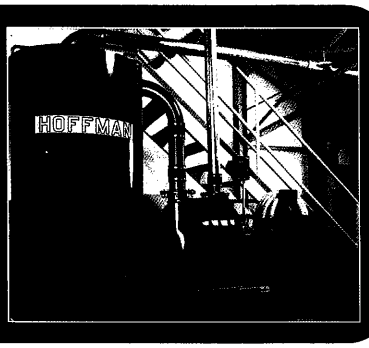
Hoffman T-Vacs Perform For Industry

The Hoffman T-Vac is characterized by rugged design, low-speed direct-drive exhausters, and extensive separation/filtration capacity. It's no surprise that the T-Vac line is an established top performer handling an extremely diverse variety of materials in all major industries. While many T-Vac applications can be classified as general housekeeping duty, an equally significant number of units are in service removing waste as part of a manufacturing process. So whether your need is simply the removal of dust from a wide area, or the collection of scrap from a point source, a Hoffman T-Vac will perform the job with rugged efficiency, ease of operation, and long term economy. Listed below are examples of some of the more common particulates handled in a variety of industries.



Chemical Manufacturing
- Catalyst
- Plastic Scrap
- Lime
- Carbon Black
- PVC Pellets
- Pigments

Power Generation
- Coal Dust
- Plant Dirt
- Ash Pickup

Electronics Manufacturing
- Clean Room Contaminants
- Solder Reclamation
- Circuit Foil
- Circuit Board Dust

Building Products
- Brick Dust
- Shingle Aggregate
- Gypsum
- Saw Dust

Machinery
- Welding Flux
- Metal Chips
- Machine Dust
- Tungsten Carbide

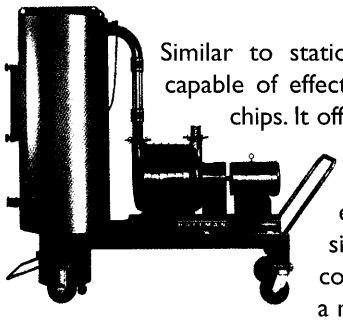
Food Processing
- Flour
- Crumbs
- Spices
- Cereals
- Packaging Trim
- Chocolate Dust

Agriculture
- Fertilizer
- Feed and Grain
- Silo Dust
- Elevator Refuse

Miscellaneous
- Fiber Scrap
- Textile Wastes
- Powdered Paint
- Sanding Dust
- Wood Chips
- Bark
- Graphite

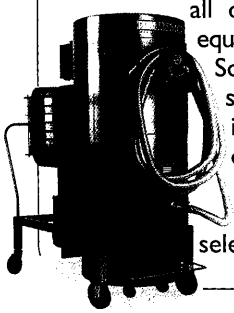
Pharmaceuticals
- Tablet Wastes
- Process Dust
- Packaging Scrap
- Clean Room Particulates
- Latex Powder

Mobile T-Vac Units



Similar to stationary units the mobile T-Vac is wheel-mounted and capable of effectively collecting anything from fine dust to large metal chips. It offers you unmatched durability versatility and high capacity in a compact and manageable frame. For operation with 3-phase 60 cycle power, these 5 to 9 HP units efficiently collect material in a 100 foot diameter from a single electrical outlet. And depending on the type and concentration of debris the larger T-Vacs can accommodate a number of simultaneous operators.

The Hoffman Solo Vac



The Hoffman Solo Vac portable unit provides the ultimate in ease of handling and all of the ruggedness and reliability expected from Hoffman vacuum equipment. With its direct connected, vertically mounted exhauster, the Solo Vac provides the ability to maneuver through the narrowest spaces with a true heavy-duty unit. Exhauster bearings are independent of the standard NEMA frame motor to extend the life of rotating components and simplify maintenance. Offered in 5 HP and 7 1/2 HP models (SV-50 and SV-75 respectively), the Solo Vac is available with nearly all the optional features and the hose and tool selection larger Hoffman vacuum systems.

