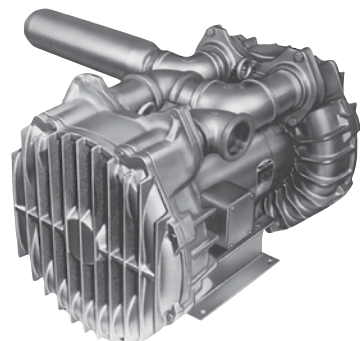
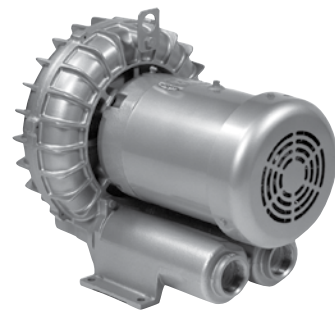


Regenair®

Regenerative Blowers



The Gast Group Difference

For over 90 years, Gast Manufacturing has been providing innovative air solutions to a broad breadth of customers. With the relatively recent addition of JUN-AIR, we have expanded our capabilities and formed, "The Gast Group." Together, our diverse engineering background and pneumatic experience allow us to provide both component and system solutions to meet all of your pneumatic needs...all backed by our strong commitment to quality and customer support.

Products for Almost Any Application – Worldwide

We offer an extensive and versatile line of air-moving products, including vacuum pumps, compressors, air motors, gearmotors, vacuum generators, and regenerative blowers. We design and build these components for original equipment manufacturers worldwide, but we also develop complete pneumatic solutions to solve tough customer challenges.

To ensure fast, efficient delivery of products, Gast has a vast network of sales representatives/distributors throughout the United States and the world. Plus, we maintain direct sales and service facilities in Europe, Hong Kong, and Shanghai, China.

Unparalleled Design Expertise

Unlike other manufacturers, who might expect you to modify your pneumatic system to fit their available product(s), Gast is committed to finding the right product to meet your specific needs. If we don't have a high-quality, off-the-shelf product to fit your existing application or meet your anticipated needs, we'll propose customized cost-effective design options that will serve your special requirements. We can even develop and produce your complete pneumatic system for you.

Our experienced Research and Development engineers and Product engineers work together to analyze customer needs and use computer-aided design to generate timely solutions for air-handling problems. The design team has one goal: to create problem-solving solutions that capitalize on the latest available technology, meet all application requirements, and benefit from cost-effective production methods. The end result: products and solutions that are the best value in the marketplace for our customers.

A Lasting Commitment to Quality

We invest heavily in both equipment and people to maintain the consistent quality for which our products are known worldwide, and we have done so since day one. As early as 1983, we implemented a total quality process designed to ensure the quality of our products. In keeping with that tradition, Gast has achieved ISO 9001 certification, making us a member of the elite group of manufacturing companies in the world to receive that certification.

European Community Directives €€

With extensive sales outside the United States, Gast has pledged to conform to the European Community Directives. These directives contain essential requirements concerning health, safety, environment, and consumer protection for all products targeted for the European Community market. Currently, all Gast products available for sale in the European Community are in compliance with the Machinery, Low Voltage, and Electromagnetic Compatibility Directives.

Pictorial and dimensional data is subject to change without notice. The information presented is based on technical data and test results of nominal units. It is believed to be accurate and is offered as an aid in the selection of Gast products. It is the user's responsibility to determine suitability of the product for intended use and the user assumes all risk and liability whatsoever in connection therewith. Environmental and application conditions may affect advertised life.

Why use a Regenair® Regenerative Blower?

Features and Benefits

Standard Motor Mounted Models

- Rugged construction of cast aluminum or cast iron, depending on model size
- UL and CSA approved motors; TEFC on single-ended models, OPEN on dual-ended models. Permanently sealed ball bearings incorporate new polyurea grease that extends bearing life and offers superior resistance to washout, rust, and corrosion. Integrated mufflers on single-ended models minimize operating noise

Explosion-Proof Motor Series

- UL and CSA approved explosion-proof multi-voltage motors with thermal protection
- Double sealed ball bearings with a B10 life exceeding 30,000 hours of continuous operation at the maximum rated continuous blower load
- Sealed air streams; leak tested to less than 5 cc/min

Separate Drive Series

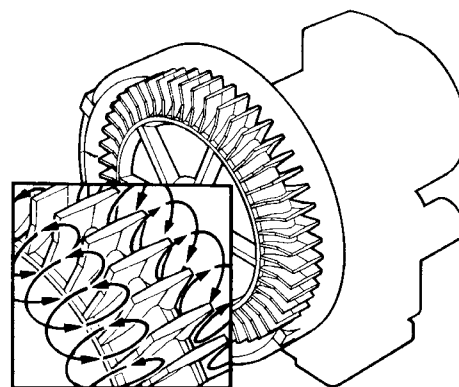
- Drive pulley size can be changed to lower speeds and adjust performance
- Built-in acoustical muffling reduces operation noise
- Precision balanced impellers provide low vibration operation

The Regenerative Principle

In a regenerative blower, the compression space consists of a hollow, circular ring between the tips of the impeller blades and the walls of the housing. In operation, the rotating impeller draws in air from the inlet port into the compression space and moves it radially outward to the curved housing by centrifugal force.

The action is called “regenerative” because a certain amount of air slips past each impeller blade during rotation and returns to the base of a succeeding blade for reacceleration.

Because of this dynamic principle, regenerative blowers can generate pressure and vacuum performance comparable to many multi-stage or positive displacement blowers.



Regenair® Regenerative Blowers Performance Overview

MODEL/ SERIES	POWER RATING @ 60 Hz HP kW		FREE AIR FLOW				MAXIMUM PRESSURE				MAXIMUM VACUUM			
			CFM		M³/h		inH ₂ O		mbar		inH ₂ O		mbar	
			50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
Standard Motor Mounted Models														
R1*	1/8	0,09	23	27	39	46	21	28.5	52	71	20	26.5	50	66
R2*	1/3, 1/2	0,25, 0,37	33	42	56	71	30	39	75	97	25	35	62	87
R3*	1/2	0,37	43-44	52-53	73-75	88-90	31-40	43-55	77-100	107-137	28-35	40-50	70-87	100-125
R4*	1	0,75	75	92	127	156	38	52	95	130	35	48	87	120
R4P*	1 1/2	1,1	110	127	187	216	50	65	125	162	45	60	112	149
R5*	2 1/2	1,86	133	160	226	272	50	65	125	162	47	60	117	149
R6*	2 1/2- 5	1,86- 3,73	180	207- 215	306	352- 365	40- 78	45- 105	100- 194	112- 262	50- 70	55- 88	125- 194	137- 262
R6P*	3 1/2- 5 1/2	2,6- 4,1	225- 245	265- 290	382- 416	450- 493	50- 85	30- 110	125- 212	75- 274	50- 85	35- 90	126- 212	87- 224
R6PP*	11	8,2	420	520	714	884	75	95	187	237	65	80	162	199
R7*	10	7,46	350	420	595	714	115	125	286	311	90	110	224	274
R7P*	18	13,4	666	795	1132	1351	90	105	284	262	85	95	212	237
R9*	15	11,3	585	680	994	1155	125	125	311	311	105	115	262	286
R9P*	30	22,4	1140	1350	1937	2294	110	125	274	311	100	110	249	274
High Pressure Motor Mounted Models														
R4H*	6	4,5	107	128	182	217	284	284	707	707	183	183	456	456
R6PS*	11	8,2	230	280	391	476	145	170	361	423	110	130	274	324
R7S*	18	13,4	350	420	595	714	170	200	423	498	130	150	324	374
R9S*	30	22,4	585	660	994	1121	208	222	518	553	142	149	354	371
Explosion Proof Motor Models														
R3105N-50	1/2	0,37	44	53	75	90	31	43	77	107	28	40	70	100
R4110N-50	1	0,75	74	92	126	156	38	51	95	127	35	48	87	120
R4310P-50	1	0,75	74	92	126	156	38	51	95	127	35	48	87	120
R4P115N-50	1 1/2	1,1	112	133	190	226	45	65	112	162	40	60	100	149
R5125Q-50	2	1,5	—	160	—	272	—	55	—	137	—	60	—	149
R5325R-50	2	1,5	133	160	226	272	50	65	125	162	47	65	117	162
R6130Q-50	3	2,2	180	215	306	365	75	60	187	149	65	70	162	174
R6340R-50	4	3,0	180	215	306	365	75	100	187	249	65	80	162	199
R6P155Q-50	5 1/2	4,1	235	280	399	476	80	95	199	237	65	85	162	212
R6P355R-50	6	4,5	232	280	394	476	80	100	199	249	65	85	162	212
R7100R-50	10	7,5	350	425	595	722	90	100	224	249	85	110	212	274
Separate Drive Models														
SDR4	4	3,0	147		250		110		274		90		224	
SDR5	10	7,5	240		408		152		379		120		299	
SDR6	15	11,2	300		510		155		386		135		336	

*Models equipped with UL and CSA certified motors. (except R1102K (12v DC))

Catalog Performance Specifications

The specifications listed are that of a unit at sea level with an ambient temperature of 70 °F (21 °C), operating with normal electrical current conditions. The figures stated in this catalog are nominal approximations for models without accessories. Intake filters and exhaust mufflers, and the accumulation of contaminants in them during operation, will decrease the flow of air as well as the achievable pressure.

The units that we list in this catalog are a small portion of what we actually make. Those listed are considered “standard units” and are normally available from stock in small quantities. Variations are produced for many customers and by informing us of the application specifications we might find an existing unit that fits your requirement. If we don’t and the quantity is sufficient, we will design a “special unit” for the application.

Pictorial and dimensional data is subject to change without notice.

The information presented in this catalog is based on technical data and test results of nominal units. It is believed to be accurate and is offered as an aid in the selection of Gast products. It is the user’s responsibility to determine suitability of the product for intended use and the user assumes all risk and liability whatsoever in connection therewith.

Blower System Design Tips

In order to utilize your regenerative blower most efficiently, proper system design is essential. The most important thing to recognize is that by utilizing large diameter plumbing, friction losses in plumbing can be greatly reduced. Here are some guidelines to use when setting up your blower system:

1. The plumbing should at least be the same size as the blower port or ideally one size larger (example - blower has ports that are 1-1/2" NPT, plumbing should be 2" NPT). The plumbing should remain this size until it has reached the location of the work area.
2. Plumbing for Separate Drive Blowers operating above 3500 RPM should be at least one pipe size larger than the blower ports.
3. Elbows create additional friction which causes pressure loss and back pressure. Plumbing at least one pipe size larger than the blower pipe ports minimizes the friction loss they create.
4. The pressure/vacuum relief valve should be installed in a "T" which is at least one pipe size larger than that of the exhaust of the blower. To properly protect a large horsepower blower, set the relief value to limit the blowers duty to 5 inH₂O below its continuous duty rating.
5. Operating the blowers at high altitude decreases their maximum pressure or vacuum duty rating. If this is a consideration, review the information on Fan Laws in the Application Engineering section of this catalog.
6. The exhaust air temperature of the blowers increases with increasing duty. At duties over 70 inH₂O it is too hot for most plastic pipe. Metal pipe must be considered. To prevent danger of burns, access to these pipes should be limited, guarded, or marked "Danger Hot."

Performance Data

The performance data shown in this catalog was determined under the following conditions:

- Line voltage @ 60 Hz 230V or 460V for three-phase units. 115V or 230V for single-phase units.
- Line voltage @ 50Hz 220V for three-phase or single-phase units.
- Units in a temperature stable condition.
- Delivery measurements made with output port throttled.
- Suction measurements made with input port throttled.
- Test Conditions: Inlet air density at 0.075 lbs per cu ft. [20 °C (68 °F), 29.92 inHg (14.7 PSIA)].
- Normal performance variations on the resistance curve within ± 10% of supplied data can be expected.

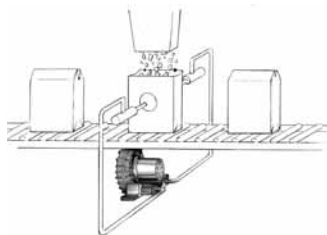
Typical Applications – Imagine what you can do with air,

We offer cost-effective solutions to blower applications for both OEMs and end-users. Gast's Regenerative Blower line of products are designed and built to meet the changing needs of industry and are ideally suited for a number of blower applications. These are examples of many applications where Gast's Regenerative Blowers are widely used.

PRESSURE APPLICATIONS

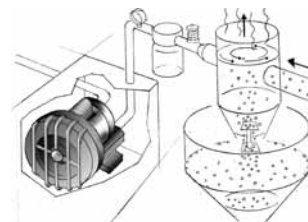
Bag Packaging Equipment

Vacuum is often used to open, hold, and close bags in filling machines.



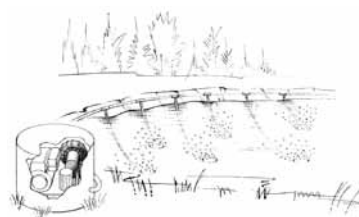
Vacuum Conveying

Plastic pellets, grain, powder, and other bulk dry materials can be transported from one container to another easily using vacuum. They are pulled into a transport tube and delivered to a separator before being deposited in the final storage container.



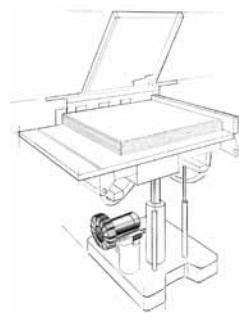
Pond Aeration

Pond aeration is done for two basic reasons. One is aquaculture, where large numbers of fish are "farmed" in a single pond. The second is ecological. As a pond or lake ages, it can lose its oxygen supply and may die. When air is introduced into a pond or lake, oxygen becomes plentiful again and life in and around the water can flourish.



Paper Stack Air Table

The stacks of paper in all graphic arts applications are extremely heavy. To make matters more difficult, the combination of high speed presses and the various types of paper make it necessary to handle these stacks frequently. To make the job easier, these stacks are floated on an air table so they can be manipulated with very little effort.



Agricultural equipment

- Aquaculture/pond aeration
- Fish hatchery equipment

Transportation equipment

- Suspension systems, tire inflators

Medical equipment

- Medical and dental sterilizing equipment
- Dental hand tools, air mattress

Industrial tools and machinery

- Fiberglass choppers
- Liquid/hydraulic pump drives
- Industrial cleaning equipment
- Chip removal/parts blowoff
- Engraving machinery

Material handling equipment

- Lift tables
- Pneumatic conveying systems and drives
- Automated assembly machines/robotics

Computer, business, office machines, and equipment

- Envelope opening/inserting/labeling equipment
- Document scanning equipment

Graphic arts equipment

- Folders, presses, counters
- Photo processing equipment
- Corrugated cutting/printing equipment
- Ink jet printer/post press printing equipment
- Collating/inserting equipment
- Ink drying equipment
- Air table

Sports and leisure equipment

- Spa and hot tub aeration, aquarium aeration
- Handicap tub door seals, boat/pond deicing

Food, drug, and chemical equipment

- Ice cream/yogurt/frosting dispensers
- Pharmaceutical manufacturing equipment
- Automated food preparation equipment

Electronics and communications equipment

- Cable pressurization/cable slicing equipment
- Circuit board processing equipment

Environment, pollution, and safety equipment

- Air/water purifiers
- Gas generators (ozone, nitrogen)
- Sewage treatment
- Smoke evacuation
- Pest control equipment
- Soil/groundwater remediation equipment

Packaging equipment

- Marking/labeling equipment
- Filling equipment
- Food packaging/bag making equipment
- Can/bottle making equipment
- Liquid packaging equipment
- Corrugated sheet making equipment

Textile industry equipment

- Sewing machine equipment, scrap collection equipment

Processing equipment

- Mixing equipment
- Vibrators/tumblers
- Plating tank agitation
- Laundry equipment
- Forming equipment
- Parts washers/parts drying equipment/air knives
- Plastic pellet drying/conveying

Energy equipment

- Oil atomization, industrial burners

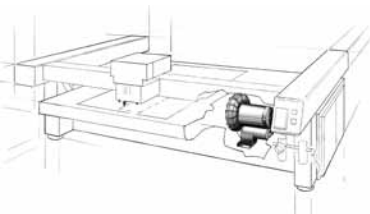
Mining and construction equipment

- Texture spraying, concrete aeration

VACUUM APPLICATIONS

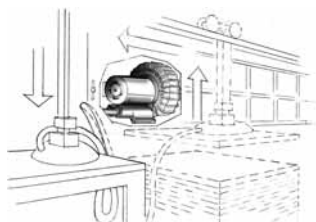
Vacuum Holding of Automated Cutting

Lasers, water jets, and knives are all precision tools for cutting a wide variety of materials automatically. These computer driven machines use vacuum to hold materials being cut in place.



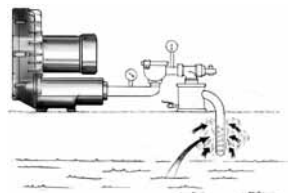
Automated Product Feeding

Vacuum force is used to automatically stack product as it is received or to move the product from one process to another.



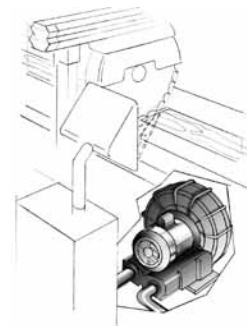
Soil Vapor Extraction

Contaminated soil is often treated by pulling the contaminants, usually gasoline or other hydrocarbons, out of the soil with vacuum.



Dust and Chip Collection

Vacuum power is used to collect dust and/or chips from saws, mills, and other cutting machines.



Home Aerobic Sewage Treatment

Some parts of the country where city sewerage is not available and high water tables exist, household waste must be treated aerobically. This means air is mixed into a solution which activates microbes that feed on the waste, speeding up the naturally occurring organic breakdown.



