User's Manual

Labconco Coated Steel, Fiberglass and PVC Blowers

Coated Steel Models

7068000, 7068100, 7068200, 7068300, 7068400, 7068500, 7068600, 7068700, 7068800, 7068900, 7069000, 7069100, 7069200, 7069300, 7069400, 7069500, 7069600, 7069700, 7071900

Fiberglass Models

7180000, 7180100, 7180200, 7180300, 7180400, 7180500, 7180600, 7180700, 7180800, 7180900, 7181000, 7181100, 7181200, 7181300, 7181400, 7181500, 7181600, 7181700, 7182000, 7182100, 7182200, 7182300

PVC Models

7183000, 7183100, 7183200

To receive important product updates, complete your product registration card online at **register.labconco.com**

Protecting your laboratory environment

LABCONCO®

Labconco Corporation
8811 Prospect Avenue
Kansas City, MO 64132-2696
800-821-5525, 816-333-8811
FAX 816-363-0130
E-MAIL labconco@labconco.com
HOME PAGE www.labconco.com

Please read the User's Manual before operating the equipment.

Warranty

Labconco provides a warranty on all parts and factory workmanship. The warranty includes areas of defective material and workmanship, provided such defect results from normal and proper use of the equipment.

The warranty for all Labconco products will expire one year from date of installation or two years from date of shipment from Labconco, whichever is sooner, except the following;

- Purifier® Logic® Biological Safety Cabinets and PuriCare® Lab Animal Research Stations carry a three-year warranty from date of installation or four years from date of shipment from Labconco, whichever is sooner.
- SteamScrubber® & FlaskScrubber® Glassware Washers carry a two-year warranty from date of installation or three years from date of shipment from Labconco, whichever is sooner.
- Blood Drawing Chairs carry a ten year warranty.
- Carts carry a lifetime warranty.
- Glassware is not warranted from breakage when dropped or mishandled.

This limited warranty covers parts and labor, but not transportation and insurance charges. In the event of a warranty claim, contact Labconco Corporation or the dealer who sold you the product. If the cause is determined to be a manufacturing fault, the dealer or Labconco Corporation will repair or replace all defective parts to restore the unit to operation. Under no circumstances shall Labconco Corporation be liable for indirect, consequential, or special damages of any kind. This statement may be altered by a specific published amendment. No individual has authorization to alter the provisions of this warranty policy or its amendments. Lamps and filters are not covered by this warranty. Damage due to corrosion or accidental breakage is not covered.

Returned or Damaged Goods

Do not return goods without the prior authorization from Labconco. Unauthorized returns will not be accepted. If your shipment was damaged in transit, you must file a claim directly with the freight carrier. Labconco Corporation and its dealers are not responsible for shipping damages.

The United States Interstate Commerce Commission rules require that claims be filed with the delivery carrier within fifteen (15) days of delivery.

Limitation of Liability

The disposal and/or emission of substances used in connection with this equipment may be governed by various federal, state, or local regulations. All users of this equipment are required to become familiar with any regulations that apply in the user's area concerning the dumping of waste materials in or upon water, land, or air and to comply with such regulations. Labconco Corporation is held harmless with respect to user's compliance with such regulations.

Contacting Labconco Corporation

If you have questions that are not addressed in this manual, or if you need technical assistance, contact Labconco's Customer Service Department or Labconco's Product Service Department at 1-800-821-5525 or 1-816-333-8811, between the hours of 7:00 a.m. and 6:00 p.m., Central Standard Time.

Part #7114000, Rev. G
ECO F898

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CHAPTER 1
INTRODUCTION

Congratulations on your purchase of a Labconco Blower. Your Labconco Blower has been specifically engineered to meet the demanding requirements of most laboratory ventilation situations. The outside steel housing of the blower encloses the motor, shaft, and bearings.

The contaminated air plenum of the Coated Steel Blower has a protective phenolic coating. The Fiberglass Blower features a fiberglass reinforced polyester housing and an injection molded polypropylene impeller. The PVC Blower housing is formed out of polyvinyl chloride (PVC) and the impeller wheel is injection molded polyvinyl defloride (PVDF).

All blowers are available in both non-explosion proof and explosion proof configurations. They feature cooling vents and weathercovers that allow for unrestricted exterior roof mounting. The blowers also feature forward curved impellers to ensure quiet operation and optimum air delivery.

Your Labconco Blower offers many unique features to enhance performance. To take full advantage of them, acquaint yourself with this manual and keep it handy for future reference. If you are unfamiliar with how blowers operate, review *Chapter 4: Performance Data and Safety Precautions* before you begin operating the blower. Even if you are experienced, review *Chapter 5: Using your Blower*.

About This Manual

This manual will help you learn how to install, use, and maintain your blower. Instructions for installing optional equipment on your blower are also included.

Chapter 1: Introduction provides a brief overview of the blower, explains the organization of the manual, and defines the typographical conventions used in the manual.

Chapter 2: Prerequisites explains what you need to do to prepare your site before you install your blower. Electrical and service requirements are discussed.

Chapter 3: Getting Started contains the information you need to properly unpack, inspect, install and certify your blower.

Chapter 4: Performance Data and Safety Precautions explains how the blower operates and the appropriate precautions you should take when using the blower.

Chapter 5: Using your Blower discusses basic operation.

Chapter 6: Maintaining Your Blower explains how to perform routine maintenance on your blower.

Chapter 7: Modifying Your Blower, Calculating Static Pressure Loss, and Blower Sizing explains how to modify the blower or add ductwork accessories.

Chapter 8: Troubleshooting contains a table of situations you may encounter while using your blower including the probable causes of the problems and suggested corrective actions.

Appendix A: Blower Replacement Parts contains labeled diagrams of all of the components of the blowers.

Appendix B: Blower Dimensions contains comprehensive diagrams showing all of the dimensions for the various blowers.

Appendix C: Blower Environmental Conditions contains the environmental conditions to operate the blower.

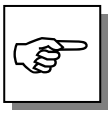
Typographical Conventions

Recognizing the following typographical conventions will help you understand and use this manual:

- Book, chapter, and section titles are shown in italic type (e.g., *Chapter 3: Getting Started*).
- Steps required to perform a task are presented in a numbered format.
- Comments located in the margins provide suggestions, reminders, and references.
- Critical information is presented in boldface type in paragraphs that are preceded by the exclamation icon. Failure to comply with the information following an exclamation icon may result in injury to the user or permanent damage to the Blower.

- Critical information is presented in boldface type in paragraphs that are preceded by the wrench icon. Only a trained certifier or contractor should perform these operations. Failure to comply with the information following a wrench icon may result in injury to the user or permanent damage to your Blower.

- Important information is presented in capitalized type in paragraphs that are preceded by the pointer icon. It is imperative that the information contained in these paragraphs be thoroughly read and understood by the user.



- A letter icon precedes information that is specific to a particular blower model. The CS icon indicates the text is specific to the Coated Steel Blower.

- The FRP icon indicates the text is specific to the Fiberglass Blower.

- The PVC icon indicates the text is specific to the PVC Blower.

If you would like to review how blowers operate, or their differentiating features go to *Chapter* 4: *Performance Data and Safety Precautions*.

For information on the operational characteristics of the blower, go to *Chapter 5: Using your Blower*.

If your blower is installed and you need to perform routine maintenance on the blower, proceed to *Chapter 6: Maintaining Your Blower.*

For information on making modifications to the configuration of your blower, go to *Chapter 7: Modifying Your Blower, Calculating Static Pressure Loss, and Blower Sizing*.

Refer to *Chapter 8: Troubleshooting* if you are experiencing problems with your blower.

CHAPTER 2
PREREQUISITES

Before you install your blower, you need to prepare your site for installation. A dedicated source of electrical power must be located near the installation site.

Carefully read this chapter to learn:

- The location requirements for your installation site.
- The mounting support requirements for your installation site.
- The electrical power requirements for your installation site.
- The space requirements for your installation site.

Refer to *Appendix B: Blower Dimensions* for complete blower dimensions.

Refer to *Appendix C: Blower Environmental Conditions* for complete environmental conditions.

Location Requirements

In positioning your blower, care should be taken to make sure that it is away from all other types of air handling equipment (intake fans, air conditioning units, etc.). Your blower should also include a minimum of 7 ft. of ducting above the roofline to generate proper air dispersion of materials being exhausted through the blower. Also consider the location of the blower inlet with respect to the hood you are exhausting. Proper planning and layout are essential in selecting a blower location.

Mounting Support Requirements

You must provide vibration isolators, vibration mounting pads, and/or a roof curb support for proper mounting of the blower. Vibration isolators or vibration mounting pads are available from many sources such as a local industrial supply company. Labconco recommends supporting the blower with 5/16" diameter mounting hardware.

Electrical Power Requirements

The blower wiring should be terminated at the motor end plate and wired according to the specific voltage and terminations on the motor. Locate the specific wiring voltage for your blower motor in the chart in *Chapter 4: Performance Data and Safety Precautions*.

Space Requirements

The dimensions for the different models are shown in *Appendix B: Blower Dimensions*.

CHAPTER 3
GETTING STARTED

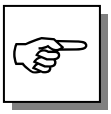
Now you are ready to unpack, inspect, and install the blower. Read this chapter to learn how to:

- Unpack and move your blower.
- Install the blower on a supporting structure.
- Adjust the blower outlet orientation.
- Install the exhaust run with vibration dampers.
- Connect to the blower inlet.
- Connect to the blower outlet.
- Connect the electrical supply source.
- Adjust the fan speed and confirm blower performance.
- Connect the PVC Blower drain. (PVC Blowers only)

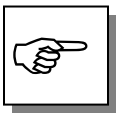
Unpacking Your Blower

Carefully remove the shipping carton from your blower. Inspect the blower for damage that may have occurred in transit. If the blower is damaged, notify the delivery carrier immediately and retain the entire shipment intact for inspection by the carrier.

The United States Interstate Commerce Commission rules require that claims be filed with the delivery carrier within fifteen (15) days of delivery.



DO NOT RETURN GOODS WITHOUT THE PRIOR AUTHORIZATION OF LABCONCO. UNAUTHORIZED RETURNS WILL NOT BE ACCEPTED.



IF YOUR BLOWER WAS DAMAGED IN TRANSIT, YOU MUST FILE A CLAIM DIRECTLY WITH THE FREIGHT CARRIER. LABCONCO CORPORATION AND ITS DEALERS ARE NOT RESPONSIBLE FOR SHIPPING DAMAGE.

Do not discard the packing material for your blower until you have installed and tested the blower.

Install the Blower on a Supporting Structure

Now that you have located your blower as instructed in *Chapter 2: Prerequisites*, you are ready to mount the blower on a roof curb support. Additionally, you may isolate the blower by mounting the blower on either vibration isolators or vibration mounting pads, which are available from a local industrial supply company. The supporting structure is custom for each installation. Labconco recommends supporting the blower with 5/16" diameter mounting hardware. See *Appendix B: Blower Dimensions* for appropriate mounting hole locations for your particular blower.

Adjust the Blower Outlet Orientation

The housing on your blower can be rotated to facilitate your duct run configuration. By rotating the blower housing, you will be able to change the blower outlet location on your blower. The Coated Steel Blowers can be rotated to one of eight different positions and the Fiberglass or PVC Blowers can be rotated to one of three different positions. See the drawings in *Appendix A* to locate the parts to disassemble. To rotate the blower housing, proceed as follows:

1. Remove the upper weathercover panel, which has louvers.
2. Once removed, you have complete access to the 8 fasteners that hold your blower housing assembly in position.

Removing these fasteners allows you to rotate the housing to one of the other desired outlet positions. Then insert the 8 fasteners and secure the blower housing in that specific position.

3. Reinstall the upper weathercover panel and you are ready for operation.

CAUTION: Blower 7071900 must be installed with outlet positioned for upward discharge. This will ensure that the integral back draft damper assembly will work properly. The dampers close by gravity when the blower is turned off and the blower needs to be in the proper orientation for this to occur.

Install the Exhaust Run with Vibration Dampers

Rubber isolation sleeves should be used in your exhaust duct run prior to entering the blower inlet. These isolation sleeves dampen vibration that is being generated by the blower and decrease noise level at the fume hood. See the flexible duct connections listed in *Chapter 7*.

Connect to the Blower Inlet for Coated Steel Blowers

Coated Steel Blowers model numbers 7068000 through 7068700, feature a 10-7/8" ID by 1-1/2" wide circular inlet ring. This inlet ring is suitable for use with 10-inch diameter PVC ductwork. The PVC ductwork itself will fit inside the inlet ring and should be fastened by sheet metal screws through the inlet ring. A silicone sealant should also be used to seal between the ductwork and the blower inlet ring to prevent any air or moisture leakage.

Coated Steel Blowers, model numbers 7068800 through 7069700, feature a 12-1/4" OD by 1-1/2" wide inlet ring, which is suitable for use with 12-inch diameter PVC ductwork. The 12-inch diameter PVC ductwork will fit over the inlet ring on the blower and should be fastened in position by sheet metal screws into the metal ring.

Connect to the Blower Inlet for Fiberglass Blowers

FRP

Fiberglass Blowers, model numbers 7180000 through 7180700, feature a 10-3/8" OD inlet ring. This inlet ring is suitable for use with 10-inch diameter PVC ductwork. The PVC ductwork will fit outside the inlet ring and should be fastened by sheet metal screws through the fiberglass inlet ring. A silicone sealant is to be used to seal between the ductwork and the blower inlet ring to prevent air or moisture leakage.

Fiberglass Blowers model numbers 7180800 through 7181700, feature 12-3/8" OD inlet ring, which is suitable for use with 12-inch diameter PVC ductwork. The 12-inch diameter PVC ductwork will fit over the inlet ring on the blower and fastened by sheet metal screws through the fiberglass inlet ring.

Fiberglass Blowers, model numbers 7182000 through 7182300, feature a 15-5/8" OD inlet ring, which is suitable for use with 16-inch diameter PVC ductwork. The 16-inch diameter PVC ductwork will fit over the inlet ring on the blower and fastened by sheet metal screws into the fiberglass inlet ring.

Connect to the Blower Inlet for PVC Blowers

PVC

PVC Blower model number 7183000 features a 10-3/8" OD inlet ring. This inlet ring is suitable for use with 10-inch diameter PVC ductwork. The PVC ductwork will fit outside the inlet ring through the fiberglass inlet ring. A silicone sealant should also be used to seal between the ductwork and the blower inlet ring to prevent air or moisture leakage.

PVC Blowers model numbers 7183100 and 7183200, feature a 12-3/8" OD inlet ring, which is suitable for use with 12-inch diameter PVC ductwork. The 12-inch diameter PVC ductwork will fit over the inlet ring on the blower and should be fastened in position by sheet metal screws into the fiberglass ring.

Connect the PVC Blower Drain

PVC

The PVC Blower has a 1/2" NPT drain connection in the bottom of the housing. When this connection is used, it should be directed into a proper drain or into the exhaust duct for proper disposal.

CAUTION: Draining the blower housing directly onto the roof may cause damage to your roof due to the corrosive chemicals exhausted.

Connect to the Blower Outlet

Before proceeding with the blower outlet connection, read the two warnings listed below:

WARNING: Should your exhaust stack, on the outlet side of the exhaust blower, extend over 7 feet, both guy wires and additional structural supports are required to carry the weight of this ductwork. The guy wires must be substantial enough to support the exhaust stack against high wind velocities.

WARNING: If the blower includes an integral backdraft damper, do not interfere with or limit the travel of the damper mechanism when connecting exhaust ductwork.

For Coated Steel Blowers

CS

Coated Steel Blowers model numbers 7068000 through 7068700, include a 10" by 5-1/2" rectangular outlet. A rectangular to round Transition Adaptor, Labconco part number 4722401, adapts the outlet connection to accept 10-inch diameter PVC ductwork Transition Adaptor. Labconco part number 4722400 adapts the outlet on these blowers to accept 8-inch diameter PVC ductwork.

Coated Steel Blowers, model numbers 7068800 through 7069700 include a 13-1/2" by 7" rectangular outlet. Transition Adaptor, Labconco part number 7003400, adapts the outlet of these blowers to accept 12-inch diameter PVC ductwork.

For Fiberglass Blowers

FRP

Fiberglass Blowers model numbers 7180000 through 7180700, feature a 10-3/4" ID outlet connection. Ten-inch diameter ductwork will slip into this connection and should be held by sheet metal screws through the housing. Silicone sealant should be used to seal any air leaks between the duct and blower outlet connection.

Fiberglass Blowers model numbers 7180800 through 7181700, feature a 12-3/4" ID outlet connection. Twelve-inch diameter ductwork will slip into this connection and should be held by sheet metal screws through the housing. Silicone sealant should be used to seal any air leaks between the duct and blower outlet connection.

Fiberglass Blowers model numbers 7182000 through 7182300, feature a 16" ID outlet connection. Sixteen-inch diameter ductwork will slip into this connection and should be held by sheet metal screws through the housing. Silicone sealant should be used to seal any air leaks between the duct and blower outlet connection.

For PVC Blowers

PVC

PVC Blower, model number 7183000, features a 10-3/4" ID outlet connection. Ten-inch diameter ductwork will slip into this connection and should be held by sheet metal screws through the housing. Silicone sealant should be used to seal any air leaks between the duct and blower outlet connection.

PVC Blowers, model numbers 7183100 and 7183200, feature a 12-3/4" ID outlet connection. Twelve-inch diameter ductwork will slip into this connection and should be held by sheet metal screws through the housing. Silicone sealant should be used to seal any air leaks between the duct and blower outlet connection.

Connect to the Electrical Supply Source

The electrical connection for the Coated Steel Blower is made directly at the motor. Remove the end plate from the motor and

wire directly to the exposed terminals inside the motor. A knockout has also been provided on the side of the motor for this purpose.