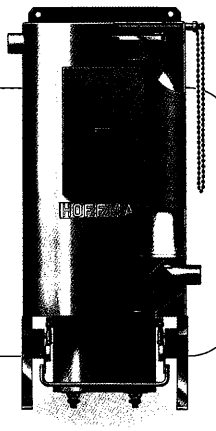
Stationary T-Vac Systems

This line of self-contained systems is designed with the rugged construction you demand for industrial service. The T-Vac's compact size combined with a wide variety of available accessories and options makes it the ideal solution for plants of all sizes. The installation of a stationary T-Vac system is ideal for removal of debris or product transport in predictable quantities from established locations. Stationary T-Vac's are permanently installed in a central area from which Smoothflow tubing is run to multiple pick-up locations.

The T-Vac Exhauster

At the heart of every vacuum system is the rotating divide that produces suction. With the T-Vac, this is a durable multi-stage centrifugal exhauster constructed with sheet metal sections. Unlike competitive vacuum units, the T-Vac exhauster is directly driven by a standard 3600 rpm electric motor. This arrangement increases longevity and simplifies maintenance. The "T" series exhauster contains high-strength composite aluminum/carbon steel impellers mounted on a carbon steel shaft. Each end of this dynamically balanced rotating assembly is carried by an outboard ball bearing solidly fixed to a rugged cast-aluminum head. With thousands of units in operation performance of the T-Vac exhauster speaks for itself. It's not only rugged, but the relatively low rotating speed also means that it's quiet, in most instances the unit will be 80 dB or less.

The T-Vac Separator



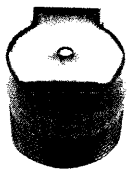
The T-Vac separator is designed to operate as two separators in one. Dirty air enters the bottom inlet and is immediately directed to a deflection plate. In this primary separator region, heavy matter is removed from the air stream by mechanically induced changes in particulate momentum and reductions in air velocity.

Finer particles move with the airstream to the secondary separator region where they are collected by fabric dust bags. With low air-to-cloth ratios, our standard cotton sateen dust bags can handle volumes of different debris without plugging or overloading. And with the combination "primary/secondary" separator bag life is extended as much as possible.

Industrial Vacuum Hose, Tools & Accessories: 1 1/2" & 2"

Inlet Valves

All 1-1/2" inlet valves have 1-1/2" female slip joint connections for 1-1/2" hose and 2" male pipe thread for installation, except latching type valves, which are 1.8" I.D.



Escutcheon Plates

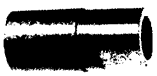
Fit all inlet valves.

Floor Rods

For use with General Duty floor tools.

Hose Accessories

For use on end of hose with hand tools. 1-1/2" female and male slip joints (1 lb.) Provides manual air control.

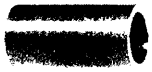


Overhead Tools

For use with General Duty hand tools adapter and wall or extension rods.

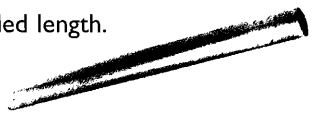
Wall Rod

For use with General Duty brushes.



Extension Rod

Provides added length.



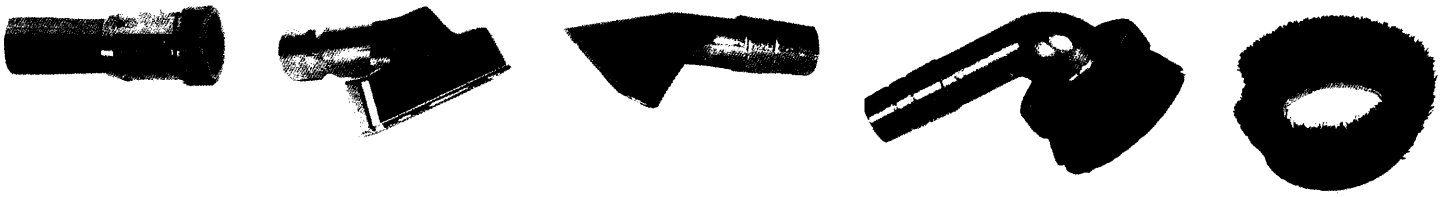
Industrial Vacuum Hose, Tools & Accessories *(continued)*

Floor Tools

With aluminum male swivel connections for General Duty floor rods.