Agricultural equipment

- Inoculation equipment

Medical equipment

- Dental vacuum ovens, dental aspiration

Industrial tools and machinery

- Gas reclaiming equipment
- House air/vacuum
- Industrial vacuum systems
- Industrial cleaning equipment
- Vacuum table/hold down
- Dust collection equipment
- Chip removal
- Engraving machinery

Material handling equipment

- Vacuum hoist
- Pneumatic conveying systems
- Pneumatic tube systems
- Automated assembly machines

Computer, business, office machines, and equipment

- Envelope opening/inserting/labeling equipment
- Vacuum feed, document scanning equipment

Graphic arts equipment

- Folders, presses
- Vacuum frames
- Photo processing equipment
- Paper counters
- Camera/exposure equipment
- Corrugated cutting/printing equipment
- Collating equipment
- Inserting equipment
- Post press printing equipment

Food, drug and chemical equipment

- Pharmaceutical manufacturing equipment
- Automated food preparation equipment
- Electronics and communications equipment
- Circuit board processing equipment
- Cable splicing equipment

Environment, pollution, and safety equipment

- Air sampling/monitoring equipment
- Toilet systems
- Fume extraction
- Vapor recovery
- Smoke evacuation
- Pest control equipment
- Soil vapor extraction
- Weather prediction equipment

Packaging equipment

- Case erectors/packers
- Marking/labeling equipment
- Bag making equipment
- Filling equipment
- Food packaging equipment
- Can/bottle making equipment
- Liquid packaging equipment
- Corrugated sheet making equipment
- Packing fill removal equipment

Textile industry equipment

- Sewing machine equipment
- Scrap collection equipment
- Garment vacuum tables
- Trim removal

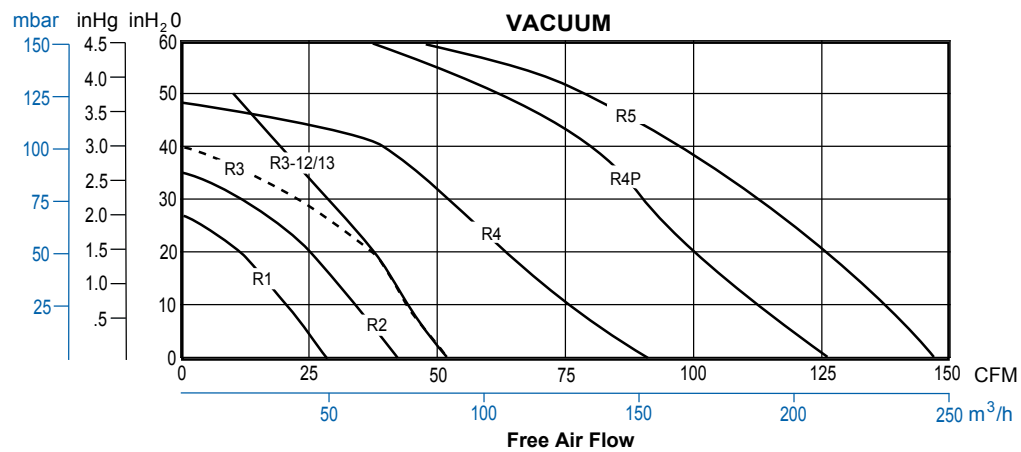
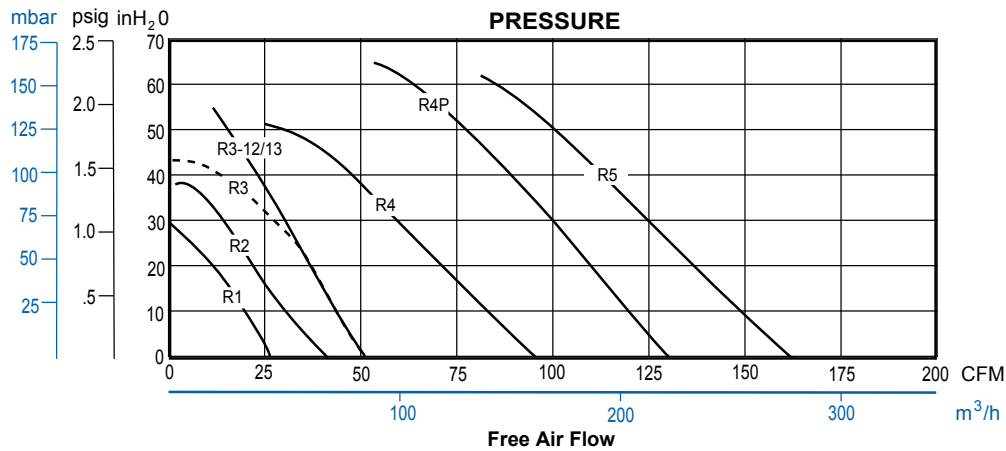
Processing equipment

- Vibrators/tumblers, non-medical lab equipment
- Forming equipment, plastic pellet drying/conveying

Performance Curves - Low Range for Pressure/Vacuum

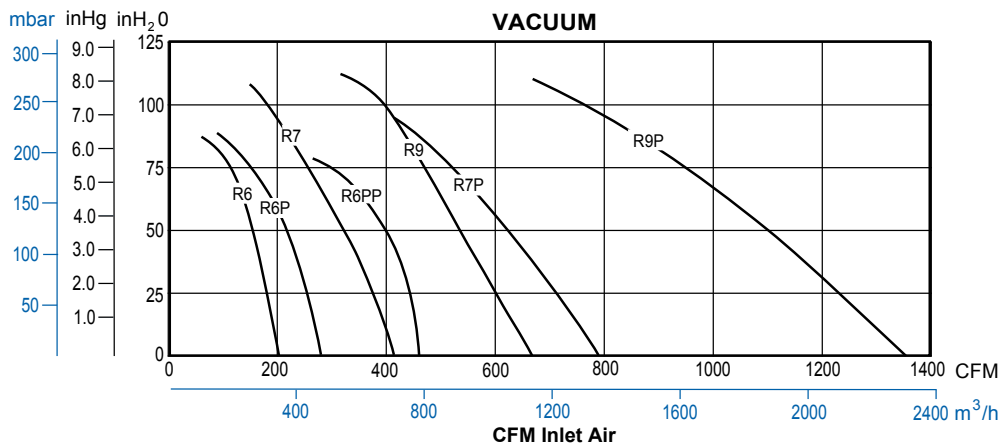
Motor mounted series R1, R2, R3, R4, R4P, R5

Performance at 60 Hz



Gast advertises blower performance in Free Air Flow, or air subjected to only atmospheric pressure. (See above curves)

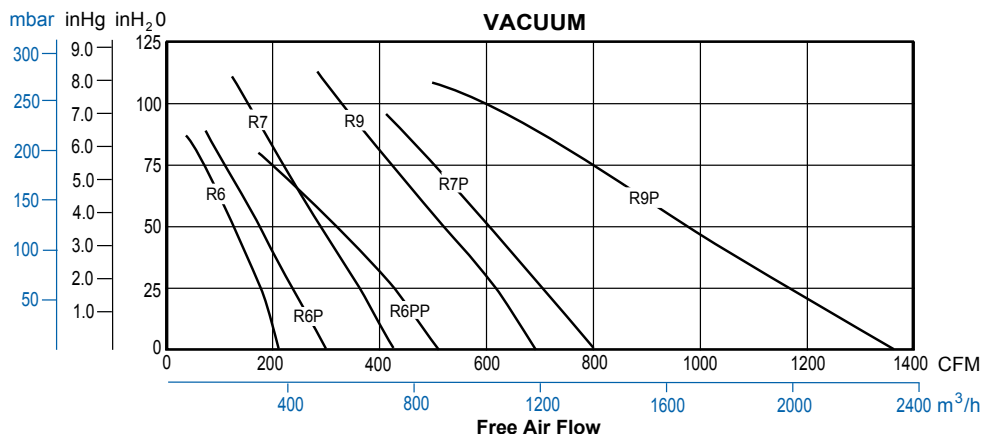
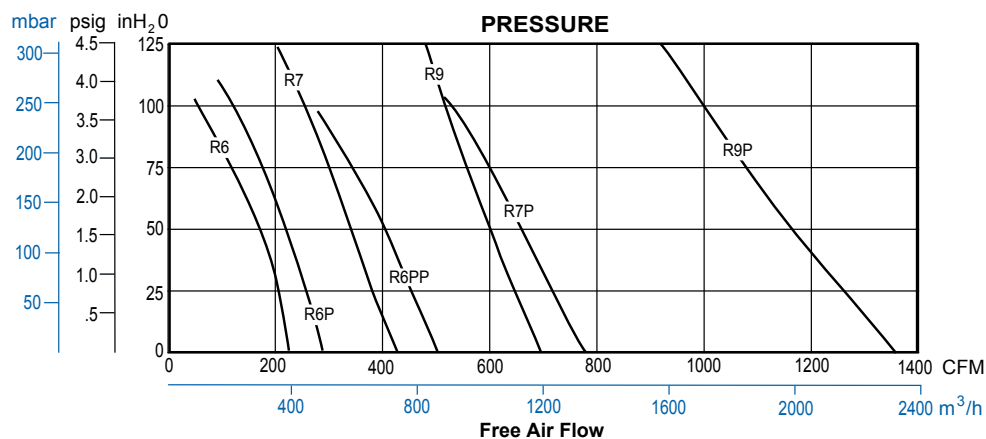
Some blower manufacturers advertise vacuum performance in CFM Inlet Air - measurement of the suction of air at a specific temperature at the inlet port and a specific discharge pressure at the exhaust port, which can be perceived as enhanced performance over Free Air Flow rated blowers. Therefore, we are also providing the following vacuum performance for Gast blowers in CFM Inlet Air for comparison to other blower manufacturer's advertising.



Performance Curves - Mid Range for Pressure/Vacuum

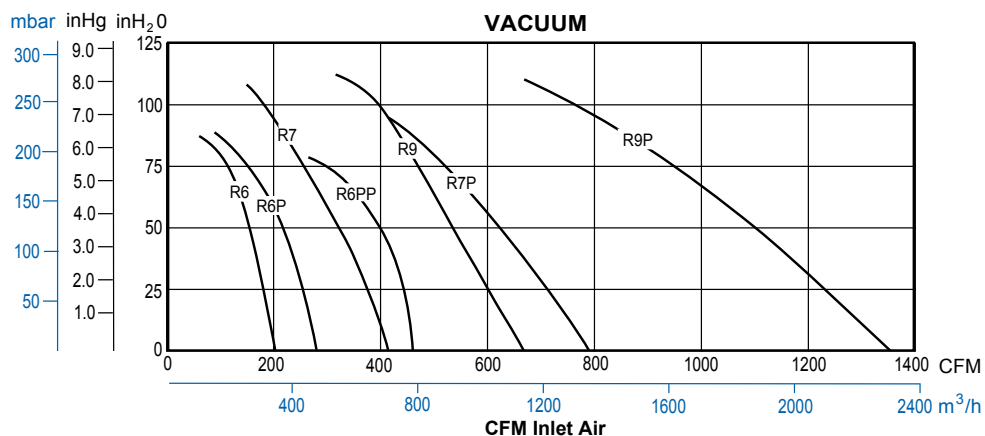
Motor mounted series R6, R6P, R6PP, R7, R7P, R9, R9P

Performance at 60 Hz



Gast advertises blower performance in Free Air Flow, or air subjected to only atmospheric pressure. (See above curves)

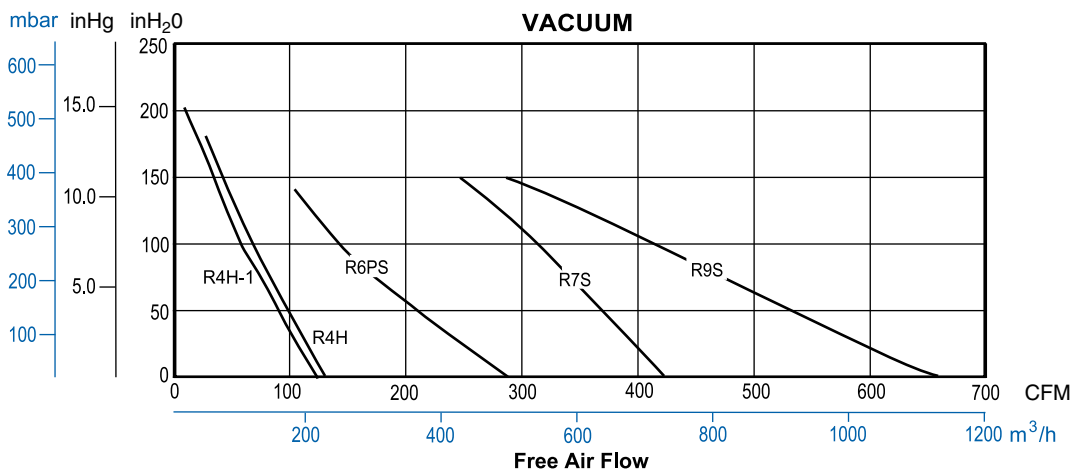
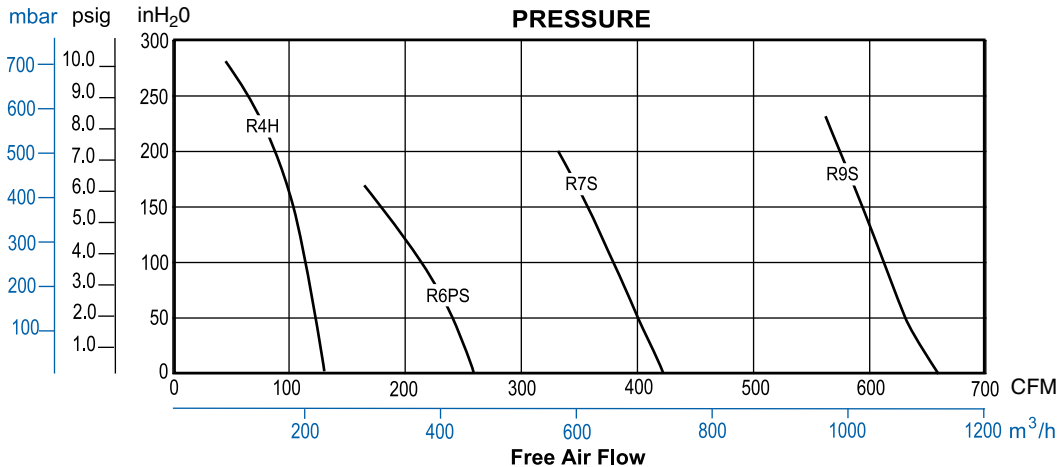
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Performance Curves - High Range for Pressure/Vacuum

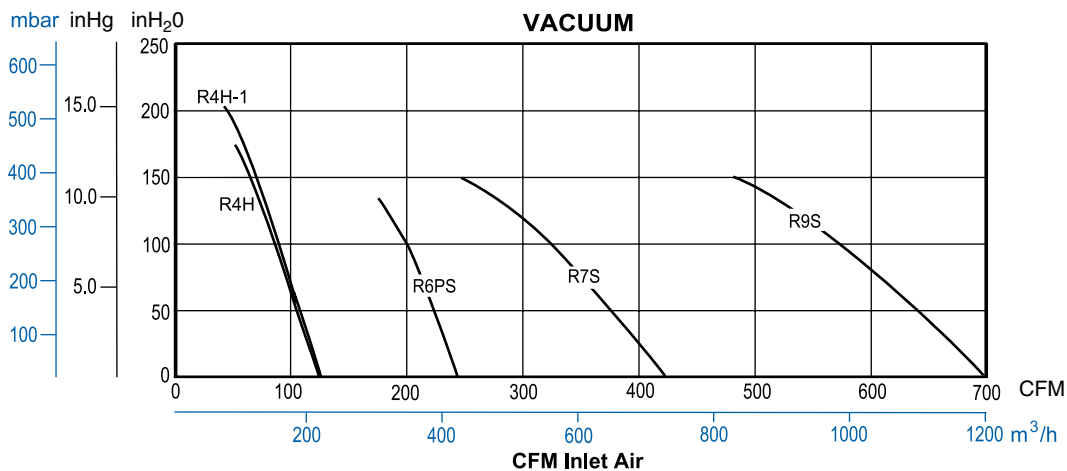
Motor mounted series R4H, R4H-1, R6PS, R7S, R9S

Performance at 60 Hz



Gast advertises blower performance in Free Air Flow, or air subjected to only atmospheric pressure. (See above curves)

Some blower manufacturers advertise vacuum performance in CFM Inlet Air - measurement of the suction of air at a specific temperature at the inlet port and a specific discharge pressure at the exhaust port, which can be perceived as enhanced performance over Free Air Flow rated blowers. Therefore, we are also providing the following vacuum performance for Gast blowers in CFM Inlet Air for comparison to other blower manufacturer's advertising.



Envelope Dimensions

Model # Net Wt. A Length B Width C Height Inlet/Outlet Connections
(lbs) (inches) (inches) (inches)

STANDARD MOTOR MOUNTED

R1102	16	8.86	7.80	8.51	1"
R1102C	16	8.86	7.80	8.51	1"
R1102K	16	9.21	7.80	8.51	1"
R2103	21	9.90	8.93	9.29	1"
R2105	23	10.57	8.93	9.29	1"
R2303A	23	9.90	8.93	9.29	1"
R2305B	23	10.85	8.93	9.29	1"
R3105-1	29	10.94	9.72	10.15	1 1/4"
R3105-12	29	10.94	9.72	10.15	1 1/4"
R3305A-1	29	10.94	9.72	10.15	1 1/4"
R3305A-13	29	10.94	9.72	10.15	1 1/4"
R4110-2	41	12.82	11.25	11.80	1 1/2"
R4310A-2	41	12.82	11.25	11.80	1 1/2"
R4310B-1	41	12.82	11.25	11.80	1 1/2"
R4P115	61	15.46	13.26	13.61	1 1/2"
R4P315A	43	11.38	13.26	13.61	1 1/2"
R5125-2	76	16.14	13.56	13.80	1 1/2"
R5325A-2	65	15.23	13.56	13.80	1 1/2"
R5325B-1	65	14.73	13.56	13.80	1 1/2"
R6125-2	87	16.45	15.17	15.38	2"
R6325A-2	76	15.53	15.17	15.38	2"
R6135J-10	112	15.86	15.17	15.38	2"
R6335A-2	82	16.59	15.17	15.38	2"
R6335B	82	16.00	15.17	15.38	2"
R6150J-2	125	17.46	15.17	15.38	2"
R6350A-2	112	17.35	15.17	15.38	2"
R6350B-2	112	17.35	15.17	15.38	2"
R6P335A	150	16.69	16.75	18.15	2"
R6P350A	176	17.75	16.75	18.15	2"
R6P350B	176	17.75	16.75	18.15	2"
R6P355A	215	19.92	16.75	18.15	2"
R6PP3110M	309	23.19	16.75*	18.21	2 1/3"
R7100A-3	293	22.58	18.00	20.03	2 1/2"
R7100B-1	290	21.58	18.00	20.03	2 1/2"
R7P3180M	438	28.47	18.00*	20.12	2 1/2" / 4"
R93150A	452	26.13	20.63	22.63	3"
R9P3300M	622	32.78	20.63*	22.54	3" / 5"

HIGH PRESSURE MODELS

R4H3060A	200	21.47	16.90	18.82	2"
R4H3060A-1	200	21.47	16.90	18.82	2"
R6PS3110M	309	23.19	16.75	18.21	2"
R7S3180M	431	28.47	18.00	20.12	2 1/2"
R9S3300M	606	32.78	20.63*	22.54	3"

EXPLOSION PROOF MOTOR MODELS

R3105N-50	52	12.3	12.75	10.15	1 1/4"
R4110N-50	60	15.34	12.34	11.80	1 1/2"
R4310P-50	58	14.09	12.34	11.80	1 1/2"
R4P115N-50	79	17.41	13.75	13.61	1 1/2"
R5125Q-50	77	17.59	13.72	13.80	1 1/2"
R5325R-50	75	16.75	13.56	13.80	1 1/2"
R6130Q-50	129	18.97	15.17	15.34	2"
R6340R-50	112	18.82	15.17	15.34	2"
R6P155Q-50	243	22.81	16.75	18.14	2"
R6P355R-50					
R7100R-50	297	22.77	18.00	20.03	2 1/2"

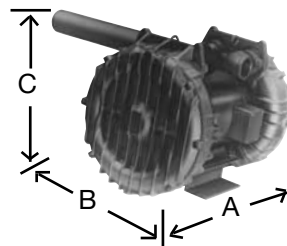
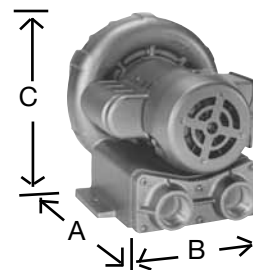
SEPARATE DRIVE MODELS

SDR4	27	12.44	11.25	11.80	1 1/2"
SDR5	37	14.22	13.56	13.78	1 1/2"
SDR6	70	15.89	15.17	15.34	2"

*Less muffler(s)

BASIC STYLE

R1, R2, R3, R4, R4H, R4P,
R5, R6, R6P, R7, R9

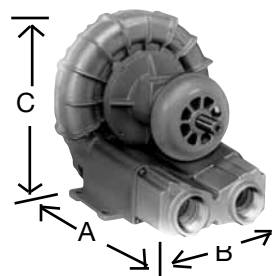
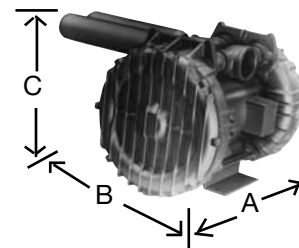