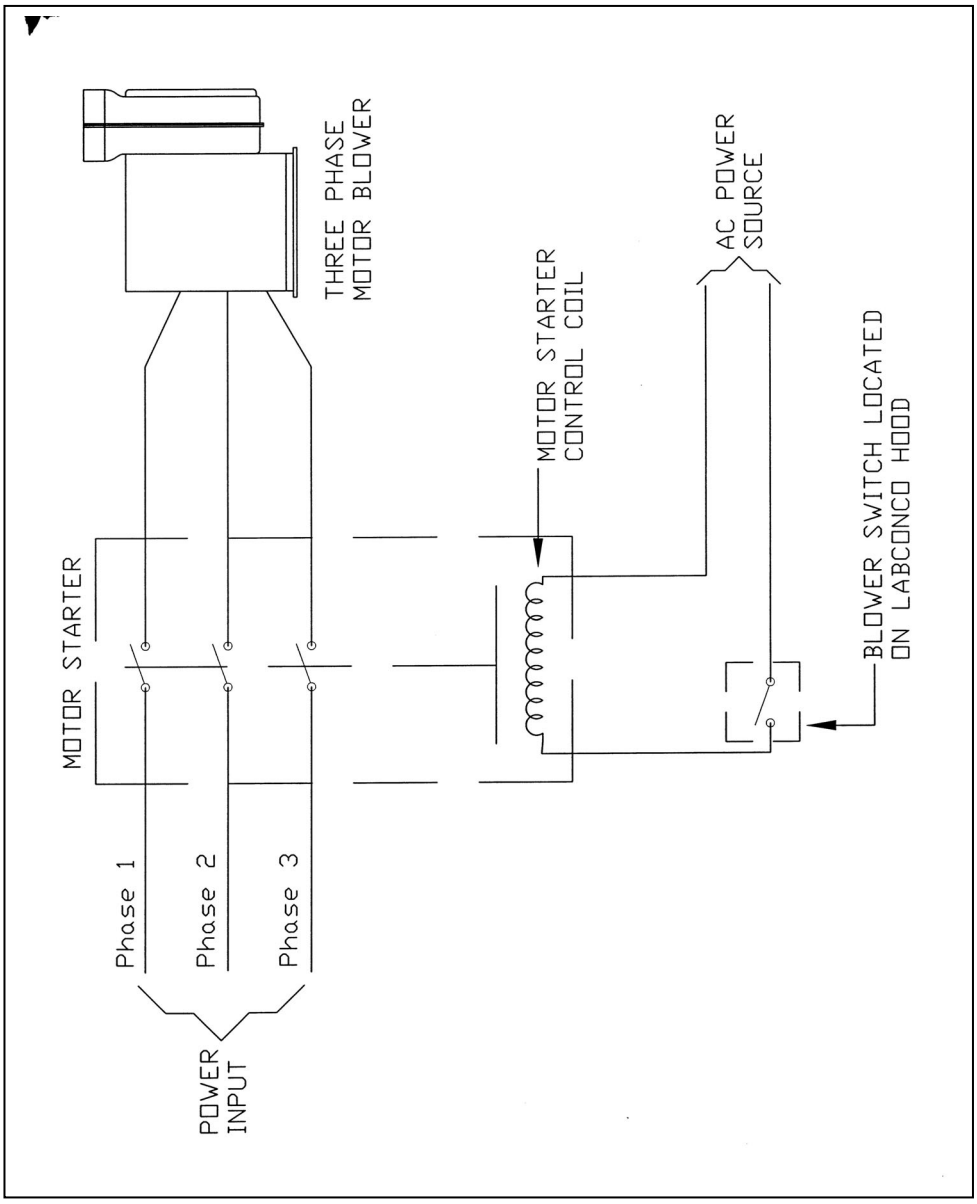
Access the motor by removing the top weathercover of the blower base. This weathercover is held in position by machine screws, and once they have been removed, you will have access to both the motor and V-belt area of your blower.

CAUTION: Inspect the motor manufacturer's nameplate carefully prior to connecting your electrical service for both the correct lead wire orientation and motor rotation.

The blower base end panel is raised off the blower base to allow for a continuous flow of cooling air through the motor cavity. Slots and louvers have also been placed on both the front and back of the blower base to provide airflow through this motor cavity. Because the blower base end panel is shorter than the rest of the base assembly, you will be able to run your electrical conduit directly underneath this panel. No special cutouts or modifications are necessary.

Three Phase Power

Most all Labconco Fume Hoods have a simple single-wire switch for controlling single-phase power to a motor/blower. When a 3-phase motor is required, all 3 phases must be switched ON or OFF. To do this, the Labconco single wire switch can be used to control a power relay (also called a contactor or motor starter), which uses the switched Labconco power to control the switching ON (or OFF) of all three phases at once. The drawing on the following page shows such a setup.



NOTE: WHEN THE WIRING FOR YOUR BLOWER HAS BEEN COMPLETED, CHECK FOR PROPER MOTOR ROTATION. THE MOTOR SHOULD OPERATE IN A CLOCKWISE ROTATION AS VIEWED FROM THE SHAFT SIDE TO OBTAIN PROPER ROTATION OF THE IMPELLER WHEEL. WHEN IN OPERATION, THE IMPELLER SHOULD ROTATE COUNTERCLOCKWISE WHEN VIEWED FROM THE BLOWER INLET.

CAUTION: This blower contains an electrical motor, which requires proper electrical connection per the National Electrical Code (NEC) Section 430 to prevent hazards. This NEC code and local codes may require that a circuit disconnect, overload protection, and short circuit protection be included in the installation. Please consult the code or have the unit connected by a licensed electrician.

Install the Belt, Adjust the Fan Speed and Confirm the Performance of your Blower/Hood System

Labconco Exhaust Blowers leave the factory adjusted to their top speed with the belt uninstalled. Frequently, they need to be readjusted in the field to allow the hood to operate at the proper face velocity, and to bring the motor current into its proper range. In order to adjust the blower to the proper speed and install the belt, refer to the diagrams in Appendix A Replacement Parts, and follow the procedure below.

1. Ensure the blower is turned off at the roof disconnect.
2. Remove the top weather cover over the motor/drive compartment.
3. Raise the gravity belt tightener, and remove the belt, tie wraps, and cardboard under the motor. If no adjustment is required then proceed to step 7.
4. Loosen the setscrew, with a standard hex key, on the outer half of the adjustable sheave located on the motor shaft.
5. While holding the back half of the adjustable sheave, turn the front half of the sheave counter-clockwise to widen the space between the two halves of the sheave. This creates a smaller sheave diameter, which lowers the fan speed. There are a maximum of four turns of adjustment. Do not

allow the belt to ride down on the threaded mandrels of the sheave.

6. Once the sheave is adjusted to the correct spacing, secure the set screw on the front half of the sheave.
7. Raise the motor up on the gravity belt tightener, and re-install the belt on both sheaves.
8. Turn the blower back on at the roof disconnect.
9. Check the motor current with an ammeter to ensure it is in its proper operating range. Consult *Chapter* 4 for amperage specifications for your particular model.
10. Verify the hood face velocity is in its proper range. This should be done across the sash opening of the hood in accordance with the "*Industrial Ventilation Manual*" section on laboratory hoods. Labconco recommends an average face velocity of 60, 80, or 100 feet per minute. Consult Labconco for proper airflows for your particular model.
11. Replace the weather cover over the motor/drive compartment.

CHAPTER 4
PERFORMANCE DATA AND SAFETY PRECAUTIONS

Specifications and Performance Data

The specifications and performance data for your particular model are listed and sub-grouped by Coated Steel, Fiberglass, and PVC Blowers. Blower curves are printed and listed on Labconco's website at www.labconco.com.

Coated Steel Blowers
SPECIFICATIONS/PERFORMANCE DATA

	Catalog Numbers		Motor Data			CFM & RPM Ranges at Static Pressure - inches H_2O											RPM Range Available	Ship. Wt./ lbs.
	Std.	E.P.	HP	Electrical Requirements	F.L. Amps	.12 CFM@RPM	.25 CFM@RPM	.38 CFM@RPM	.50 CFM@RPM	.62 CFM@RPM	.75 CFM@RPM	.88 CFM@RPM	1.00 CFM@RPM	1.12 CFM@RPM	1.25 CFM@RPM	1.50 CFM@RPM		
10" Inlet	70680		1/6	115V/60 Hz/1Ø	4.0	370 @ 530	300 @ 635	308 @ 760									529-	92
		70681	1/6		3.15	500 @ 650	540 @ 800	410 @ 800									807	92
	70682		1/4	115V/60Hz/1Ø	4.4		540 @ 800	410 @ 800	350 @ 870	390 @ 970	430 @ 1060						752-	92
		70683	1/4		4.5		720 @ 950	760 @ 1050	710 @ 1060	620 @ 1060							1067	92
	70684		1/3	115V/60Hz/1Ø	6.1			760 @ 1050	710 @ 1060	620 @ 1060	430 @ 1060	460 @ 1150	500 @ 1220				929-	86
		70685	1/3		6.4			850 @ 1130	825 @ 1160	790 @ 1190	770 @ 1220	740 @ 1260	640 @ 1260				1260	86
	70686		1/2	115V/60Hz/1Ø	8.4				825 @ 1160	790 @ 1190	770 @ 1220	740 @ 1260	640 @ 1260	530 @ 1290	555 @ 1360		1073-	88
		70687	1/2	115/230V/60Hz/1Ø	9.0/4.5				970 @ 1265	950 @ 1305	920 @ 1330	890 @ 1375	875 @ 1405	840 @ 1430	780 @ 1456		1456	98
12" Inlet	70688		1/3	115V/60Hz/1Ø	6.1	540 @ 380	450 @ 470	550 @ 569									373-	90
		70689	1/3		6.4	1000 @ 510	900 @ 570										569	90
	70690		1/2	115V/60Hz/1Ø	8.4		900 @ 570	550 @ 575	640 @660	710 @ 730							532-	96
		70691	1/2	115/230V/60Hz/1Ø	9.0/4.5		1380 @ 730	1305 @ 750	1100 @ 750	850 @ 750							753	102
	70692		3/4	115/230V/60Hz/1Ø	11.6/5.8			1305 @ 750	1100 @ 750	850 @ 750	780 @ 805	830 @ 870					667-	100
		70693	3/4		11.4/5.7			1700 @ 946	1680 @ 946	1550 @ 946	1350 @ 920	1200 @ 930					946	108
	70694		1	115/230V/60Hz/1Ø	13.6/6.8				1680 @ 946	1550 @ 946	1350 @ 920	1200 @ 930	900 @ 930	950 @ 980	1000 @ 1029		828-	100
		70695	1	115/230V/60Hz/1Ø	13.6/6.8				1900 @ 1020	1870 @ 1040	1840 @ 1070	1800 @ 1090	1760 @ 1120	1725 @ 1130	1660 @ 1150	1405 @ 1173	1173	114
	70696		1-1/2	115/230V/60Hz/1Ø	20.4/10.2						1840 @ 1070	1800 @ 1090	1760 @ 1120	1725 @ 1130	1660 @ 1150	1100 @ 1130	920-	114
		70697	1-1/2	230/460V/60Hz/3Ø	4.8/2.4						2150 @ 1180	2120 @ 1205	2100 @ 1230	2060 @ 1250	2040 @ 1270	1960 @ 1303	1303	114

NOTE: CFM @ RPM entries are recommended minimum and maximum operating values for either standard or explosion-proof models

Fiberglass Blowers
SPECIFICATIONS/PERFORMANCE DATA

	Catalog Numbers		Motor Data			CFM & RPM Ranges at Static Pressure - inches H_2O											RPM Range Available	Ship. Wt./ lbs.
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10" Inlet/Outlet	71800		1/6	115V/60 Hz/1Ø	4.0	325 @ 630	250 @ 750	305 @ 920									630-	92
		71801	1/6		3.15	500 @ 840	520 @ 962	400 @ 962									962	92
	71802		1/4	115V/60Hz/1Ø	4.4		520 @ 962	400 @ 962	350 @ 1050								828-	92
		71803	1/4		4.5		700 @ 1173	640 @ 1173	560 @ 1173								1173	92
	71804		1/3	115V/60Hz/1Ø	6.1			640 @ 1173	560 @ 1173	390 @ 1150	430 @ 1270	410 @ 1370					1073-	86
		71805	1/3		6.4			840 @ 1400	820 @ 1450	780 @ 1456	710 @ 1456	610 @ 1456					1456	86
	71806		1/2	115V/60Hz/1Ø	8.4			840 @ 1400	820 @ 1450	780 @ 1456	710 @ 1456	610 @ 1456	500 @ 1470	520 @ 1540	550 @ 1630		1305-	88
		71807	1/2	115/230V/60Hz/1Ø	9.0/4.5			890 @ 1460	960 @ 1600	940 @ 1630	920 @ 1670	890 @ 1690	870 @ 1725	840 @ 1750	780 @ 1772		1772	98
12" Inlet/Outlet	71808		1/6	115V/60Hz/1Ø	4.0	370 @ 373	450 @ 530										373-	90
		71809	1/6		3.15	720 @ 569	550 @ 569										569	90
	71810		1/4	115V/60Hz/1Ø	4.4	720 @ 569	550 @ 569	550 @ 670									532-	96
		71811	1/4	115/230V/60Hz/1Ø	4.5	960 @ 720	900 @ 753	760 @ 753									753	102
	71812		1/2	115/60Hz/1Ø	8.4		900 @ 753	760 @ 753	640 @ 770	710 @ 860							690-	100
		71813	1/2	115/230V/60Hz/1Ø	9.0/4.5		1200 @ 978	1120 @ 978	1020 @ 978	900 @ 978							978	108
	71814		3/4	115/230V/60Hz/1Ø	11.6/5.8		1200 @ 978	1120 @ 978	1020 @ 978	900 @ 978	780 @ 1010	840 @ 1080	900 @ 1140	950 @ 1210	1000 @ 1250		920-	100
		71815	3/4		11.4/5.7		1400 @ 1100	1640 @ 1303	1570 @ 1303	1505 @ 1303	1430 @ 1303	1360 @ 1303	1280 @ 1303	1200 @ 1303	1080 @ 1303		1303	114
	71816		1-1/2	115/230V/60Hz/1Ø	20.4/10.2			1640 @ 1303	1570 @ 1303	1505 @ 1303	1430 @ 1303	1360 @ 1303	1280 @ 1303	1200 @ 1303	1080 @ 1303	1100 @ 1400	1207-	114
		71817	1-1/2	230/460V/60Hz/3Ø	4.8/2.4			1700 @ 1330	1960 @ 1560	2030 @ 1639	1960 @ 1639	1900 @ 1639	1850 @ 1639	1820 @ 1639	1750 @ 1639	1650 @ 1639	1639	114

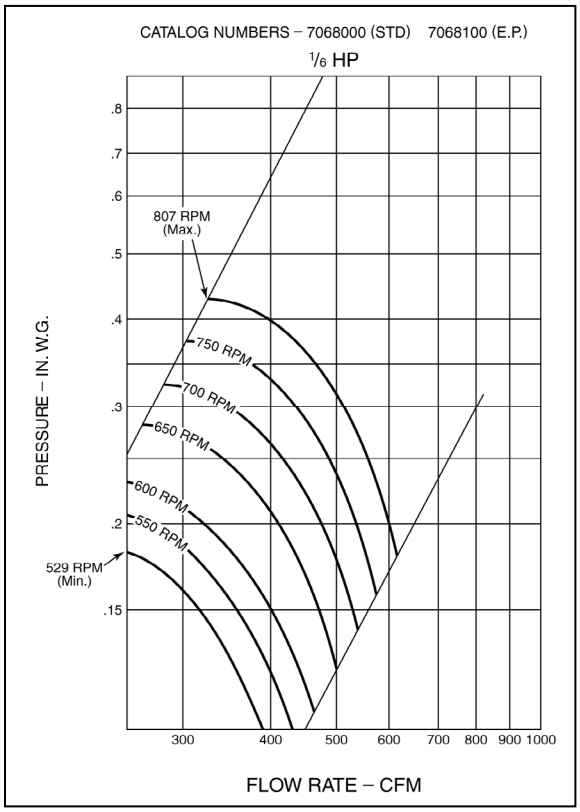
	Catalog Numbers		Motor Data			CFM & RPM Ranges at Static Pressure - inches H_2O							RPM Range Available	Ship. Wt./ lbs.
	Std.	E.P.	HP	Electrical Requirements	F.L. Amps	1.00 CFM@RPM	1.50 CFM@RPM	2.00 CFM@RPM	2.50 CFM@RPM	3.00 CFM@RPM	4.00 CFM@RPM			
16" Inlet/Outlet	71820		2	208-230/460V/60Hz/3Ø	6.8/3.4	1800 @ 1083	1260 @ 1100	1460 @1270	1630 @ 1420				1083-	290
		71821	2	208-230/460V/60Hz/3Ø	6.0/3.0	2900 @ 1469	2640 @ 1469	2300 @ 1469	1880 @ 1469				1469	345
	71822		3	208-230/460V60Hz/3Ø	9.7/4.85	2900 @ 1469	2640 @ 1469	2300 @ 1469	1880 @ 1469	1780 @ 1550			1309-	365
		71823	3	230/460V/60Hz/3Ø	8.4/4.2	3250 @ 1600	3500 @ 1777	3300 @ 1777	3060 @ 1777	2800 @ 1777	2050 @ 1777		1777	370

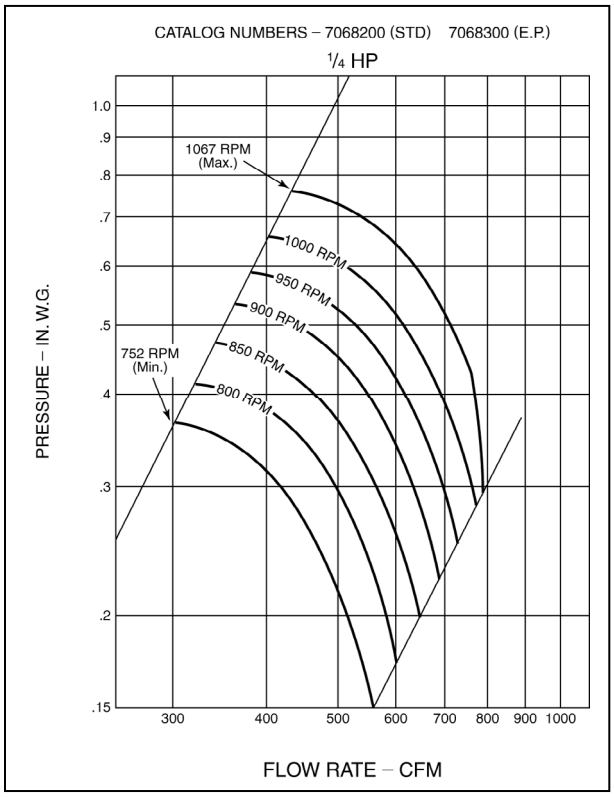
NOTE: CFM @ RPM entries are recommended minimum and maximum operating values for either standard or explosion-proof models

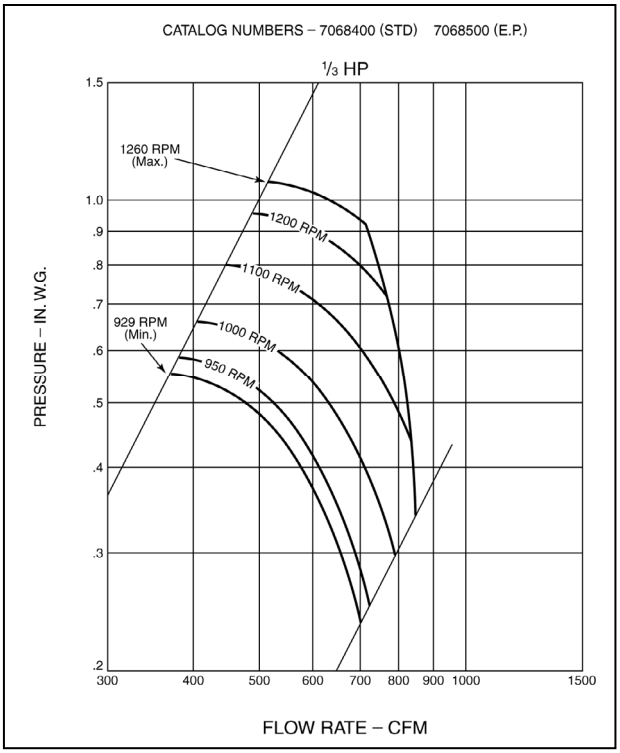
PVC Blowers
SPECIFICATIONS/PERFORMANCE DATA