Hand Tools

For use with General Duty hand tool adapter and wall or extension rods. All have 1-1/2" male ends.



Hoffman Hose

F A light weight, very flexible, helically reinforced, thermoplastic hose. Hose consists of a wire helix with a single ply cover. (Wt/Ft: .33 lbs.; Max T: 180° F) **Ideal for use in general and industrial applications. This light weight flexible hose offers good air flow characteristics, along with excellent helix-to-cover adhesion.**

XL A light weight, very flexible rubber hose. A static wire of braided stainless steel is spiraled throughout the hose and a high tensile steel reinforcing wire is spiraled in intimate contact with the static wire. The hose has a corrugated, white cloth cover finish. (Wt/Ft: .41 lbs.; Max T: 180°F) **The double grounding features of this hose make it excellent in both general and heavy industrial environments where sparking should be kept to a minimum.**

L A light weight, very flexible hose fabricated of static conductive rubber. In addition, two static wires of braided stainless steel are spiraled throughout the hose, and a high tensile steel reinforcing wire is spiraled in intimate contact with the static wire. A rubber covering gives the hose a black corrugated finish. (Wt/Ft : .53 lbs.; Max T: 180° F) **It's triple grounding feature makes this hose excellent for military and/or explosive environments where conductivity is essential.**

VF A medium weight, very flexible industrial duty hose with smooth vinyl interior and exterior coatings separated by a layer of vinyl foam in the middle. Hose is heavily reinforced with multiple steel wires and nylon cords interwoven in the helix throughout the hose length. (Wt/Ft: .70 lbs.; Max T: -20 to 210° F) **Applicable for use in general and industrial environments where a rugged hose is required. Stands up well to most abrasive products and chemicals. The smooth vinyl surface gives efficient and uninterrupted flow of materials and liquids. The smooth exterior is easy to clean and makes this hose especially recommended for food processing plants. Construction resists crushing, kinking and breaking.**

RS A medium weight, flexible rubber hose with a smooth inner bore. Hose is heavily reinforced with a high tensile steel copperized wire at 40 turns per foot. The cover is a synthetic coated nylon giving a black smooth cover finish. (Wt/Ft: .50 lbs.; Max T: 160°F) **Applicable for use in general and heavy industrial environments where a rugged hose is required for floor, wall and hand cleaning operations.**

HS A heavy duty, flexible, abrasion resistant rubber hose with a smooth inner bore. Hose is heavily reinforced with a high tensile steel copperized wire at 40 turns per foot. The cover is a synthetic coated nylon giving a black smooth cover finish. (Wt/Ft: .60 lbs.; Max T: 160°F) **Applicable for use in heavy industrial environments where a rugged hose is required for floor, wall and hand cleaning operations.**

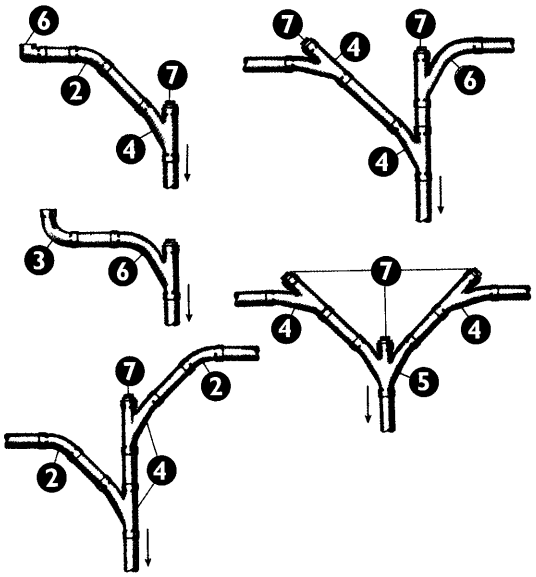
M A heavy duty flexible metal hose constructed of a continuous strip of metal spirally wound so that the edges interlock to form hose. (Wt/Ft: .90 lbs.; Max T: 300°F) **Applicable for use in heavy industrial environments for temperatures up to 300° F.**

Smooth Flow-Tubing & Fittings

The majority of central vacuum cleaning and in-plant pneumatic conveying systems effectively utilize lightweight smooth flow tubing and fittings in place of heavy cast iron piping and drainage fittings. Smooth flow provides an efficient and cost effective piping system available in sizes from 2" to12", and gauges 16 through 12. With the range of fittings available, system design and installation are easily accomplished. One added benefit: since free air flow decreases friction loss, the most efficient exhauster can be utilized. Smooth flow materials of construction include plain carbon steel, zinc coated (galvanized) carbon steel, 304 Stainless Steel and 6061 Aluminum.