STAGED

R6PS, R7S, R9S

PARALLEL

R6PP, R7P, R9P

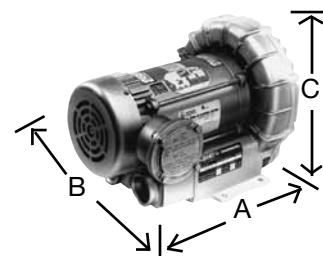


SEPARATE DRIVE

SDR4, SDR5, SDR6,

EXPLOSION PROOF MOTOR MODELS

R3, R4, R4P, R5, R6, R6P, R7





AC Motor



DC Motor

Models R1102, R1102C, R1102K

Max. Pressure – 28.5 inH₂O (60 Hz), 21 inH₂O (50 Hz)

Max. Vacuum – 26.5 inH₂O (60 Hz), 20 inH₂O (50 Hz)

Max. Air flow – 27 CFM (60 Hz), 23 CFM (50 Hz)

PRODUCT FEATURES

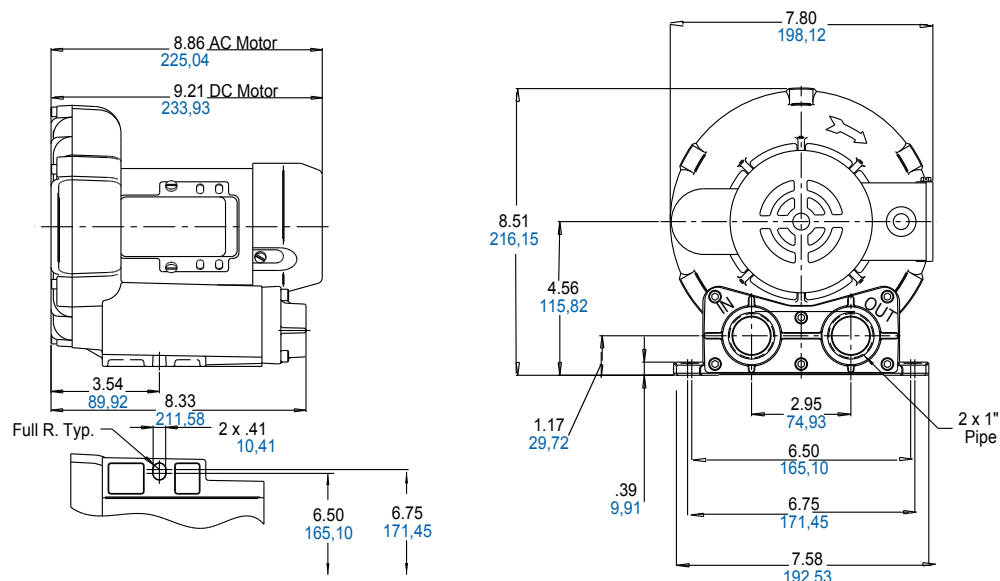
- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved TEFC motors with permanently sealed ball bearings
- Automatic restart thermal protection on single phase AC motors
- Estimated 3,000 hour brush life on 12 volt DC motor
- Can be operated with no air flow through unit.
- Aluminum blower housing, impeller, and cover
- Can be mounted in any plane
- Inlet and outlet have internal muffling

RECOMMENDED ACCESSORIES

- Pressure gauge AJ496
- Inlet filter AJ126B (pressure)
- Vacuum gauge AJ497
- Inline filter AJ151A (vacuum)
- Muffler AJ121B
- K899 foam replacement kit for R1102

Product Dimensions (inches, mm)

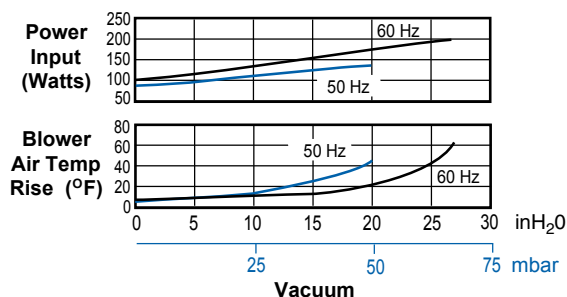
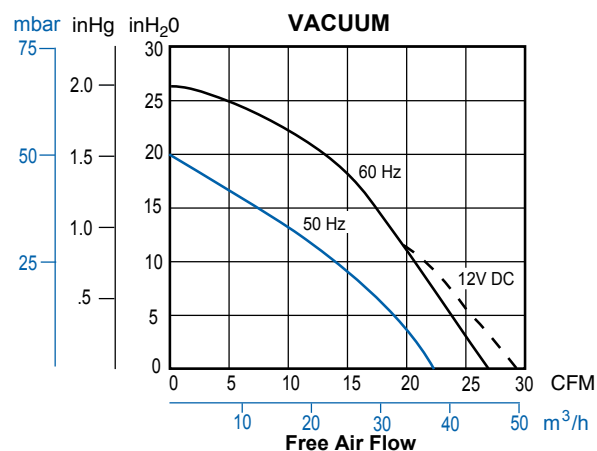
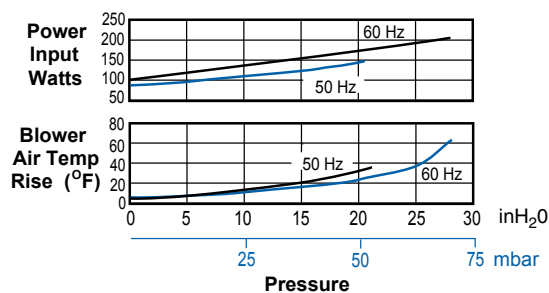
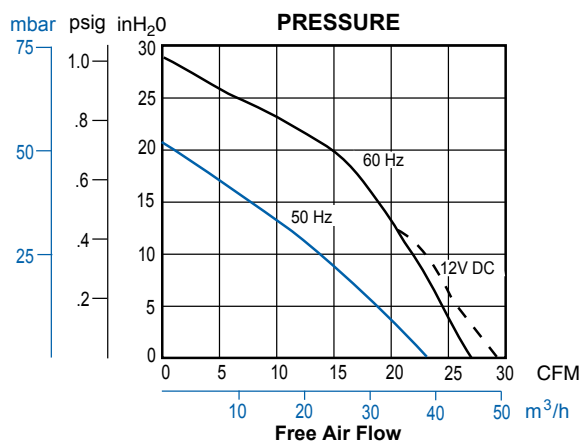
Models R1102, R1102C, R1102K,

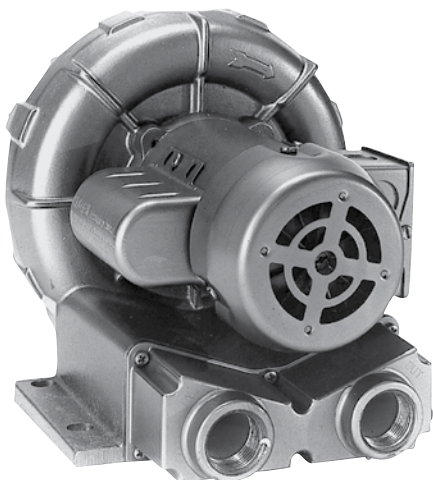


Product Specifications

MODEL NUMBER		R1102	R1102C	R1102K	R1302
Motor Enclosure		TEFC	TEFC	TEFC	TEFC
HP/kW	60 Hz	.125/0,09	.125/0,09	.125/0,09	.125/0,09
	50 Hz	.10/0,07	-	-	.10/0,07
Voltage	60 Hz	115/208-230-1	115-1	12V DC	208-230/460-3
	50 Hz	110/220-240-1	-	-	190-220/380-415-3
Amps	60 Hz	2.0/1.1-1.0	1.8	19 @ 12V DC	1.0-1.1/5
	50 Hz	2.0/1.1-1.0	-	-	1.0-1.1/5-6
Starting Amps	60 Hz	8.5 @ 115V	9.7	145 @ 12V DC	3.7 @ 230
	50 Hz	8.6 @ 220V	-	-	3.6 @ 220
Insulation Class		B	B	H	B
Recommended NEMA Starter Size		00/00	00	-	00/00
Net Weight (lbs/kg)		16/7,3	16/7,3	16/7,3	16/7,3

Product Performance





Models R2103, R2105, R2303A, R2305B

Max. Pressure – 39 inH₂O (60 Hz), 30 inH₂O (50 Hz)

Max. Vacuum – 35 inH₂O (60 Hz), 25 inH₂O (50 Hz)

Max. air flow – 42 CFM (60 Hz), 33 CFM (50 Hz)

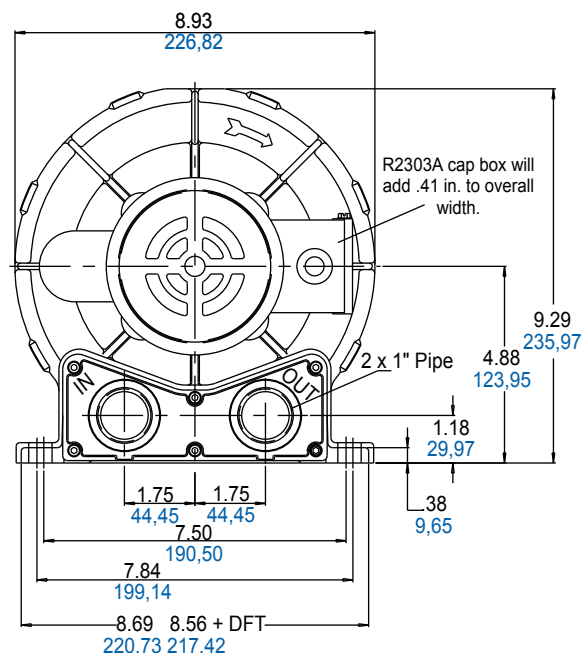
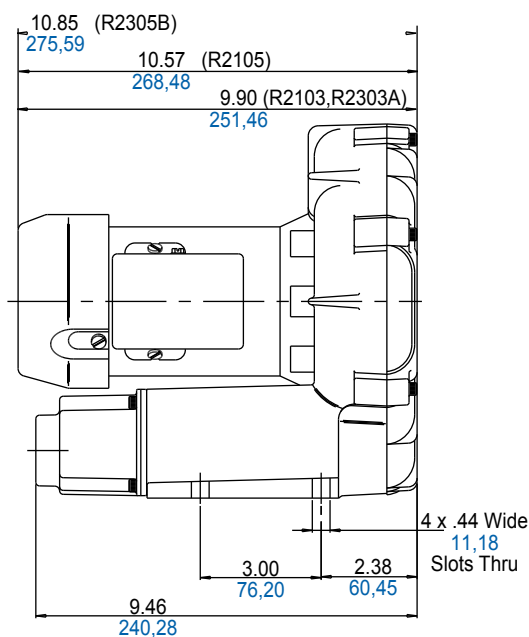
PRODUCT FEATURES

- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved TEFC motors with permanently sealed ball bearings
- Automatic restart thermal protection on single phase motors
- Aluminum blower housing, impeller, and cover
- Can be operated with no air flow through unit
- Can be mounted in any plane
- Inlet and outlet have internal muffling

RECOMMENDED ACCESSORIES

- Pressure gauge AJ496
- Inlet filter AJ126B (pressure)
- Vacuum gauge AJ497
- Inline filter AJ151B (vacuum)
- Muffler AJ121B
- Foam replacement kit K900

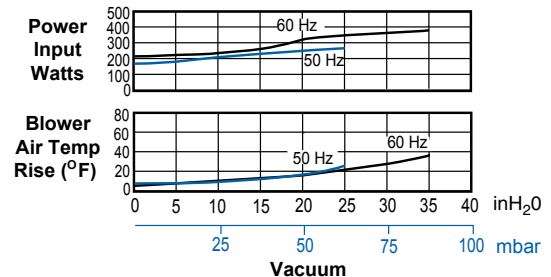
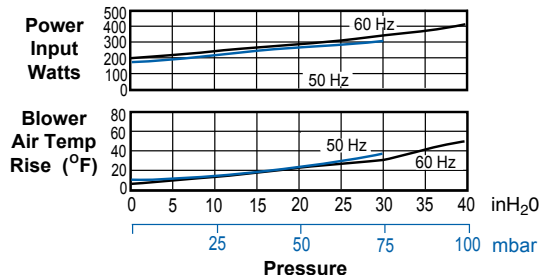
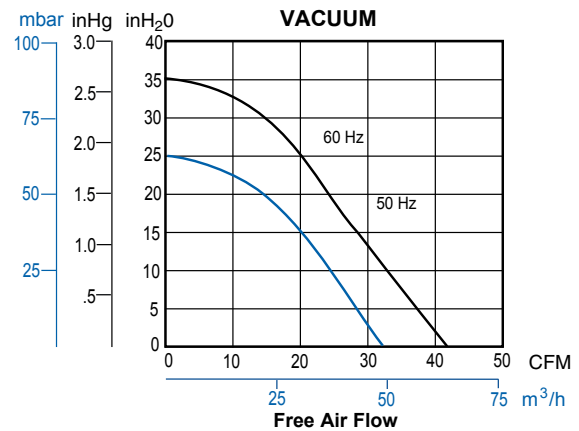
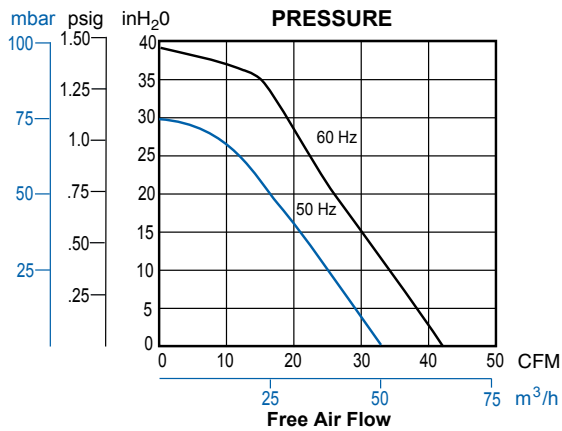
Product Dimensions (inches, mm)



Product Specifications

MODEL NUMBER		R2103	R2105	R2303A	R2305B
Motor Enclosure		TEFC	TEFC	TEFC	TEFC
HP/kW	60 Hz	.33/0,25	.50/0,37	.33/0,25	.50/0,37
	50 Hz	.20/0,15	.33/0,25	.20/0,15	-
Voltage	60 Hz	115/208-230-1	115/208-230-1	208-230/460-3	575-3
	50 Hz	110/220-1	110/220-240-1	190-220/380-415-3	-
Amps	60 Hz	3.8/2.0-1.9	5.6/3.0-2.8	1.2-1.2/6	.7
	50 Hz	3.8/1.9	5.2/2.6-3.1	1.0-1.2/5-.53	-
Starting Amps	60 Hz	9.3 @ 230V	23.2 @ 115V	8.0 @ 230V	4.2
	50 Hz	17.6 @ 220V	23 @ 220V	8.1 @ 220V	-
Insulation Class		B	B	B	B
Recommended NEMA Starter Size		00/00	00/00	00/00	00/00
Net Weight (lbs/kg)		21/9,5	23/10,4	23/10,4	23/10,4

Product Performance





Models R3105-1, R3305A-1

Max. pressure – 43 inH₂O (60 Hz), 31 inH₂O (50 Hz)

Max. vacuum – 40 inH₂O (60 Hz), 28 inH₂O (50 Hz)

Max. air flow – 53 CFM (60 Hz), 44 CFM (50 Hz)

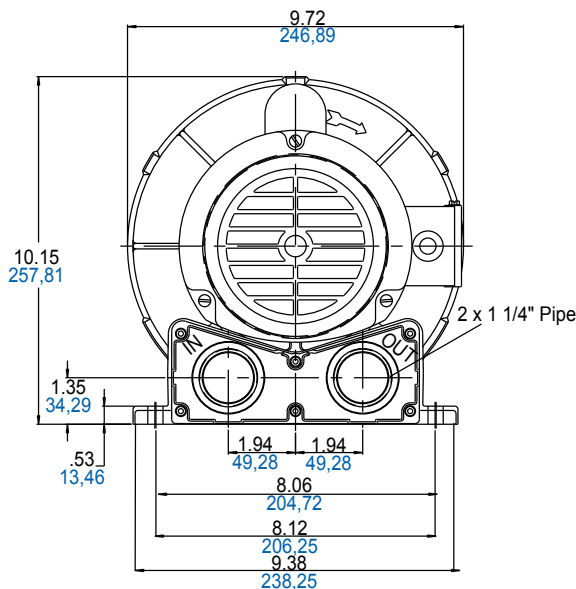
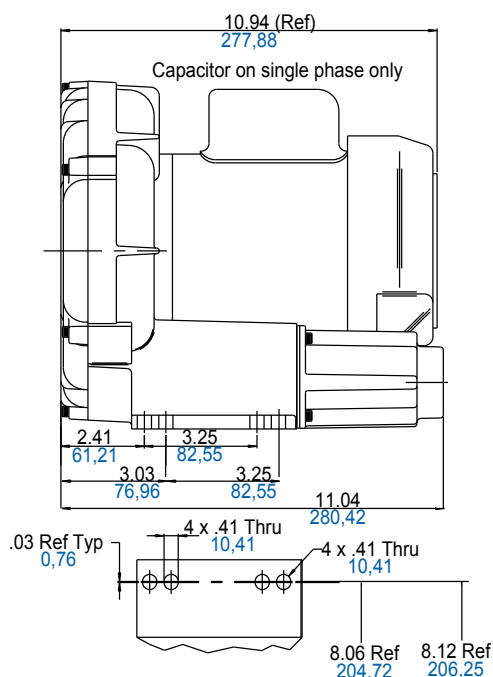
PRODUCT FEATURES

- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved TEFC motors with permanently sealed ball bearings
- Automatic restart thermal protection on single phase motors
- Aluminum blower housing, impeller, and cover
- Can be operated with no air flow through unit
- Can be mounted in any plane
- Inlet and outlet have internal muffling

RECOMMENDED ACCESSORIES

- Pressure gauge AJ496
- Inlet filter AJ126C (pressure)
- Vacuum gauge AJ497
- Inline filter AJ151C (vacuum)
- Muffler AJ121C
- Foam replacement kit K901

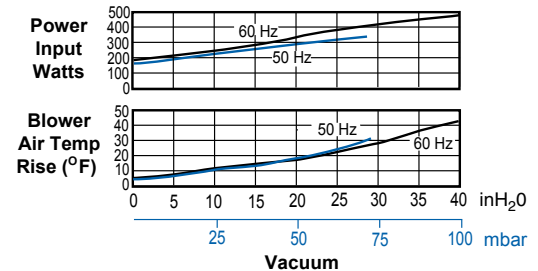
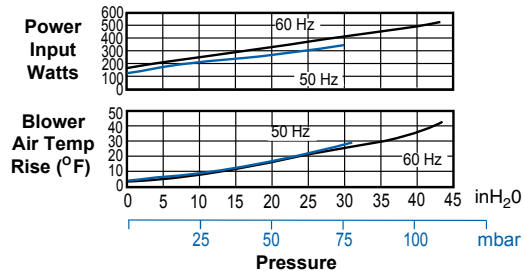
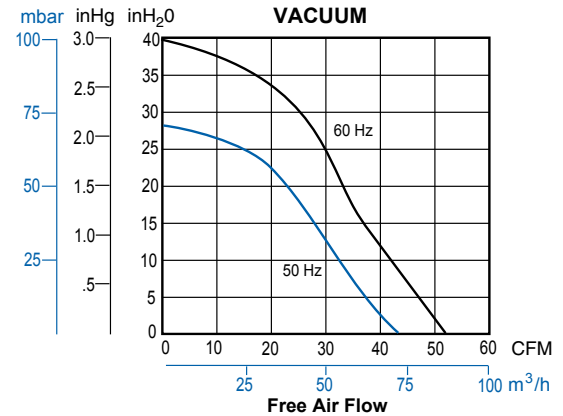
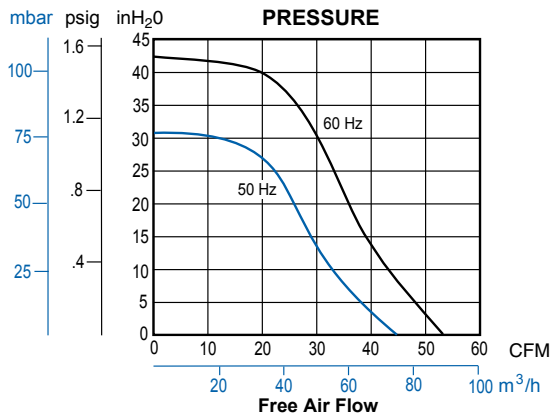
Product Dimensions (inches, mm)