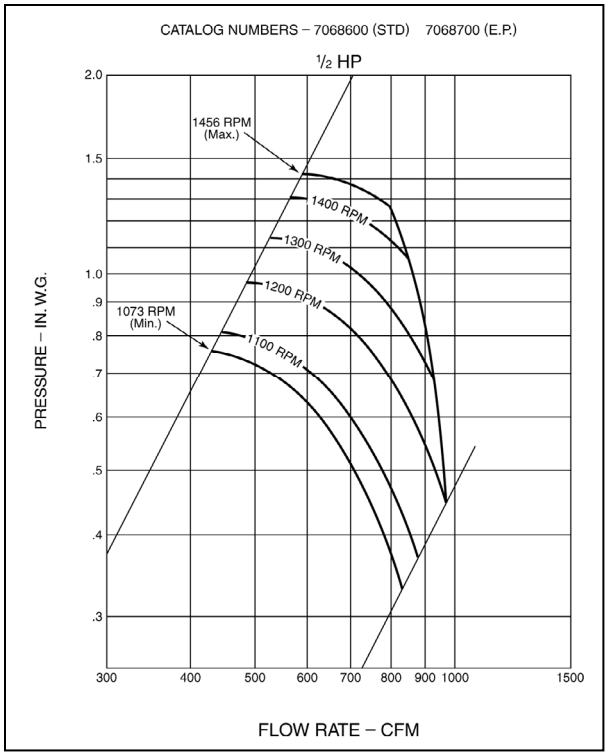
Inlet/ Outlet	Catalog Numbers	Motor Data			CFM @ RPM Ranges at Static Pressure - Inches H_20										RPM Range Available	Ship. Wt./ lbs.
		HP	Electrical Requirements	F.L. Amps	.25 CFM@RPM	.38 CFM@RPM	.50 CFM@RPM	.62 CFM@RPM	.75 CFM@RPM	.88 CFM@RPM	1.00 CFM@RPM	1.12 CFM@RPM	1.25 CFM@RPM	1.50 CFM@RPM		
10"	71830	1/2	115V/60 Hz/1Ø	8.4	680 @ 1150 720 @ 1190	610 @ 1150 890 @ 1460	520 @ 1150 910 @ 1561	390 @ 1160 865 @ 1561	430 @ 1270 815 @ 1561	465 @ 1380 750 @ 1561	495 @ 1470 655 @ 1561				1150-1561	90
12"	71831	1/2	115V/60Hz/1Ø	8.4	1130 @ 881 1400 @ 1100	1020 @881 1490 @ 1220	920 @ 881 1450 @ 1220	770 @ 881 1400 @ 1230	780 @ 1005 1330 @ 1248	840 @ 1080 1240 @ 1248	900 @ 1150 1150 @ 1248	950 @ 1220 1040 @ 1248			881-1248	90
	71832	1	115/230V/60 Hz/1Ø	13.6/6.8		1490 @ 1200 1700 @ 1340	1450 @ 1220 1900 @ 1510	1400 @ 1230 1880 @ 1540	1330 @ 1248 1850 @ 1550	1240 @ 1248 1800 @ 1560	1150 @ 1248 1760 @ 1570	1040 @ 1248 1730 @ 1590	1000 @ 1270 1690 @ 1600	1100 @ 1405 1600 @ 1615	1208-1639	100

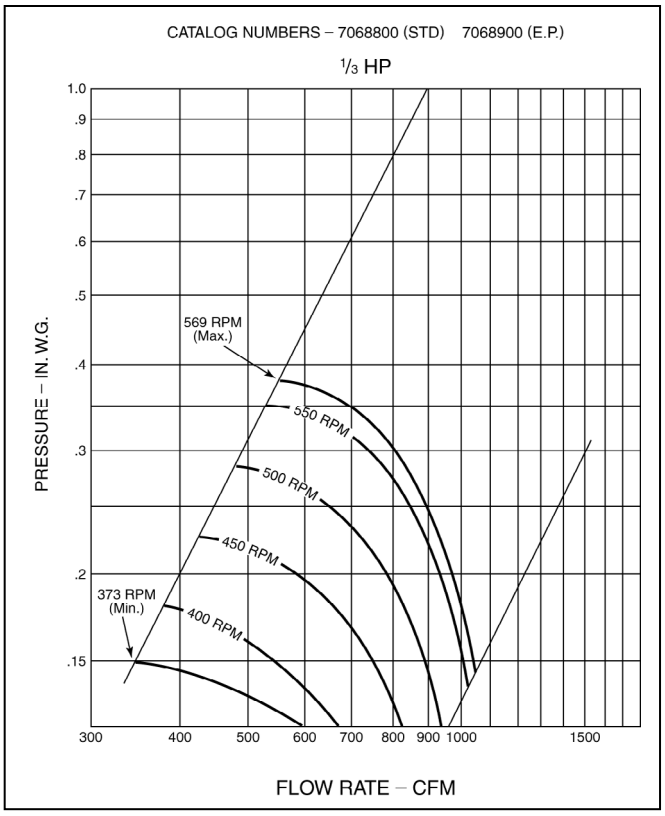
NOTE: CFM @ RPM entries are recommended minimum and maximum operating values for either standard or explosion-proof models.

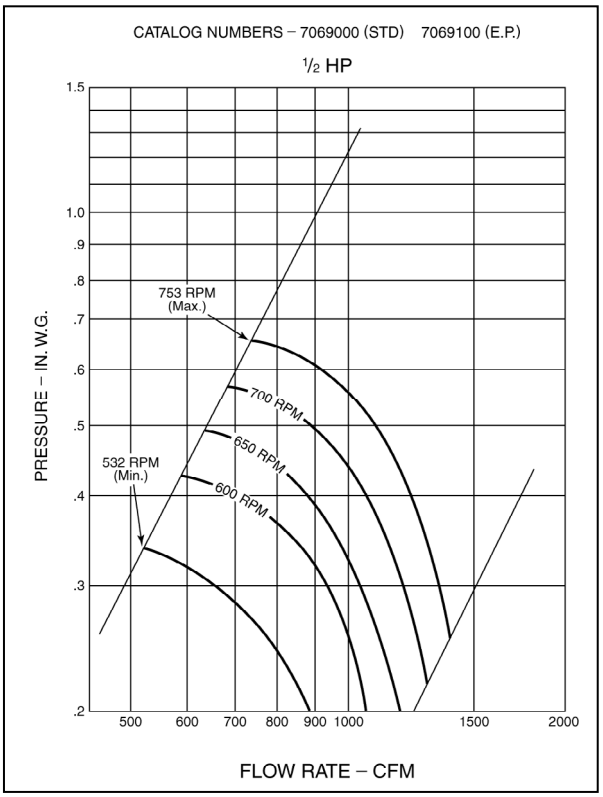

CATALOG NUMBERS – 7068000 (STD) 7068100 (E.P.)
1/6 HP
807 RPM (Max.)
750 RPM
700 RPM
650 RPM
600 RPM
550 RPM
529 RPM (Min.)
PRESSURE – IN. W.G.
.8
.7
.6
.5
.4
.3
.2
.15
300 400 500 600 700 800 900 1000
FLOW RATE – CFM

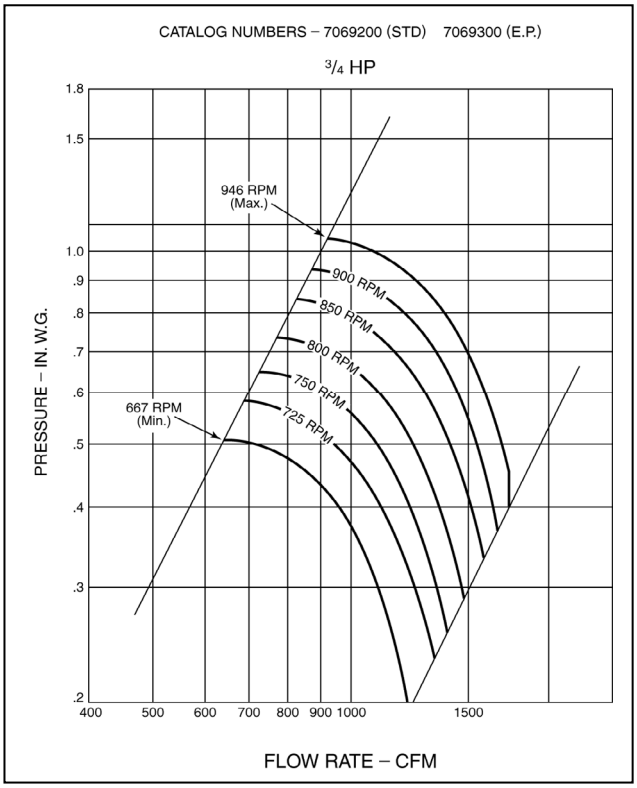

CATALOG NUMBERS – 7068200 (STD) 7068300 (E.P.)
1/4 HP
1067 RPM (Max.)
1000 RPM
950 RPM
900 RPM
850 RPM
800 RPM
752 RPM (Min.)
PRESSURE – IN. W.G.
1.0
.9
.8
.7
.6
.5
.4
.3
.2
.15
300 400 500 600 700 800 900 1000
FLOW RATE – CFM

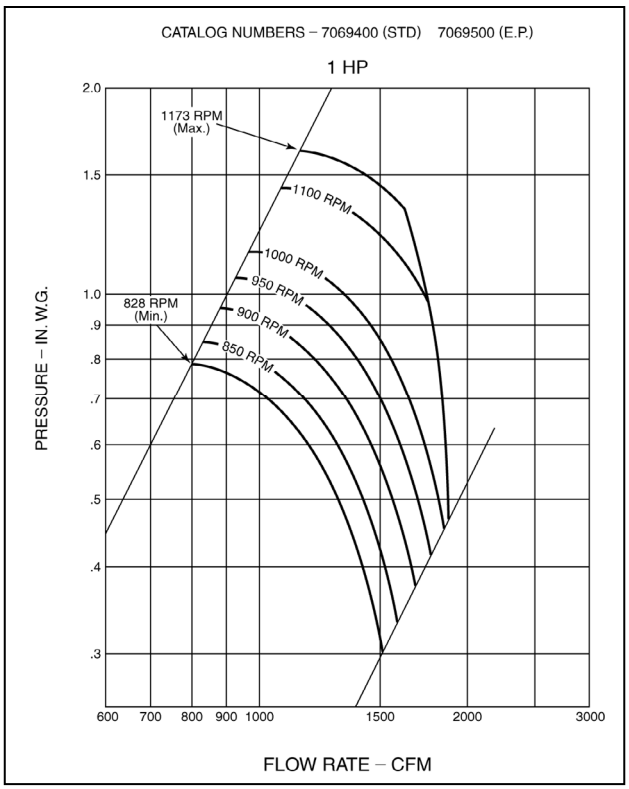

CATALOG NUMBERS – 7068400 (STD) 7068500 (E.P.)
1/3 HP
1260 RPM (Max.)
1200 RPM
1100 RPM
1000 RPM
950 RPM
929 RPM (Min.)
PRESSURE – IN. W.G.
1.5
1.0
.9
.8
.7
.6
.5
.4
.3
.2
300 400 500 600 700 800 900 1000 1500
FLOW RATE – CFM

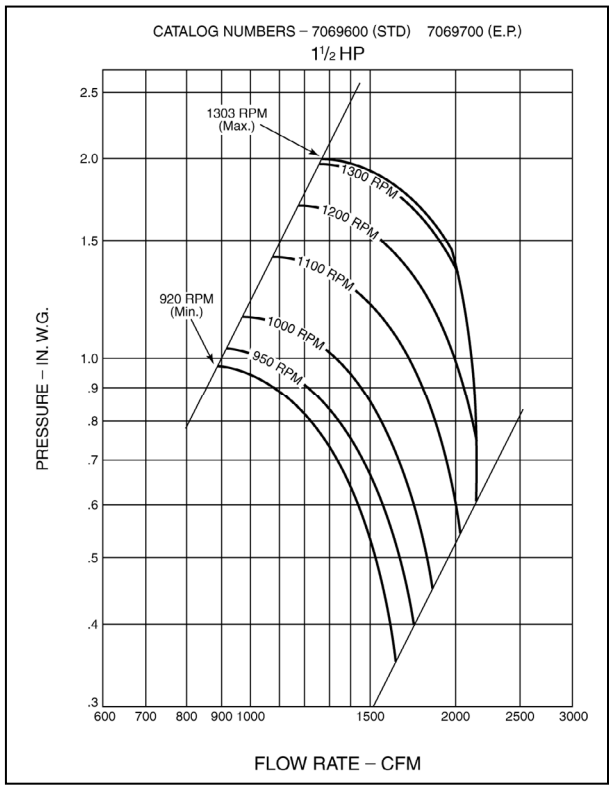

CATALOG NUMBERS – 7068600 (STD) 7068700 (E.P.)
1/2 HP
1456 RPM (Max.)
1400 RPM
1300 RPM
1200 RPM
1100 RPM
1073 RPM (Min.)
PRESSURE – IN. W.G.
2.0
1.5
1.0
.9
.8
.7
.6
.5
.4
.3
300 400 500 600 700 800 900 1000 1500
FLOW RATE – CFM

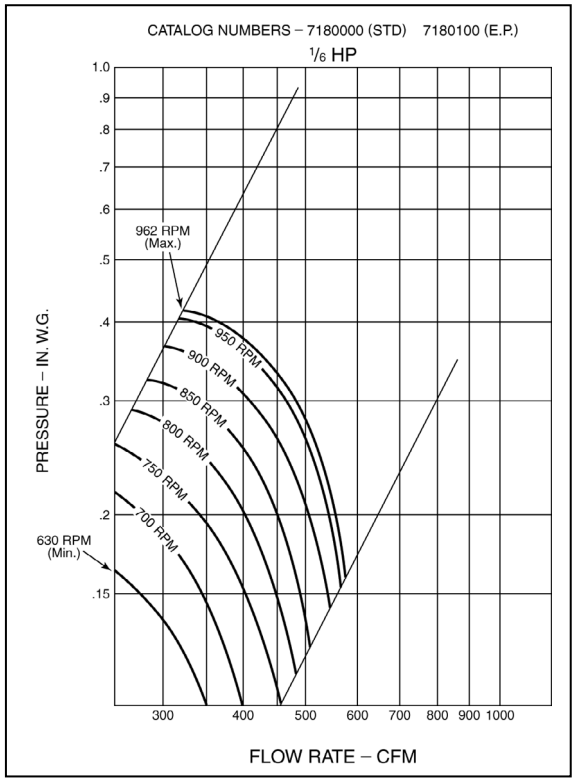

CATALOG NUMBERS – 7068800 (STD) 7068900 (E.P.)
1/3 HP
PRESSURE – IN. W.G.
1.0
.9
.8
.7
.6
.5
.4
.3
.2
.15
569 RPM (Max.)
550 RPM
500 RPM
450 RPM
400 RPM
373 RPM (Min.)
300
400
500
600
700
800
900
1000
1500
FLOW RATE – CFM

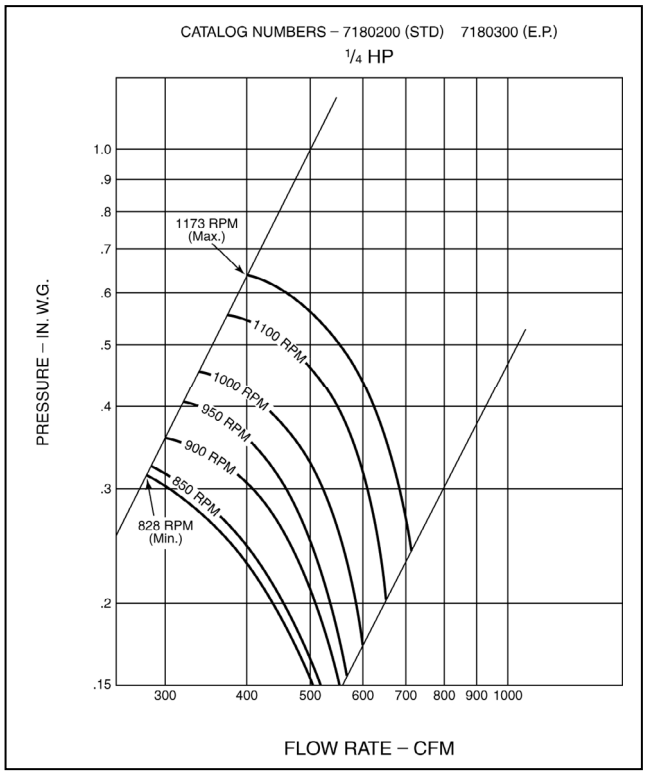

CATALOG NUMBERS – 7069000 (STD) 7069100 (E.P.)
1/2 HP
PRESSURE – IN. W.G.
1.5
1.0
.9
.8
.7
.6
.5
.4
.3
.2
753 RPM (Max.)
700 RPM
650 RPM
600 RPM
532 RPM (Min.)
500
600
700
800
900
1000
1500
2000
FLOW RATE – CFM

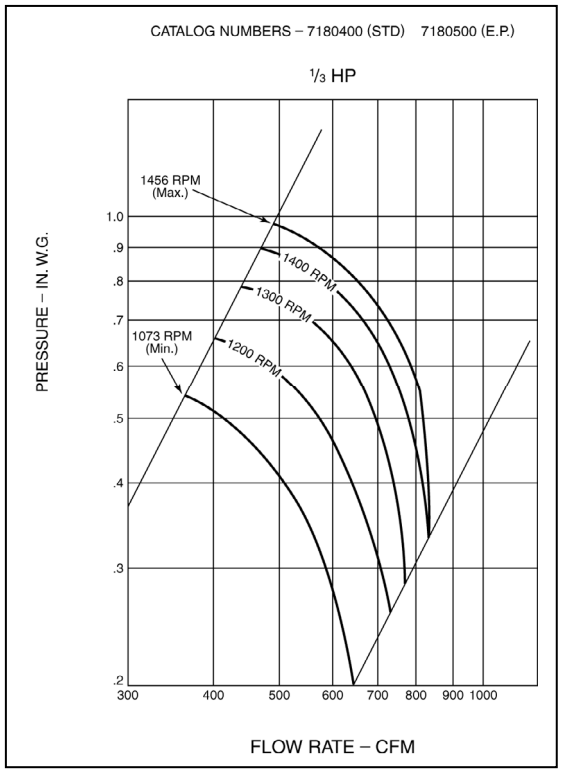

CATALOG NUMBERS – 7069200 (STD) 7069300 (E.P.)
3/4 HP
PRESSURE – IN. W.G.
1.8
1.5
1.0
.9
.8
.7
.6
.5
.4
.3
.2
946 RPM (Max.)
900 RPM
850 RPM
800 RPM
750 RPM
725 RPM
667 RPM (Min.)
400
500
600
700
800
900
1000
1500
FLOW RATE – CFM