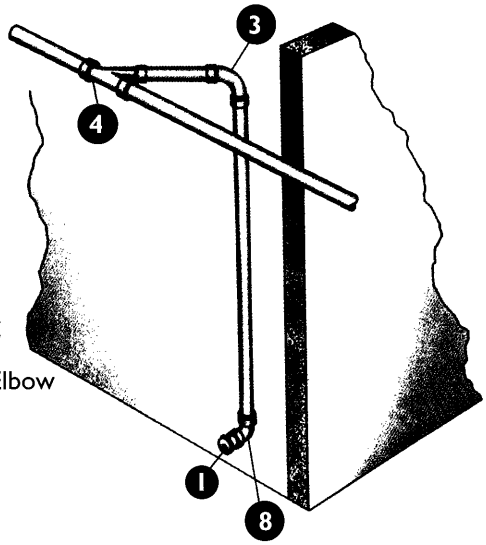
Hoffman representatives will facilitate the installation of your system by providing layout drawings and information on the correct method for installation. A full supply of tubing and fittings are available from our stock.

Typical Plan Views



1. Inlet Valve
2. 45° Elbow
3. 90° Elbow
4. 45° Y
5. Double 45° Y
6. 90° TY
7. Cleanout Plug
8. 90° Adapter Elbow

Typical Drop Showing Side Pipe Take-Off



Expanded Fitting

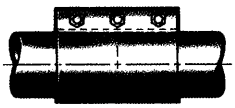
Compression Coupling

Note: The above methods of joining are intended for use only in vacuum and low pressure (under 15 PSIG) pneumatic material handing systems.

Shrink Sleeve

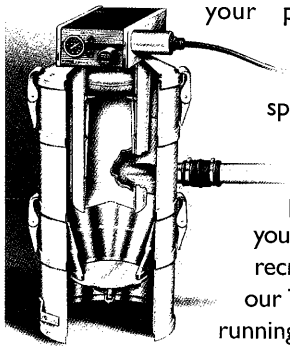
Note: Shrink sleeve is intended for use only in vacuum and low pressure (under 10 PSIG @ 120°F) pneumatic material handling systems.

Slip Coupling

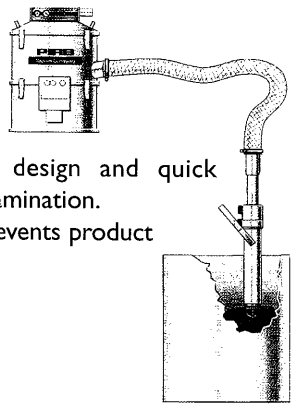


The Best Solution For Transferring Bulk Powders

Whether you're transporting powder from drums, super sacks, bags or process equipment, PIAB's exclusive air-driven vacuum conveyor systems make it all happen. Precisely for your process or packaging application. Without mechanical moving parts. With far greater efficiency and speed. With far less downtime. First we design a system powered by PiAB's respected multi-ejector vacuum pump. A solution configured exactly to yours and your industry's demands. Then we recreate your conveyance environment in our Test Center and test your new system running your materials.



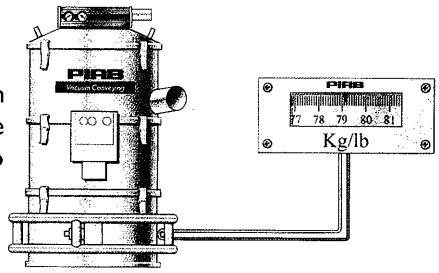
PIAB's Vacuum Conveyor System Advantages



- Sanitary. USDA/FDA approved, stainless steel construction with no motor or oils.
- Hygienic. Lightweight modular design and quick change filters prevent cross-contamination.
- Dust free. Vacuum technology prevents product blow-by or leakage.
- Virtually maintenance-free
- No vibrations or oil mist
- Compact size
- Easy installation
- 5-year guarantee

Process Guarantee

Because we can recreate your system in our own PIAB Test Center, we can confidently guarantee that your PIAB conveyor system will work to your satisfaction every time.