Product Specifications

MODEL NUMBER		R3105-1	R3305A-1
Motor Enclosure		TEFC	TEFC
HP/kW	60 Hz	.50/0,37	.50/0,37
	50 Hz	.33/0,25	.33/0,25
Voltage	60 Hz	115/208-230-1	208-230/460-3
	50 Hz	110/220-240-1	190-220/380-415-3
Amps	60 Hz	5.6/3.0-2.8	2.0-2.0/1.0
	50 Hz	5.2/2.6-3.1	1.6-1.8/.8-.84
Starting Amps	60 Hz	23.2 @ 115V	10.0 @ 230V
	50 Hz	23 @ 220V	7.9 @ 220V
Insulation Class		B	B
Recommended NEMA Starter Size		00/00	00/00
Net Weight (lbs/kg)		29/13,2	29/13,2

Product Performance





Models R3105-12, R3305A-13

Max. pressure – 55 inH₂O (60 Hz), 40 inH₂O (50 Hz)

Max. vacuum – 50 inH₂O (60 Hz), 35 inH₂O (50 Hz)

Max. air flow – 52 CFM (60 Hz), 43 CFM (50 Hz)

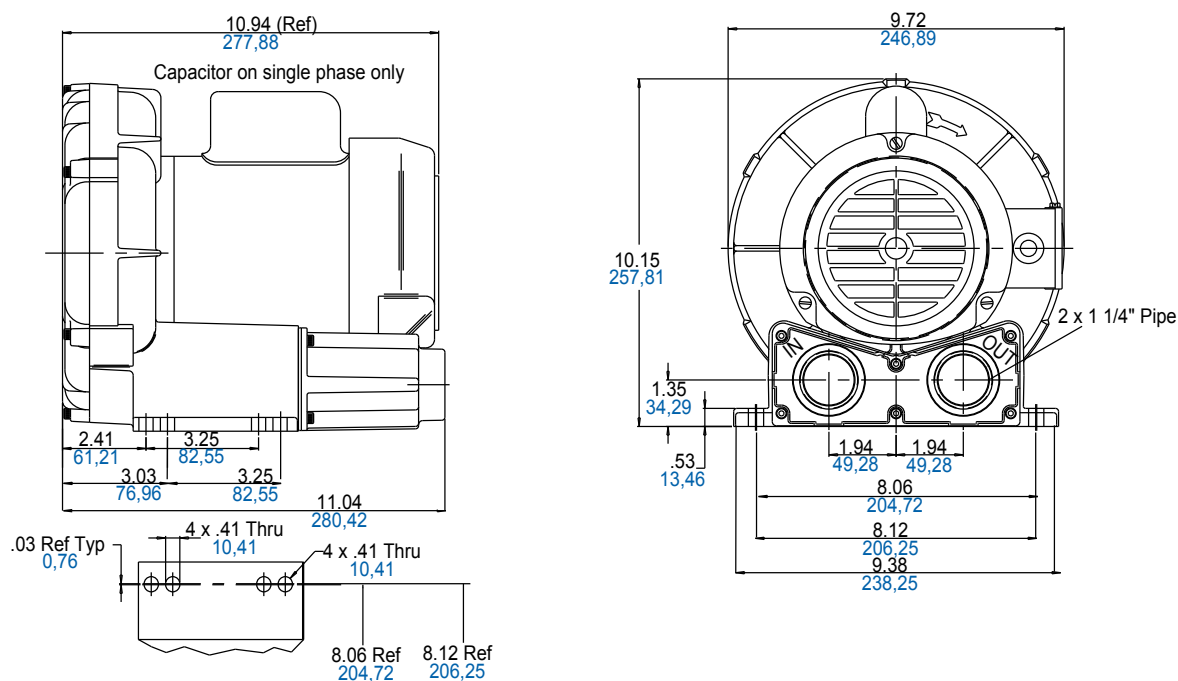
PRODUCT FEATURES

- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved TEFC motors with permanently sealed ball bearings
- Automatic restart thermal protection on single phase motors
- Aluminum blower housing, impeller, and cover
- Can be mounted in any plane
- Inlet and outlet have internal muffling

RECOMMENDED ACCESSORIES

- Pressure gauge AJ496
- Inlet filter AJ126C (pressure)
- Vacuum gauge AJ497
- Inline filter AJ151C (vacuum)
- Muffler AJ121C

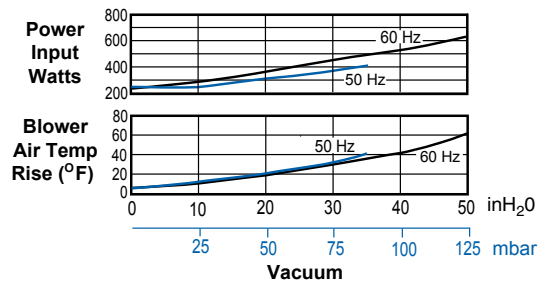
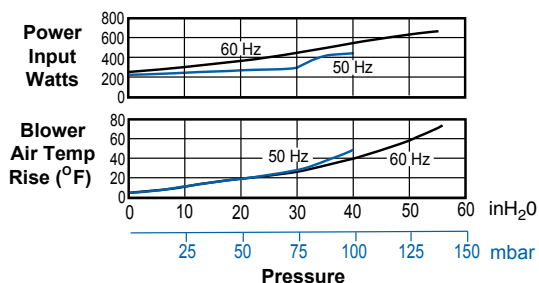
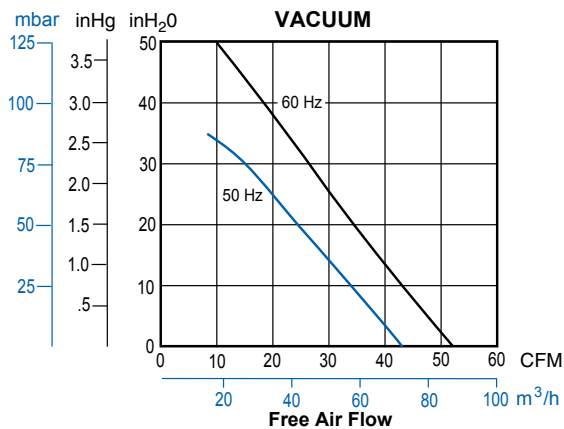
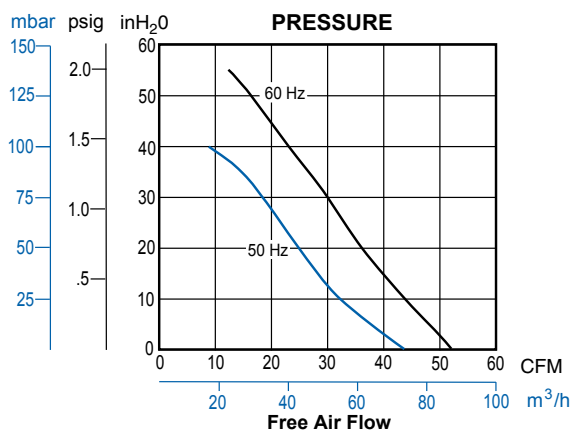
Product Dimensions (inches, mm)



Product Specifications

MODEL NUMBER		R3105-12	R3305A-13
Motor Enclosure		TEFC	TEFC
HP/kW	60 Hz	.50/0,37	.50/0,37
	50 Hz	.33/0,25	.33/0,25
Voltage	60 Hz	115/208-230-1	208-230/460-3
	50 Hz	110/220-240-1	190-220/380-415-3
Amps	60 Hz	5.6/3.0-2.8	2.0-2.0/1.0
	50 Hz	5.2/2.6-3.1	1.6-1.8/.8-.84
Starting Amps	60 Hz	23.2 @ 115V	10.0 @ 230V
	50 Hz	23 @ 220V	7.9 @ 220V
Insulation Class		B	B
Recommended NEMA Starter Size		00/00	00/00
Net Weight (lbs/kg)		29/13,2	29/13,2

Product Performance





Models R4110-2, R4310A-2, R4310B-1

Max. pressure – 52 inH₂O (60 Hz), 38 inH₂O (50 Hz)

Max. vacuum – 48 inH₂O (60 Hz), 35 inH₂O (50 Hz)

Max. air flow – 92 CFM (60 Hz), 75 CFM (50 Hz)

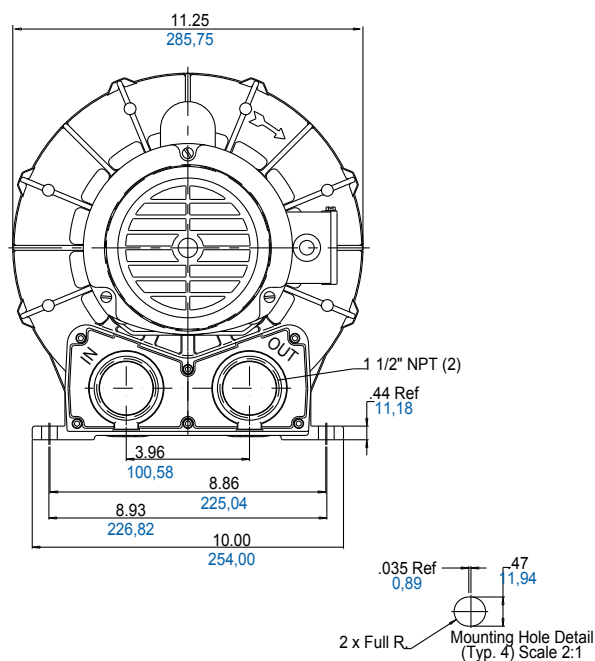
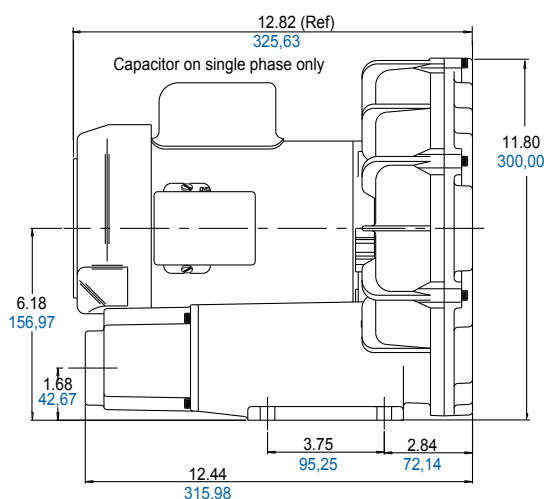
PRODUCT FEATURES

- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved TEFC motors with permanently sealed ball bearings
- Automatic restart thermal protection on single phase motors
- Aluminum blower housing, impeller, and cover
- Can be operated with no air flow through unit
- Can be mounted in any plane
- Inlet and outlet have internal muffling

RECOMMENDED ACCESSORIES

- Pressure gauge AJ496
- Inlet filter AJ126D (pressure)
- Vacuum gauge AJ497
- Inline filter AJ151D (vacuum)
- Muffler AJ121D
- Relief valve AG258
- Liquid separator RMS160 (vacuum)
- Foam replacement kit K902

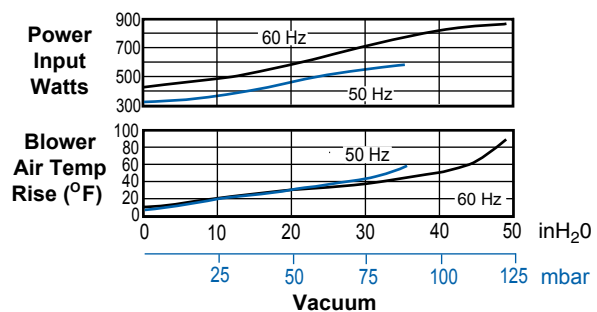
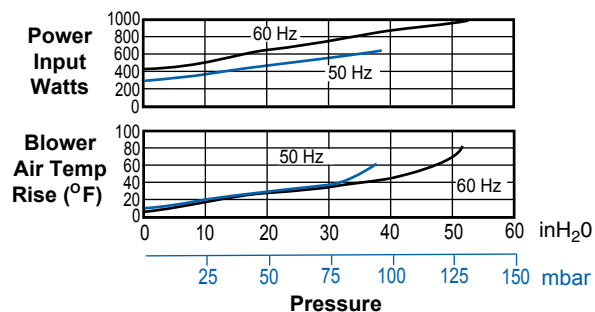
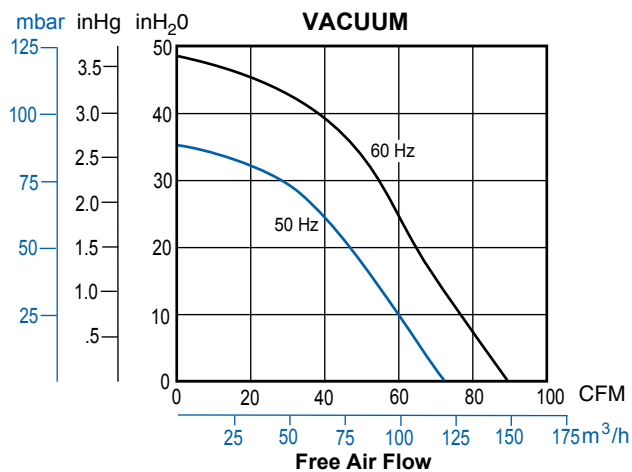
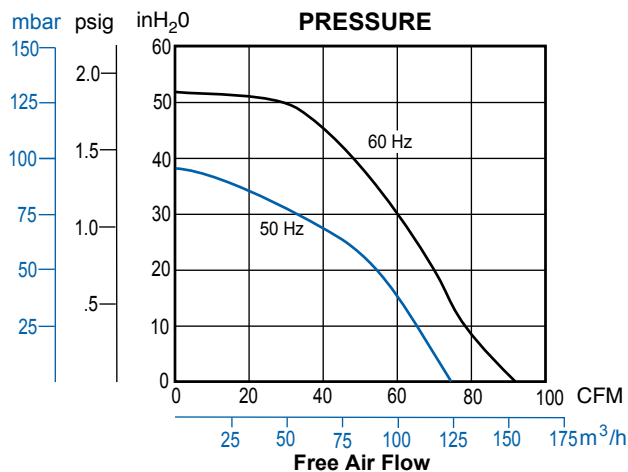
Product Dimensions (inches, mm)



Product Specifications

MODEL NUMBER		R4110-2	R4310A-2	R4310B-1
Motor Enclosure		TEFC	TEFC	TEFC
HP/kW	60 Hz	1.0/0,75	1.0/0,75	1.0/0,75
	50 Hz	.6/0,45	.6/0,45	-
Voltage	60 Hz	115/208-230-1	208-230/460-3	575-3
	50 Hz	110/220-240-1	190-220/380-415-3	-
Amps	60 Hz	9.8/5.2-4.9	3.4-3.2/1.6	1.25
	50 Hz	9.0/4.5-5.7	2.6-3.3/1.3-1.4	-
Starting Amps	60 Hz	31.2 @ 230V	26.5 @ 230V	7.6
	50 Hz	34 @ 220V	28.4 @ 220V	-
Insulation Class		B	B	B
Recommended NEMA Starter Size		0/00	00/00	00
Net Weight (lbs/kg)		41/18,6	41/18,6	41/18,6

Product Performance





Models R4P115, R4P315A

Max. pressure – 65 inH₂O (60 Hz), 50 inH₂O (50 Hz)

Max. vacuum – 60 inH₂O (60 Hz), 45 inH₂O (50Hz)

Max. air flow – 127 CFM (60 Hz), 110 CFM (50 Hz)

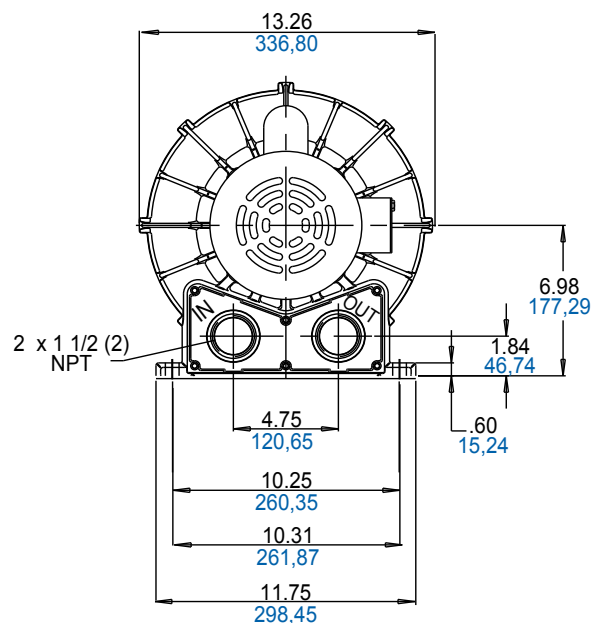
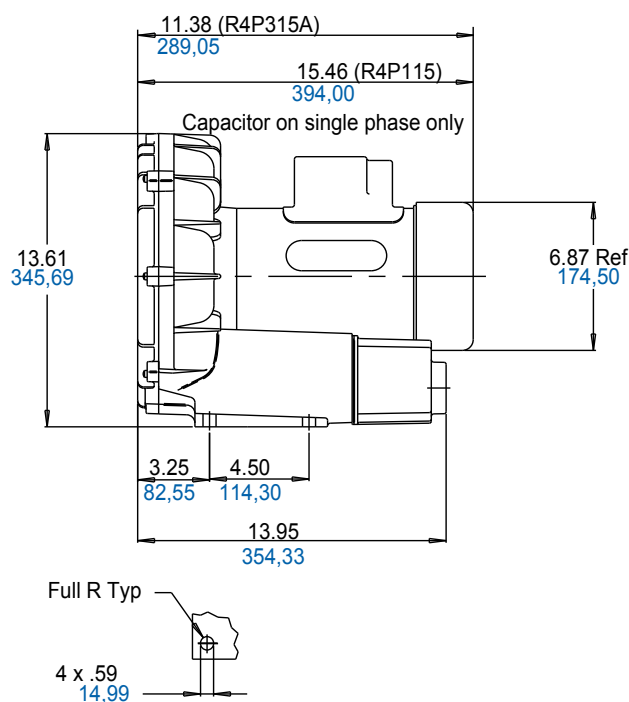
PRODUCT FEATURES

- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved TEFC motors with permanently sealed ball bearings
- Automatic restart thermal protection on single phase motors
- Aluminum blower housing, impeller, and cover
- Can be mounted in any plane
- Inlet and outlet have internal muffling

RECOMMENDED ACCESSORIES

- Pressure gauge AE133
- Inlet filter AJ126D (pressure)
- Vacuum gauge AJ497
- Inline filter AJ151E (vacuum)
- Muffler AJ121D
- Relief valve AG258
- Liquid separator RMS200 (vacuum)
- Foam replacement kit K906