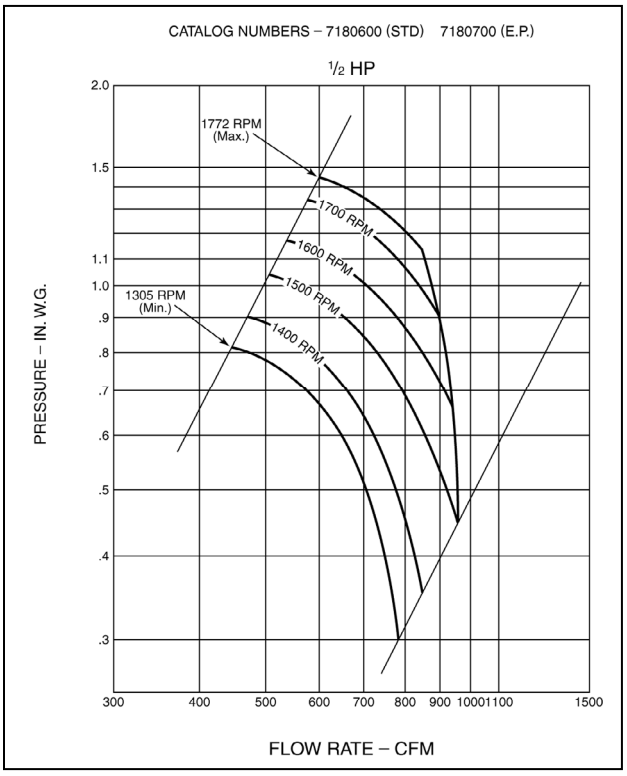

CATALOG NUMBERS – 7069400 (STD) 7069500 (E.P.)
1 HP
PRESSURE – IN. W.G.
2.0
1.5
1.0
.9
.8
.7
.6
.5
.4
.3
1173 RPM (Max.)
1100 RPM
1000 RPM
950 RPM
900 RPM
850 RPM
828 RPM (Min.)
600
700
800
900
1000
1500
2000
3000
FLOW RATE – CFM

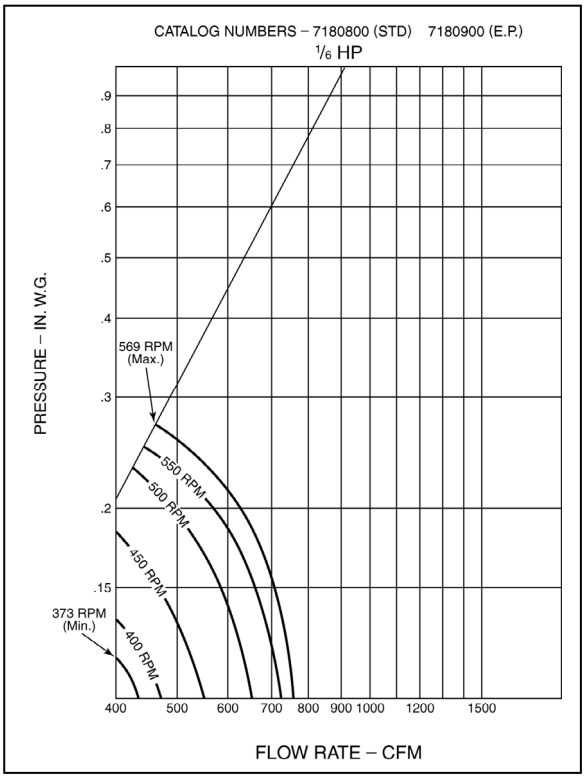

CATALOG NUMBERS – 7069600 (STD) 7069700 (E.P.)
1 1/2 HP
1303 RPM (Max.)
1300 RPM
1200 RPM
1100 RPM
1000 RPM
950 RPM
920 RPM (Min.)
PRESSURE – IN. W.G.
2.5
2.0
1.5
1.0
.9
.8
.7
.6
.5
.4
.3
600 700 800 900 1000 1500 2000 2500 3000
FLOW RATE – CFM

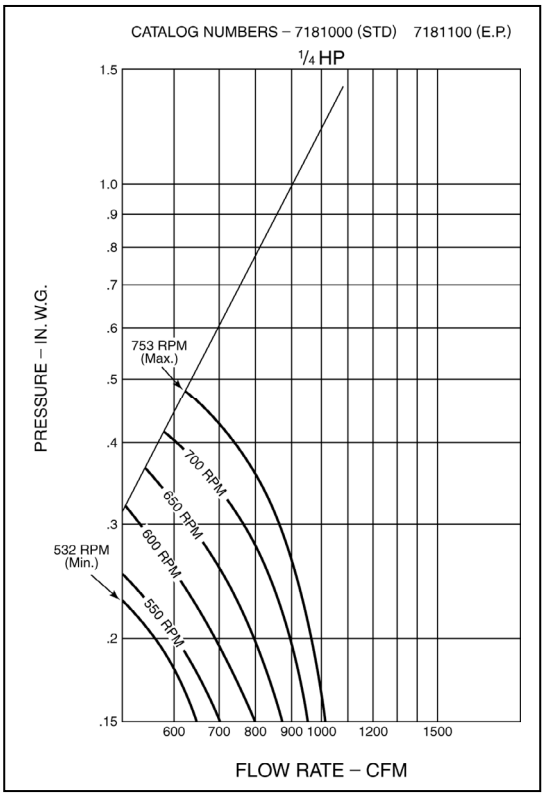

CATALOG NUMBERS – 7180000 (STD) 7180100 (E.P.)
1/6 HP
962 RPM (Max.)
950 RPM
900 RPM
850 RPM
800 RPM
750 RPM
700 RPM
630 RPM (Min.)
PRESSURE – IN. W.G.
1.0
.9
.8
.7
.6
.5
.4
.3
.2
.15
300 400 500 600 700 800 900 1000
FLOW RATE – CFM

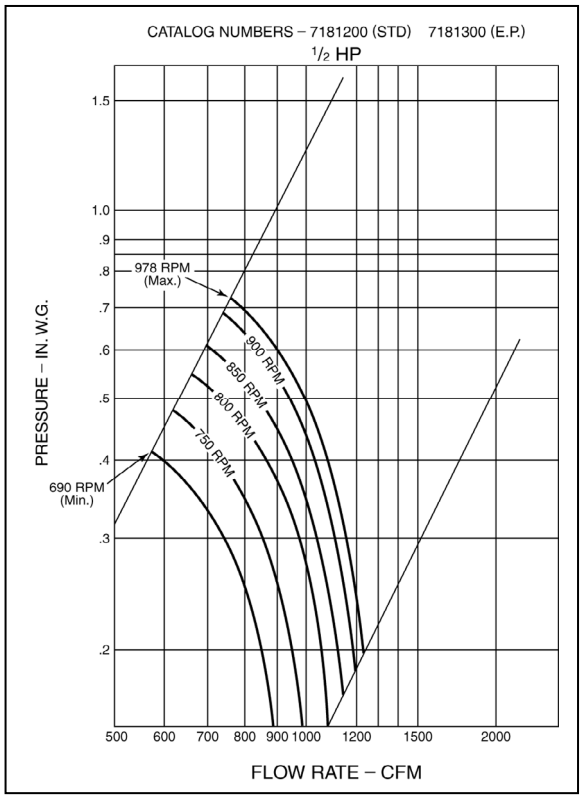

CATALOG NUMBERS – 7180200 (STD) 7180300 (E.P.)
1/4 HP
1173 RPM (Max.)
1100 RPM
1000 RPM
950 RPM
900 RPM
850 RPM
828 RPM (Min.)
PRESSURE – IN. W.G.
1.0
.9
.8
.7
.6
.5
.4
.3
.2
.15
300 400 500 600 700 800 900 1000
FLOW RATE – CFM

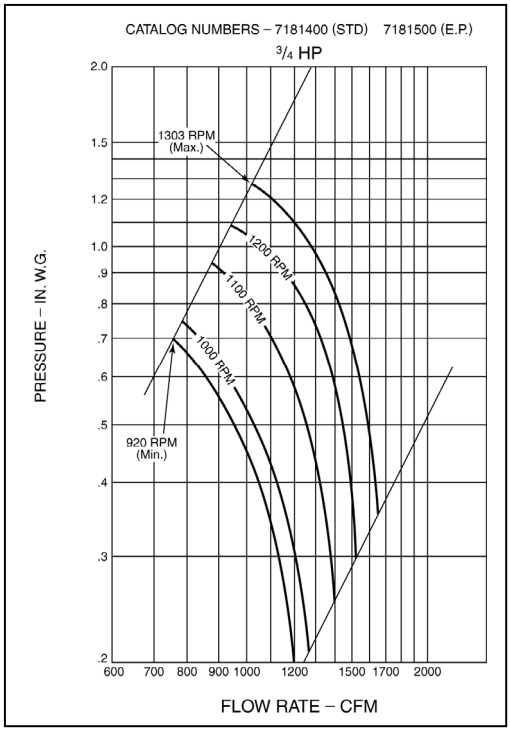

CATALOG NUMBERS – 7180400 (STD) 7180500 (E.P.)
1/3 HP
1456 RPM (Max.)
1400 RPM
1300 RPM
1200 RPM
1073 RPM (Min.)
PRESSURE – IN. W.G.
1.0
.9
.8
.7
.6
.5
.4
.3
.2
300 400 500 600 700 800 900 1000
FLOW RATE – CFM

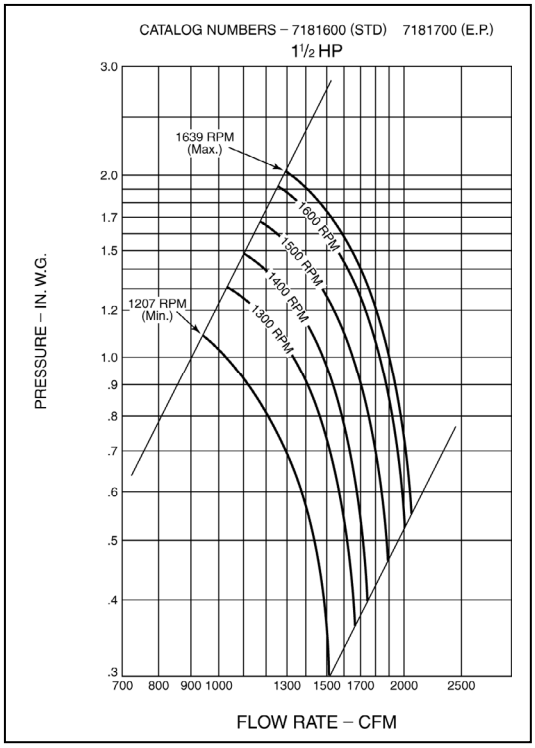

CATALOG NUMBERS – 7180600 (STD) 7180700 (E.P.)
1/2 HP
1772 RPM (Max.)
1700 RPM
1600 RPM
1500 RPM
1400 RPM
1305 RPM (Min.)
PRESSURE – IN. W.G.
FLOW RATE – CFM

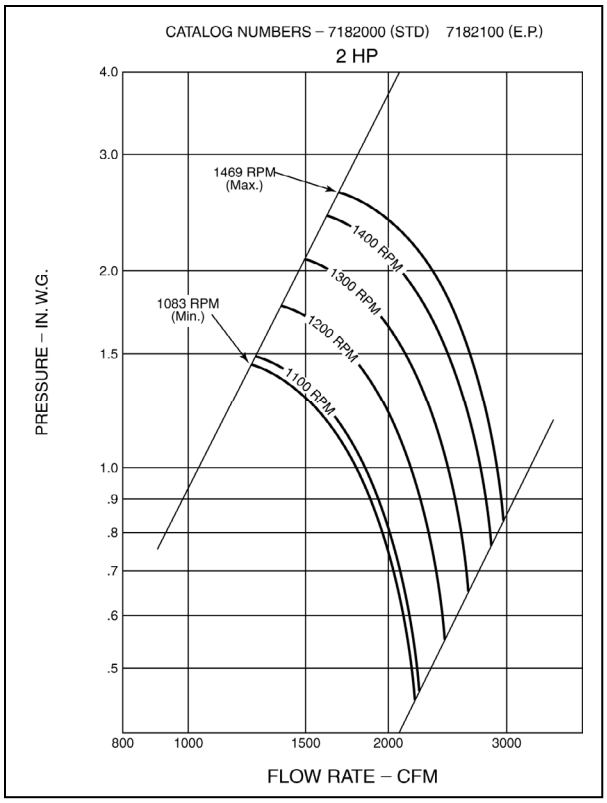

CATALOG NUMBERS – 7180800 (STD) 7180900 (E.P.)
1/6 HP
569 RPM (Max.)
550 RPM
500 RPM
450 RPM
400 RPM
373 RPM (Min.)
PRESSURE – IN. W.G.
FLOW RATE – CFM

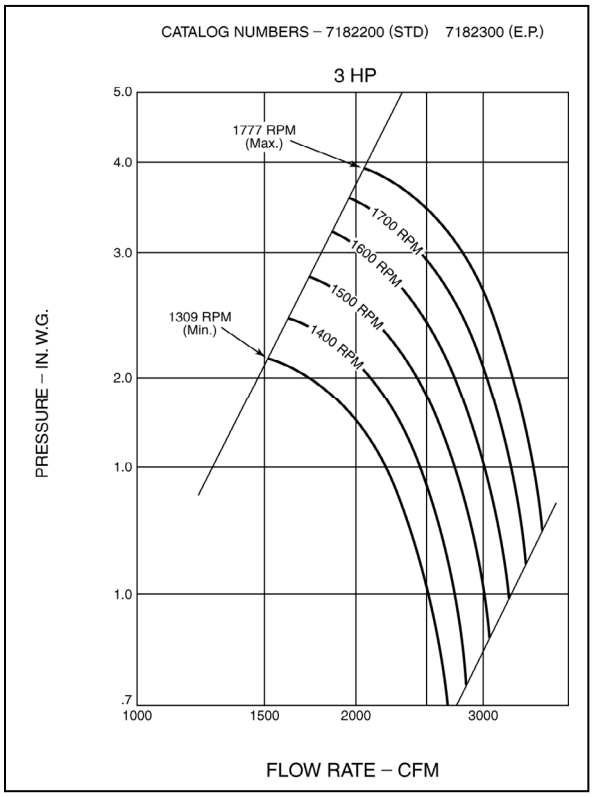

CATALOG NUMBERS – 7181000 (STD) 7181100 (E.P.)
1/4 HP
753 RPM (Max.)
700 RPM
650 RPM
600 RPM
550 RPM
532 RPM (Min.)
PRESSURE – IN. W.G.
FLOW RATE – CFM

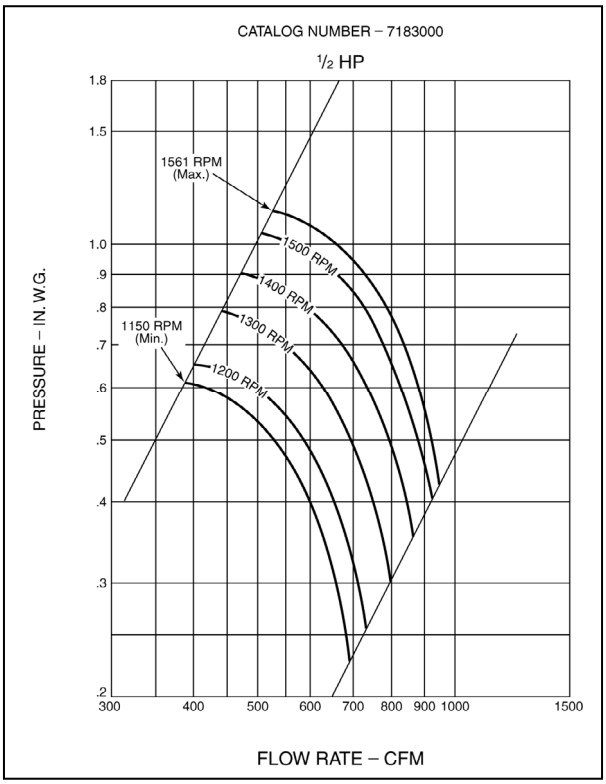

CATALOG NUMBERS – 7181200 (STD) 7181300 (E.P.)
1/2 HP
978 RPM (Max.)
900 RPM
850 RPM
800 RPM
750 RPM
690 RPM (Min.)
PRESSURE – IN. W.G.
FLOW RATE – CFM

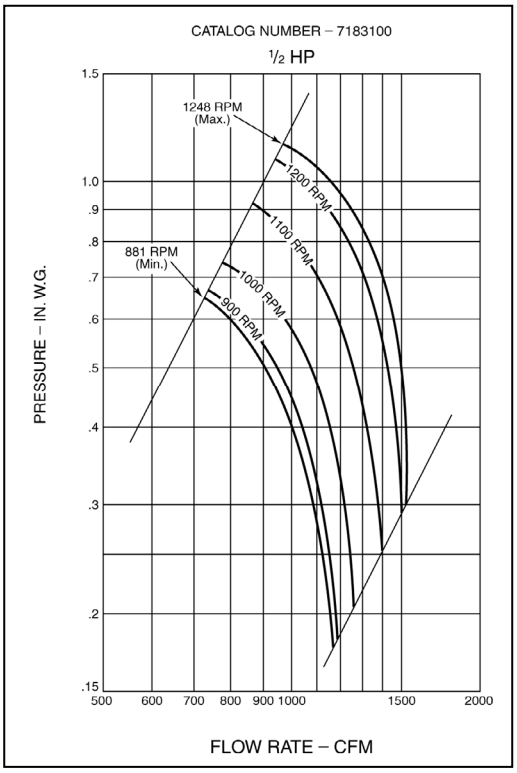

CATALOG NUMBERS – 7181400 (STD) 7181500 (E.P.)
3/4 HP
PRESSURE – IN. W.G.
FLOW RATE – CFM
1303 RPM (Max.)
1200 RPM
1100 RPM
1000 RPM
920 RPM (Min.)
2.0
1.5
1.2
1.0
.9
.8
.7
.6
.5
.4
.3
.2
600 700 800 900 1000 1200 1500 1700 2000