Versatility

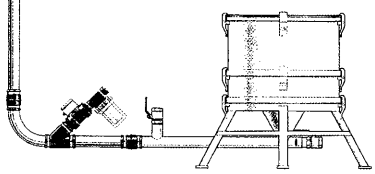
The design of PIAB vacuum modules and accessories allows us to bring an effective vacuum system solution to a wide range of processes and environments. In conveying particulate and granular materials, for example, feeding can be accomplished directly from the bag or other open container, from a hopper or feed station, from a bulk-bag or silo, and even from process equipment. Over 100 standard vacuum module configurations are available to suit your application. Both feeding and receiving points are adjustable. PIAB's pneumatically driven vacuum pumps require only compressed-air connection for flexible installation.

Custom Engineering

Beyond the versatility of our standard systems, PIAB also offers you expertise in the design of special-purpose units incorporating, for instance, custom receivers, special-diameter piping, separate filter systems or weighing modules for more accurate batching. Whatever your specific conveying need, we can build the solution for it at PIAB.

Efficiency

PIAB Vacuum Conveyors transport materials both vertically and horizontally with far greater efficiency, reliability and speed than manual or mechanical material-handling techniques.

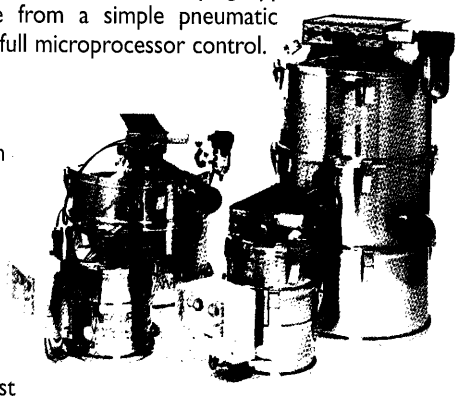


Environmental Safety

As an essentially or fully sealed system, your PIAB vacuum conveyor prevents the entrance of potentially harmful – or costly – raw materials into the workplace, even in the event of an internal leak. Further, conveying systems can be grounded to minimize the risk of dust explosions, while any toxic or noxious gases can be diverted with an exhaust adapter.

Control Options

Depending upon the demands of your conveying application, system control can range from a simple pneumatic switch or electric timer to full microprocessor control.



Reliability

PIAB vacuum pumps, driven solely by compressed air, contain no mechanical moving parts, minimizing the routine maintenance and downtime. To further enhance system reliability, all components are manufactured from the most durable quality materials, including high-grade polished 316 stainless steel.

Hygiene (USDA/FDA approved)

The PIAB Vacuum Conveyor is available in a USDA version which is approved for federally inspected meat and poultry plants.