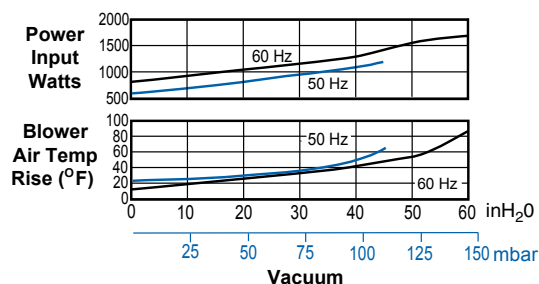
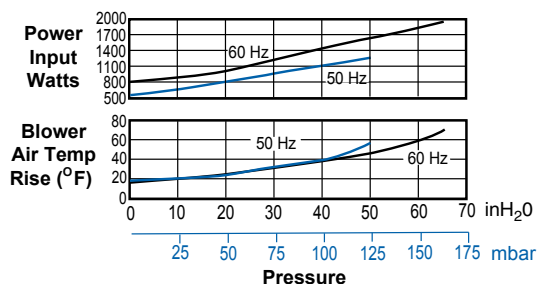
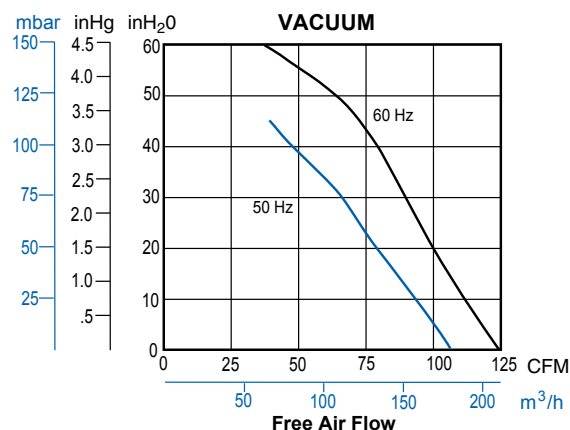
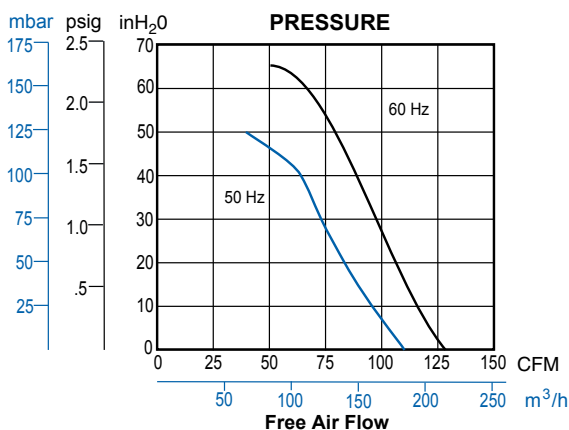
Product Dimensions (inches, mm)



Product Specifications

MODEL NUMBER		R4P115	R4P315A
Motor Enclosure		TEFC	TEFC
HP/kW	60 Hz	1.5/1,1	1.5/1,1
	50 Hz	1.0/0,75	1.0/0,75
Voltage	60 Hz	115/208-230-1	208-230/460-3
	50 Hz	110/220-240-1	190-220/380-415-3
Amps	60 Hz	17.5/10-9	5.1-4.9/2.5
	50 Hz	14.2/8.1	3.9-4.3/1.9-2.0
Starting Amps	60 Hz	58 @ 230V	18.5 @ 460V
	50 Hz	56 @ 220V	19 @ 380V
Insulation Class		F	B
Recommended NEMA Starter Size		1/0	00/00
Net Weight (lbs/kg)		61/27,7	43/24,1

Product Performance





Models R5125-2, R5325A-2, R5325B-1

Max. pressure – 65 inH₂O (60 Hz), 50 inH₂O (50 Hz)

Max. vacuum – 60 inH₂O (60 Hz), 47 inH₂O (50 Hz)

Max. air flow – 160 CFM (60 Hz), 133 CFM (50 Hz)

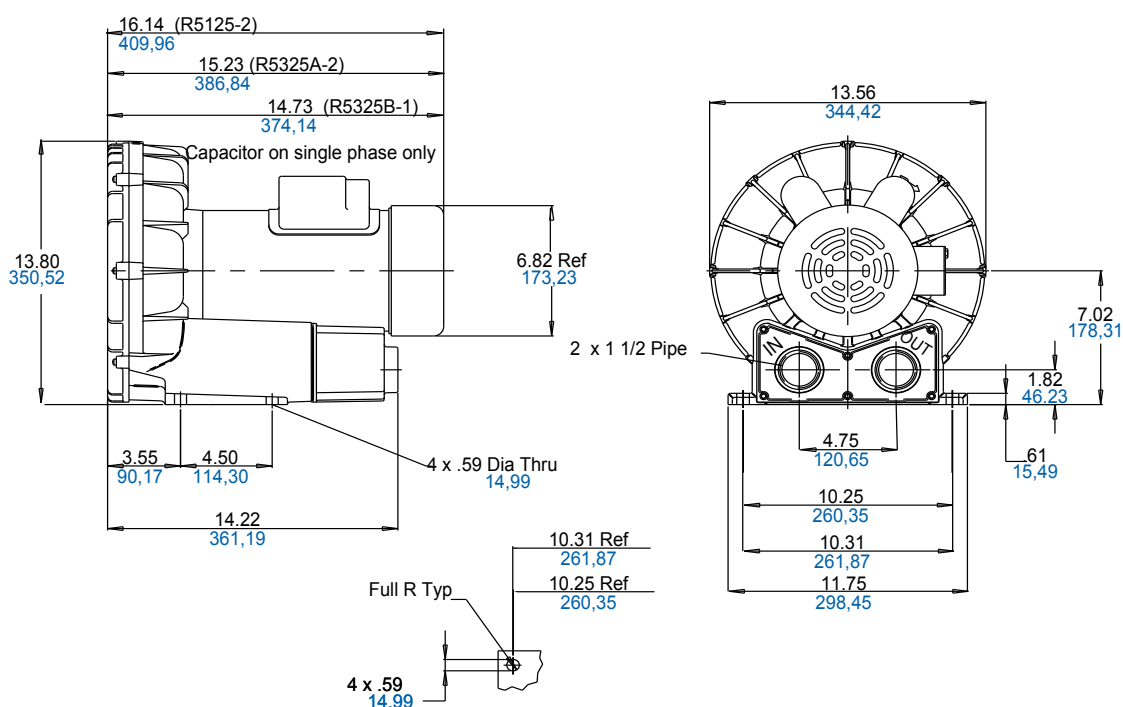
PRODUCT FEATURES

- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved TEFC motors with permanently sealed ball bearings
- Automatic restart thermal protection on single phase motors
- Aluminum blower housing, impeller, and cover
- Can be mounted in any plane
- Inlet and outlet have internal muffling

RECOMMENDED ACCESSORIES

- Pressure gauge AE133
- Inlet Filter AJ126D (pressure)
- Vacuum gauge AJ497
- Inline filter AJ151E (vacuum)
- Muffler AJ121D
- Relief valve AG258
- Liquid separator RMS200 (vacuum)
- Foam replacement kit K903

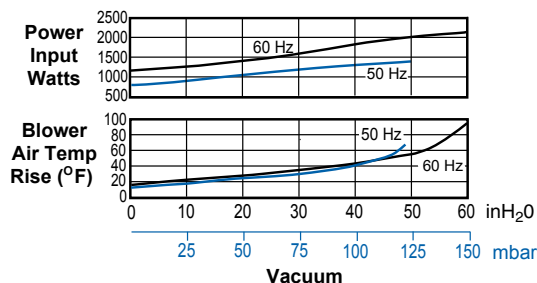
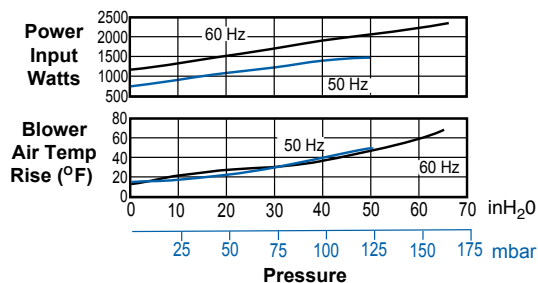
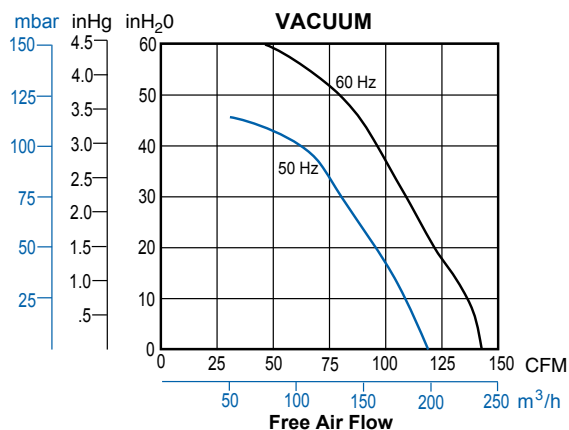
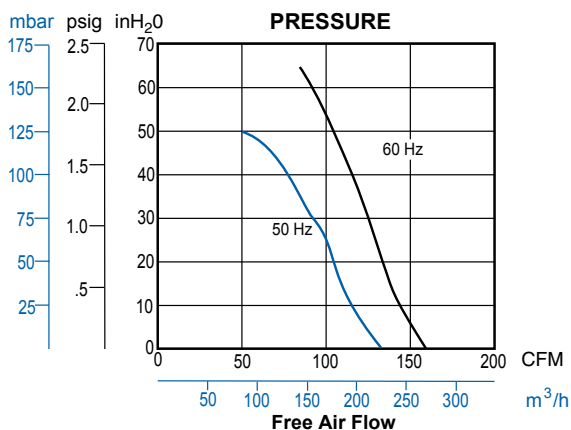
Product Dimensions (inches, mm)



Product Specifications

MODEL NUMBER		R5125-2	R5325A-2	R5325B-1
Motor Enclosure		TEFC	TEFC	TEFC
HP/kW	60 Hz	2.5/1,9	2.5/1,9	2.5/1,9
	50 Hz	1.5/1,1	1.85/1,38	-
Voltage	60 Hz	115/208-230-1	208-230/460-3	575-3
	50 Hz	110/220-240-1	190-220/380-415-3	-
Amps	60 Hz	21/12-10	6.9-6.9/3.45	2.9
	50 Hz	16.5/8.6	6.6-6.7/3.3-3.5	-
Starting Amps	60 Hz	58 @ 230V	58 @ 230V	23.4
	50 Hz	42 @ 230V	23 @ 380V	-
Insulation Class		F	B	B
Recommended NEMA Starter Size		1/0	0/00	0
Net Weight (lbs/kg)		76/34,5	65/29,5	65/29,5

Product Performance





Models R6125-2, R6325A-2, R6135J-10, R6335A-2, R6335B, R6150J-2, R6350A-2, R6350B-2

Maximum pressure, vacuum, and air flow varies for the r6 series, depending on the model(s). Reference the chart for the specific model performance.

PRODUCT FEATURES

- Made in the U.S.A.
- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved TEFC motors with permanently sealed ball bearings (R6150J-2 and R6135J-10 has ODP motor)
- Automatic restart thermal protection on R6150J-2, R6125-2, R6335A-2, R6325A-2
- Aluminum cover, impeller, and housing
- Inlet and outlet have internal muffling

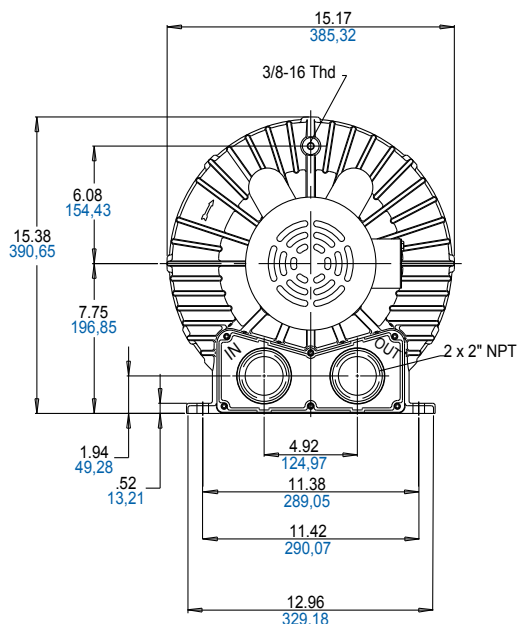
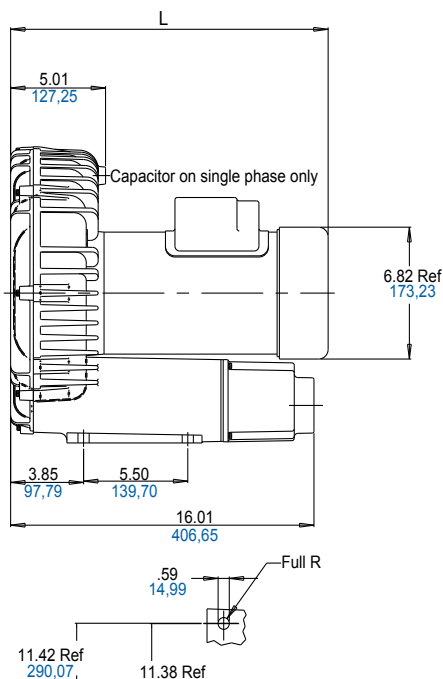
RECOMMENDED ACCESSORIES

- Pressure gauge AE133
- Inlet filter AJ126F (pressure)
- Vacuum gauge AE134
- Inline filter AJ151G (vacuum)
- Muffler AJ121F
- Relief valve AG258
- Liquid separator RMS300 (vacuum)
- Foam replacement kit K904

MODELS	Maximum Pressure (inH ₂ O)		Maximum Vacuum (inH ₂ O)		Maximum Air Flow (CFM)	
	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz
R6125-2 R6325A-2	45	40	55	50	215	180
R6135J-10 R6335A-2 R6335B	80	75	80	65	215	180
R6150J-2 R6350A-2 R6350B-2	105	78	88	70	207	180

Product Dimensions (inches, mm)

Note: Unit must be mounted horizontally, foot pad down



MODEL	L (in)	L (mm)
R6125-2	16.45	418
R6325A-2	15.53	394
R6135J-10	15.86	403
R6335A-2	16.59	421
R6335B	16.00	406
R6150J-2	17.46	443
R6350A-2	17.35	441
R6350B-2		

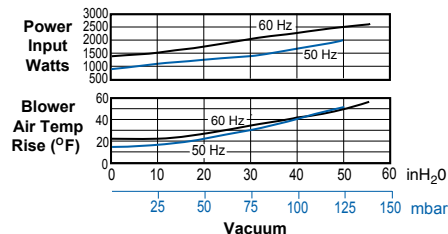
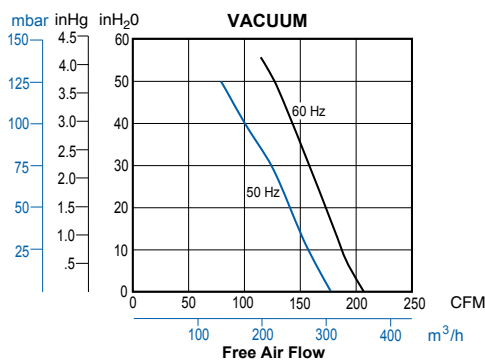
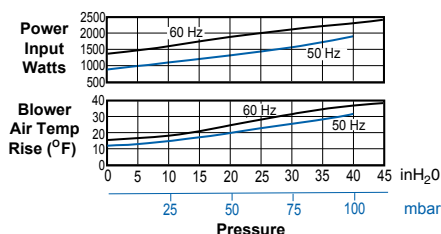
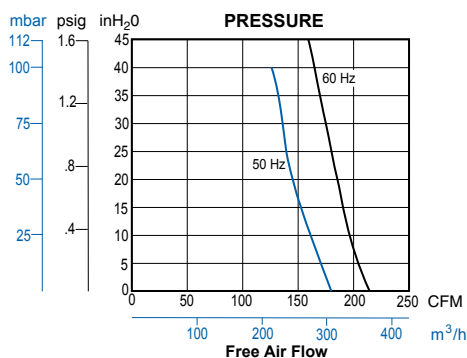
Product Specifications

MODEL NUMBER		R6125-2	R6325A-2	R6135J-10	R6335A-2
Motor Enclosure		TEFC	TEFC	ODP	TEFC
HP/kW	60 Hz	2.5/1,9	2.5/1,9	3.5/2,6	3.5/2,6
	50 Hz	1.5/1,1	1.85/1,38	-	2.5/1,9
Voltage	60 Hz	115/208-230-1	208-230/460-3	230-1	208-230/460-3
	50 Hz	110/220-240-1	190-220/380-415-3	-	190-220/380-415-3
Amps	60 Hz	22/12.5-11	6.9-6.9/3.45	19	9.7-8.8/4.4
	50 Hz	18/9.5	6.6-6.7/3.3-3.5	-	8.8/4-3.9
Starting Amps	60 Hz	58 @ 230V	58 @ 230V	125 @ 230V	50 @ 460V
	50 Hz	42 @ 240V	23.5 @ 380V	-	40.5 @ 380V
Insulation Class		F	B	F	F
Recommended NEMA Starter Size		1/0	0/00	1P	1/0
Net Weight (lbs/kg)		87/39,5	76/34,5	112/50,8	82/37,2

MODEL NUMBER		R6335B	R6150J-2	R6350A-2	R6350B-2
Motor Enclosure		TEFC	ODP	TEFC	TEFC
HP/kW	60 Hz	3.5/2,6	5.0/3,7	5.0/3,7	5.0/3,7
	50 Hz	-	-	4.8/3,6	-
Voltage	60 Hz	575-3	230-1	208-230/460-3	575-3
	50 Hz	-	-	190-220/380-415-3	-
Amps	60 Hz	3.6	22.3	13.0-12.0/6.0	4.8
	50 Hz	-	-	14.4-13.4/7.2-6.8	-
Starting Amps	60 Hz	34.9 @ 575V	96 @ 230V	125 @ 230V	35 @ 575V
	50 Hz	-	-	57 @ 380V	-
Insulation Class		F	F	F	F
Recommended NEMA Starter Size		0	1P	1/0	0
Net Weight (lbs/kg)		82/37,2	125/56,8	112/50,8	112/50,8

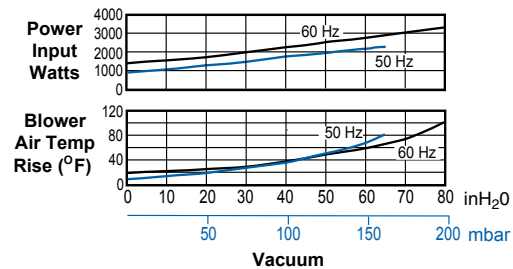
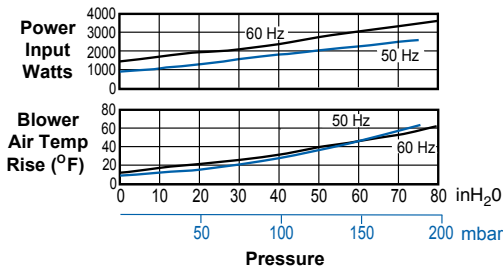
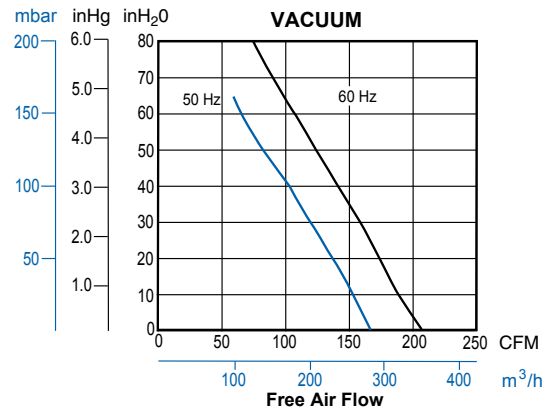
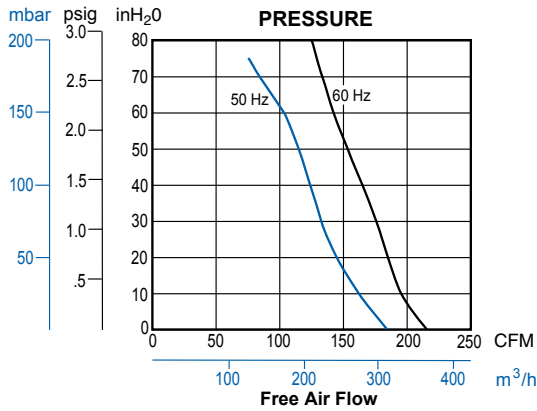
Product Performance