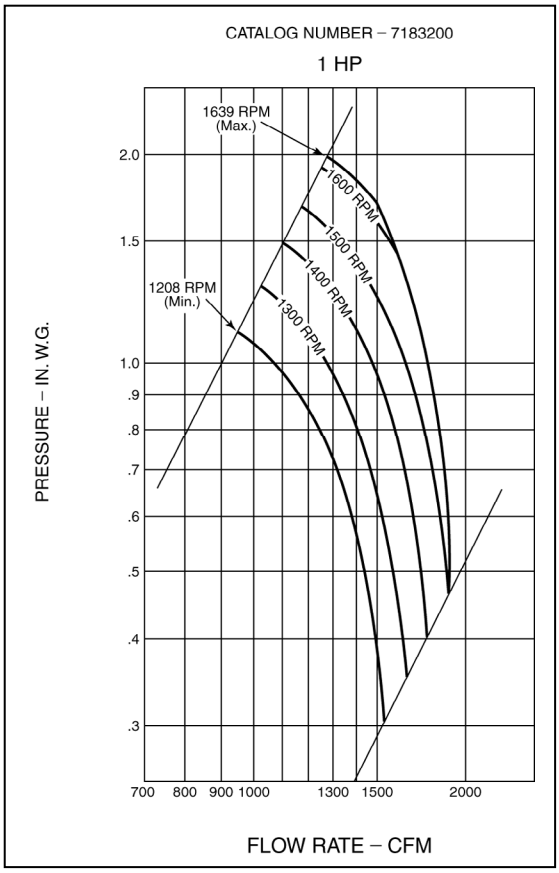

CATALOG NUMBERS – 7181600 (STD) 7181700 (E.P.)
1 1/2 HP
PRESSURE – IN. W.G.
FLOW RATE – CFM
1639 RPM (Max.)
1600 RPM
1500 RPM
1400 RPM
1300 RPM
1207 RPM (Min.)
3.0
2.0
1.7
1.5
1.2
1.0
.9
.8
.7
.6
.5
.4
.3
700 800 900 1000 1300 1500 1700 2000 2500

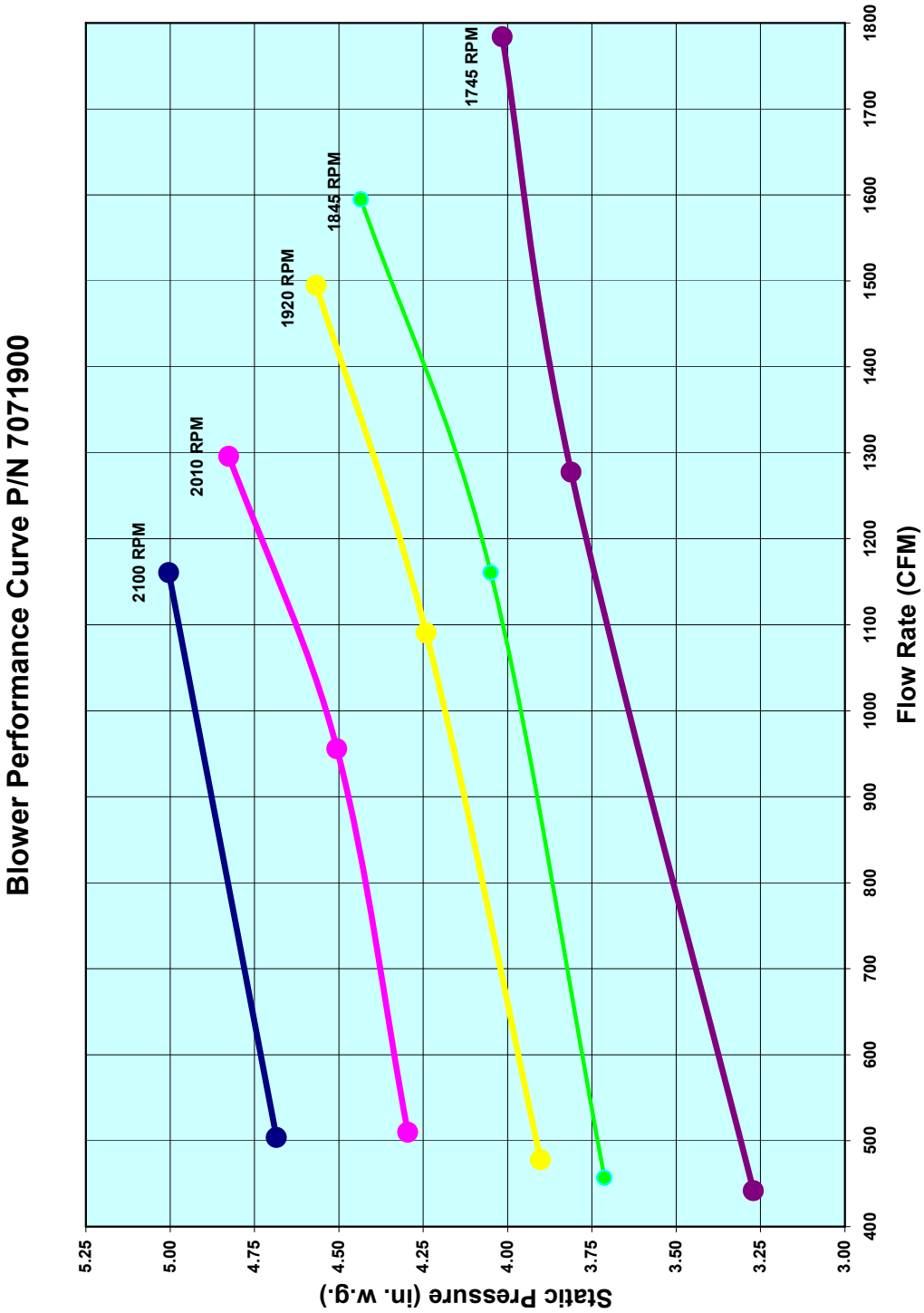

CATALOG NUMBERS – 7182000 (STD) 7182100 (E.P.)
2 HP
PRESSURE – IN. W.G.
FLOW RATE – CFM
1469 RPM (Max.)
1400 RPM
1300 RPM
1200 RPM
1100 RPM
1083 RPM (Min.)
4.0
3.0
2.0
1.5
1.0
.9
.8
.7
.6
.5
800 1000 1500 2000 3000


CATALOG NUMBERS – 7182200 (STD) 7182300 (E.P.)
3 HP
PRESSURE – IN. W.G.
FLOW RATE – CFM
1777 RPM (Max.)
1700 RPM
1600 RPM
1500 RPM
1400 RPM
1309 RPM (Min.)
5.0
4.0
3.0
2.0
1.0
1.0
.7
1000 1500 2000 3000


CATALOG NUMBER – 7183000
1/2 HP
1561 RPM (Max.)
1500 RPM
1400 RPM
1300 RPM
1150 RPM (Min.)
1200 RPM
PRESSURE – IN. W.G.
1.8
1.5
1.0
.9
.8
.7
.6
.5
.4
.3
.2
300
400
500
600
700
800
900
1000
1500
FLOW RATE – CFM


CATALOG NUMBER – 7183100
1/2 HP
1248 RPM (Max.)
1200 RPM
1100 RPM
881 RPM (Min.)
1000 RPM
900 RPM
PRESSURE – IN. W.G.
1.5
1.0
.9
.8
.7
.6
.5
.4
.3
.2
.15
500
600
700
800
900
1000
1500
2000
FLOW RATE – CFM


CATALOG NUMBER – 7183200
1 HP
1639 RPM (Max.)
1600 RPM
1500 RPM
1400 RPM
1208 RPM (Min.)
1300 RPM
PRESSURE – IN. W.G.
2.0
1.5
1.0
.9
.8
.7
.6
.5
.4
.3
700
800
900
1000
1300
1500
2000
FLOW RATE – CFM


Blower Performance Curve P/N 7071900
2100 RPM
2010 RPM
1920 RPM
1845 RPM
1745 RPM
Static Pressure (in. w.g.)
5.25
5.00
4.75
4.50
4.25
4.00
3.75
3.50
3.25
3.00
Flow Rate (CFM)
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800

NOTE: FOR A COMPLETE PERSPECTIVE AND EXPLODED VIEWS OF YOUR PARTICULAR BLOWER, REFER TO *APPENDIX A REPLACEMENT PARTS*.

Safety Precautions

Before attempting any service and/or maintenance on your blower, always disconnect the blower motor from its power source to prevent possible injury. Upon initial start-up, always wear protective eyewear. A qualified technician should certify the blower/hood system before it is initially used. The blower/hood system should be re-certified annually or whenever it is relocated.

CHAPTER 5
USING YOUR BLOWER

Normal Operation

Once your blower has been fully ducted and electrically wired, it is ready for operation. The blower is normally activated from a switch on or near the fume hood.

Laboratory work can resume when the blower is operational, so that any prevailing fumes and/or odors can be exhausted from the room. Work must cease prior to turning the blower off.

CHAPTER 6
MAINTAINING YOUR BLOWER

Now we will review the suggested maintenance schedule and the common service operations necessary to maintain your blower for peak performance.

Only trained and experienced certification technicians should perform some of the service operations after the blower has been properly decontaminated. The wrench icon precedes the service operations that require qualified technicians.

Routine Maintenance

CAUTION: Before attempting any service and/or maintenance on your blower, always disconnect the unit from its power supply source.

Motor

Under normal usage, the drip proof style motor will require that you add 3-4 drops of SAE 10 motor oil to each oil port on the motor after 25,000 hours of operation. Should your blower motor experience constant use, maintenance should be on an annual basis, to extend the life of the blower motor.

Bearings

The pillow block bearings on your blower are factory sealed and lubricated. Under normal operation, no further lubrication is required. Excessive lubricating may cause damage to the bearing seal and significantly shorten the life span of the bearing.

V-Belt

The drive belt on the blower should be inspected on a monthly basis for excessive wear. Fraying of the belt would indicate possible misalignment of the blower's sheaves.

The gravity belt tightener, incorporated into your blower assembly, extend the life of the V-belt if properly adjusted. If you need to replace the belt, remove the upper weathercover and lift up on the motor. The belt should be replaced a minimum of once every four years.

Common Service Operations (See drawings in Appendix A Replacement Parts)

Pillow Block Bearing Replacement

If you need to replace a pillow block bearing on your blower, make sure that the locking collars on the bearings face one another. The setscrews used on the locking collars have been sealed with a removable thread sealant. Thread sealant should be applied when a pillow block bearing is replaced in the field.

Motor Replacement

With the power disconnected, remove the upper weathercover, the V-belt, the mounting hardware that supports the NEMA 56 motor frame and remove the motor. Remove the wire leads to the motor plate. Re-install the new motor in reverse order.

CHAPTER 7 MODIFYING YOUR BLOWER, CALCULATING STATIC PRESSURE LOSS, AND BLOWER SIZING

Two Main Blower Modifications

There are two main ways to modify the performance of your blower as listed in *Chapter 3: Getting Started*. One way is the adjustment of the blower outlet orientation. The other way is the adjustment of the fan speed to fine-tune the performance of your blower/hood system. Refer to Chapter 3 for these instructions. Additionally, all the performance data for your particular blower model number are listed in *Chapter 4: Performance Data and Safety Precautions*.

Additional Modifications by Adding Ductwork Accessories

There are additional ways to equip your blower by adding any of the accessories on the following pages. To ensure that your blower exhaust system will operate properly, the ductwork and accessories linking your hood and blower must be sized correctly. Along with the accessories listed next are the "equivalent resistance in feet of straight duct" for each accessory. It is necessary to compute the sum of the equivalent resistance factors for each accessory and ductwork length for your entire hood/blower system. Then the blower can be sized properly from the total equivalent resistance

for your exhaust system. Blower Sizing Example: You have selected a Labconco Protector Premier 48 Laboratory Hood at 100 fpm and 730 CFM. The static pressure of the Protector Premier 48 at 100 fpm is 0.17". The exhaust collar of this hood is sized to receive 12" diameter PVC duct directly. In this example, your fume removal system requires 30 feet of straight duct, two 90° elbows and one zero pressure weathercap to adequately exhaust the chemical fumes. You will be handling low to moderately corrosive materials, so you have selected a Coated Steel Blower.

The information following for the 90° elbow tells you that each 90°, 12" diameter elbow has the equivalent resistance of 25 feet of straight duct. The zero pressure weathercap has 5 feet of equivalent resistance. The total equivalent feet for the system is:

Feet of straight duct	30 Feet
2 elbows @ 25 feet each	50 Feet
1 zero pressure weathercap @ 5 feet	5 Feet
	85 Feet

The chart following converts "equivalent resistance in feet of straight duct" to static pressure. So the static pressure of 85 equivalent feet of 12" nominal duct is equal to (85/10) x 0.011" = 0.094". Now this is added to the hood static pressure of 0.17" for a total system static pressure of 0.264". Look at the performance data in Chapter 4 for Coated Steel Blowers. Refer to the 0.25" column at 730 CFM since this is closest to 0.264". The chart will lead you to select a Coated Steel Blower model #7068800 or EP Coated Steel Blower #7068900.

Sizes and Pressure Losses in Thermoplastic Duct

This chart provides static pressure losses for 10' long duct lengths of various diameters over a range of airflows in CFM for use in sizing hood/blower combinations at 100 feet per minute.

Nominal Diameter/Inches	6	8	10	12	16
Actual OD/inches	6.625	8.625	10.750	12.750	16.000
Actual ID/inches	6.25	8.250	10.375	12.375	15.625
Catalog Number	47086	47189	70272	56020	56050
Shipping Wt./lbs.	20	35	50	65	80
Airflow/CFM	**Static Pressure Loss/Inches H_20 For Each 10 ft. of Duct Length**				
250	.039	.011	.003	.001	--
500	.147	.037	.013	.005	.001
750	.321	.079	.026	.011	.003
1000	.557	.140	.043	.018	.005
1250	.855	.210	.066	.027	.008
1500	--	.300	.095	.039	.012
1750	--	.380	.130	.053	.016
2000	--	.485	.155	.067	.020
2500	--	--	.245	.109	.031
3000	--	--	--	.145	.042
4000	--	--	--	.240	.074
5000	--	--	--	--	.120

Thermoplastic Duct

PVC exhaust duct is Type 1, unplasticized, schedule 40, lightweight and corrosion-resistant. A female duct coupling is required to join two sections. Connections are simple with solvent cement. This rigid duct may be cut without special tools. Comes in 10' lengths.

Nominal Diameter/Inches	6	8	10	12	16
Catalog Number	47086	47189	70272	56020	56050
Actual OD/inches	6.625	8.625	10.750	12.750	16.000
Actual ID/inches	6.250	8.250	10.375	12.375	15.625
Shipping Wt./lbs.	25	35	50	65	80

Duct Couplings, Female

PVC coupling makes connection between two sections of thermoplastic duct quick and easy.

Nominal Diameter/Inches	6	8	10	12	16
Catalog Number	47089	47192	70275	56023	56053
Shipping Wt./lbs.	4	5	5	6	7
Equivalent Resistance in Feet of Straight Duct	0	0	0	0	0

Duct Couplings, Male

PVC duct in 6" length facilitates connections between Coated Steel Blowers and elbows, thermoplastic duct reducers and weather caps.

Nominal Diameter/Inches	6	8	10	12
Catalog Number	21447	47199	70278	70673
Actual OD/Inches	6.625	8.625	10.750	12.750
Actual ID/Inches	6.250	8.250	10.375	12.375
Shipping Wt./lbs.	3	4	5	6

Elbows

PVC elbows both 45° and 90°, are compatible with thermoplastic duct. Designed and engineered for quick installation and minimum pressure losses, they feature belled end connections to receive PVC duct directly.

90° Elbow	Nominal Diameter/Inches	6	8	10	12	16
	Catalog Number	47087	47190	70273	56021	56051
	Approx. Height/Inches	13-5/8	17-5/16	20-3/8	24-3/16	29
	Shipping Wt./lbs.	8	10	12	14	17
	Equivalent Resistance in feet of Straight Duct	12	15	20	25	36

45° Elbow	Nominal Diameter/Inches	6	8	10	12	16
	Catalog Number	47088	47191	70274	56022	56052
	Approx. Height/Inches	8-3/4	10-3/4	12-1/2	15	17-1/2
	Shipping Wt./lbs.	8	10	12	14	17
	Equivalent Resistance in feet of Straight Duct	6	7.5	10	12.5	18

Thermoplastic Duct Reducers

PVC coupling type reducers are designed for connecting thermoplastic duct of different diameters. Compare your blower inlet size with your duct size to see if one is necessary.

Nominal Size/Inches	6x8	8x10	10x12	12x16
Catalog Number	56059	56060	56061	56307
Shipping Wt./lbs.	2	5	6	8
Equivalent Resistance in feet of Straight Duct	0	0	0	0

Zero Pressure Weathercaps

The zero pressure weathercap is made of strong, corrosion-resistant PVC. The cap adds little static pressure to the exhaust system and allows for vertical discharge of the effluent air for dispersion away from the building.

Nominal Diameter/Inches	6	8	10	12	16
Catalog Number	47222	47223	70951	56221	56222
Height/Inches	36	40	48	56	72
Shipping Wt./lbs.	20	25	30	35	40
Equivalent Resistance in feet of Straight Duct	5	5	5	5	5

Spiral Tube

This spiral tube simplifies temporary installations. It is corrosion-resistant, neoprene-impregnated fiberglass reinforced with steel wire. Includes rigid duct connector and two clamps. Length is ten feet.

Nominal Diameter/Inches	7" for use with 6" fittings	9" for use with 8" fittings	11" for use with 10" fittings	13" for use with 12" fittings
Catalog Number	19651	47194	70277	56223
Shipping Wt./lbs.	10	15	20	25
Equivalent Resistance in feet of Straight Duct	Because this ductwork is flexible and may conform to various configurations, it is not possible to know the precise equivalent resistance.			

Manual Duct Dampers

This damper fitting allows you to balance airflow. It may be used with exhaust and auxiliary air ducts, and is usually placed directly above the fume hood.

Nominal Diameter/Inches	6	8	10	12	16
Catalog Number	47242	47413	59834	59812	47264
Shipping Wt./lbs.	10	12	15	20	25
Approx. Height/Inches	14	19-1/8	19-1/2	19-2/3	24

Flexible Duct Connections

This flexible connection reduces vibration between the blower and PVC ductwork. It is supplied with two clamps for easy installation.

Nominal Diameter/Inches	9" for use with 8" fittings	11" for use with 10" fittings	13" for use with 12" fittings
Catalog Number	47265	70342	56214
Shipping Wt./lbs.	5	5	5

Blower Transition Adaptors

This epoxy-coated steel transition adaptor fits all Labconco Coated Steel Blowers. This adaptor allows you to connect round thermoplastic duct to the exhaust side of the blower to create an exhaust stack. Nominal size PVC duct fits inside the adaptor opening.

Nominal Diameter/Inches	8	10	12
Catalog Number	47224	4722401	70034
Shipping Wt./lbs.	3	4	4
For use with Labconco Blowers	70680-70687	70680-70687	70688-70697

Auxiliary-Air Transition Adaptor

The auxiliary-air transition adaptor is the same construction as the blower transition adaptor, but is designed to allow you to connect round thermoplastic duct to the regular auxiliary-air collar of Protector Fume Hoods.

Nominal Diameter/Inches	10
Catalog Number	48893
Shipping Wt./lbs.	4

T and Y Connections

PVC fittings shaped in T and Y configurations are compatible with thermoplastic duct. End connections receive PVC pipe directly. Contact Labconco for help in sizing blowers with these accessories.

Nominal Diameter/Inches		10x10x12
T's	Catalog Number	56304
	Shipping Wt./lbs.	20
	Approx. Height/Inches	19

Nominal Diameter/Inches		10x10x12	12x12x16
Y's	Catalog Number	56301	56305
	Shipping Wt./lbs.	19	20
	Approx. Height/Inches	12-3/4	23-1/4

Accessory for Basic 47 Hoods

Exhaust Transition Adaptor

The exhaust transition adapts to 7" and 10" rectangular outlet on Basic 47 Hoods, model series 22473 and 22475, to receive 10" diameter PVC duct.

