

User Guide

Positive Displacement Pump

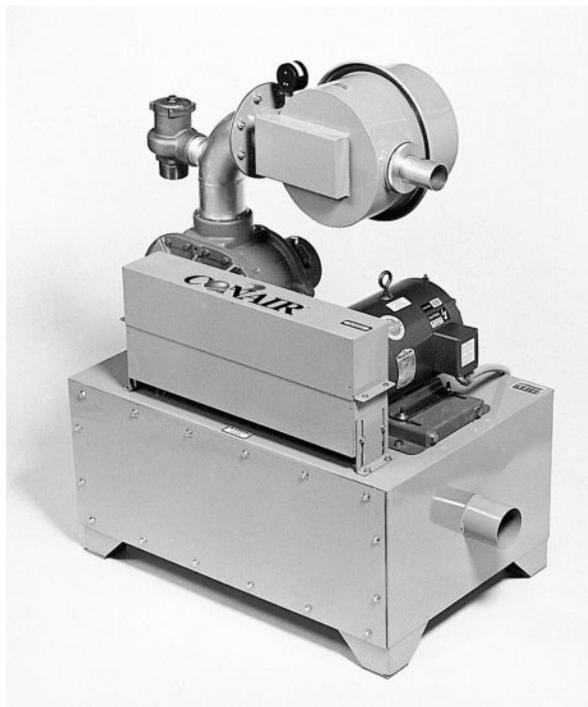
Models PD3, 5, 7.5, 10, 15 and 25

Installation

Maintenance

Operation

Troubleshooting



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Parts and Service
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CONAIR™

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IMB036/0898

Please record your equipment's model and serial number(s) and the date you received it

It's a good idea to record the model and serial number(s) of your equipment and the date you received it in the User Guide. Our service department uses this information, along with the manual number, to provide help for the specific equipment you installed.

Please keep this User Guide and all manuals, engineering prints and parts lists together for documentation of your equipment.

Date:
Manual Number: IMB036/0898
Serial number(s):
Model number(s):

DISCLAIMER: The Conair Group, Inc., shall not be liable for errors contained in this User Guide or for incidental, consequential damages in connection with the furnishing, performance or use of this information. Conair makes no warranty of any kind with regard to this information, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose.

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 **ATTENTION:**
READ THIS SO NO
ONE GETS HURT

We design equipment with the user's safety in mind. You can avoid the potential hazards identified on this machine by following the procedures outlined below and elsewhere in the User Guide.



WARNING: Improper installation, operation or servicing may result in equipment damage or personal injury.

This equipment should be installed, adjusted, and serviced by qualified technical personnel who are familiar with the construction, operation and potential hazards of this type of machine.

All wiring, disconnects and fuses should be installed by qualified electrical technicians in accordance with electrical codes in your region. Always maintain a safe ground. Do not operate the equipment at power levels other than what is specified on the the machine serial tag and data plate.



WARNING: Voltage hazard

This equipment is powered by three-phase alternating current, as specified on the machine serial tag and data plate.

Always disconnect and lock out the incoming main power source before performing non-standard operating procedures, such as routine maintenance. Only qualified personnel should perform troubleshooting procedures that require access to the electrical enclosure while power is on.

Conair positive displacement vacuum pumps are designed for long distance, high-volume material conveying applications.

DESCRIPTION

Each model employs a powerful, rotating lobe-type blower, protected by a vacuum relief valve (factory-set to 12 in. Hg) and belt driven by a three-phase motor with magnetic starter and overload protection. An integrated pump protection filter is included and all components are mounted on a rugged frame, housing an integrated exhaust muffler.

An optional sound enclosure may be added to reduce noise when installed near plant personnel.

Positive Displacement Pumps provide the strongest vacuum power available, but when operated for long periods at high performance levels, noise should be abated if the pump is located near personnel. Sound Enclosures are available for all pump models and provide maximum noise control with minimal space and easy access to pump maintenance areas.

OPTIONAL SOUND ENCLOSURES

Super Quiet Sound Enclosures include externally mounted protection filter, vacuum gauge and filter gauge; 8 ft exhaust stack (for noise); and easy access, tool-free front door.

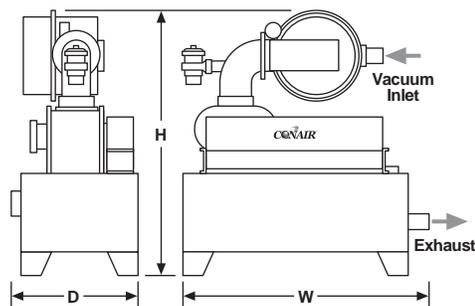


5 HP Pumps in
Sound Enclosures
(with dust collectors)



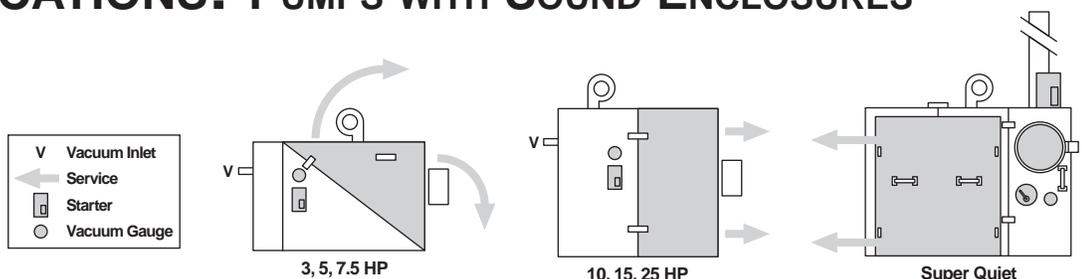
Super Quiet Sound
Enclosure (with
Dust Collector)

