm at 3 psi and for dense commodities

Fluidized Adjustable Pneumatic Outlet Models 5134/5234 are designed to quickly and easily unload the tough powders that tend to bridge and column during discharge. The system introduces low pressure air through the permeable stainless steel outlet slope sheets, fluidizing the lading so it flows freely to the outlet opening. The outlet also offers the flexibility of unloading free flowing materials without using fluidizing air.

## Operating instructions

### PREPARATORY STEPS

1. Open at least one hatch on the hopper being unloaded to avoid the risk of vacuum damaging the car. If filtered air is required, attach filters to the open hatches.
2. Remove the caps from both sides of the outlet. The flow control tube cannot be rotated unless both caps are removed. If required, attach a filter to the nozzle or return air supply opposite the one used for vacuum connection.
3. Connect the pneumatic line to the nozzle using a sliding joint which will allow rotation of the control valve during unloading.
4. Support the pneumatic line adjacent to the nozzle connection to avoid excess friction when the control valve is rotated. If a large, heavy air filter is used on the other side, it should also be supported.
5. Connect the fluidizing air line to the special inlet after removing the protective cap. (Models 5134/5234 only)
6. Start the pneumatic system.
7. Start the fluidizing system. (Models 5134/5234)
8. Open the control valve to the desired flow rate.

#### NOTE:

If the vacuum system is to be cycled on and off or if readily fluidized products are being unloaded, there may be a tendency for materials to flow out of the air inlet side of the control valve. To prevent this, a small chimney or damper valve may be installed.

### UNLOADING OPERATIONS

1. Initially the outlet will be in the "closed" position with the center arrow in line with the "closed" position indicator.
2. Rotate the control handle in a counterclockwise direction until desired flow rate is achieved. Most of the lading in the compartment will be unloaded with the valve in this position (photo 1).

### CLEAN-OUT OPERATIONS

1. After the flow of material stops (indicated by a sharp decrease in vacuum), rotate the

- control handle counterclockwise until material flow starts again. Continue operation until material flow ceases (photo 1).
2. Rotate the control handle clockwise until material flow starts. Continue clockwise rotation until the desired material-to-air ratio is achieved. This is best determined by listening for the proper sound of material flow (photo 2).
3. When material flow ceases, rotate the control handle clockwise to the full "open" position.
4. To complete clean-out, rotate the control handle wide open alternately clockwise and counterclockwise several times, pausing several seconds each time at the "closed" position so the vacuum will clear the tube.
5. Return the control handle to the "closed" position (photo 3).