Nominal Diameter/Inches	10
Catalog Number	22648
Shipping Wt./lbs.	5

Accessory for Perchloric Acid Applications

Wash Rings

Wash rings are suited for use in Perchloric acid duct systems. Each features a wide-angle conical spray nozzle and wash water connector nipple fabricated into a PVC coupling for use with 10" or 12" nominal duct.

Nominal Diameter/Inches	10	12
Catalog Number	47460	47461
Shipping Wt./lbs.	5	6

Accessories for Pathogens, Organic Vapors and Odor Control Applications

HEPA Filter Packs

High Efficiency Particulate Air Filter for non-radioactive particulate and pathogenic applications. Rated for 1000 CFM airflow with initial 1.0" static pressure drop. Replaceable HEPA filter media removes 99.97% of all particles 0.3 micron or greater. Furnished with clamping frame and duct connections. Unit measures 28" x 28" x 25" high.

Charcoal Filter Packs

Activated Charcoal Filter for non-radioactive organic vapors and odor control are rated for 1000 CFM airflow with 0.2" static pressure drop. Unit measures 28" x 28" x 25" high.

Nominal Diameter/Inches		8	10	12
HEPA Filter	Catalog Number	22400	22401	22442
	Shipping Wt./lbs.	100	100	100
Charcoal Filter	Catalog Number	22430	22431	22441
	Shipping Wt./lbs.	100	100	100

Backdraft Dampers

Designed for use in buildings under negative pressure to keep outside air from entering the laboratory through the hood ventilation system. Damper is weighted to stay in down/resting position when the hood is not in use, and rises from the airflow exhausting when the blower is on. It mounts vertically on blower outlet. The damper is made of PVC Type 1, unplasticized, schedule 40 duct.

Nominal Diameter/Inches	8	10	12
Catalog Number	S304508	S304510	S304512
Shipping Wt./lbs.	15	18	20

Bird Screens

Screen attaches easily with screws to auxiliary-air blower inlet to keep birds from nesting in blower.

Nominal Diameter/Inches	10	12
Catalog Number	S122500	S122501
Shipping Wt./lbs.	5	5

CHAPTER 8
TROUBLESHOOTING

Refer to the following table if your blower fails to operate properly. If the suggested corrective actions do not solve your problem, contact Labconco for additional assistance.

PROBLEM	CAUSE	CORRECTIVE ACTION
Remote blower won't operate.	Wires not connected at junction boxes or switches.	Check connection of switches.
		Check connection to control box on top of unit.
	Circuit breakers tripped in building electrical supply.	Reset circuit breakers.
	Blower wiring is disconnected. Belt broken. Blower motor is defective.	Inspect blower wiring and switch. Replace belt. Replace blower motor.
Contamination outside of fume hood.	Fume hood has improper face velocity	Have fume hood re-certified and check remote blower exhaust system. Hood should have average face velocity of 60-100 fpm depending on application.
Remote blower has excessive vibration.	Improper motor mount.	Review *Chapter 2: Prerequisites* and *Chapter 3: Getting Started*. The blower should be mounted on vibration isolators or vibration mounting pads to isolate vibration.

PROBLEM	CAUSE	CORRECTIVE ACTION
(Cont'd.) Remote blower has excessive vibration.	Inspect wheel for damage.	Replace damaged wheel.
	Check for objects in blower wheel**.**	Remove objects in blower wheel.
	Improper inlet connection.	Review *Chapter 3: Getting Started*. The blower inlet should be installed with a vibration damper or flexible duct connection.
Fume hood has improper face velocity.	Blower not sized properly.	Review *Chapter 7: Modifying Your Blower*. *Blower Sizing* Size the blower properly with equivalent resistance method.
	Blower requires RPM adjustment.	Review *Chapter 3: Getting Started* Adjust the fan speed and confirm blower performance.

APPENDIX A
BLOWER REPLACEMENT PARTS

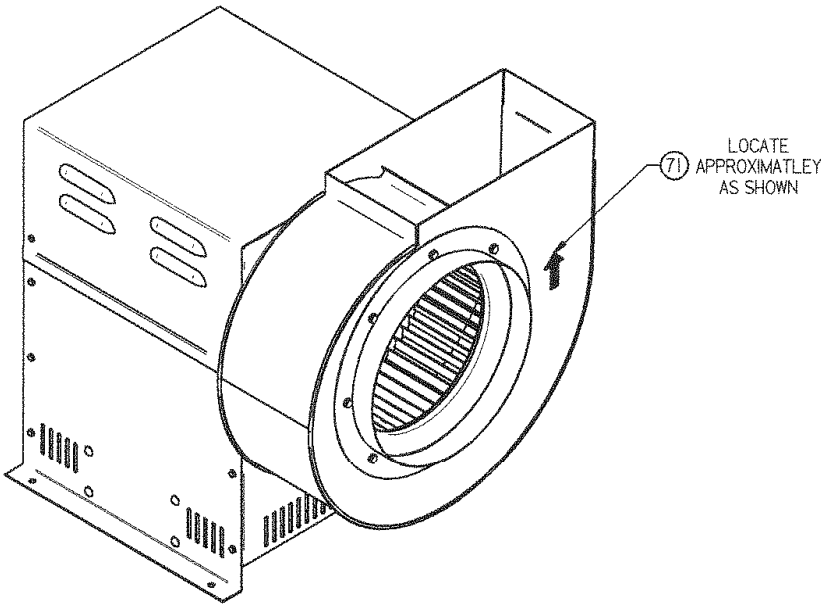
The following illustrations and replacement parts are organized into four sub-groups of blowers, which are low pressure coated steel, low pressure fiberglass, high pressure fiberglass, and low pressure PVC. See the correct sub-group.

Coated Steel Models 7068000 through 7069700, 7071900

16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	60	1910116	LOCKWASHER 1/4 SS
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	59	1910018	LOCKWASHER 3/8
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	58	1910017	LOCK WASHER 5/16
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	57	1911018	WASHER - FLAT 3/8
																						56		
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	55	1911017	WASHER - FLAT 5/16
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	54	1906525	NUT - HEX 3/8-16
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	53	1916402	NUT - RETAINER
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	52	1998700	PIN - HAIRPIN COTTER
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	51	7112400	PIN - BENT
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50	7112200	SHAFT - DRIVE - DUAL KEYWAY
1	1	1	1	1	1	1								1	1							49	1860800	V-BELT X 32"
							1	1									1			1		48	1861700	V-BELT X 34"
										1	1	1	1									47	1849900	V-BELT X 38"
																1		1	1		1	46	1851000	V-BELT X 33"
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	45	7111100	MOTOR MOUNT - 9" AND 12" WHEEL
																						44		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	43	7111800	COVER - BLOWER
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42	7111400	BLOWER FRAME ASSEMBLY
		1	1	1	1	1	1	1	1	1	1	1	1									41	7051800	ADAPTER - INLET (12")
1	1													1	1	1	1	1	1	1	1	40	7051900	ADAPTER - INLET (10")
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	39	1852400	KEY
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	38	7099100	SHAFT SEAL
			1		1		1		1		1		1									37	7093900	WHEEL - 12" ALUMINUM
		1		1		1		1		1		1										36	7047200	WHEEL - 12" STEEL
														1		1		1		1		35	7093800	WHEEL - 9" ALUMINUM
1	1														1		1		1		1	34	7046900	WHEEL - 9" STEEL
		1																				33	3664100	HOUSING - BLOWER (12")
1	1																					32	3672900	HOUSING - BLOWER (9")
			1	1	1	1	1	1	1	1	1	1										31	7048000	HOUSING - BLOWER (12")
														1	1	1	1	1	1	1	1	30	7047700	HOUSING - BLOWER (9")
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	29	1860600	BLOCK - PILLOW - 5/8 BORE
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	28	1860500	BLOCK - FLANGE - 5/8 BORE
							1	1												1	1	27	1857200	SHEAVE - FIXED 6.45 OD X .625 BORE
					1	1																26	1861200	SHEAVE - FIXED 5.25 OD X .625 BORE
		1																				25	1859300	SHEAVE - FIXED 3.95 OD X .625 BORE
																	1	1				24	1857500	SHEAVE - FIXED 5.75 OD X .625 BORE
1			1	1										1	1							23	1857700	SHEAVE - FIXED 4.75 OD X .625 BORE
	1															1	1					22	1857600	SHEAVE - FIXED 5.45 OD X .625 BORE
																1						21	1862600	SHEAVE - VARIABLE 4.15 OD X .500 BORE
		1																				20	1861100	SHEAVE - VARIABLE 4.75 OD X .875 BORE
	1			1	1	1	1	1	1	1	1							1	1			19	1858200	SHEAVE - VARIABLE 3.75 OD X .625 BORE
												1										18	1850400	SHEAVE - VARIABLE 3.15 OD X .625 BORE
1														1	1	1						17	1858300	SHEAVE - VARIABLE 4.15 OD X .625 BORE
													1							1	1	16	1858000	SHEAVE - VARIABLE 3.15 OD X .500 BORE
		1																				15	1210300	MOTOR - 2 HP 230/460V - 5.8/2.9A - 60 HZ [3]
			1																			14	1206700	MOTOR - 1 1/2 HP EP 230/460V - 4.8/2.4A - 60 HZ [3]
				1																		13	1211900	MOTOR - 1 1/2 HP 115/230V - 20.4/10.2A - 60 HZ [3]
					1																	12	1201600	MOTOR - 1 HP EP 115/230V - 13.6/6.8A - 60HZ [3]
						1																11	1211800	MOTOR - 1 HP 115/230V - 13.6/6.8A - 60HZ [3]
							1															10	1201800	MOTOR - 3/4 HP EP 115/230V - 11.4/5.7A - 60HZ [3]
								1														9	1202000	MOTOR - 3/4 HP 115/230V - 11.6/5.8A - 60HZ [3]
										1				1								8	1208200	MOTOR - 1/2 HP EP 115/230V - 9.0/4.5A - 60HZ [3]
1											1				1							7	1200500	MOTOR - 1/2 HP 115V - 8.4A - 60HZ [3]
												1				1						6	1200100	MOTOR - 1/3 HP EP 115V - 6.4A - 60HZ [3]
													1				1					5	1210400	MOTOR - 1/3 HP 115V - 6.1A - 60HZ [3]
																		1				4	1200400	MOTOR - 1/4 HP EP 115V - 4.5A - 60HZ [3]
	1																		1			3	1208600	MOTOR - 1/4 HP 115V - 4.4A - 60HZ [3]
																				1		2	1210000	MOTOR - 1/6 HP EP 115V - 3.5A - 60HZ [3]
																					1	1	1208500	MOTOR - 1/6 HP 115V - 4.0A - 60HZ [3]
QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	ITEM	PART NO.	DESCRIPTION

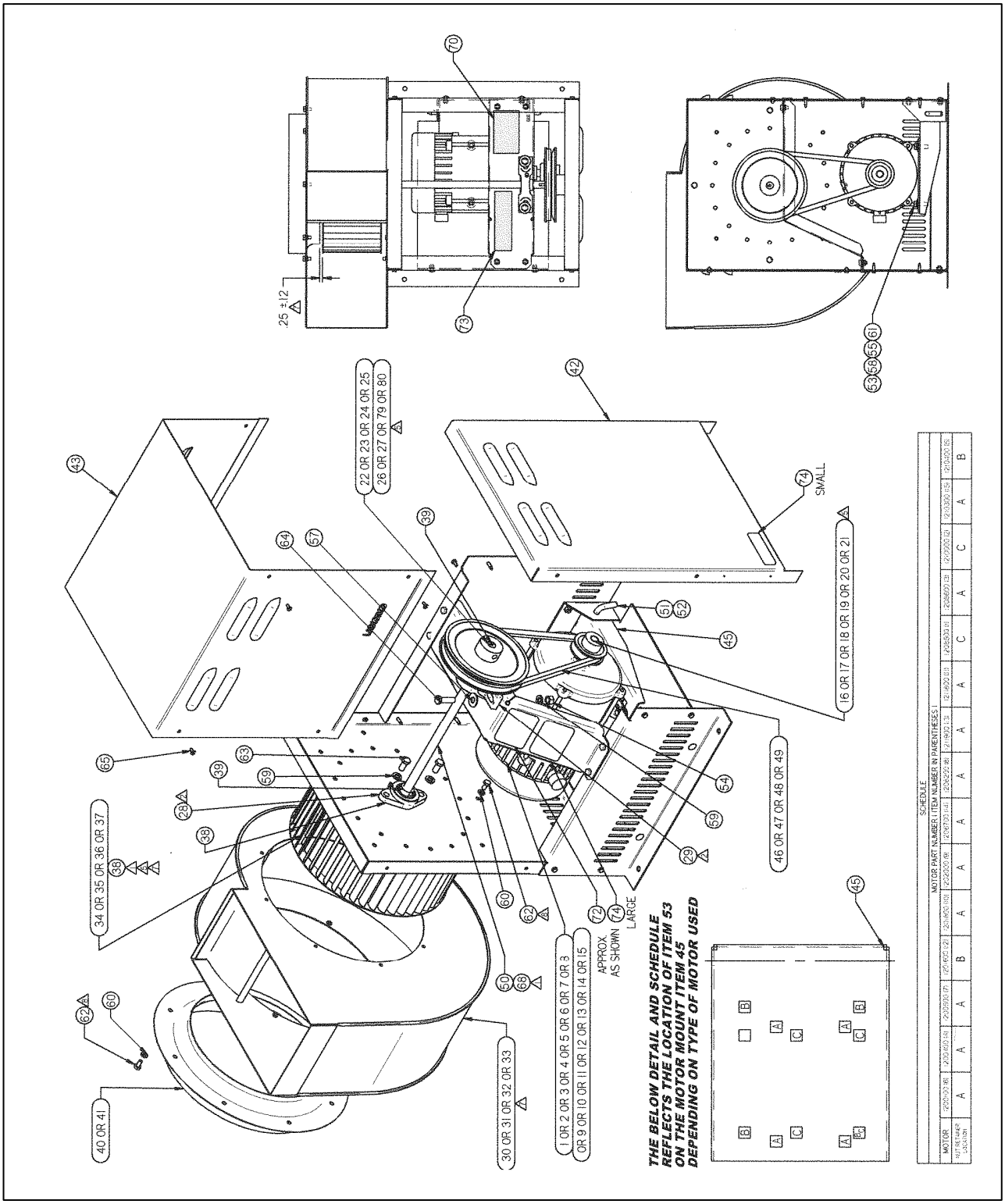
				7071900	7069700	7069600	7069500	7069400	7069300	7069200	7069100	7069000	7068900	7068800	7068700	7068600	7068500	7068400	7068300	7068200	7068100	7068000
	SIZE	9"	9"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	9"	9"	9"	9"	9"	9"	9"	9"
SET TO ± 20	RPM	1436	1108	1910	1283		1153		926		733		549		1436		1240		1042		787	
	TYPE				EP		EP		EP		EP		EP		EP		EP		EP		EP	
	HP	1/2	1/4	2	1 1/2		1		3/4		1/2		1/3		1/2		1/3		1/4		1/6	

Coated Steel Models 7068000 through 7069700, 7071900



												1	1								80	1865100	SHEAVE - FIXED 8.93 OD X .625 BORE
									1	1											79	1865000	SHEAVE - FIXED 7.93 OD X .625 BORE
																					78		
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	77	7187600	CARTON - SHIPPING ⚠4
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	76	1992700	ENVELOPE ⚠4
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	75	7114000	INSTRUCTION MANUAL ⚠4
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	74	4763500	PLATE - IDENTIFICATION
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	73	4853300	LABEL - CAUTION BLOWER MOTOR
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	72	4763900	LABEL - INSPECTION
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	71	5605800	LABEL ROTATION
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	70	1999929	LABEL - BEARING LUBRICATION
	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	69	1576900	FLUID - LOCKING (LOCTITE #271)
	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	68	1986400	GREASE
																					67		
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	66	1998600	INSTRUCTION SHEET ⚠4
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	65	1885806	SCREW - MACHINE 10-24 X .38 HEX WASHER HD
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	64	1881120	SCREW - CAP - HEX HEAD 3/8-16 X 1.25
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	63	1881712	SCREW - CAP - HEX HEAD 3/8-16 X .75 SS
	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	62	1881008	SCREW - CAP - HEX HEAD 1/4-20 X 1/2 SS
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	61	1880916	SCREW - CAP - HEX HEAD 5/16-18 X 1.00
QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	ITEM	PART NO.	DESCRIPTION
			7071900	7069700	7069600	7069500	7069400	7069300	7069200	7069100	7069000	7068900	7068800	7068700	7068600	7068500	7068400	7068300	7068200	7068100	7068000			

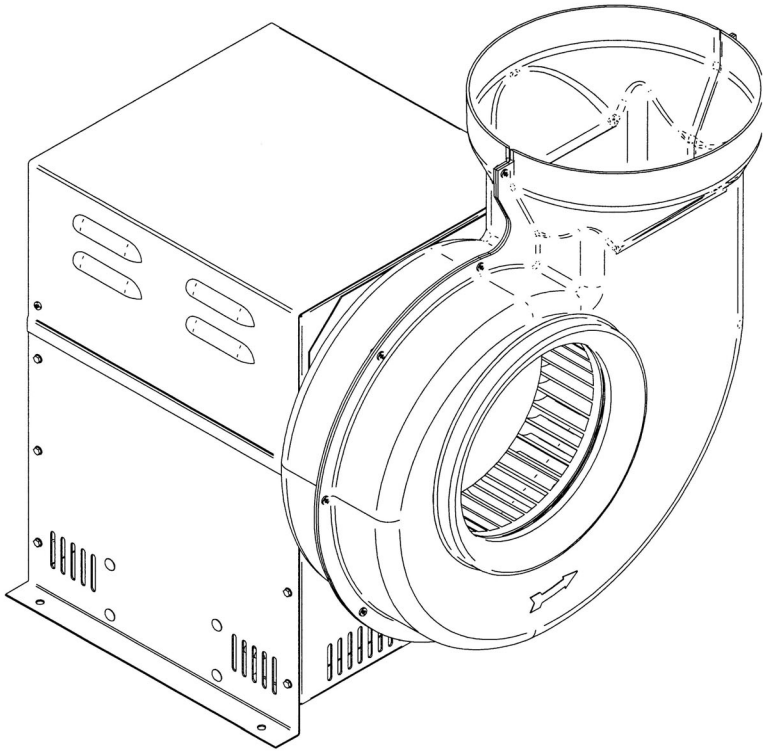
Coated Steel Models 7068000 through 7069700, 7071900



