

Easy Unloading

The Pressureaide® car is designed for ease in unloading, requiring only one person to hookup and unload. A single hose is required for total pressurization of the car and only one line is needed for product discharge. The hatches remain closed during unloading, keeping the lading dry and sanitary. Each hopper features approximately 14 square feet of fluidizing area for initiating and maintaining flow while providing complete cleanout. The membranes are made of a durable low cost cloth which is easy to remove and replace.

OPERATING INSTRUCTIONS

NOTE: Before unloading car, see "Operating Manual" for complete unloading instructions.

1. Prior to Hook-up Inspect to Ensure That:

- All hatch covers are secure.
- All product valves are closed.
- There is no pressure on the car body or the manifold by venting the car body through the blowdown valve and opening one fluidizing valve.
- Inspect pressure gauges to insure they are intact.

2. Hook-Up

- Remove dust cap on product line and connect product conveying line.
- Remove dust cap from air inlet line and connect air supply line.
- Close all valves including the blowdown valve.

3. Pressurization

- Open fluidizing air valve on first compartment to be unloaded (start from one end of car).

- Start blower and pressurize car to 14.0 to 14.5 psi. Monitor car pressure using car body pressure gauge.

4. Unloading - when pressure is reached:

- Open the by-pass air valve on end of car being unloaded to full open position.
- Open the product valve to start unloading.
- Adjust both valves to achieve best product flow and best air/product mixture. Long conveying lines generally require more by-pass air to assist conveying while less by-pass air is required for short conveying distances.
- A rapid drop in car body pressure indicates that the compartment is empty. Close the by-pass and product valves while continuing to supply air. Open and close the product valve on about twenty-second intervals four or five times for final cleanout.

- Close product valve.

- Open fluidizing air valve on next compartment and close fluidizing air valve on compartment just finished.

- Allow carbody pressure to rebuild to 14.0 to 14.5 psi.

- Repeat steps "a" through "g".

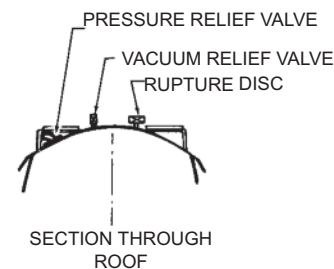
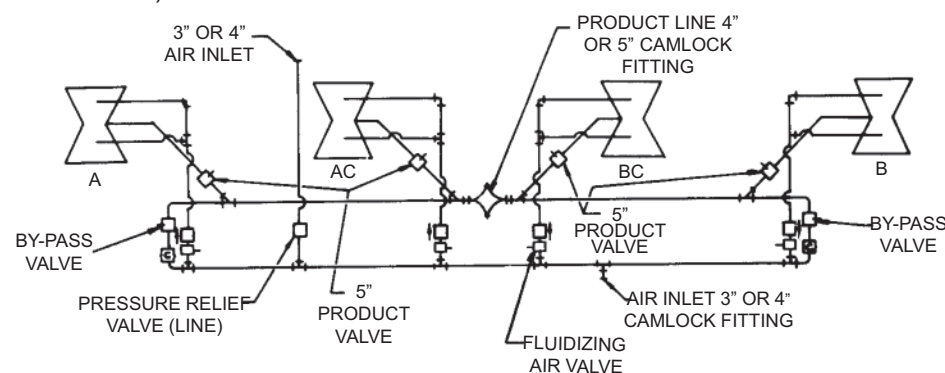
- When final compartment is unloaded, close all product valves and fluidizing air valves, open both by-pass air valves and blow conveying lines clean. Turn off blower.

- Depressurize the car body and manifold by venting the car body through the blowdown valve and opening one fluidizing valve.

- Disconnect hookups when pressures have been reduced to zero. Close blowdown valve and secure product line and air inlet dust caps prior to shipping.

CAUTION

Car pressure must be zero before car is shipped.



NOTE:

REPRESENTS CHECK VALVE

REPRESENTS VALVE ARRANGEMENTS



Pressureaide®

Pressure Differential Car



SMBC RAIL SERVICES

15 psi Pressure Differential Car

The Pressureaide® covered hopper car is specifically designed for the shipping and handling of a wide variety of dry bulk products. The car can operate with internal pressures up to 14.5 psi which allows for fast unloading of the product to remote receiving bins. It can often be operated with the same blowers used to unload hopper cars presently unloaded with pressure sleds. Since the Pressureaide® car operates similar to common pressure differential highway trailers, plant and trucking personnel familiar with such equipment do not need special equipment or instruction to operate the car.

Safety Equipment

The Pressureaide® covered hopper car was engineered with safety in mind. Pressure gauges monitor the car body and the air inlet manifold pressures. Safety valve settings ensure safe operation; the car body pressure relief valve is set at 14.5 psi, the air inlet pressure relief valve is set at 16.0 psi, the car body rupture disc is set at 20 psi and the vacuum relief valve is set at -0.25 psig.

Since the hatches remain closed during unloading, it is not necessary to climb to the top of the car before or during the unloading process.

