

# Reliable, Central Vacuum Conveying of Free-flowing Powders

The Conair PR Series of Powder Receivers effectively transfer powdered resins (down to 1 micron), with the efficiency of a central vacuum system. Available in a range of sizes to fit user needs, the PR Series uses high capacity, pleated filters coupled with a compressed air accumulated blowback system, for long, maintenance-free operation.

Each receiver includes a vacuum sequencing valve in its lid for easy connection to a central vacuum system.



**Model PR12**  
(With terminal box for wiring to a central control system.)

**Model PR15**  
(With optional ELC-16 control.)

## Central Vacuum Receivers Designed Specifically for Powders

Equipped with a compact filter chamber, the PR Series is easy to maintain. Quick release latches and utility connections allow easy, no-tools disassembly and filter cartridge(s) are conveniently mounted to a plate for quick removal.

An oversized compressed air accumulator and blowback timer deliver programmable blasts of air through the filter cartridge(s) at the end of each load cycle to eliminate material packing.

Each model includes a reliable vacuum sequencing valve tucked neatly into its domed lid, ready to be connected to a vacuum source.

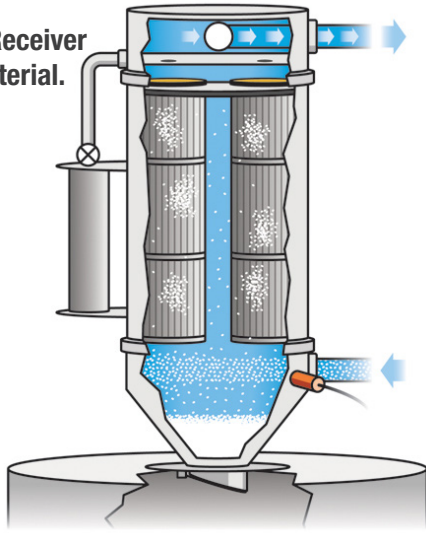
A terminal box is provided as standard for connection to a central vacuum control system, or the PR Series can be supplied with Conair's ELC-16, for localized control of loading.

- ▶ **Compact for low-height areas**  
The Powder Receiver range can provide up to 168 ft<sup>2</sup> {15.6 m<sup>2</sup>} of filter area with a lower profile than most receivers on the market, allowing installation in low headroom areas.
- ▶ **Wide range of sizes and options**  
These receivers can be fitted with a wide selection of line sizes and a choice of discharge valves, with options for a wear plate and stainless steel construction for abrasive materials.
- ▶ **Choice of control**  
The receiver is compatible with an Easy Loading Control (ELC-16) or a Universal Terminal Box (UTB) to link with Conair's central loading control systems such as FLX-128 Plus.
- ▶ **Easy material change and cleaning**  
All components disassemble quickly. No tools are needed for material changes or cleanout. The pull-out filter assembly eliminates the mess associated with "bag-style" Powder Receivers.
- ▶ **Long filter life with minimal dust**  
The special, easy-release surface of the cartridge filters provide long operating life without packing or degradation. The programmable blowback system minimizes dust and maximizes throughput.



## How it works

### Powder Receiver loads material.



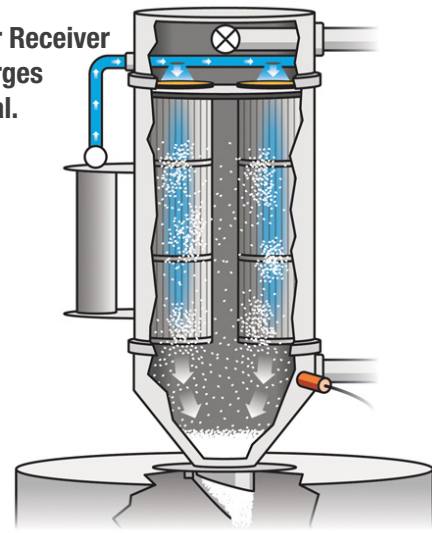
#### Loading

An integrated demand level switch on the discharge flapper (or separate demand level switch) initiates the start of the conveying cycle by turning on the vacuum motor, drawing air and material into the receiver's lower chamber.

A filter guard directs material as it loads down into the cone of the receiver. Pleated filter media in the upper chamber of the receiver separates the material from the conveying air.

Note: The material flow path may be reinforced by an optional wear plate if the material being conveyed is abrasive. Once the fill sensor senses material has filled the lower chamber, the vacuum motor shuts off.

### Powder Receiver discharges material.



#### Unloading / Filter cleaning

Upon completion of loading, the discharge valve opens, allowing powdered resin to flow out of the loader.

