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cyclonaire

*PNEUMATIC CONVEYING SYSTEMS*

# C-Series CONVEYOR


## OVERVIEW

The C-Series is a vacuum loaded semi-dense phase conveyor with a capacity of 5-50+ TPH. It is best suited for powdered, granular or pellet abrasive materials that are friable.

Medium pressure blower air is used to venturi-vacuum load and convey material at intermediate line velocities and material-to-air ratios for less abrasive wear and particle degradation.

The unit is capable of multiple applications, from bulk carrier, IBC and bulk bag unloading to in-plant transfer. With optional load cells, the C-Series can also weigh and batch multiple materials with inventory control.

The total 15 PSIG output of the blower is used in the convey mode for maximum efficiency. During vacuum loading the blower air is automatically routed through a proprietary venturi to induce a deep vacuum.

## APPLICATIONS

- Bulk carrier, IBC and bulk bag unloading, In-plant transfer / Scaling / Batching
- Restricted headroom and/or no pits
- Excellent solution for rotary airlock replacement with difficult applications

## MATERIALS / CHARACTERISTICS

- Fluidizable materials that are abrasive or friable

## CAPACITY

- 5 - 50+ TPH

## BENEFITS AND FEATURES

- Proprietary semi-dense phase conveyor uses a single 15 PSIG positive displacement blower for vacuum-pressure conveying at low line velocities (<2000-3000 fpm) and high material-to-air ratios (50-20) for less product degradation and less abrasive line wear.
- No pits required
- Vacuum or vacuum assisted gravity load via single or multiple sources with reduced headroom
- No costly compressor required; uses 15 PSIG blower for control and convey air
- Less operator supervision via automated controls
- Specify:
  - Load cells
  - Portable or stationary
  - Carbon steel, stainless steel or epoxy coated
  - Multiple inlets
  - Butterfly outlet valve

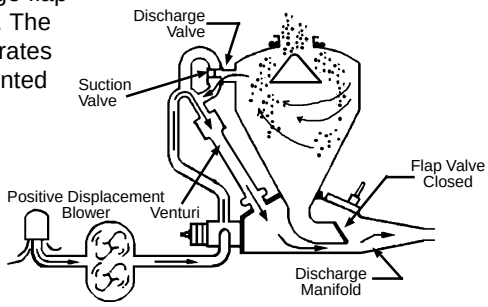
## REQUIREMENTS

- 110 VAC, 50-60 Hz; 12 VDC
- PSIG air

# C-SERIES CONVEYOR

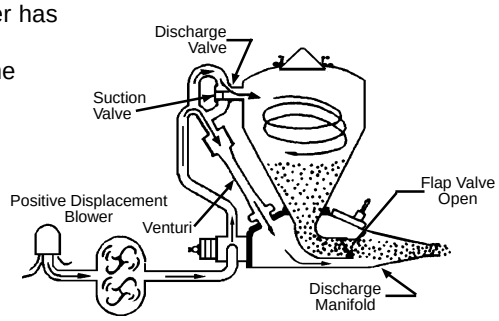
## VACUUM LOAD CYCLE

As the load cycle begins, the suction valve opens while the cone and discharge flap valves are closed. The air pressure generates a vacuum by patented venturi action. As the vacuum increases in the transfer vessel, the cone valve opens. Pulled by suction of up to 15 inches of mercury, the material flows from the source into the transfer vessel. The electronic level control regulates filling of the transfer vessel to optimum levels during the load cycle. However, a back-up solid-state timer takes over operation in the event material flow is interrupted.




## PRESSURE DISCHARGE CYCLE

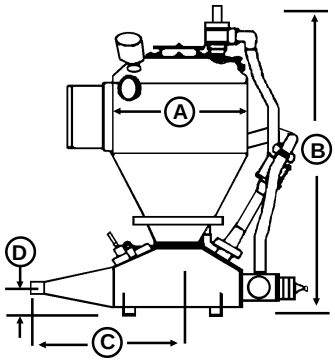
When the transfer has been filled to the optimum level, the cone and suction valves close and the discharge valve opens. The same positive air supply which created the vacuum is used to push the material into the discharge manifold where it is fluidized for semi-dense conveying—thus minimizing particle degradation, reducing line wear and increasing system efficiency.