Models R6125-2, R6325A-2

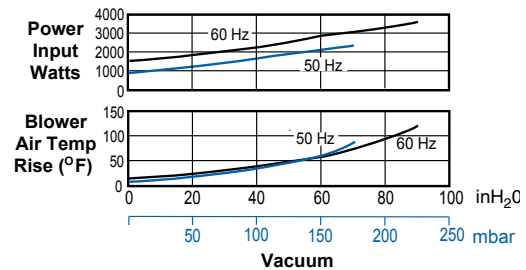
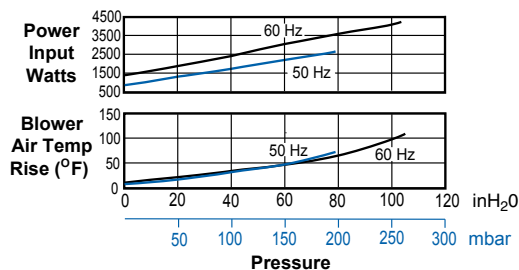
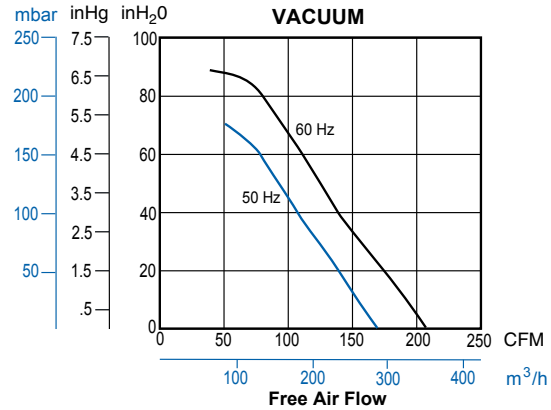
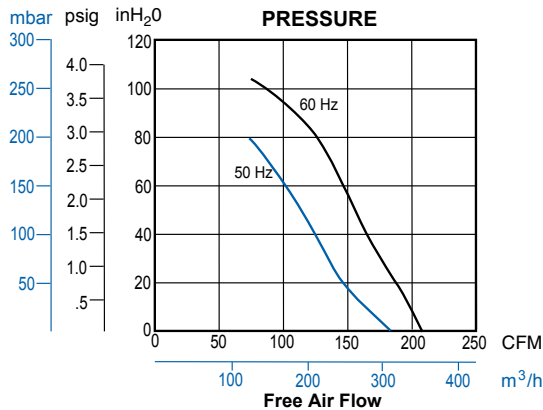


Product Performance

Models R6135J-10, R6335A-2, R6335B



Models R6150J-2, R6350A-2, R6350B-2





Models R6P335A, R6P350A, R6P350B, R6P355A

Maximum pressure, vacuum, and air flow varies for the r6p series, depending on the model(s). Reference the chart for the specific model performance.

PRODUCT FEATURES

- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved TEFC motors with permanently sealed ball bearings
- Aluminum cover, impeller, and housing
- Inlet and outlet have internal muffling

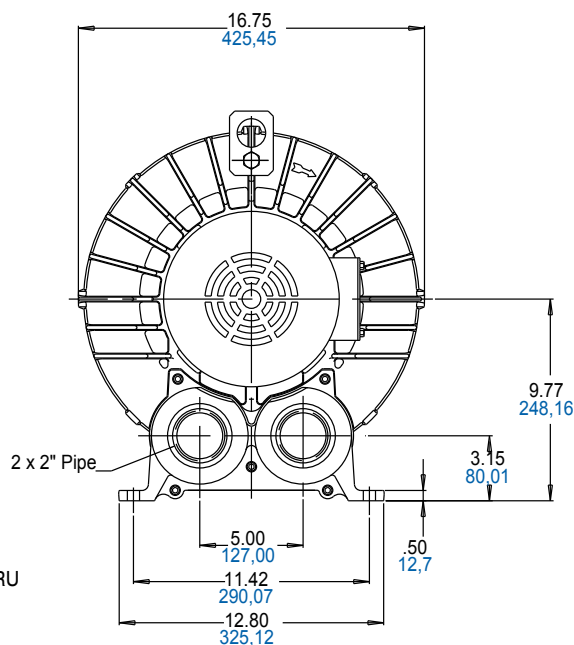
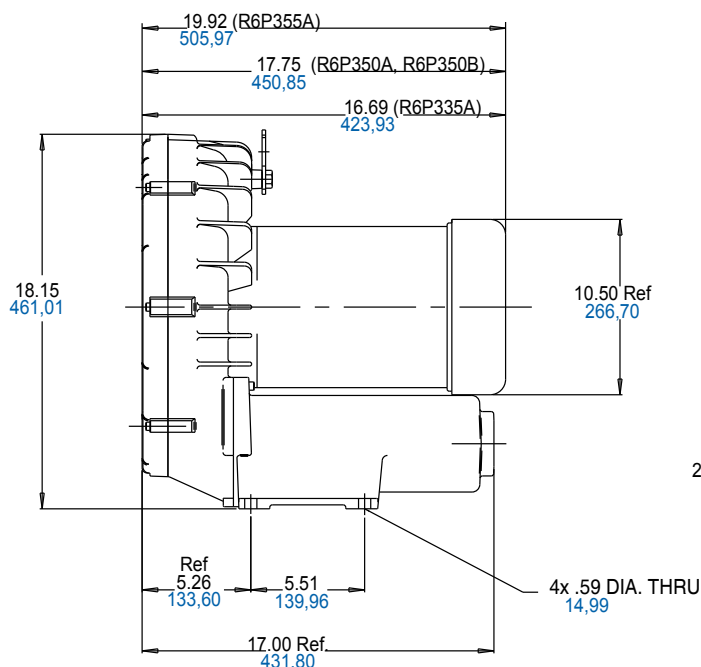
RECOMMENDED ACCESSORIES

- Pressure gauge AE133
- Inlet filter AJ126F (pressure)
- Vacuum gauge AE134
- Inline filter AJ151G (vacuum)
- Muffler AJ121F
- Relief valve AG258
- Liquid separator RMS300 (vacuum)
- Foam replacement kit K907

MODELS	Maximum Pressure (inH ₂ O)		Maximum Vacuum (inH ₂ O)		Maximum Air Flow (CFM)	
	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz
R6P335A	30	50	35	60	265	230
R6P350A R6P350B	60	70	70	70	290	245
R6P355A	110	85	90	70	265	225

Product Dimensions (inches, mm)

Note: Unit must be mounted horizontally, foot pad down

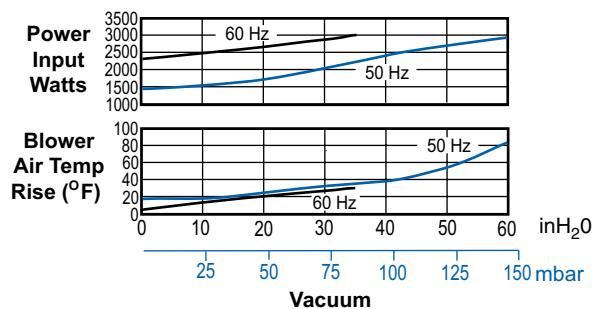
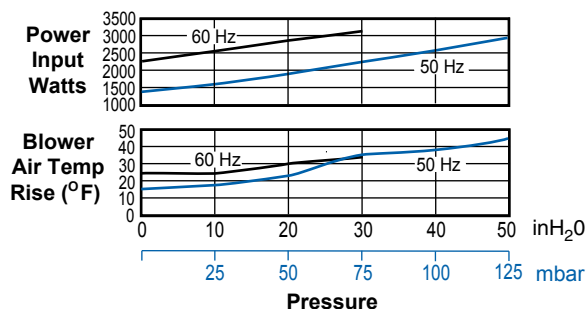
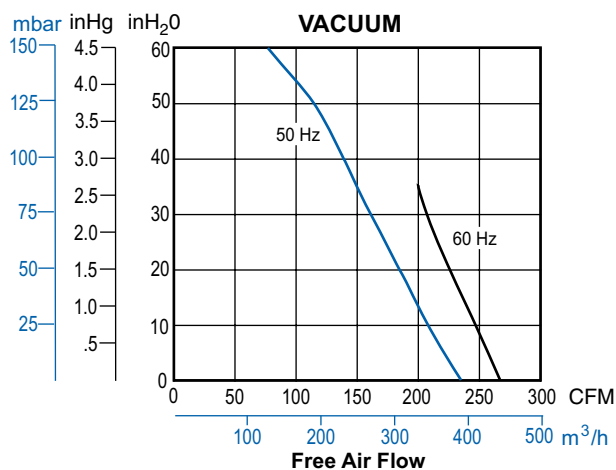
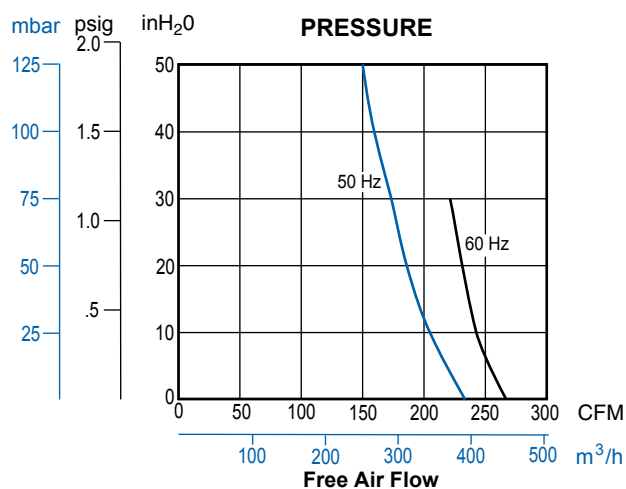


Product Specifications

MODEL NUMBER		R6P335A	R6P350A	R6P350B	R6P355A
Motor Enclosure		TEFC	TEFC	TEFC	TEFC
HP/kW	60 Hz	3.5/2.6	5.0/3.7	5.0/3.7	5.5/4.1
	50 Hz	2.5/1.9	4.8/3.6	-	5.0/3.7
Voltage	60 Hz	208-230/460-3	208-230/460-3	575-3	208-230/460-3
	50 Hz	190-220/380-415-3	190-220/380-415-3	-	190-220/380-415-3
Amps	60 Hz	9.7-8.8/4.4	13.0-12.0/6.0	4.8	19.5-18.2/9.1
	50 Hz	8-8/4-3.9	14.4-13.4/7.2-6.8	-	14.2-13.4/7.1
Starting Amps	60 Hz	50 @ 460V	125 @ 230V	35 @ 575V	83 @ 460V
	50 Hz	40.5 @ 380V	57 @ 380V	-	72 @ 380V
Insulation Class		F	F	F	F
Recommended NEMA Starter Size		1/0	1/0	0	1/0
Net Weight (lbs/kg)		150/68	176/80	176/80	215/98

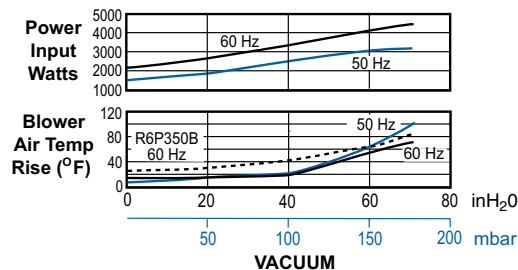
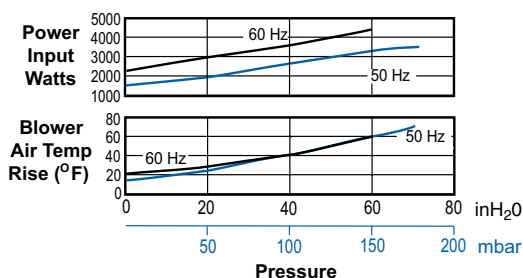
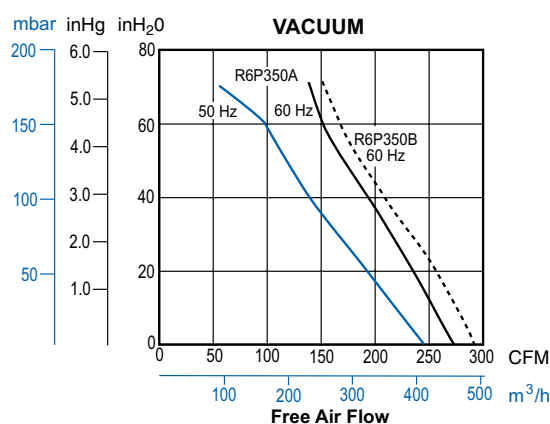
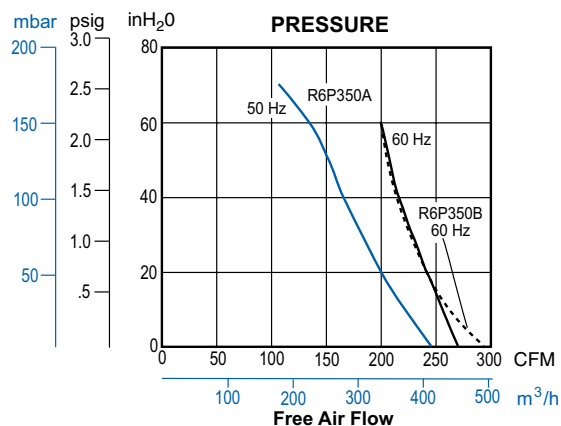
Product Performance

Model R6P335A



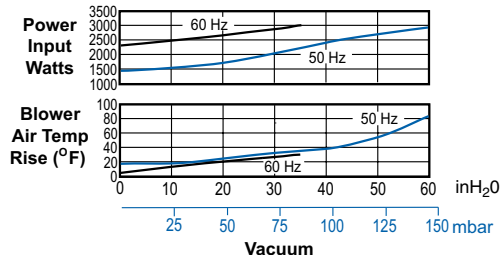
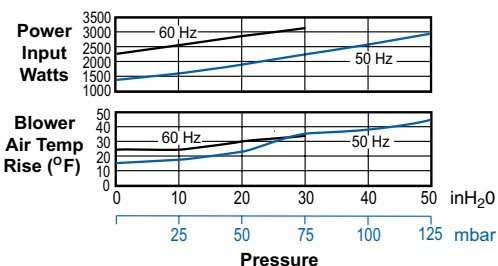
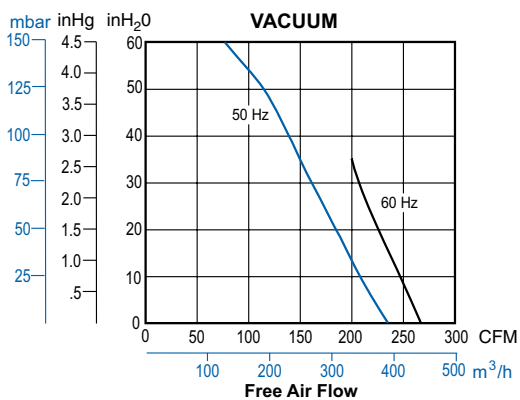
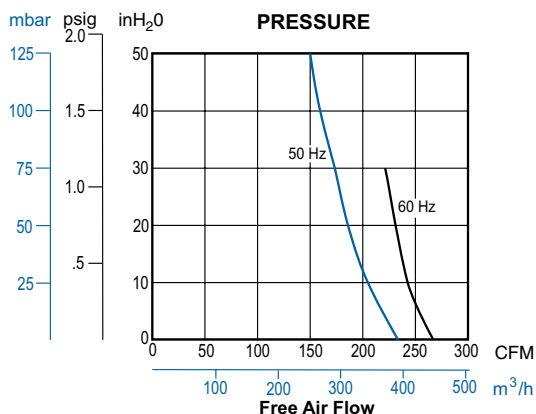
Product Performance

Models R6P350A, R6P350B



Product Performance

Model R6P355A





Models R6PP3110M (Parallel)

Max. pressure – 95 inH₂O (60 Hz), 75 inH₂O (50 Hz)

Max. vacuum – 80 inH₂O (60 Hz), 65 inH₂O (50 Hz)

Max. air flow – 520 CFM (60 Hz), 420 CFM (50 Hz)

PRODUCT FEATURES

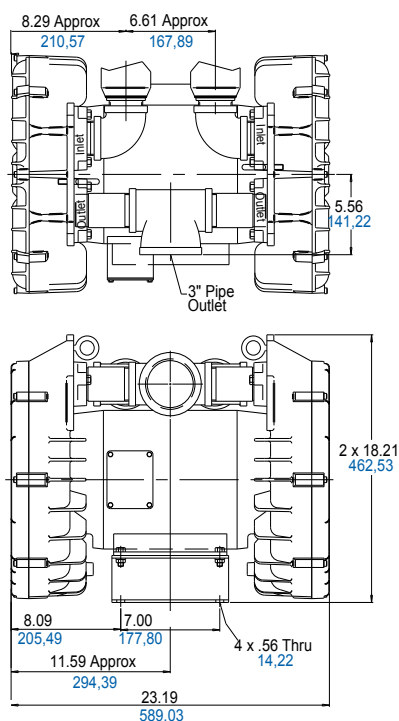
- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved motors with permanently sealed ball bearings
- Class F insulation on motors
- Aluminum impeller; cast iron cover and housing
- Includes (2) muffler AJ121F
- Smaller and less costly than two motor-mounted units

RECOMMENDED ACCESSORIES

- Pressure gauge AE133
- Inlet Filter AJ126F (pressure), use (2)
- Vacuum gauge AE134
- Inline filter AJ151H (vacuum)
- Relief valve AG258F
- Liquid separator RMS400 (vacuum)
- Muffler AJ121H (for exhaust)

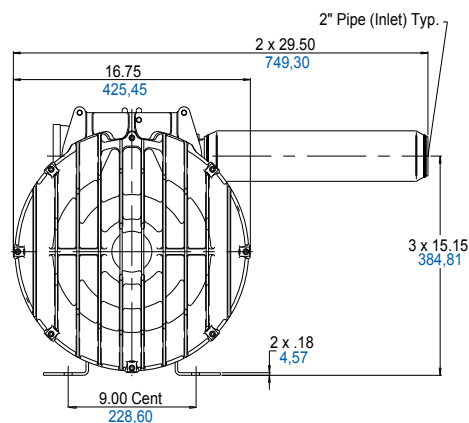
Product Dimensions (inches, mm)

TOP VIEW



Note: Unit must be mounted with shaft horizontal.

