

## Application

Vacuum Feeder Refill Sequencing Receiver used for material-air separation in pneumatic conveying of free-flowing pellet, granular or powder bulk solids in the plastics industry.

ProRate PLUS refill receivers can be installed individually or a combination of up to six units (any model) can be clustered around a process inlet.

## Design

The receivers are available as either a pellet or a powder design and are stainless steel material contact construction. The pellet unit utilizes a perforated screen to separate pellets from the air stream and the powder unit utilizes a set of pulse cleaned felt filter bags. Material discharges through a butterfly valve into the feeder below. Vacuum generation options include Venturi, Machine Loader, or connection to a central blower system.

Central system units utilize a common vacuum blower package and are primarily used in applications where multiple receivers are in a cluster or where larger conveying rates or long distances are required. This equipment conforms to CE standards regarding EMC and safety

## Features

- Robust, modular design
- Simple to install and operate
- Band clamps for easy disassembly and cleaning
- Optional modular support structure
- Design allows for cluster of up to six Feeder/Receiver units around a process inlet

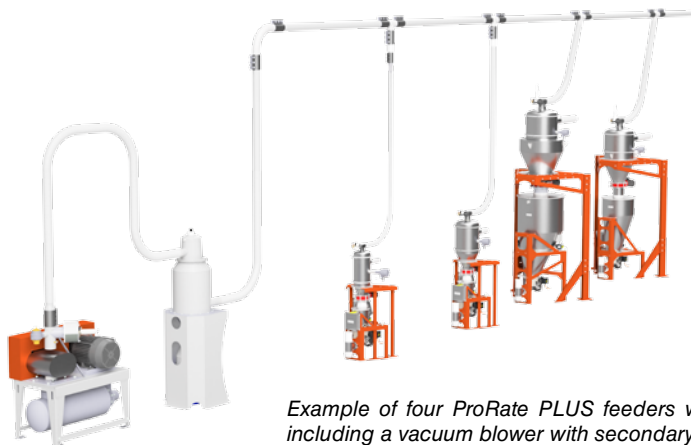
## Controller

The receivers are available with a solid state low voltage panel which seamlessly interfaces with the ProRate PLUS PCM. The receiver controls include color coded quick connectors and provide communication to the central controller. A central microprocessor controller (MPC) (refer to Spec Sheet S-501803) is required for each blower package and corresponding receivers. The MPC utilizes 24 VDC low voltage and is available with installation kits that make installation easy and more economical.

ATEX 3D rated units are also available.



*Pellet receiver (above)  
Powder receiver with stand  
over PLUS-S feeder (below)*

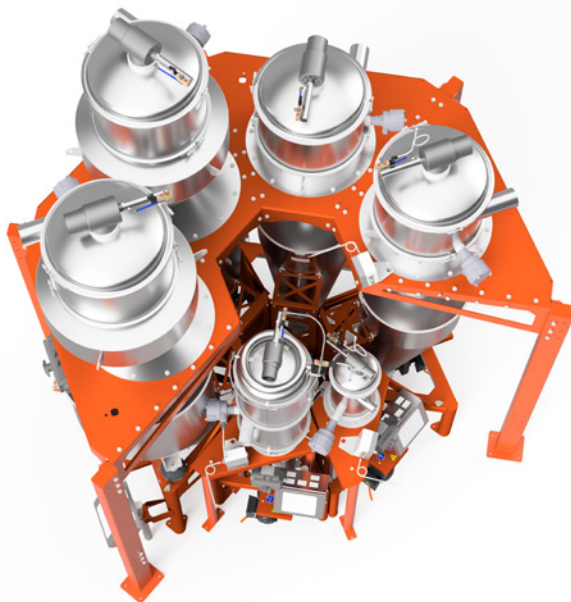


*Example of four ProRate PLUS feeders with refill  
including a vacuum blower with secondary filter.*



## Technical Specifications

<b>Refill hopper volume:</b>	12.6 dm <sup>3</sup> [045 ft <sup>3</sup> ]
<b>Hopper material:</b>	Stainless steel DIN 1.4301 [AISI 304]
<b>Filter:</b>	White polyester felt filter bags
<b>(powder unit)</b>	0.37 m <sup>2</sup> [4 ft <sup>2</sup> ]
<b>Pulse tank volume:</b>	1.7 dm <sup>3</sup> [0.06 ft <sup>3</sup> ]
<b>(powder unit)</b>	
<b>Compressed air:</b>	0.34 m <sup>3</sup> [12 ft <sup>3</sup> ] per refill cycle
<b>Pressure:</b>	5.5 ... 7 bar(g) [80 ... 100 PSI(g)]
<b>Flow rate:</b>	0.34 m <sup>3</sup> /min [12 ft <sup>3</sup> /min]
<b>Inlet seal:</b>	White EPDM
<b>Body seal:</b>	White Neoprene
<b>Discharge seal:</b>	White Buna-N
<b>Level indicator:</b>	Vibronic point 24VDC
<b>Discharge valve:</b>	DN125 [5" ANSI]
<b>Frame (optional):</b>	Carbon steel, painted RAL 2001 Red Orange
<b>Receiver volume:</b>	Pellet 28.9 dm <sup>3</sup> [1.02 ft <sup>3</sup> ] Powder 47.3 dm <sup>3</sup> [1.67 ft <sup>3</sup> ]
<b>Temperature limits:</b>	Ambient: 0 ... 40°C (32 ... 104°F) Material: 0 ... 50°C (32 ... 122°F)
<b>Operating pressure:</b>	-700 ... 10 mbar [-20 in HG... 0.145 PSI]
<b>Weight (receiver only):</b>	Pellet 57 kg [126 lb] Powder 68 kg [149 lb]
<b>Hazardous locations:</b>	NEC Dust tight (meets Class II Div. 2) ATEX 3D/-- (outside/inside*) *no category inside, meets req. for zone 20



In a cluster arrangement all ProRate PLUS-M and PLUS-L refill support structures are generally placed next to each other and linked together. ProRate PLUS-S refill supports are standalone and are not linked to the larger structure.

Caution: These measurements are for general reference only. Please consult dimensional drawing for exact measurements.

## Dimensions mm [in]