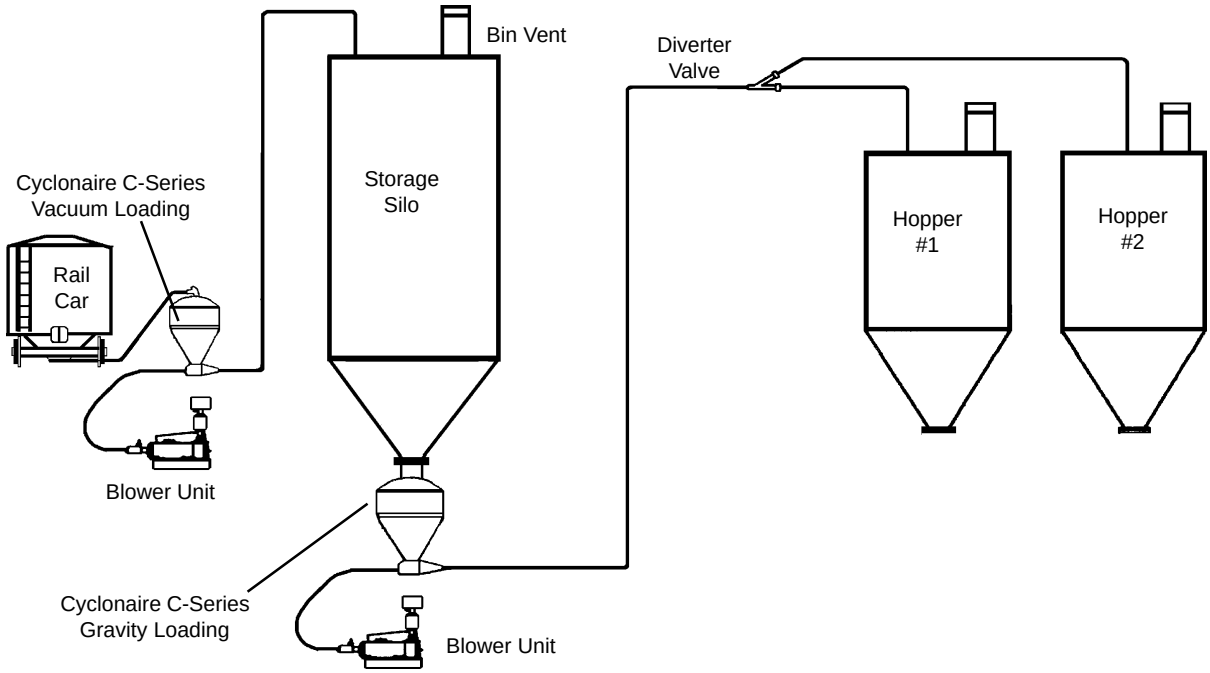

### PRODUCT SPECIFICATIONS

| MODEL NUMBER | VOLUME CU.FT. | A | B | C | D | AIR INLET | MAT INLET | DISC | APPROX WT |
|---|---|---|---|---|---|---|---|---|---|
| C-2/5 | 5 | 30 | 60 | 37 | 7 | 5 | 5 | 3.5 | 900 |
| C-3/10 | 10 | 30 | 79 | 42 | 6 | 6 | 6 | 6 | 1020 |
| C-3/15 | 15 | 30 | 91 | 42 | 7 | 6 | 6 | 6 | 1140 |
| C-3/20 | 20 | 42 | 100 | 35 | 7 | 6 | 6 | 6 | 1260 |

NOTE: Dimensional data for reference only. Subject to change without notice. All weights are in pounds, all dimensional units are in inches, unless noted.




### SEMI-DENSE PHASE TRANSFER

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