While unloading, the blowback system directs multiple, accumulated, high-power blasts of compressed air through the cartridge filter(s), pulsing them and blowing off collected material, dust and fines. The blowback action also encourages total material evacuation from the receiver, into the hopper below.

Blowback is programmable to provide optimum cycles for maximum cleaning.

After unloading and blowback are complete, the loader either starts again or waits for another demand signal.

## Options

- **Stainless steel construction**

Standard carbon steel construction can be substituted with 304 grade stainless steel (uncoated inside the loader and cosmetically powder coated on the outside).

- **Differential pressure gauge**

To Monitor the air passage of the filters to instantly determine powder compaction and the need to manually clean or replace the filter(s).

- **Wear plates**

Replaceable plates, installed inside the loader body, eliminate hopper wear-through when conveying abrasive or glass-filled materials. Available in either cold rolled steel or electroless nickel plating.

- **Positive discharge valve**

Provides a pneumatically driven discharge valve on the bottom of the loader in the event that gravity will not sufficiently open the standard flapper after loading. Useful for very light resins or any resin that may not flow easily.

- **Filter vent assembly**

The filter vent assembly provides a predictable exhaust path for blowback air to prevent pressurized air and dust from escaping through feed tubes or seams in the receiving vessel.



## Control Options

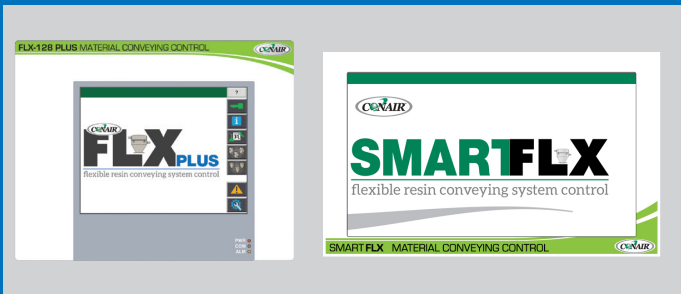
### Universal Terminal Box (UTB)

Conair's exclusive Universal Terminal Box provides an industrial strength quick-release electrical plug for connection to the control. The UTB is available with an optional on/off switch and can be connected to Conair's FLX Plus Control.



### Easy Loading Control (ELC)

Each on-demand loading sequence is clearly exhibited on the graphical control face with bright, simple LED lights. A "no-load" alarm light and buzzer are included.



All of Conair's Loaders and Receivers can be controlled using one of the central loading controls developed by Conair to manage your entire conveying system. Instead of choosing the ELC, select a UTB (Universal Terminal Box) for your Powder PR Receiver and connect and control the receiver with Conair's FLX-128 Plus and SmartFLX controls. *See the FLX-128 Plus and SmartFLX specification sheets for more information about the capacities and capabilities of these scalable controls.*

## ControlMate™ Pendant (optional) with ELC Control



### ControlMate™ Pendant

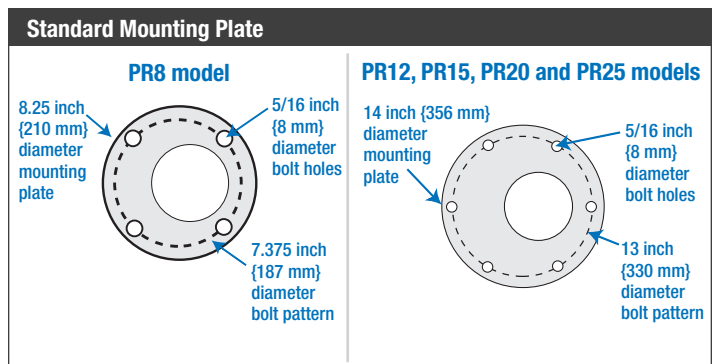
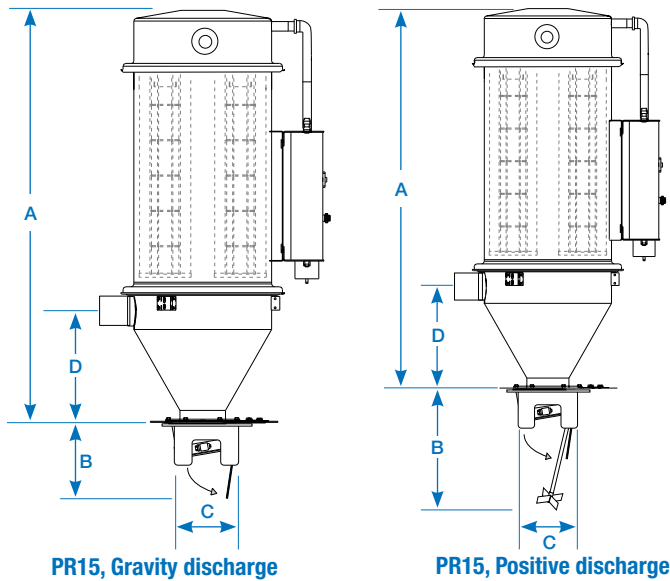
The ControlMate pendant expands your loader's capabilities while providing convenient remote controls for your Powder Receiver. The ControlMate includes a 15 foot connection cable and handy holster.