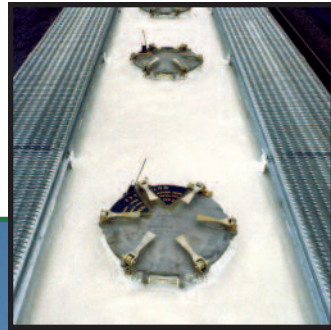
The Pressureaide® car is designed to make dry bulk handling safe, easy, clean and fast.

Loading Efficiency

The Pressureaide® car is equipped with eight (8) hatches, all located on the center line of the car resulting in faster and more efficient loading. All models of the Pressureaide® have hatch openings and bulk-head cutouts arranged so that the car may be completely loaded through two hatches.

The hatch covers are designed to provide a pressure tight con-tamination proof seal for maximum loading protection. The covers are cast aluminum with a machined gasket seat. The gaskets are FDA approved white neoprene. Six corrosion resistant cam lock latches and an automatic safety device are utilized to create a positive and safe seal between the cover and car body.

The car's hatches are compatible with existing loading



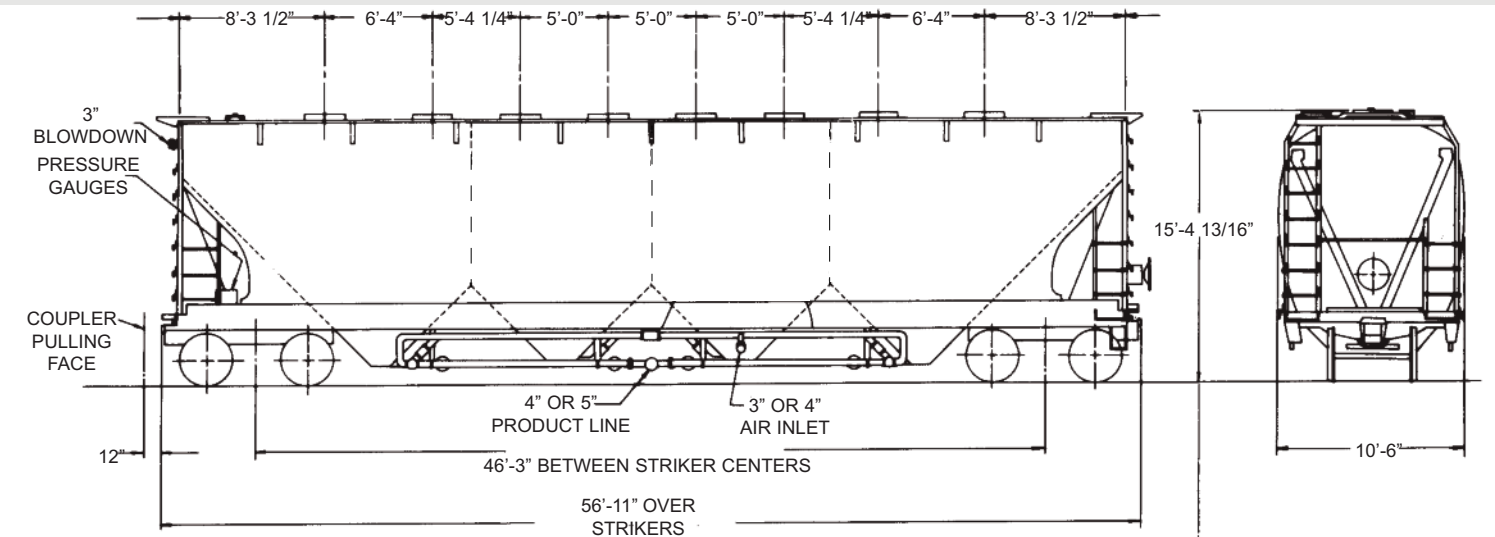
Famous Center Flow® Design

The Pressureaide® car features the famous Center Flow® design. It has a clean bore interior with no center sill or carlines. Its rounded roof is designed to coincide to a much larger degree with the natural angle of repose of the lading. As a result, it fills to 97% of its cubic capacity. The capacities of the Pressureaide® car range from 5000 cubic feet to 5750 cubic feet, which optimizes gross rail loads for a wide variety of products.

Basic Specifications

	5001	5003	5007
Length Over Strikers	56' -11"	62'-5 1/4"	62'-5 1/4"
Truck Centers	46'-3"	51'-9 1/4"	51'-9 1/4"
Overall Height	15'-4 13/16"	15'-5 9/16"	15'-5 9/16"
Overall Width	10'-6"	10'-3"	10'-3"
Height Rail to Bottom of Discharge Outlets (Light Car)	13"	13"	13"
Number of Compartments	4	4	4
Number of Outlets per Hopper	1	1	1
Number of Roof Hatches	8	8	8
Size of Roof Hatches	20" dia.	20" dia.	20" dia.
Slope End Floor Sheet	50°-43°	50°-43°	43°-45°
Slope Interior Floor Sheet	50°-45°	50°-45°	43°-45°
Slope Side Slope Sheet	45°	45°	51°
Cubic Capacity	5000 cu. ft.	5300 cu. ft.	5750 cu. ft.
Estimated Nominal Lightweight	66,900 lbs.	70,300 lbs.	70,100 lbs.
Horizontal Curve Negotiability - Uncoupled	150 ft.	180 ft.	180 ft.

Pressureaide® 5001



Pressureaide® 5003 and 5007