SPECIFICATIONS: POSITIVE DISPLACEMENT PUMP



MODEL	PD3	PD5	PD7.5	PD10	PD15	PD25
Motor Type*	TEFC	TEFC	TEFC	ODP	ODP	ODP
Performance characteristics						
Horsepower	3	5	7.5	10	15	25
Standard CFM at material pickup point @ 10" Hg	52.6	76.6	121.2	154.5	201.1	346.2
Average sound level (dbA) @ 8", 10" and 12" Hg	86	86.3	86	85.8	88.8	93
Dimensions / in. {mm}						
Standard inlet line size (OD)	1.5 {38}	1.75 {44}	2.25 {57}	2.5 {64}	3.0 {76}	4.0 {102}
Exhaust line size (OD)	2.5 {64}	2.5 {64}	2.5 {64}	4.0 {102}	4.0 {102}	4.0 {102}
Height (H)	37 {940}	37 {940}	41 {1041}	51 {1295}	51 {1295}	52 {1321}
Width (W)	35 {889}	35 {889}	35 {889}	39.5 {1003}	39.5 {1003}	39.5 {1003}
Depth (D)	27 {686}	27 {686}	27 {686}	33 {838}	33 {838}	34 {864}
Installed Weight / lb {kg}	325 {147}	325 {147}	370 {168}	625 {283}	640 {290}	960 {435}
Voltage / Full Load Amps						
240 V/3 phase/50-60 hz	7.6	12	18.8	28	39	59
480 V/3 phase/50-60 hz	3.8	6	9.4	14	19.5	29.5
575 V/3 phase/50	2.9	4.8	7.5	10.7	16	27

SPECIFICATIONS: PUMPS WITH SOUND ENCLOSURES



Specifications not listed below are the same as those listed above. All Sound Enclosures include a cooling fan 115 VAC @ 2 amps.

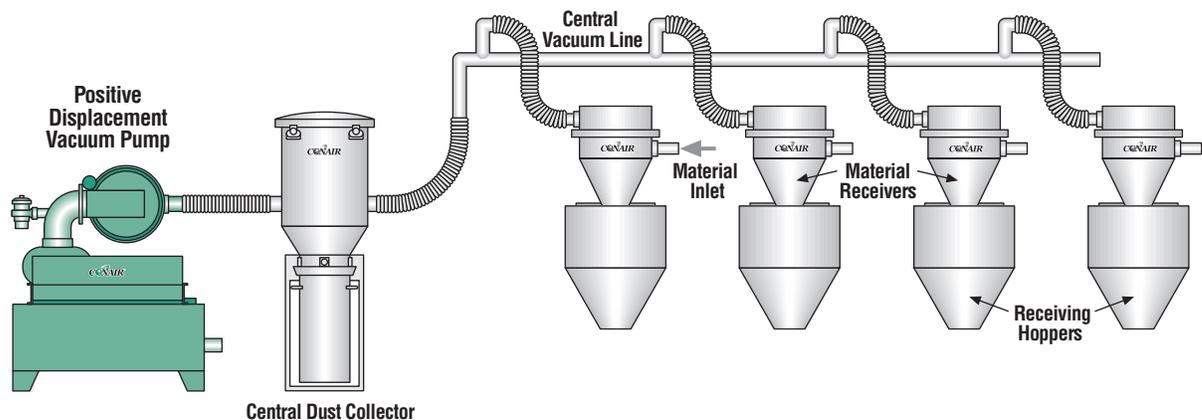
MODEL	PD3	PD5	PD7.5	PD10	PD15	PD25	SUPER (ANY MODEL)
Performance characteristics							
Average sound level (dbA) @ 8", 10" and 12" Hg	61.9	69.8	76.2	79.3	86.0	90.0	Under 60 dbA
Enclosure Construction	Painted Steel			Natural Aluminum			Painted Steel
Allowance Space for service access / in	48 (Opposite Vacuum Inlet)			36 (Opposite Vacuum Inlet)			36 (Front, Next to Filter)
Dimensions / in. {mm}							
Height (H)	49 {1245}			64 {1626}			96 {2438}
Width (W)	54 {1372}			55 {1397}			70 {1778}
Depth (D)	32 {813}			36 {914}			50 {1270}

INSTALLING THE PUMP

Set or mount the vacuum pump in any convenient location.

