

# Railcar Unloading System

## Conveying Systems using a Single or Dual Blower System for Railcar Unloading

Process Control Corporation specializes in equipment for bulk conveying of plastic materials. The equipment is designed to stand up to the toughest demands of your application, including high material flow rates, multiple distribution points and long conveying distances. Our material handling systems are designed for optimum conveying velocity to minimize dust, fines, and angel hair.

We provide railcar unloading systems, using a single or dual blower system, depending on conveying length and rate. PCC railcar unloading systems include pneumatic conveying equipment, tubing and hardware, controls, silos, silo accessories, and installation.

A typical railcar unloading system consists of railcar attachment hardware, conveying tubing, a vacuum pump, a transfer station, and a pressure pump. The system is designed to vacuum the material out of a railcar compartment into a transfer station which delivers the material to the pressure side of the system for conveying to a silo or other in-plant destination.



## PROCESS CONTROL CORPORATION

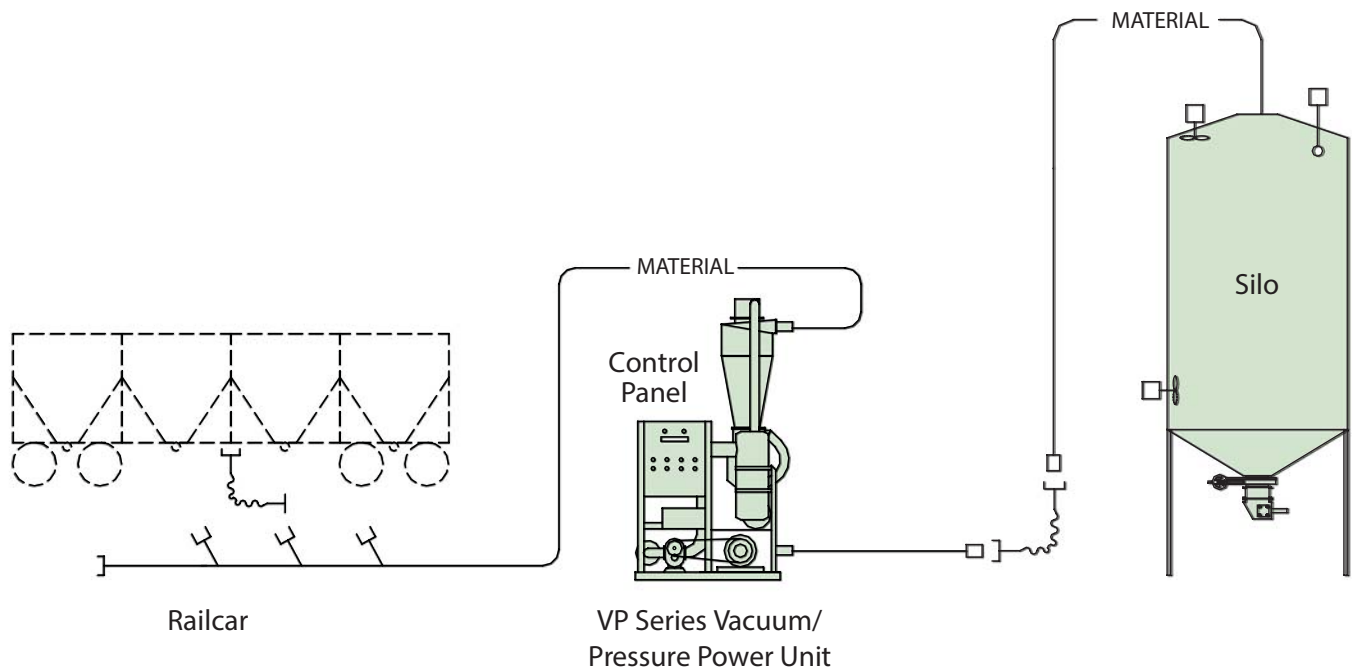
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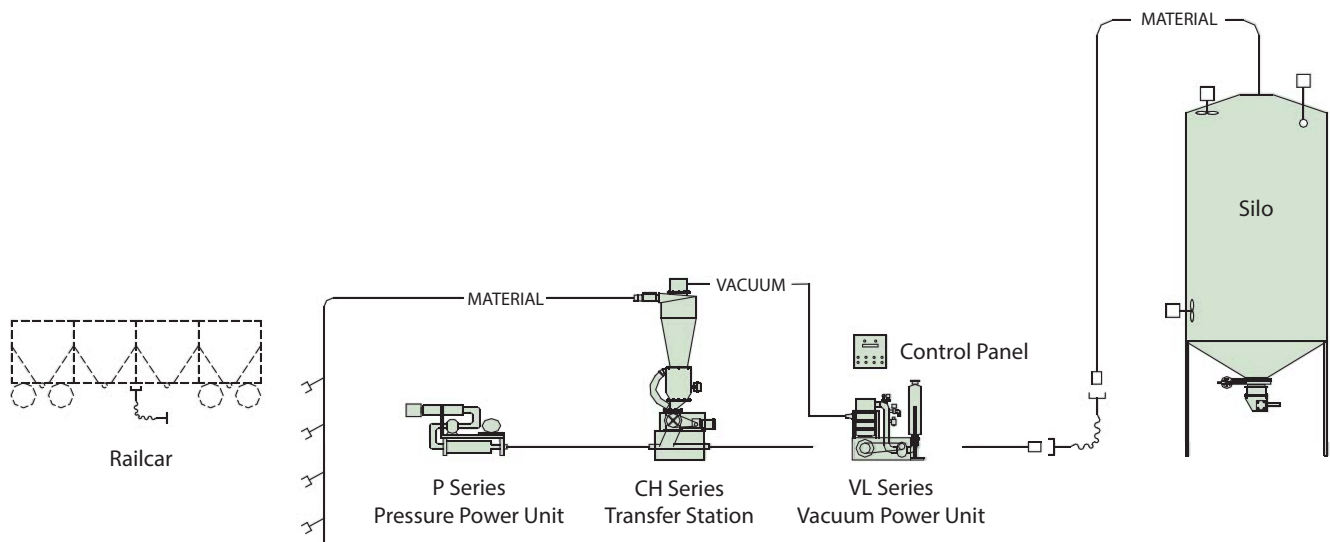
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## Typical Single Blower Railcar Unloading System