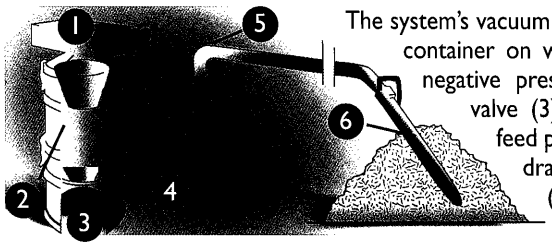
Conveyor System Characteristics

Vacuum Conveyor	Internal Volume (ft3)	Weight (pounds)	Sound Level (dBA)	Air Consumption at 87 psi** (scfm)	Dimensions (inches)	Vacuum Inlet (inches)
VC100	.04	22.0	60-65	12.72	11.5x15.2	1.25"
VCP100	**.14**	**26.4**	**60-65**	**12.72**	**11.5x20.5**	**1.25"**
VC200	.14	33.0	72-76	25.44	11.5x21.6	2.00"
VCP200	**.14**	**37.4**	**72-76**	**25.44**	**11.5x26.7**	**2.00"**
VC400	.14	37.4	72-76	50.88	11.5x26.7	2.00"
VCP400	**.14**	**46.2**	**72-76**	**50.88**	**11.5x37.1**	**2.00"**
VC400L	.64	74.9	72-76	50.88	22.4x25.7	4.00"
VC800	**.64**	**94.7**	**72-76**	**101.76**	**22.4x31.1**	**4.00"**
VCP800	.64	116.7	72-76	101.76	22.4x43.2	4.00"
VC1200	**.64**	**121.1**	**72-76**	**152.64**	**22.4x43.2**	**4.00"**
VCP1200	.64	143.2	72-76	152.64	22.4x55.3	4.00"

** All PIAB Vacuum Conveyors are equipped with a PIAB Vacuum Pump.

The Operating Principle

Although the diversity of potential applications and system designs necessitates a range of individual, sometimes unique, solutions, the basic operation of PIAB's Vacuum Conveyors may be illustrated as follows:



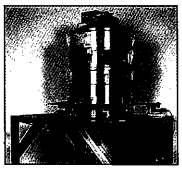
The system's vacuum pump (1) evacuates the receiving container on which it is mounted (2), creating negative pressure that closes the discharge valve (3) and initiates suctioning at the feed point (6). The suctioned material is drawn through the system's pipeline (5) into the receiving container, emptying through the discharge valve, which opens when the pump stops (pneumatically or automatically). The filter element (4), which prevents particles from entering the pump or work environment, holds a reservoir of compressed air during system operation then releases it to purge itself at pump shut-off. Running and discharge cycles may be regulated by timer or microprocessor control.

To Complete Your PIAB Vacuum Conveying System . . .

Bulk Bag Unloaders

Our bulk bag unloaders feature an inflatable seal for a dust-tight attachment. Using an air cylinder to break up any bridging gives it a compact design. The bulk bag unloader is also portable as it can be put on casters and quickly maneuvered around.

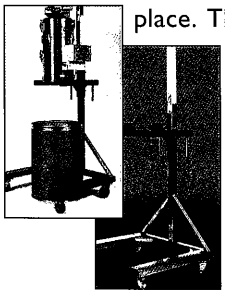
Discharging & Dosing System



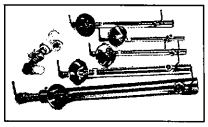
Combined multi-purpose Discharging and Dosing System for free- to difficult flowing bulk powders with unique advantages regarding hygiene, dosing accuracy, flexibility and reliability.

Portable Cart

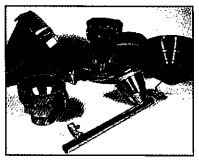
This portable stand provides for more application possibilities. The conveyor can be easily moved around on demand with its 6"sanitary casters that can be locked in place. The stand allows the conveyor to be placed over drums of 17" to 22" diameters with the drum's height of between 14" to 35". The stand is made of 304 SS with 2B mill finish and weighs 65 pounds. Custom stands can be produced to your own specifications.



Conical Feed Adapters

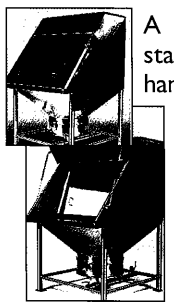


Our conical feed adapters provide the correct proportions of material and air by using adjustable ball valves on each end of the adapter. The conical design allows the product to completely empty from the adapter which reduces cleaning or change out times. All product contact surfaces are made in AISI316 SS, pipe sizes from 1.25" to 4" diameter.



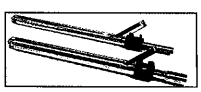
Custom Stainless Steel Components Available.

Bag Dump Station



A sanitary bag dump work station for ergonomic bag handling. The stainless steel bag dump station incorporates the innovative PIAB fluid cone for complete discharge of even the most difficult materials. It is also available without fluidization.

Feed Wands



Designed to prevent the suctioning of plastic liners while drawing from barrels, these stainless steel nozzles employ a double inner tube to aspirate even dense materials.