Low Pressure Fiberglass Models 7180000 through 7181700

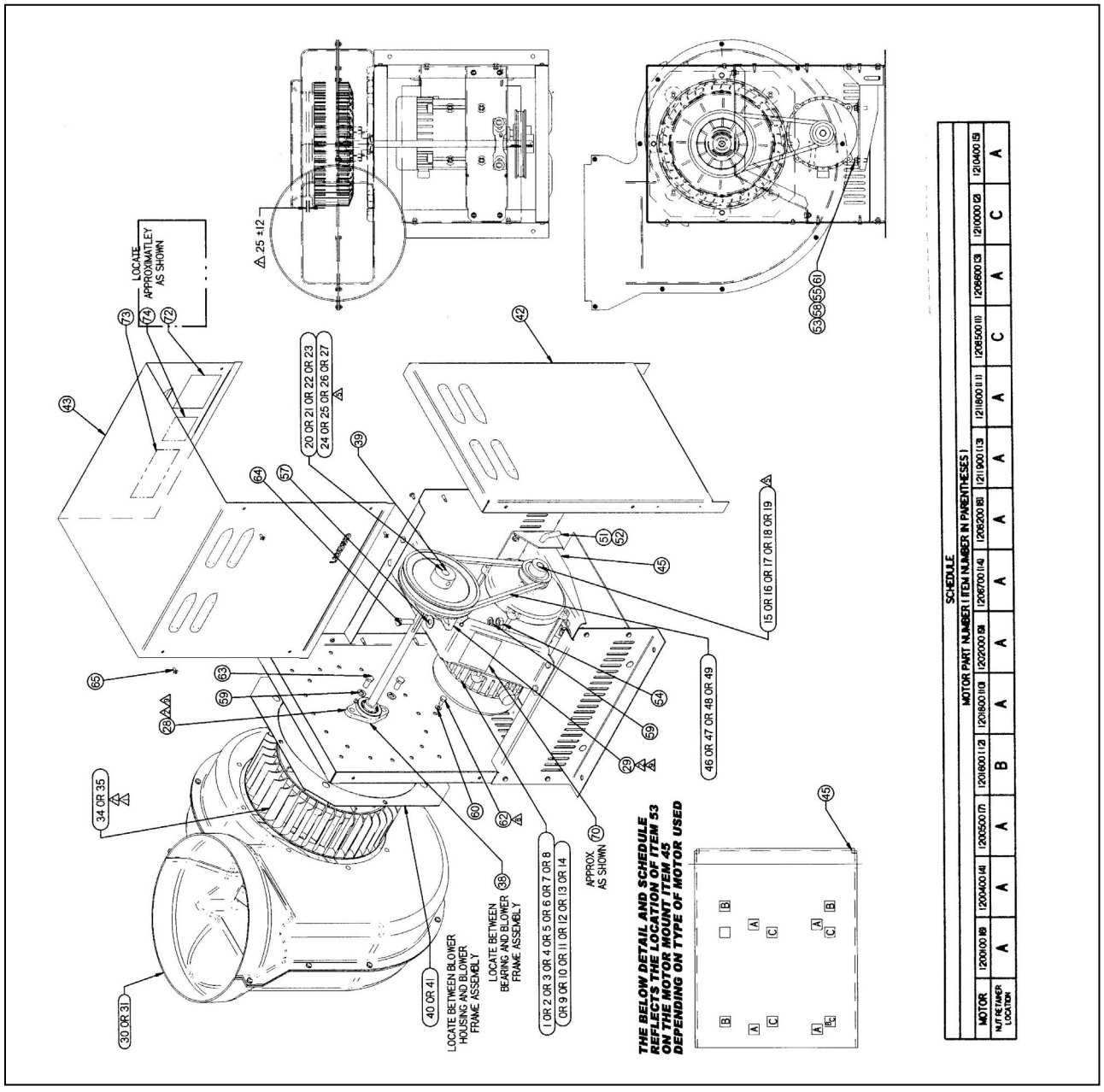
7181700	7181600	7181500	7181400	7181300	7181200	7181100	7181000	7180900	7180800	7180700	7180600	7180500	7180400	7180300	7180200	7180100	7180000	ITEM	PART NO.	DESCRIPTION
QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY			
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	60	1910116	LOCKWASHER 1/4 SS
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	59	1910018	LOCKWASHER 3/8
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	58	1910017	LOCK WASHER 5/16
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	57	1911018	WASHER - FLAT 3/8
																		56		
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	55	1911017	WASHER - FLAT 5/16
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	54	1906525	NUT - HEX 3/8-16
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	53	1916402	NUT - RETAINER
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	52	1998700	PIN - HAIRPIN COTTER
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	51	7112400	PIN - BENT
																		50		
												1	1	1	1	1	1	49	1860800	V-BELT X 32"
						1	1	1	1									48	1849900	V-BELT X 38"
1	1	1	1							1	1							47	1860700	V-BELT X 31"
				1	1													46	1851000	V-BELT X 33"
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	45	7111100	MOTOR MOUNT - 9" AND 12" WHEEL
																		44		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	43	7111800	COVER - BLOWER
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42	7111400	BLOWER FRAME ASSEMBLY
1	1	1	1	1	1	1	1	1	1									41	7187304	COVER PLATE - 12" POLYPROPYLENE (WHT)
										1	1	1	1	1	1	1	1	40	7187303	COVER PLATE - 9" POLYPROPYLENE (WHT)
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	39	1852400	KEY
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	38	7099100	SHAFT SEAL
																		37		
																		36		
1	1	1	1	1	1	1	1	1	1									35	7113301	WHEEL - ASSEMBLY - 12"
										1	1	1	1	1	1	1	1	34	7113300	WHEEL- ASSEMBLY - 9"
																		33		
																		32		
1	1	1	1	1	1	1	1	1	1									31	7185001	HOUSING - FIBERGLASS BLOWER (12")
										1	1	1	1	1	1	1	1	30	7185000	HOUSING - FIBERGLASS BLOWER (9")
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	29	1860600	BLOCK - PILLOW - 5/8 BORE
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	28	1860500	BLOCK - FLANGE - 5/8 BORE
								1	1									27	1865100	SHEAVE - FIXED 8.93 OD X .625 BORE
						1	1											26	1865000	SHEAVE - FIXED 7.93 OD X .625 BORE
				1	1													25	1857300	SHEAVE - FIXED 6.25 OD X .625 BORE
														1	1			24	1861200	SHEAVE - FIXED 5.25 OD X .625 BORE
										1	1							23	1859300	SHEAVE - FIXED 3.95 OD X .625 BORE
1	1																	22	1857900	SHEAVE - FIXED 4.25 OD X .625 BORE
		1	1									1	1					21	1857700	SHEAVE - FIXED 4.75 OD X .625 BORE
																1	1	20	1857600	SHEAVE - FIXED 5.45 OD X .625 BORE
													1					19	1862600	SHEAVE - VARIABLE 4.15 OD X .500 BORE
		1	1	1	1	1	1							1	1			18	1858200	SHEAVE - VARIABLE 3.75 OD X .625 BORE
																		17	1850400	SHEAVE - VARIABLE 3.15 OD X .625 BORE
1	1									1	1	1						16	1858300	SHEAVE - VARIABLE 4.15 OD X .625 BORE
								1	1							1	1	15	1858000	SHEAVE - VARIABLE 3.15 OD X .500 BORE
1																		14	1206700	MOTOR - 1 1/2 HP EP 230/460V - 4.8/2.4A - 60 HZ (3)
	1																	13	1211900	MOTOR - 1 1/2 HP 115/230V - 20.4/10.2A - 60 HZ (3)
																		12	1201600	MOTOR - 1 HP EP 115/230V - 13.6/6.8A - 60HZ (3)
																		11	1211800	MOTOR - 1 HP 115/230V - 13.6/6.8A - 60HZ (3)
		1																10	1201800	MOTOR - 3/4 HP EP 115/230V - 11.4/5.7A - 60HZ (3)
			1															9	1202000	MOTOR - 3/4 HP 115/230V - 11.6/5.8A - 60HZ (3)
				1						1								8	1208200	MOTOR - 1/2 HP EP 115/230V - 9.0/4.5A - 60HZ (3)
					1						1							7	1200500	MOTOR - 1/2 HP 115V - 8.4A - 60HZ (3)
												1						6	1200100	MOTOR - 1/3 HP EP 115V - 6.4A - 60HZ (3)
													1					5	1210400	MOTOR - 1/3 HP 115V - 6.1A - 60HZ (3)
						1								1				4	1200400	MOTOR - 1/4 HP EP 115V - 4.5A - 60HZ (3)
							1								1			3	1208600	MOTOR - 1/4 HP 115V - 4.4A - 60HZ (3)
								1								1		2	1210000	MOTOR - 1/6 HP EP 115V - 3.5A - 60HZ (3)
									1								1	1	1208500	MOTOR - 1/6 HP 115V - 4.0A - 60HZ (3)
SIZE	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	9"	9"	9"	9"	9"	9"	9"	9"			
RPM	1619		1283		958		733		549		1752		1436		1153		942				
TYPE	EP		EP		EP		EP		EP		EP		EP		EP		EP				
HP	1 1/2		3/4		1/2		1/4		1/6		1/2		1/3		1/4		1/6				

Low Pressure Fiberglass Models 7180000 through 7181700

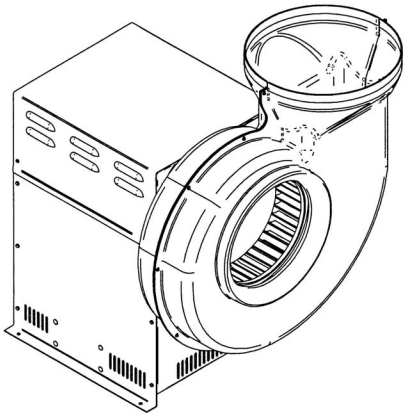


7181700	7181600	7181500	7181400	7181300	7181200	7181100	7181000	7180900	7180800	7180700	7180600	7180500	7180400	7180300	7180200	7180100	7180000	ITEM	PART NO.	DESCRIPTION
QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY			
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	61	1880916	SCREW - CAP - HEX HEAD 5/16-18 X 1.00
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	62	1881008	SCREW - CAP - HEX HEAD 1/4-20 X 1/2 SS
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	63	1881712	SCREW - CAP - HEX HEAD 3/8-16 X .75 SS
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	64	1881120	SCREW - CAP - HEX HEAD 3/8-16 X 1.25
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	65	1887808	SCREW - MACHINE 10-24 X .50 PHILLIPS PAN HD
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	66	1998600	INSTRUCTION SHEET 4
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	67	1420900	PLUG - TAPER 14-28 NPT
AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	68	1986400	GREASE
AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	69	1576900	FLUID - LOCKING (LOCTITE #271)
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	70	1999929	LABEL - BEARING LUBRICATION
																		71		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	72	4763900	LABEL - INSPECTION
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	73	4853300	LABEL - CAUTION BLOWER MOTOR
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	74	4763500	PLATE - IDENTIFICATION
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	75	7114000	INSTRUCTION MANUAL 4
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	76	1992700	ENVELOPE 4
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	77	7187600	CARTON - SHIPPING 4
																		78		
																		79		
																		80		

Low Pressure Fiberglass Models 7180000 through 7181700



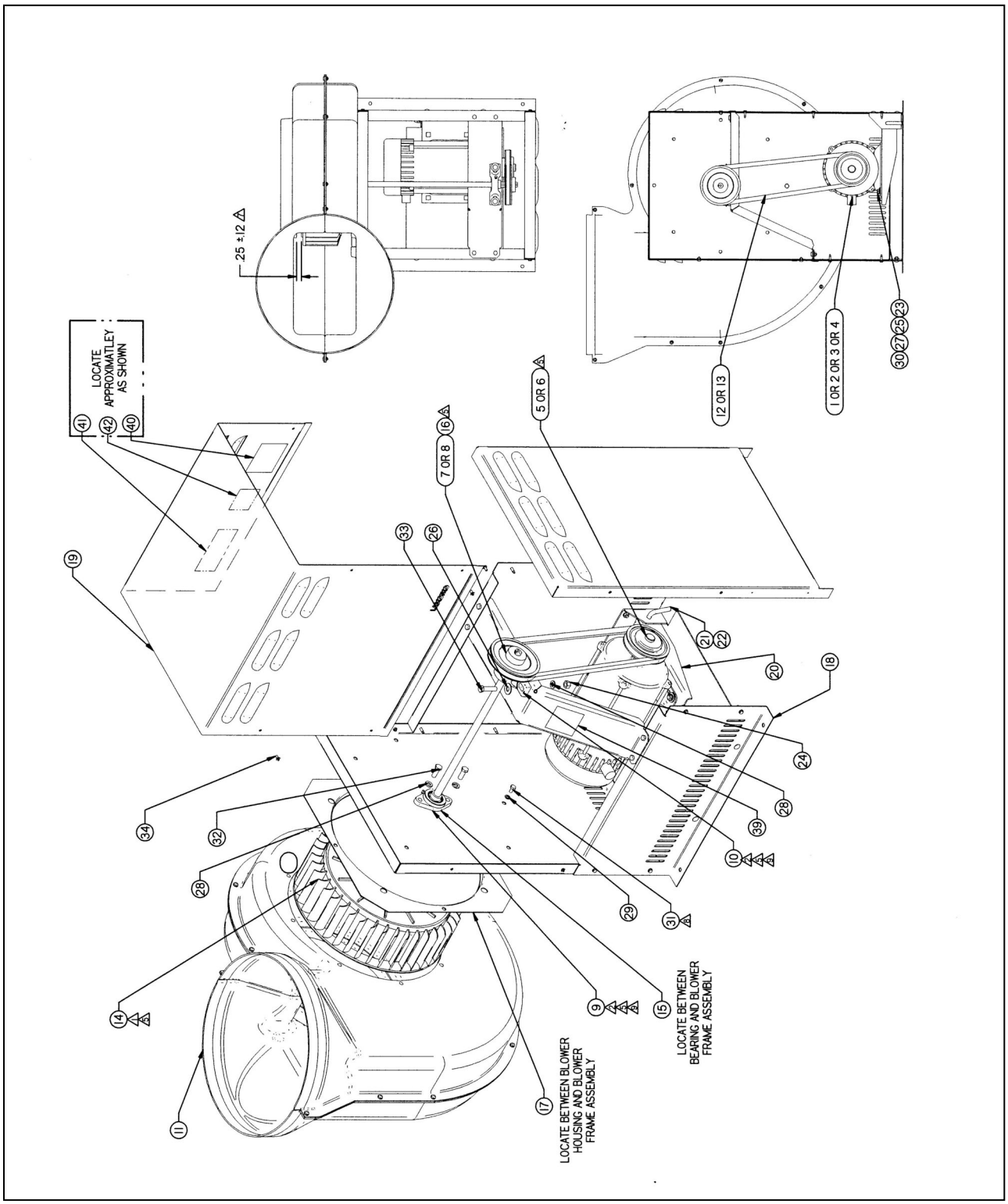
Fiberglass Blower Models 7182000 through 7182300



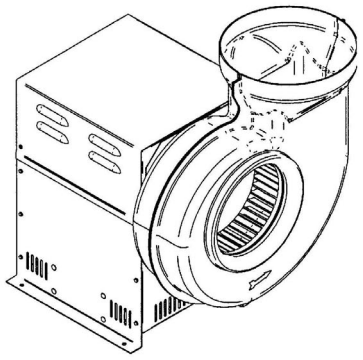
				59		
				48		
				47		
				46		
1	1	1	1	45	7189500	CARTON - SHIPPING 4
1	1	1	1	44	1992700	ENVELOPE 4
1	1	1	1	43	7114000	INSTRUCTION MANUAL 4
1	1	1	1	42	4763500	PLATE - IDENTIFICATION
1	1	1	1	41	4853300	LABEL - CAUTION BLOWER MOTOR
1	1	1	1	40	4763900	LABEL - INSPECTION
1	1	1	1	39	1999929	LABEL - BEARING LUBRICATION
AR	AR	AR	AR	38	1576900	FLUID - LOCKING (LOCTITE #271)
AR	AR	AR	AR	37	1986400	GREASE
2	2	2	2	36	1420900	PLUG - TAPER 14-28 NPT
1	1	1	1	35	1998600	INSTRUCTION SHEET 4
6	6	6	6	34	1887808	SCREW - MACHINE 10-24 X .50 PHILLIPS PAN HD
2	2	2	2	33	1881120	SCREW - CAP - HEX HEAD 3/8-16 X 1.25
2	2	2	2	32	1881712	SCREW - CAP - HEX HEAD 3/8-16 X .75 SS
8	8	8	8	31	1881008	SCREW - CAP - HEX HEAD 1/4-20 X 1/2 SS
4	4	4	4	30	1880916	SCREW - CAP - HEX HEAD 5/16-18 X 1.00
8	8	8	8	29	1910116	LOCKWASHER 1/4 SS
4	4	4	4	28	1910018	LOCKWASHER 3/8
4	4	4	4	27	1910017	LOCK WASHER 5/16
2	2	2	2	26	1911018	WASHER - FLAT 3/8
4	4	4	4	25	1911017	WASHER - FLAT 5/16
2	2	2	2	24	1906525	NUT - HEX 3/8-16
4	4	4	4	23	1916402	NUT - RETAINER
1	1	1	1	22	1998700	PIN - HAIRPIN COTTER
1	1	1	1	21	7112400	PIN - BENT
1	1	1	1	20	7111200	MOTOR MOUNT
1	1	1	1	19	7113200	COVER - BLOWER
1	1	1	1	18	7112900	BLOWER FRAME ASSEMBLY
1	1	1	1	17	7187305	COVER PLATE - POLYPROPYLENE WHITE
1	1	1	1	16	1852400	KEY
1	1	1	1	15	7099100	SHAFT SEAL
1	1	1	1	14	7113302	WHEEL - ASSEMBLY - 14"
		1	1	13	1862000	V. - BELT X 43"
1	1			12	1863800	V - BELT X 41"
1	1	1	1	11	7185002	HOUSING - FIBERGLASS 16"
1	1	1	1	10	1860600	BLOCK - PILLOW - 5/8 BORE
1	1	1	1	9	1860500	BLOCK - FLANGE - 5/8 BORE
1	1			8	1859300	SHEAVE - FIXED 3.95 OD X .625 BORE
		1	1	7	1857700	SHEAVE - FIXED 4.75 OD X .625 BORE
1	1			6	1862200	SHEAVE - VARIABLE 4.15 OD X 1 1/8 BORE
		1	1	5	1862100	SHEAVE - VARIABLE 4.15 OD X .875 BORE
1				4	1204900	MOTOR-3 HP EP 230/460-8.4/4.2A-60 HZ 3PH
	1			3	1210800	MOTOR-3 HP 208-230/460V-9.7/4.85A-60 HZ 3PH
		1		2	1204700	MOTOR-2 HP EP 208-230/460V-6.0/3.0A-60 HZ 3 PH
			1	1	1210700	MOTOR-2 HP 208-230/460-6.8/3.4A-60 HZ 3PH
QTY	QTY	QTY	QTY	ITEM	PART NO.	DESCRIPTION