A helpful graphic and array of LEDs, illustrate expanded loading functions like ratio loading and line purging while a three-digit numeric display shows each functions setting as it is selected.

The 16 additional loading functions available with the ControlMate Pendant include:

- On/Off
- Unload time
- Load attempts
- Ratio layers
- Ratio percentage
- Purge time
- Load time
- Blowback
- Priority demand
- Fill sensor logic
- Demand sensor logic
- Fill sensor present
- Load and hold
- Purge /Adjustable Purge Valve (APV)
- Ratio installed
- Blowback installed

# Specifications



Material / Vacuum Line Sizes		
Outer diameter in inches {mm}		
1.75 {44.5}	2.25 {57.2}	3.0 {76.2}
2.0 {50.8}	2.5 {63.5}	4.0 {101.6}

Model	PR8	PR12	PR15	PR20	PR25
<b>Performance characteristics</b>					
Receiver volume ft <sup>3</sup> {liters}	0.14 {4.0}	0.5 {14.2}	1.0 {28.3}	1.8 {51}	3.0 {85.0}
* Air-to-cloth ratio cfm:ft <sup>2</sup>	3:1				
Line sizes inches {mm}	1.75 - 2.0 {45 - 51}	1.75 - 2.5 {45 - 64}		2.25 - 3.0 {57 - 76}	2.5 - 4.0 {64 - 102}
<b>Filter</b>					
Filter type	one pleated polyester cartridge		Two pleated polyester cartridges	Three pleated polyester cartridges	
Total filter area	23 ft <sup>2</sup> {2.1 m <sup>2</sup> }	56 ft <sup>2</sup> {5.2 m <sup>2</sup> }	48 ft <sup>2</sup> {4.5 m <sup>2</sup> }	69 ft <sup>2</sup> {6.4 m <sup>2</sup> }	168 ft <sup>2</sup> {15.6 m <sup>2</sup> }
<b>Dimensions inches {mm}</b>					
Hopper diameter†	8.0 {203}	12.0 {305}	15.0 {381}	20.0 {508}	25.0 {635}
A - Height above mounting plate†	39.0625 {992.2}	44.25 {1123.9}	45.1875 {1063.6}	50.50 {1282.7}	57.25 {1454.2}
B - Depth below mounting plate	5.5 {140}	8.375 {213}			
with positive discharge	N/A	16.0 {406}			
C - Clearance hole diameter	6.63 {167}	12.0 {305}			
D - Height to center of material inlet	6.19 {157}	9.5 {241}	12.1875 {309.6}	15.9 {404}	21.25 {540}
Height to center of vacuum outlet	36.875 {936.6}	41.3125 {1049.3}	41.875 {1063.6}	46.8125 {1189.0}	52.625 {1336.7}
<b>Approximate weight lb {kg}</b>					
Installed	44.0 {20.0}	77.0 {34.9}		143.0 {64.9}	
Shipping	139.0 {63.0}	164.0 {74.4}	225.0 {102.1}	246.0 {111.6}	277.0 {125.6}
<b>Compressed air requirements (intermittent duty)</b>					
Pressure	60 - 80 psi {4.1 - 5.5 bars}				
Consumption	2 ft <sup>3</sup> /min @ 80 psi {0.94 liters/sec. @ 6 bars}		8 ft <sup>3</sup> /min @ 80 psi {3.7 liters/sec. @ 6 bars}		
NPT Fitting	3/8 inch				

**Specification Notes**

† The optional filter vent assembly changes PR dimensions. Height above mounting plate increases 7.75 inch {196.9 mm} on the PR8, PR12, PR15 and 9.6875 inch {246.1 mm} on the PR20 and PR25. Overall width becomes 19.625 inch {498.5 mm} on the PR8, 21.5 inch {546.1 mm} on the PR12, 23.0 inch {584.2 mm} on the PR15, 35.5 inch {901.7 mm} on the PR20, and 38.0 inch {965.2 mm} on the PR25.

Specifications may change without notice. Consult with a Conair representative for the most current information.

**Application Note**

\* Powder Receivers are not intended for materials such as pure carbon black, titanium oxide or any other difficult to handle material that requires an air-to-cloth ratio of less than 3:1.

**Electrical Note**

The PR Series, Powder Receiver is equipped to operate with 24 VDC output as standard, with 24 VAC or 120 VAC outputs available upon request.