Refer to the accompanying wiring diagram for connection of the main power supply and the conveying control circuit. You must provide a wall-mounted disconnect for three-phase electrical connection. Incoming voltage and current must match the electrical specifications on the pump data plate and serial tag. Check for proper rotation of the pump after power has been connected and before operation.

Install vacuum lines to loader stations and the dust collector. Connect the dust collector vacuum outlet to the pump inlet.



INSTALLATION AND OPERATION NOTE:

The pump inlet is equipped with a vacuum relief valve to prevent the vacuum from exceeding 12 in. Hg. Excessive vacuum will reduce the life of the pump and can destroy it.

For special applications requiring a higher vacuum level, consult Conair service. If the vacuum relief valve is adjusted by any person other than a factory service representative, the warranty is voided.

PREVENTATIVE MAINTENANCE SCHEDULE

To maintain the best performance, you should follow the maintenance recommendations outlined here and in any included manuals from component manufacturers.

- **Weekly, or as often as needed**

- Check and clean the pump inlet filter.**

An inlet filter has been provided to protect the pump from solid material that can enter and damage the pump impellers. material can enter the vacuum line if a loader filter is improperly installed or if it has a hole in it. Replace the pump inlet filter if it is torn or worn.

- Check all V/belts.**

The V/belts have a tendency to stretch, so an adjustable motor base is provided. Keep belts tight to prevent slippage and wear. Do not use belt dressings.

- **Every 500 hours of operation**

- Grease the pump.**

Use No. 2 bearing grease or the equivalent. Refer to manuals from the component manufacturer for additional information and instructions.

- **Every 1500 hours of operation**

- Change the oil.**

The vacuum pump has been filled with the proper oil and tested by Conair before shipment. Even so, this oil should be changed periodically. Use SAE 40 regular or an equivalent oil.

- **Every three months**

- Check motor bearings and grease, if necessary.**

The motor is equipped with double-shielded ball bearings having sufficient grease to last indefinitely under normal service. But if the motor is used constantly in dirty, wet or corrosive atmospheres, you should add 1/4 oz. of grease per bearing every three months. Use a quality, rust-inhibiting, polyure-based grease such as Chevron SRI. Refer to the motor manual for additional instructions.

Conair has made the largest investment in customer support in the plastics industry. Our service experts are available to help with any problem you might have installing and operating your equipment. Your Conair sales representative also can help analyze the nature of your problem, assuring that it did not result from misapplication or improper use.

WE'RE HERE TO HELP

To contact Customer Service personnel, call:



From outside the United States, call: 814-437-6861

HOW TO CONTACT CUSTOMER SERVICE

You can commission Conair service personnel to provide on-site service by contacting the Customer Service Department. Standard rates include an on-site hourly rate, with a one-day minimum plus expenses.

If you do have a problem, please complete the following checklist before calling Conair:

- Make sure you have all model, serial and parts list numbers for your particular equipment. Service personnel will need this information to assist you.
- Make sure power is supplied to the equipment.
- Make sure that all connectors and wires within and between control systems and related components have been installed correctly.
- Check the troubleshooting guide of this manual for a solution.
- Thoroughly examine the instruction manual(s) for associated equipment, especially controls. Each manual may have its own troubleshooting guide to help you.
- Check that the equipment has been operated as described in this manual.
- Check accompanying schematic drawings for information on special considerations.

Additional manuals and prints for your Conair equipment may be ordered through the Customer Service or Parts Departments for a nominal fee.

EQUIPMENT GUARANTEE

Conair guarantees the machinery and equipment on this order, for a period as defined in the quotation from date of shipment, against defects in material and workmanship under the normal use and service for which it was recommended (except for parts that are typically replaced after normal usage, such as filters, liner plates, etc.). Conair's guarantee is limited to replacing, at our option, the part or parts determined by us to be defective after examination. The customer assumes the cost of transportation of the part or parts to and from the factory.

PERFORMANCE WARRANTY

Conair warrants that this equipment will perform at or above the ratings stated in specific quotations covering the equipment or as detailed in engineering specifications, provided the equipment is applied, installed, operated and maintained in the recommended manner as outlined in our quotation or specifications.

Should performance not meet warranted levels, Conair at its discretion will exercise one of the following options:

- Inspect the equipment and perform alterations or adjustments to satisfy performance claims. (Charges for such inspections and corrections will be waived unless failure to meet warranty is due to misapplication, improper installation, poor maintenance practices or improper operation.)
- Replace the original equipment with other Conair equipment that will meet original performance claims at no extra cost to the customer.
- Refund the invoiced cost to the customer. Credit is subject to prior notice by the customer at which time a Return Goods Authorization Number (RGA) will be issued by Conair's Service Department. Returned equipment must be well crated and in proper operating condition, including all parts. Returns must be prepaid.

Purchaser must notify Conair in writing of any claim and provide a customer receipt and other evidence that a claim is being made.

WARRANTY LIMITATIONS

Except for the Equipment Guarantee and Performance Warranty stated above, Conair disclaims all other warranties with respect to the equipment, express or implied, arising by operation of law, course of dealing, usage of trade or otherwise, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.