	7182300	7182200	7182100	7182000
RPM	1757		1449	
TYPE	EP		EP	
HP	3		2	

Fiberglass Blower Models 7182000 through 7182300



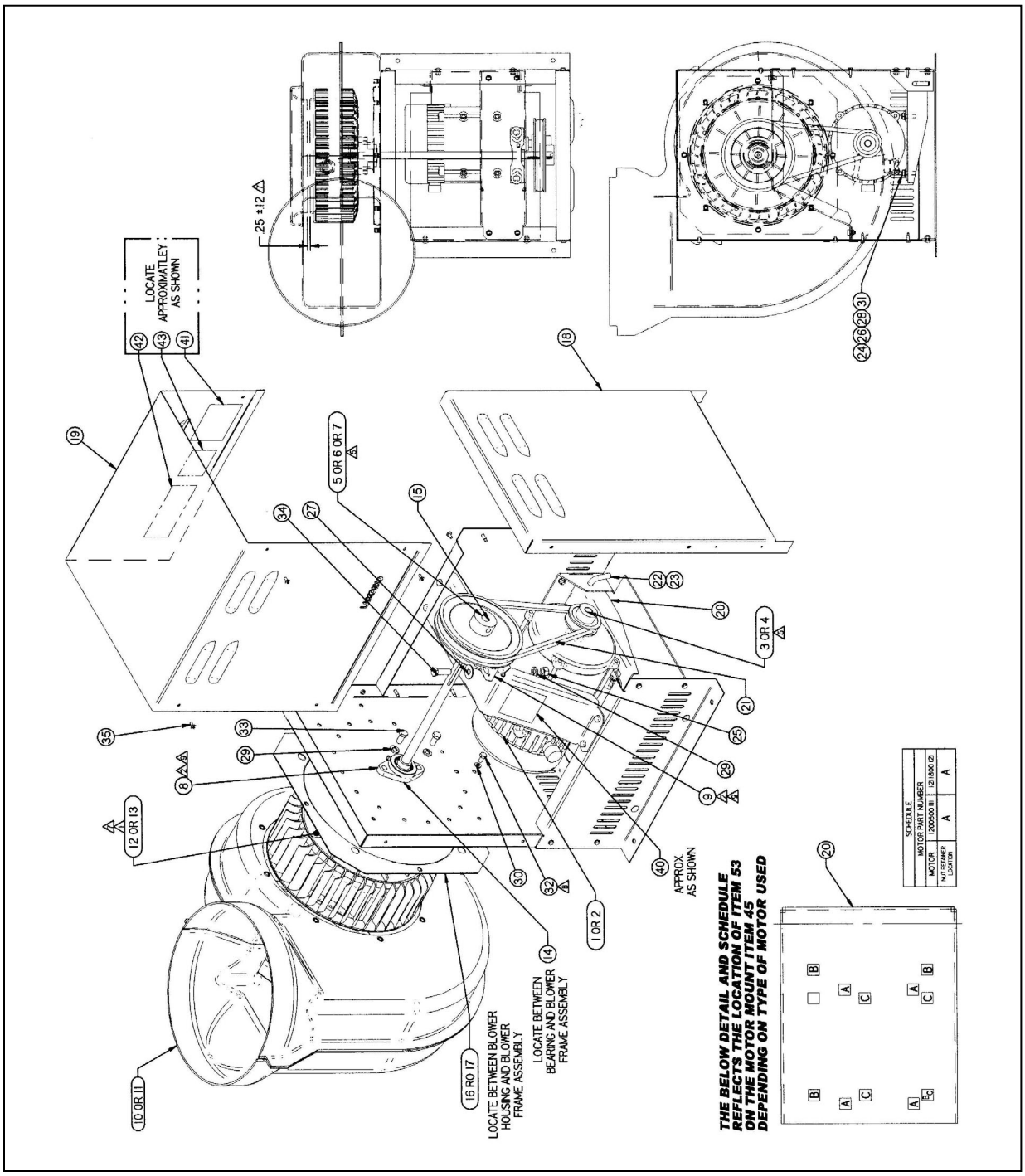
PVC Blower Low Pressure Models 7183000 through 7183200



			59		
			48		
			47		
1	1	1	46	7187600	CARTON - SHIPPING 4
1	1	1	45	1992700	ENVELOPE 4
1	1	1	44	7114000	INSTRUCTION MANUAL 4
1	1	1	43	4763500	PLATE - IDENTIFICATION
1	1	1	42	4853300	LABEL - CAUTION BLOWER MOTOR
1	1	1	41	4763900	LABEL - INSPECTION
1	1	1	40	1999929	LABEL - BEARING LUBRICATION
AR	AR	AR	39	1576900	FLUID - LOCKING (LOCTITE #271)
AR	AR	AR	38	1986400	GREASE
2	2	2	37	1420900	PLUG - TAPER 14-28 NPT
1	1	1	36	1998600	INSTRUCTION SHEET 4
6	6	6	35	1887808	SCREW - MACHINE 10-24 X .50 PHILLIPS PAN HD
2	2	2	34	1881120	SCREW - CAP - HEX HEAD 3/8-16 X 1.25
2	2	2	33	1881712	SCREW - CAP - HEX HEAD 3/8-16 X .75 SS
8	8	8	32	1881008	SCREW - CAP - HEX HEAD 1/4-20 X 1/2 SS
4	4	4	31	1880916	SCREW - CAP - HEX HEAD 5/16-18 X 1.00
8	8	8	30	1910116	LOCKWASHER 1/4 SS
4	4	4	29	1910018	LOCKWASHER 3/8
4	4	4	28	1910017	LOCK WASHER 5/16
2	2	2	27	1911018	WASHER - FLAT 3/8
4	4	4	26	1911017	WASHER - FLAT 5/16
2	2	2	25	1906525	NUT - HEX 3/8-16
4	4	4	24	1916402	NUT - RETAINER
1	1	1	23	1998700	PIN - HAIRPIN COTTER
1	1	1	22	7112400	PIN - BENT
1	1	1	21	1860700	V-BELT X 31"
1	1	1	20	7111100	MOTOR MOUNT - 9" AND 12" WHEEL
1	1	1	19	7111800	COVER - BLOWER
1	1	1	18	7111400	BLOWER FRAME ASSEMBLY
1	1		17	7187301	COVER PLATE - 12" PVC GREY
		1	16	7187300	COVER PLATE - 9" PVC GREY
1	1	1	15	1852400	KEY
1	1	1	14	7099100	SHAFT SEAL
1	1		13	7113304	WHEEL - ASSEMBLY - 12"
		1	12	7113303	WHEEL- ASSEMBLY - 9"
1	1		11	7186801	HOUSING - PVC BLOWER (12")
		1	10	7186800	HOUSING - PVC BLOWER (9")
1	1	1	9	1860600	BLOCK - PILLOW - 5/8 BORE
1	1	1	8	1860500	BLOCK - FLANGE - 5/8 BORE
	1		7	1852100	SHEAVE - FIXED 4.95 OD X .625 BORE
		1	6	1857800	SHEAVE - FIXED 4.45 OD X .625 BORE
1			5	1857900	SHEAVE - FIXED 4.25 OD X .625 BORE
	1		4	1858200	SHEAVE - VARIABLE 3.75 OD X .625 BORE
1		1	3	1858300	SHEAVE - VARIABLE 4.15 OD X .625 BORE
1			2	1211800	MOTOR - 1 HP 115/230V - 13.6/6.8A - 60HZ 3
	1	1	1	1200500	MOTOR - 1/2 HP 115V - 8.4A - 60HZ 3
QTY	QTY	QTY	ITEM	PART NO.	DESCRIPTION

	7183200	7183100	7183000
RPM	1619	1228	1540
HP	1	1/2	1/2
SIZE	12"	12"	9"

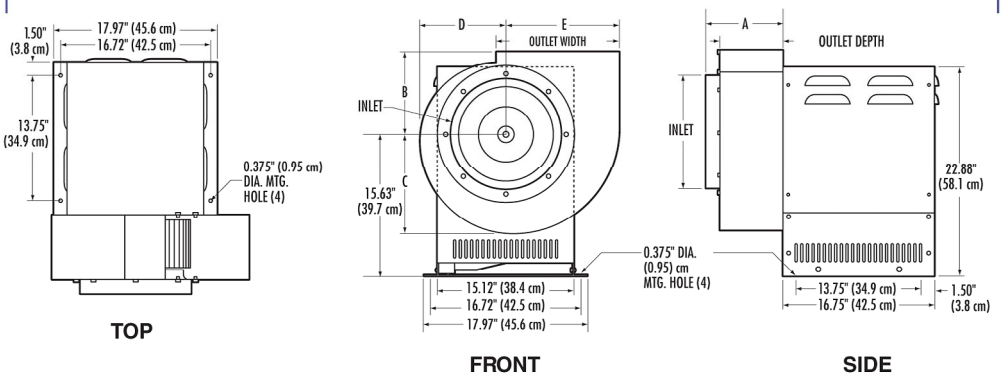
PVC Blower Low Pressure Models 7183000 through 7183200

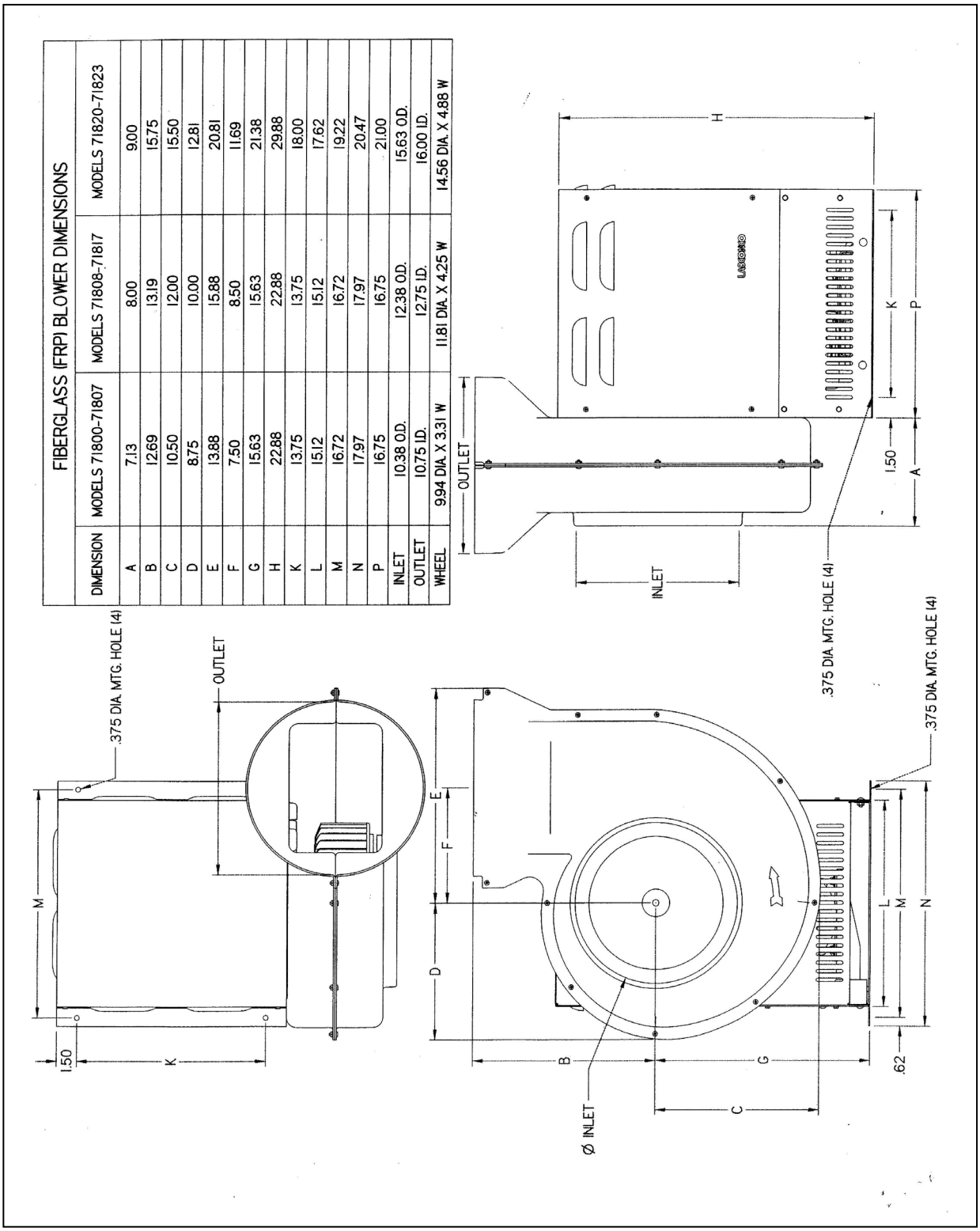


Appendix B
Blower
Dimensions

Dimension	Models 7068000-7068700	Models 7068800-7069700, 7071900
A	7.16" (18.2 cm)	8.56" (21.7 cm)
B	7.00" (17.8 cm)	9.00" (22.9 cm)
C	8.13" (20.7 cm)	10.50" (26.7 cm)
D	6.81" (17.3 cm)	9.00" (22.9 cm)
E	9.25" (23.5 cm)	12.50" (31.8 cm)
Inlet	10.87" (27.6 cm) ID	12.25" (31.1 cm) OD
Outlet	5.5" (14.0 cm) D x 10.00" (25.4 cm) W	7.0" (17.8 cm) D x 13.50" (34.3 cm) W
Wheel	9.19" (23.3 cm) Dia. x 4.25" (10.8 cm) W	12.19" (31.0 cm) Dia. x 5.25" (13.3 cm) W

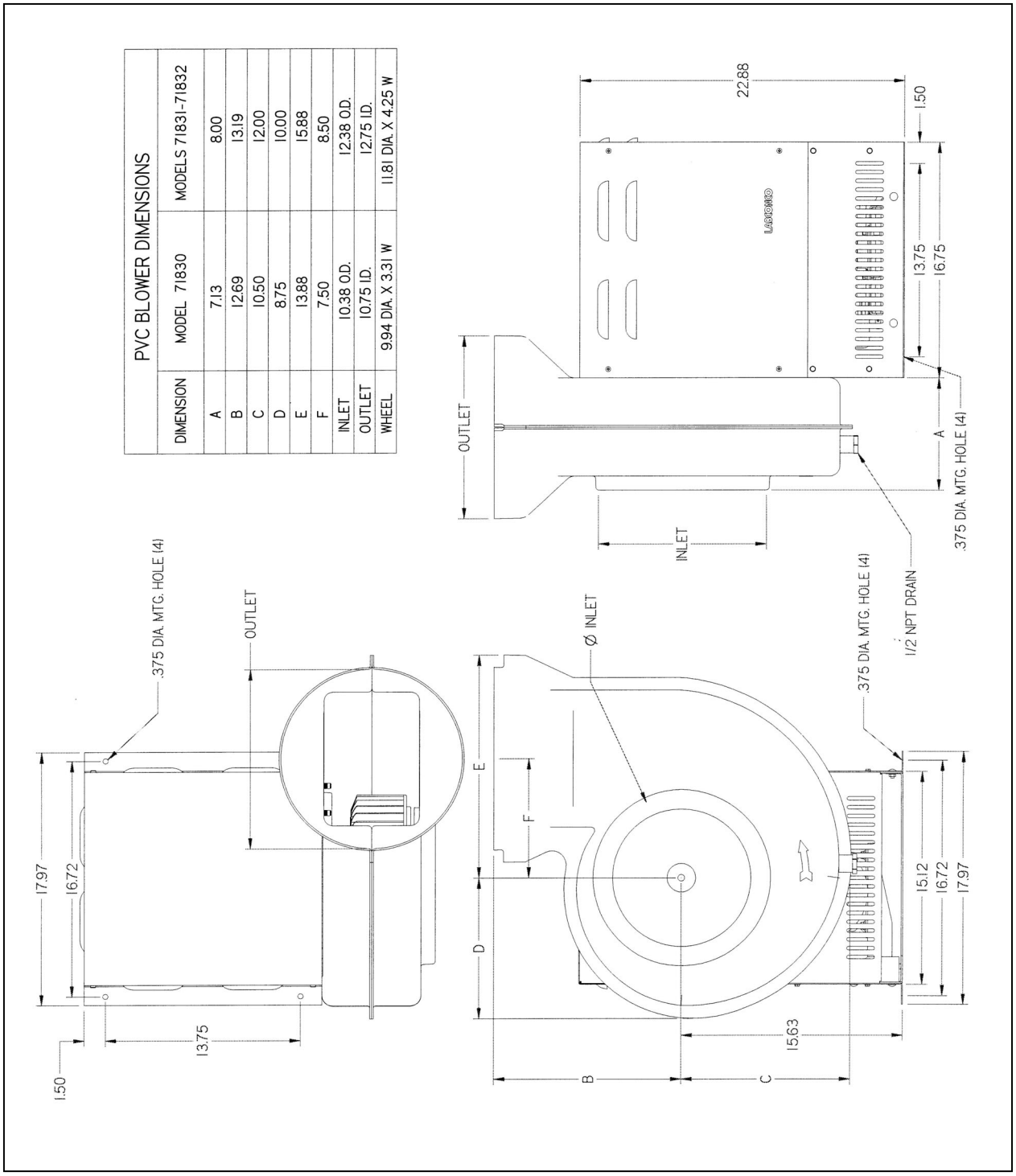
Coated Steel Blower Dimensions





FIBERGLASS (FRP) BLOWER DIMENSIONS			
DIMENSION	MODELS 71800-71807	MODELS 71808-71817	MODELS 71820-71823
A	7.13	8.00	9.00
B	12.69	13.19	15.75
C	10.50	12.00	15.50
D	8.75	10.00	12.81
E	13.88	15.88	20.81
F	7.50	8.50	11.69
G	15.63	15.63	21.38
H	22.88	22.88	29.88
K	13.75	13.75	18.00
L	15.12	15.12	17.62
M	16.72	16.72	19.22
N	17.97	17.97	20.47
P	16.75	16.75	21.00
INLET	10.38 O.D.	12.38 O.D.	15.63 O.D.
OUTLET	10.75 I.D.	12.75 I.D.	16.00 I.D.
WHEEL	9.94 DIA. X 3.31 W	11.81 DIA. X 4.25 W	14.56 DIA. X 4.88 W

PVC BLOWER DIMENSIONS		
DIMENSION	MODEL 71830	MODELS 71831-71832
A	7.13	8.00
B	12.69	13.19
C	10.50	12.00
D	8.75	10.00
E	13.88	15.88
F	7.50	8.50
INLET	10.38 O.D.	12.38 O.D.
OUTLET	10.75 I.D.	12.75 I.D.
WHEEL	9.94 DIA. X 3.31 W	11.81 DIA. X 4.25 W



APPENDIX C
BLOWER
ENVIRONMENTAL
CONDITIONS

Environmental Conditions

- Maximum altitude: 9843 feet (3000 meters).
- Ambient temperature range: -30° to 130°F (-34° to 54°C).
- Main supply voltage fluctuations not to exceed ±10% of the nominal voltage.
- Transient over-voltages according to Installation Categories II (Over-voltage Categories per IEC 1010). Temporary voltage spikes on the AC input line that may be as high as 1500V for 115V models and 2500V for 230V models are allowed.
- Used in an environment of Pollution degrees 2 (i.e., where normally only non-conductive atmospheres are present). Occasionally, however, a temporary conductivity caused by condensation must be expected, in accordance with IEC 664.