



DPV-B Series CONVEYOR



OVERVIEW

The DPV-B Series is a vacuum loaded, bottom discharge dense phase conveyor with a capacity rated to 100+ TPH. It is best suited for powdered, granular or pelletized abrasive materials which are friable.

This unit provides the highest material-to-air ratios and the lowest line velocities resulting in smaller line sizes, lower air consumption, reduced dust collection and lower energy costs. Abrasive wear and particle degradation are also minimized with the DPV-B.

These factors translate to lower capital investment and lower operating costs.

Programmable logic controls (PLCs) offer reduced supervision for automated operation.

APPLICATIONS

- Bulk unloading / In-plant transfer / Scaling / Batching
- Top gravity load / bottom discharge
- Restricted headroom
- Optimum material-to-air ratios and lowest convey line velocities for maximum rate with gentle handling

MATERIALS / CHARACTERISTICS

- Powdered, granular or pelletized materials

CAPACITY

- 100+ TPH

BENEFITS AND FEATURES

- Dense phase conveyor uses high pressure air to convey at extremely low line velocities (<400 fpm) and higher material-to-air ratios (135-140) for less abrasive line wear and less friable/fragile product degradation than with dilute phase conveying, yet optimizing rate.
- Vacuum load via single or multiple inlet valves from any direction(s). Bottom discharge for high rates.
- Less operator supervision via automated controls
- Specify:
 - Carbon Steel
 - Stainless Steel or epoxy coated
 - Multiple inlets
 - Automatic controls
 - Load cells

REQUIREMENTS

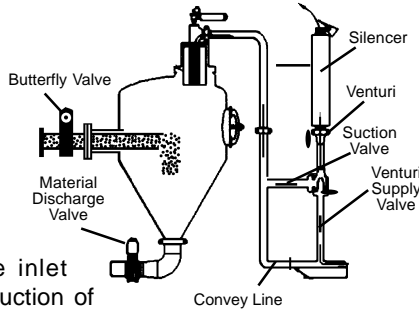
- 110 VAC, 50-60 Hz
- 20-80 PSIG convey air: 80-100 PSIG control air @ 5-10 scfm

Protected by U.S. Patent Nos. 5,033,914 and 4,220,425 and other foreign patents

DPV-B CONVEYOR

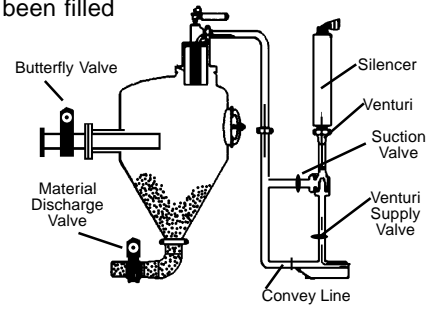
VACUUM LOAD CYCLE

As the load cycle begins, the suction valve opens while the inlet 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 inlet valve opens. Pulled by suction of up to 22 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.



PRESSURE DISCHARGE CYCLE

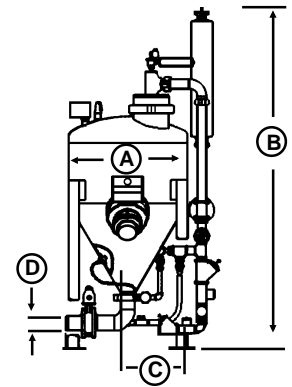
When the transfer has been filled to the optimum level, the inlet and suction valves close and the discharge valve opens. The same positive air supply which created the vacuum is used to push the material into the discharge elbow where it is mixed with a small amount of additional air for dense phase conveying—thus minimizing particle degradation, eliminating line wear and increasing system efficiency.



PRODUCT SPECIFICATIONS

MODEL NUMBER	VOLUME SQ.FT.	A	B	C	D	AIR INLET	MATERIAL INLET	DISCHARGE	APPROX. WEIGHT
DPV-10B	10	36	104	19	8	2	4	4	750
DPV-20B	20	42	104	19	8	2	4	4	1200
DPV-25B	25	42	107	19	8	2	6	6	1400
DPV-50B	50	48	125	20	8	2	6	6	2100
DPV-75B	75	60	139	22	8	2	8	8	2850
DPV-100B	100	72	144	45	10	2	8	8	3450
DPV-200B	200	72	192	58	12	2	8	8	4200

NOTE: Dimensional data for reference only. Subject to change without notice. All weights are in pounds, all dimensional units are in inches, unless noted. Air inlet, material inlet, and discharge may vary per application.



DENSE PHASE TRANSFER