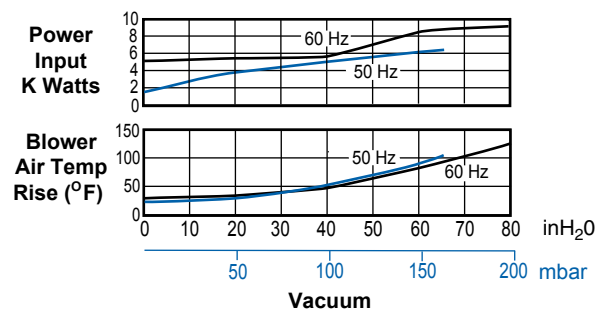
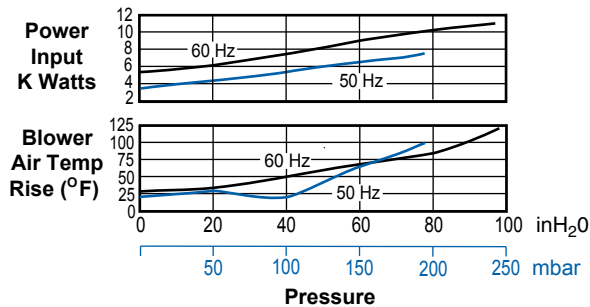
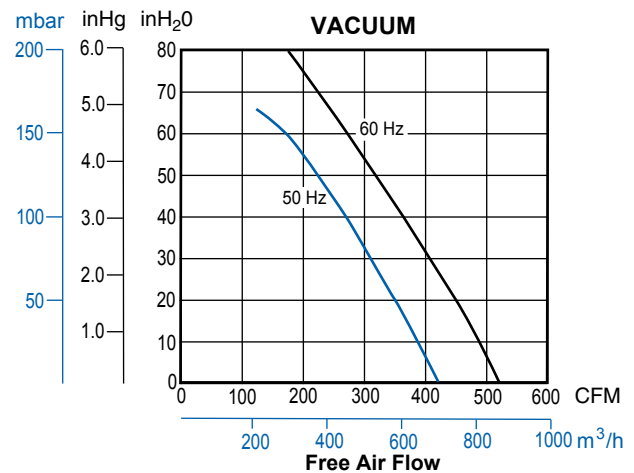
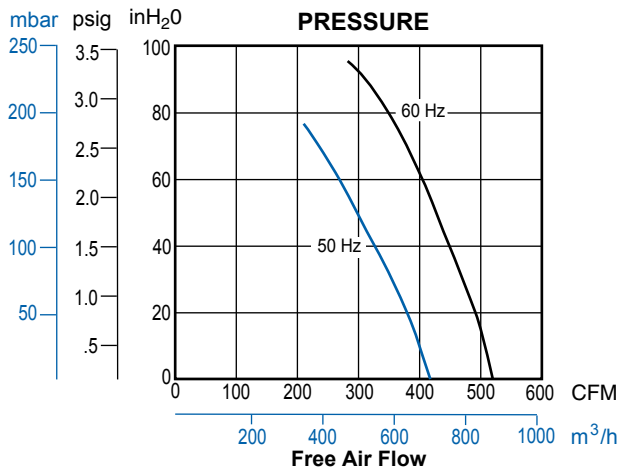
Note: Unit is stocked with plumbing arrangement of parallel compressor. The end user may reverse intake and exhaust plumbing or tie the inlets together with 2" pipe to make a vacuum unit.



Product Specifications

MODEL NUMBER		R6PP3110M
Motor Enclosure		ODP
HP/kW	60 Hz	11/8,2
	50 Hz	7/5,2
Voltage	60 Hz	208-230/460-3
	50 Hz	220/380-415-3
Amps	60 Hz	36-35/17.5
	50 Hz	32/15.5-13
Starting Amps	60 Hz	181 @ 460V
	50 Hz	176 @ 380V
Insulation Class		F
Recommended NEMA Starter Size		2/2
Net Weight (lbs/kg)		309/140

Product Performance





Models R7100A-3, R7100B-1

Max. pressure – 125 inH₂O (60 Hz), 115 inH₂O (50 Hz)

Max. vacuum – 110 inH₂O (60 Hz), 90 inH₂O (50 Hz)

Max. air flow – 420 CFM (60 Hz), 350 CFM (50 Hz)

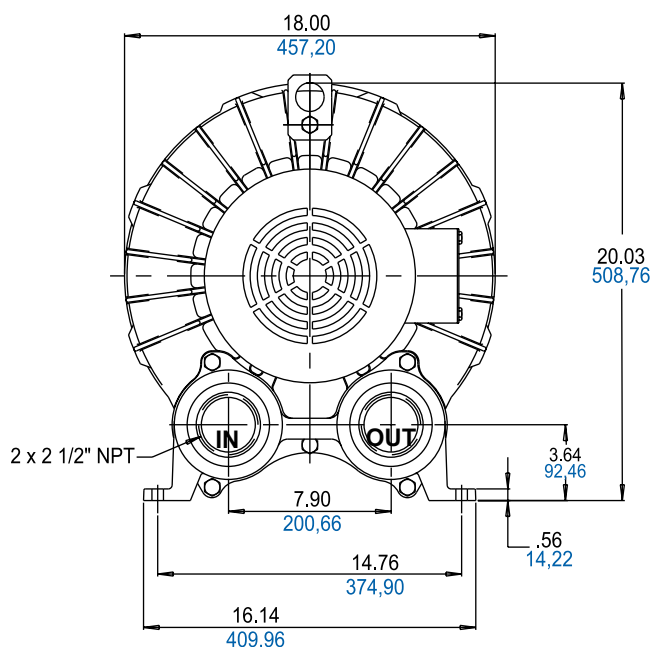
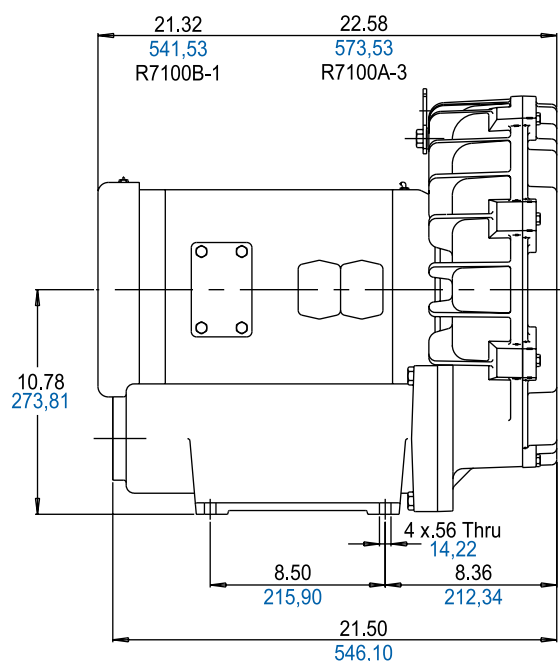
PRODUCT FEATURES

- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved TEFC motors with permanently sealed ball bearings
- IP54 rated enclosure on motors
- Aluminum impeller; cast iron cover and housing
- Can be mounted in any plane
- Inlet and outlet have internal muffling

RECOMMENDED ACCESSORIES

- Pressure gauge AE133A
- Inlet filter AJ126G (pressure)
- Vacuum gauge AE134
- Vacuum gauge for monitoring inlet filter restriction AJ497
- Pressure/vacuum relief valve AG258
- Silencer for vacuum relief valve AJ121D
- Inline filter AJ151H (vacuum)
- External muffler for additional silencing AJ121G
- Liquid separator RMS400 (vacuum)
- Foam replacement kit K827

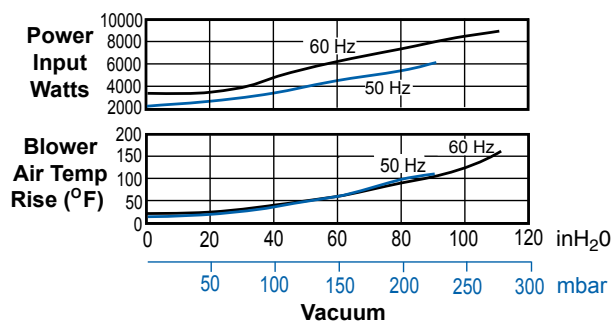
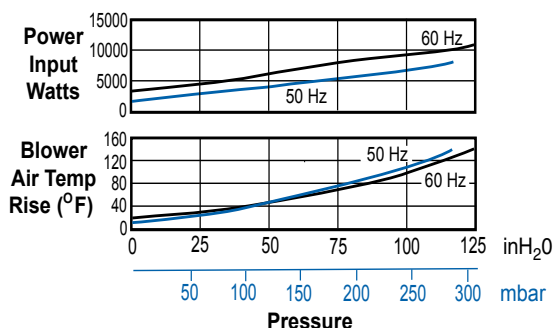
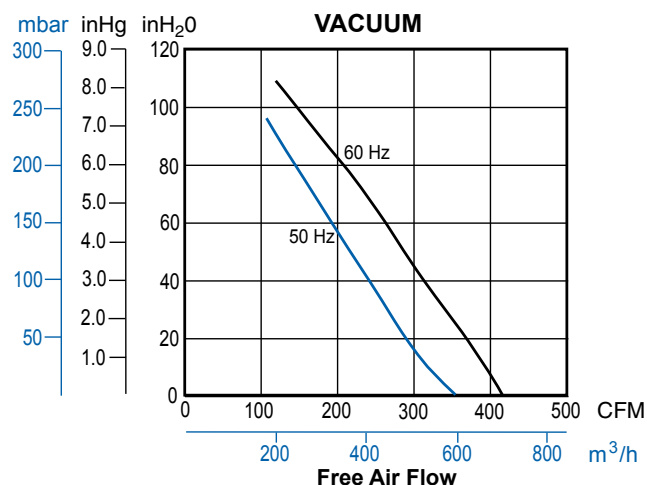
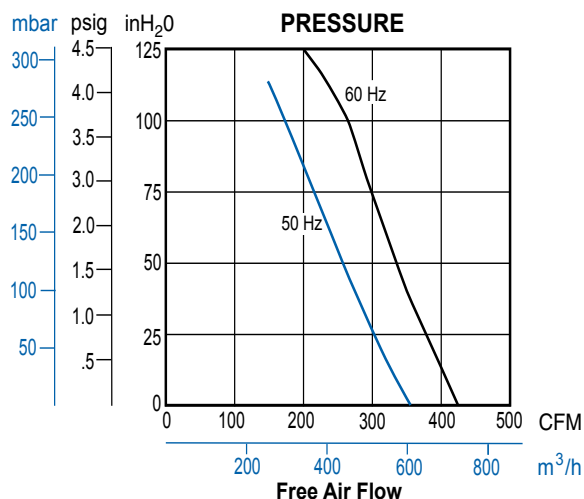
Product Dimensions (inches, mm)



Product Specifications

MODEL NUMBER		R7100A-3	R7100B-1
Motor Enclosure		TEFC	TEFC
HP/kW	60 Hz	10/7,5	10/7,5
	50 Hz	8/6	-
Voltage	60 Hz	208-230/460-3	575-3
	50 Hz	190-220/380-440-3	-
Amps	60 Hz	35-29.5/15	9.6
	50 Hz	27-23/13.5-12.3	-
Starting Amps	60 Hz	120 @ 460V	84 @ 575V
	50 Hz	143 @ 380V	-
Insulation Class		F	F
Recommended NEMA Starter Size		2/1	1
Net Weight (lbs/kg)		293/133	290/131

Product Performance



Model R7P3180M (parallel)

Max. pressure – 105 inH₂O (60 Hz), 90 inH₂O (50 Hz)

Max. vacuum – 95 inH₂O (60 Hz), 85 inH₂O (50 Hz)

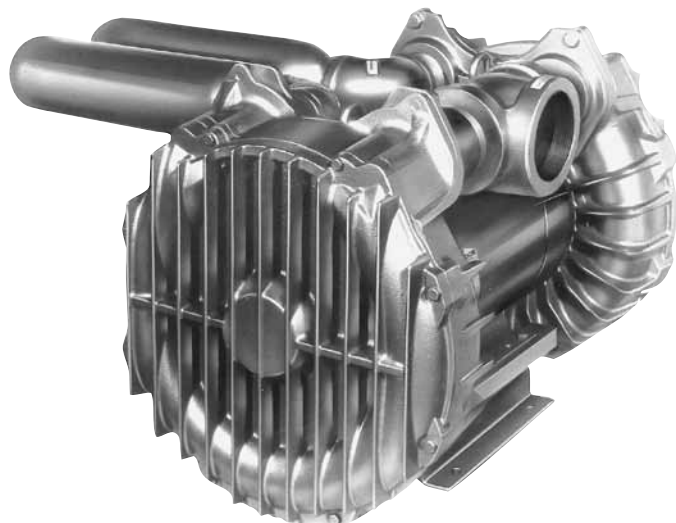
Max. air flow – 795 CFM (60 Hz), 666 CFM (50 Hz)

PRODUCT FEATURES

- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved motor with permanently sealed ball bearings
- Cast iron blower housing and cover. Cast aluminum impeller
- Smaller and less costly than two blowers
- Includes external mufflers for additional silencing AJ121M (2)

RECOMMENDED ACCESSORIES

- Pressure gauge AE133
- Two inlet filters AJ126G (pressure)
- Vacuum gauge AE134
- Vacuum gauge for monitoring inlet filter restriction AJ497
- Pressure/vacuum relief valve AG258F
- Silencer for vacuum relief valve AJ121G
- Inline filter AJ151M (vacuum)
- Liquid separator RMS400 (for vacuum line)

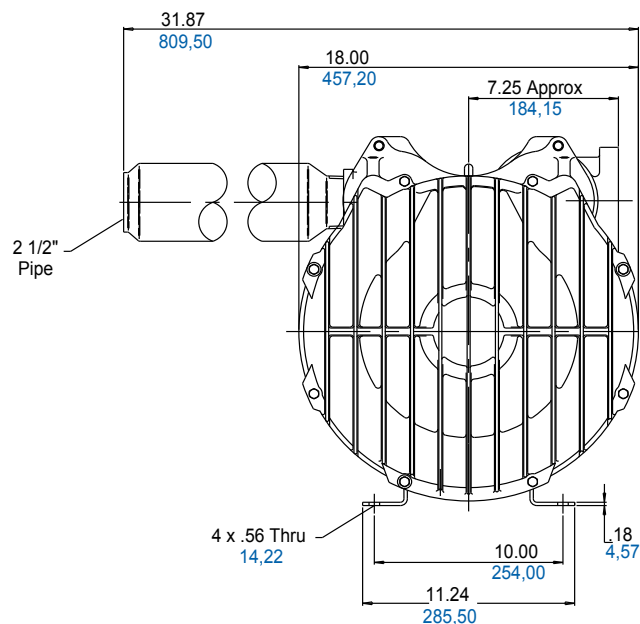
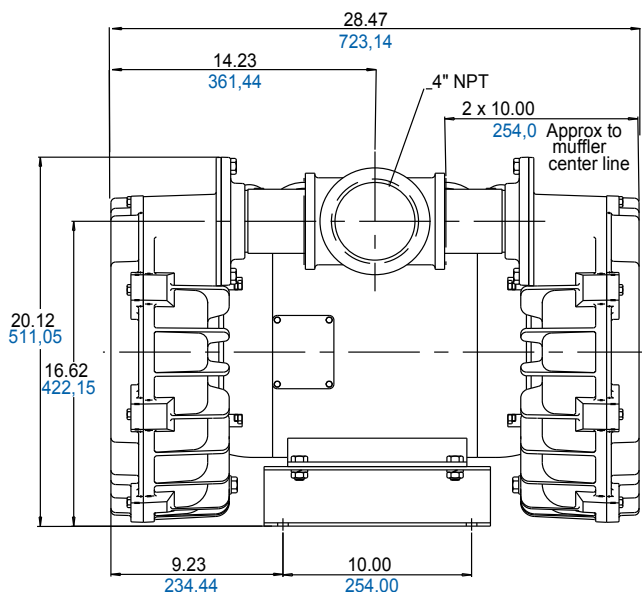


Product Dimensions (inches, mm)

Note: Unit must be mounted with shaft horizontal.

Note: Unit is stocked with plumbing arrangement of parallel compressor.

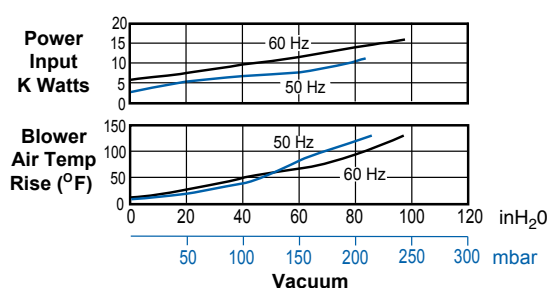
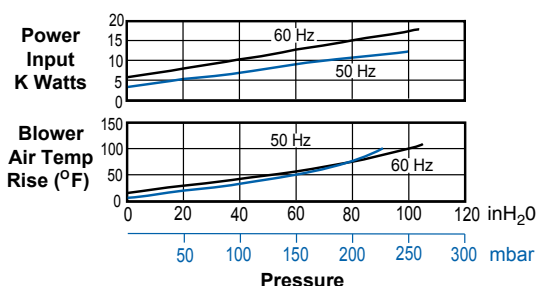
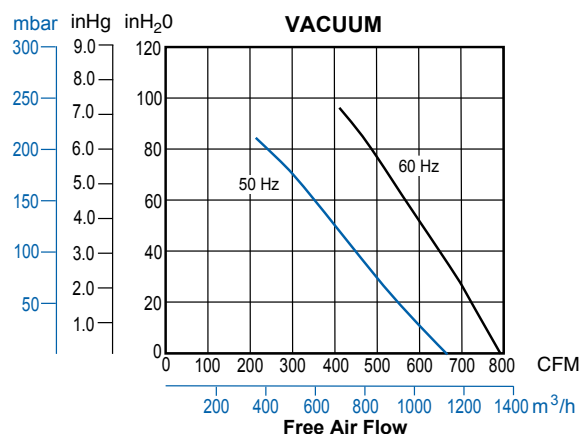
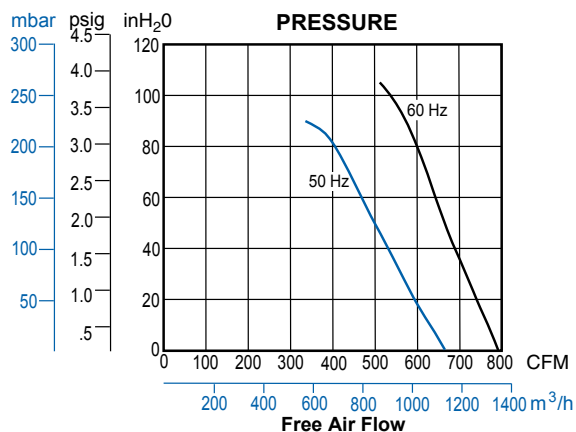
The end user may reverse intake and exhaust plumbing to make a vacuum unit.