The VP Vacuum Power Unit pulls materials from the railcar to its transfer station, where it passes through a rotary feeder to the pressure side of the system. The material is then blown to a storage point, typically a silo or daybin.

## Typical Dual Blower Railcar Unloading System



The CH Series transfer station, with cyclone, is designed for use in dual blower conveying systems and is used to transfer the material from the vacuum part to the pressure part of the system. The VL Series pump creates the vacuum which pulls the material from a railcar or truck into the cyclone mounted on top of the transfer station. The material then drops down, through a rotary airlock feeder, into a blow through assembly. The P Series pressure pump then applies the pressure to convey the material to its storage point, typically a silo or daybin.

## VP Series Vacuum/Pressure Unit

The VP Series Vacuum/Pressure Power Unit is typically used as part of a truck or railcar unloading system. It is designed to pull material to its transfer station, where it passes through a rotary feeder to the pressure side of the system. The material is then blown to a storage container, such as a silo or daybin. The VP Series can be part of an integrated plant distribution system designed by Process Control to meet your specific needs.

- 10 to 50 horsepower available
- Positive displacement blower
- T-frame TEFC motor
- Enclosed V-belt drive
- Discharge silencer
- Vacuum relief valve and gauge
- Level control
- Dual-stage intake filter



## VL Series Vacuum Power Unit

The VL Series vacuum power unit is designed for use as part of a complete dual-blower railcar or truck unloading system. The power unit pulls material (using vacuum) from a source to a CH Series transfer station. Then, the material drops through a rotary feeder, to a blow through by a P Series pressure unit.

- 10 to 60 horsepower available
- Positive displacement blower
- T-frame TEFC motor
- Dual-stage intake filter
- Discharge silencer designed for effective sound reduction
- Vacuum relief valve and gauge
- Reinforced, heavy steel plate
- Four-sided belt guard with removable access cover
- Electricals and controls in a NEMA-12 enclosure
- Power: 460V/3Ph/60Hz



## CH Series Transfer Station

The CH Series transfer station, with cyclone, is designed for use in dual blower conveying systems. Used in conjunction with the VL Series vacuum pump and P Series pressure pump, the CH Series is used to transfer the material from the vacuum part of the system to the pressure part of the system.

- Rotary feeder with shear eliminator and vent
- Polyphase gearmotor  
Power: 460V/3Ph/60Hz
- High efficiency cyclone designed for air flow as required
- Level control rotary vane, electro-mechanical type
- Four-sided chain guard with removable access cover
- Reinforced heavy steel base plate
- Mild steel construction



## P Series Power Unit

The P Series Power Unit is designed for quiet, reliable performance in a pressure conveying system or as part of a dual-blower vacuum/pressure system. Typical applications include railcar/truck unloading and in-plant distribution systems. Eleven standard P Series units are available, with horsepower ratings from two to sixty.

- Positive displacement blower
- T-frame motor
- Cartridge intake-side air filter
- Intake- and pressure-side silencer
- Four-sided belt guard with removable access cover
- 2 to 60 horsepower available
- Reinforced, heavy steel plate
- NEMA-12 electrical/control enclosure
- Adjustable pressure switch with diaphragm-piston transducer



## Silos

- Size based on customer needs
- 3' x 6'-8' door with 12" square louver
- Foundation anchor bolts
- 20" center dome with cover and fill stub
- 20" combination manway/ventilator
- Flanges for hi/lo level indicators
- CS with epoxy paint or SS MOC
- Welded or bolted construction
- Deck perimeter guardrail
- Outside ladder and silo crossovers as needed



For detailed product information, including specs and dimensions, please request a PCC cut sheet:



For more information about the company and other PCC products, please visit our website:



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