

## PNEUMATIC UNLOADING SYSTEM



Supersucker industrial vacuum loaders can be equipped with a pneumatic unloading option to discharge virtually any dry material from the body into a silo, storage hopper, truck or storage containers. Unloading is accomplished by connecting the air conveying line from the vacuum pump exhaust piping to the discharge port of the auger on the tailgate. Raising the collector body allows the auger to meter material through its discharge port into the pressurized conveying line. Pneumatic unloading cannot occur during the loading operation.

### SET UP

The discharge ducting and pneumatic conveying lines can be easily connected from ground level. A 6" (152.4 mm) diameter hose with Camlock fittings to connect the tailgate discharge "Tee" to the vacuum pump discharge piping is included with the unit.

### CONTROLS

The velocity of conveying air can be controlled by adjusting the speed of the vacuum pump. Light or fragile materials are conveyed at low speeds and heavier materials at higher speeds. The auger speed can be controlled to increase or decrease the amount of material metered from the body. Auger rotation is reversible. A pressure gauge is provided to indicate optimum operational conditions. All controls are located at the Supersucker control panel.

# Supersucker — Pneumatic Unloading System

## AUGER

The auger is an integral part of the tailgate and does not interfere with normal machining functions. The operator can choose to dump recovered material in the conventional manner or discharge material pneumatically through the auger system to a remote location. If needed the the auger can also meter material from the body without pneumatic conveying. The 9" (228.6 mm) diameter auger is double flighted to pull material from both sides toward the center discharge port. The auger shaft is supported by anti-friction bearings and seals.

## AUGER DRIVE

The auger is driven by a low speed high torque hydraulic motor using a fully enclosed chain and sprocket arrangement. Hydraulic power is obtained from the Supersucker hydraulic system. Auger speed is controlled by an adjustable hydraulic flow valve.

## RELIEF VALVES

When conveying pressure reaches a predetermined level the unloading system will automatically vent, protecting the system.

## DISCHARGE DUCTING

The airflow initiates from the vacuum pump discharge silencer and continues to the discharge port of the auger. Connections are easily accomplished from ground level with Camlok fittings.

## VACUUM PUMP PROTECTION

The vacuum pump is protected by a pressure relief system which vents in the event of a plugged discharge line, plugged filter at the receiving site or an attempt to convey too large an amount of material.

## SUPERSUCKER® STANDARD UNIT SPECIFICATIONS

### GENERAL DIMENSIONS

- 35' (10.67 m) approximate overall length
- 12'10" (3.91 m) approximate overall height
- 8' (2.44 m) approximate overall width

### VACUUM SYSTEM

- 8" (20.3 cm) positive displacement vacuum system offers 5800 cfm/28" hg (9854 m<sup>3</sup>/hr/0.95 bar)
- Heavy-duty transfer case drive

### FILTRATION SYSTEM

- Single mode filtration enables loading of wet or dry material with no changeover required
- Reverse air pulsation system continuously cleans the 60 snap-ring type, acrylic-coated filter bags
- Easy filter access on top of unit for filter bag change-out; large side door access to baghouses allows for quick bag removal
- One (1) large cyclone with large passageways for greater airflow, greater performance and greater fuel economy

### COLLECTOR BODY

- 18 cu yd (13.8 m<sup>3</sup>) payload capacity
- 1/4" (6.35 mm) steel construction throughout entire body and filter chambers
- Body dumping is achieved by one heavy-duty, telescopic double-acting cylinder that provides a 51° dump angle. The body, baghouses and separator chamber hydraulically raise together, allowing for quick unloading of material
- Full opening tailgate with two lift cylinders. The hydraulic tailgate latching system is liquid tight and prevents leakage in case of hydraulic malfunction. Latches and hinges are fully adjustable



### OPTIONS

*In addition to options such as stainless steel components, rear worklights, hydraulic booms, and high-pressure wash-down systems, Supersuckers can be designed for very unique, specialized applications including:*

#### HIGH DUMP SYSTEM

The high dump system relies on a unique hydraulic setup that allows operators to easily raise the rear of the unit to position it over containers for unloading material

#### RAIL WHEEL SYSTEM

As well as providing track maintenance and cleaning, this option is an effective solution for cleanups and bulk spills along tracks, remote vacuum jobs away from access roads and emergency response situations

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