Product Specifications

MODEL NUMBER		R7P3180M
Motor Enclosure		ODP
HP/kW	60 Hz	18/13,4
	50 Hz	12/9
Voltage	60 Hz	230/460-3
	50 Hz	190-220/380-440-3
Amps	60 Hz	52/26
	50 Hz	52-45/26-23
Starting Amps	60 Hz	238 @ 460V
	50 Hz	Consult Factory
Insulation Class		F
Recommended NEMA Starter Size		3/2
Net Weight (lbs/kg)		438/198

Product Performance





Model R93150A

Max. pressure – 125 inH₂O (60 Hz), 125 inH₂O (50 Hz)

Max. vacuum – 115 inH₂O (60 Hz), 105 inH₂O (50 Hz)

Max. air flow – 680 CFM (60 Hz), 585 CFM (50 Hz)

PRODUCT FEATURES

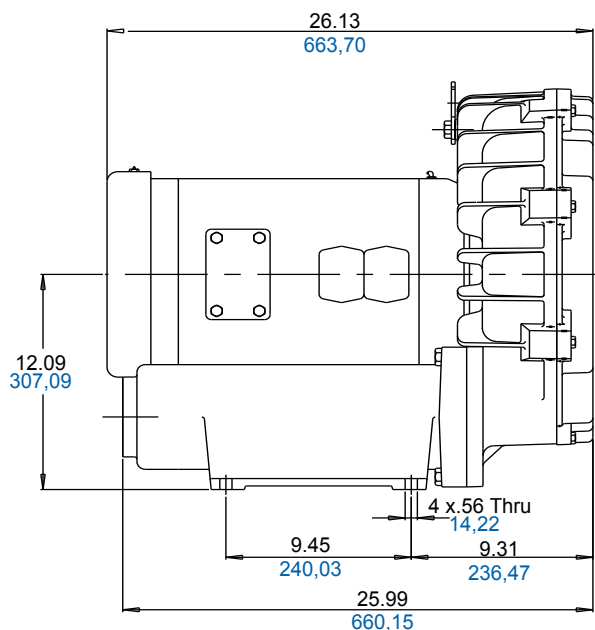
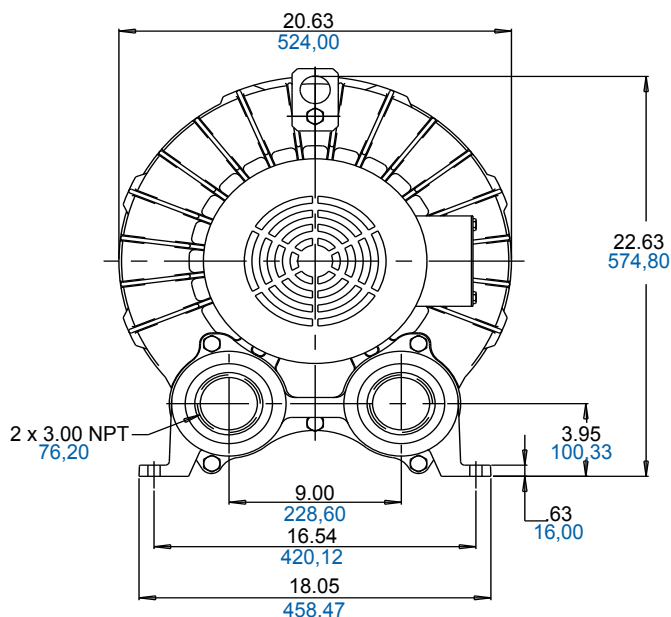
- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved TEFC motor with permanently sealed ball bearings
- IP54 rated enclosure on motors
- Cast iron housing, cover, and muffler enclosure.
- Cast aluminum impeller
- Inlet and outlet have internal muffling

RECOMMENDED ACCESSORIES

- Pressure gauge AE133
- Inlet filter AJ126M (pressure)
- Vacuum gauge AE134
- Vacuum gauge for monitoring inlet filter restriction AJ497
- Pressure/vacuum relief valve AG258F
- Silencer for vacuum relief valve AJ121G
- Inline filter AJ151M (vacuum)
- External muffler for additional silencing AJ121H
- Foam replacement kit K829

Product Dimensions (inches, mm)

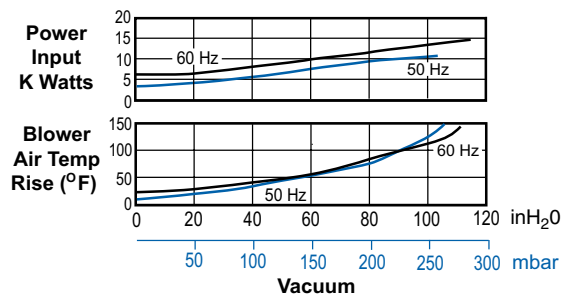
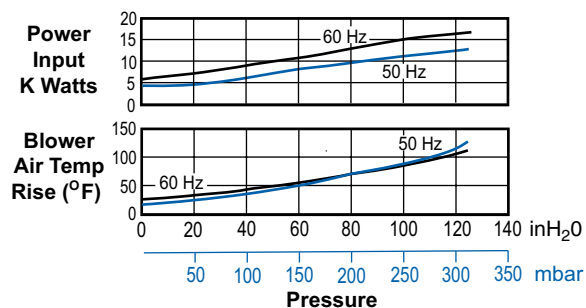
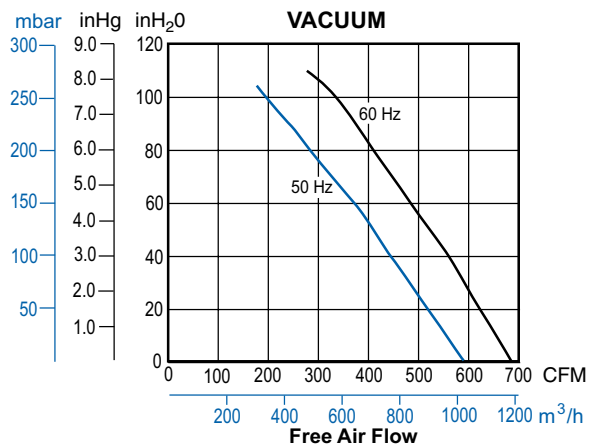
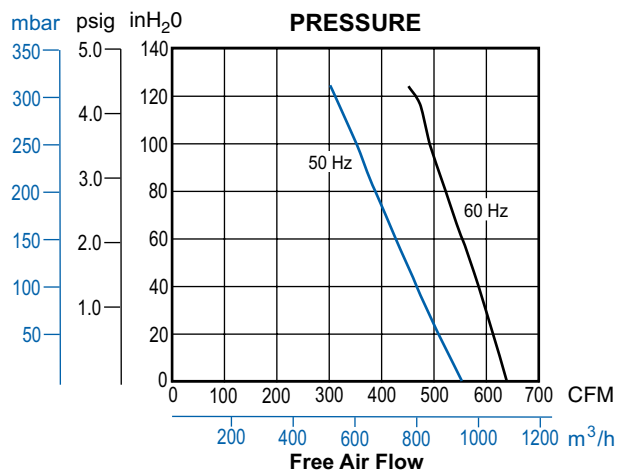
Note: Unit must be mounted with shaft horizontal.



Product Specifications

MODEL NUMBER		R93150A
Motor Enclosure		TEFC
HP/kW	60 Hz	15/11,1
	50 Hz	10/7,5
Voltage	60 Hz	208-230/460-3
	50 Hz	190-220/380-440-3
Amps	60 Hz	50-50/25
	50 Hz	46-42/23-21
Starting Amps	60 Hz	173 @ 460V
	50 Hz	185 @ 440V
Insulation Class		F
Recommended NEMA Starter Size		2/2
Net Weight (lbs/kg)		452/204

Product Performance



Model R9P3300M

Max. pressure – 125 inH₂O (60 Hz), 110 inH₂O (50 Hz)

Max. vacuum – 110 inH₂O (60 Hz), 100 inH₂O (50 Hz)

Max. air flow – 1350 CFM (60 Hz), 1140 CFM (50 Hz)

PRODUCT FEATURES

- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved ODP motor with permanently sealed ball bearings
- Cast iron blower housing and covers. Cast aluminum impellers
- Smaller and less costly than two motor-mounted units
- Includes external mufflers for additional silencing AJ121H (2)

RECOMMENDED ACCESSORIES

- Pressure gauge AE133
- Two inlet filters AJ126M (pressure)
- Vacuum gauge AE134
- Vacuum gauge for monitoring inlet filter restriction AJ497
- Two pressure/vacuum relief valves AG258F mounted in customer supplied plumbing
- Silencer for each vacuum relief valve AJ121G
- External muffler for additional silencing AJ121N
- Two inline filters (vacuum) AJ151M mounted in parallel in customer provided plumbing

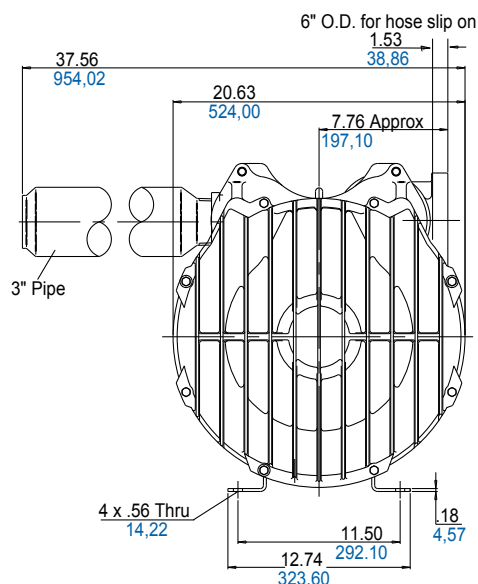
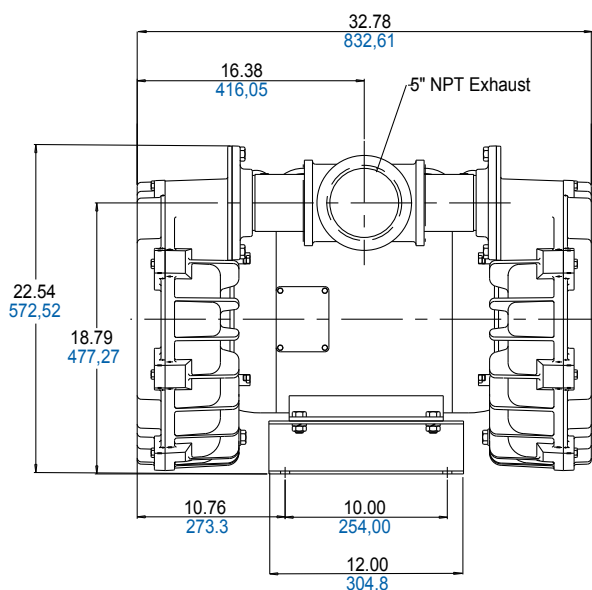


Product Dimensions (inches, mm)

Note: Unit must be mounted with shaft horizontal.

Note: Unit is stocked with plumbing arrangement of parallel compressor.

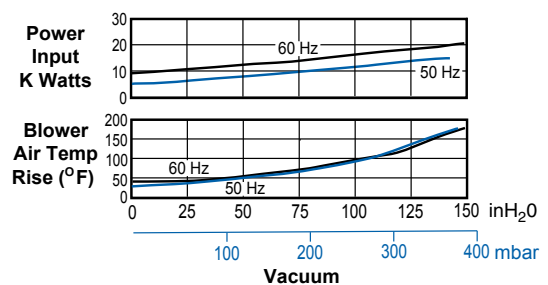
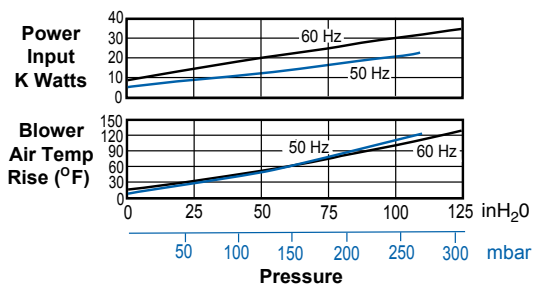
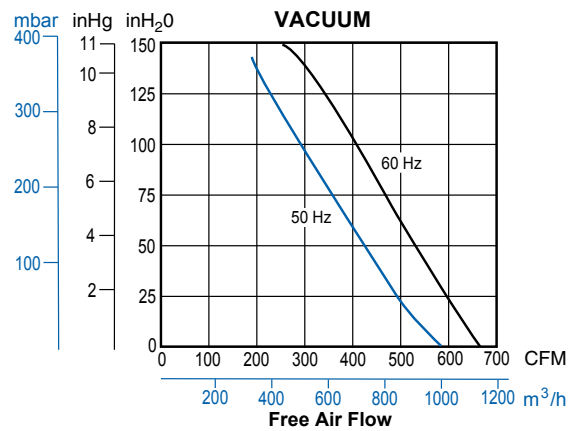
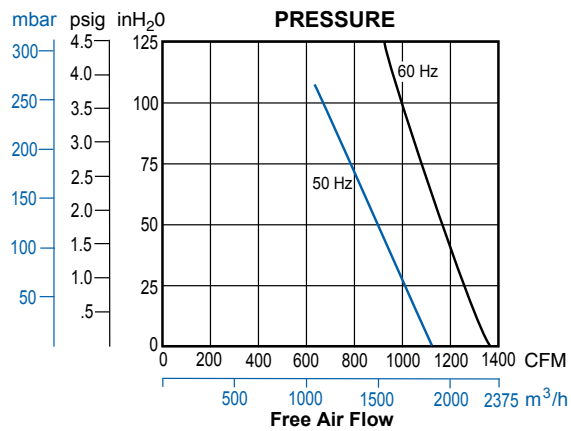
End user may reverse intake and exhaust plumbing to make a vacuum unit.



Product Specifications

MODEL NUMBER		R9P3300M
Motor Enclosure		ODP
HP/kW	60 Hz	30/22,3
	50 Hz	19/14,1
Voltage	60 Hz	230/460-3
	50 Hz	190-220/380-440-3
Amps	60 Hz	78/39
	50 Hz	76-70/38-35
Starting Amps	60 Hz	280 @ 460V
	50 Hz	185 @ 440V
Insulation Class		F
Recommended NEMA Starter Size		3/3
Net Weight (lbs/kg)		622/327

Product Performance



High Pressure Models



Models R4H3060A

Max. pressure – 284 inH₂O (60 Hz), 284 inH₂O (50 Hz)

Max. vacuum – 183 inH₂O (60 Hz), 183 inH₂O (50 Hz)

Max. air flow – 128 CFM (60 Hz), 107 CFM (50 Hz)

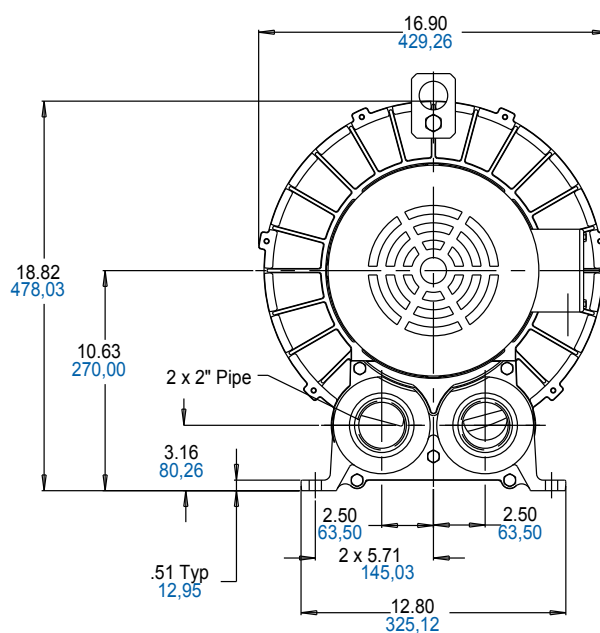
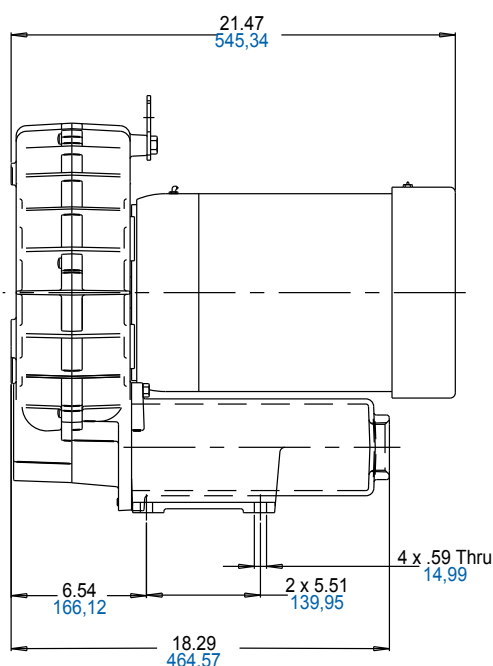
PRODUCT FEATURES

- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved TEFC motor with permanently sealed ball bearings
- IP54 rated enclosure on motors
- Cast aluminum dual impeller, blower housing, and cover
- Can be mounted in any plane
- Inlet and outlet have internal muffling

RECOMMENDED ACCESSORIES

- Pressure gauge AE133F
- Inlet filter AJ126D (pressure)
- Pressure relief valve PV102 (60Hz), PV098 (50Hz)
- Vacuum gauge AE134F
- Vacuum gauge for monitoring inlet filter restriction AJ497
- Vacuum relief valve AG258
- Silencer for vacuum relief valve AJ121D
- Inline filter AJ151E (vacuum)
- External muffler for additional silencing AJ121F
- Foam replacement kit K905

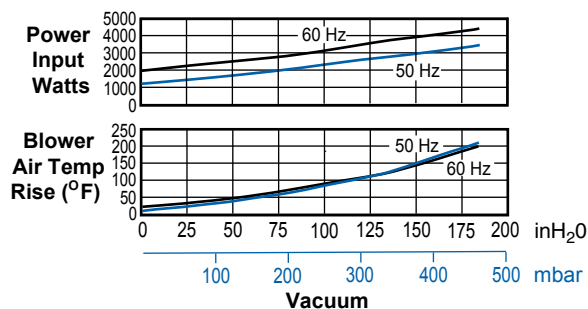
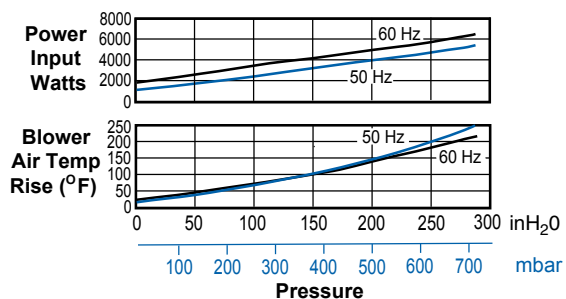
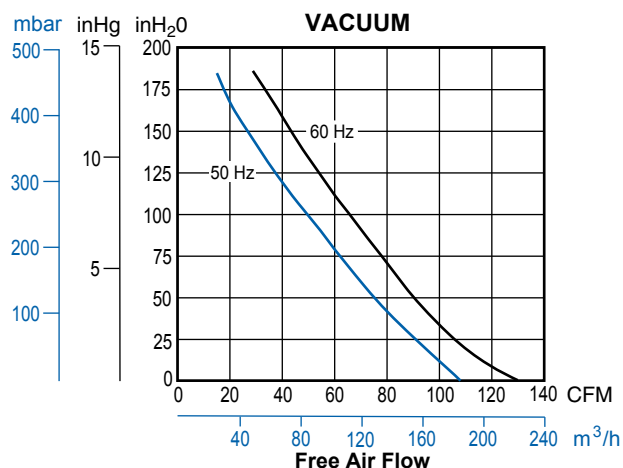
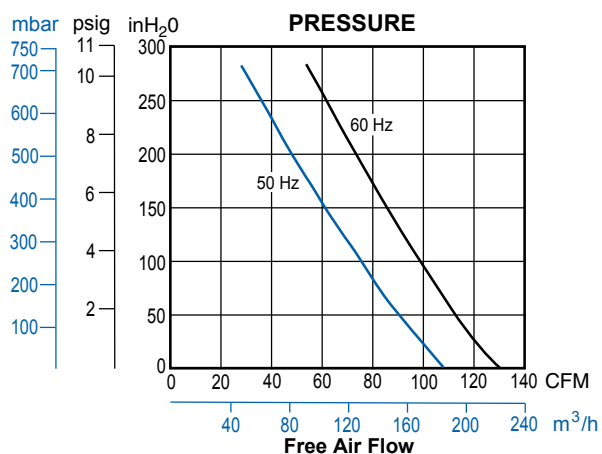
Product Dimensions (inches, mm)



Product Specifications

MODEL NUMBER		R4H3060A	R4H3060B
Motor Enclosure		TEFC	TEFC
HP/kW	60 Hz	6/4.4	6/4.4
	50 Hz	5/3.7	-
Voltage	60 Hz	208-230/460-3	575-3
	50 Hz	190-220/380-440-3	-
Amps	60 Hz	19.5-18.2/9.1	7.3
	50 Hz	16.8-16.0/8.4-8.0	-
Starting Amps	60 Hz	83 @ 460V	67 @ 575V
	50 Hz	72 @ 380V	-
Insulation Class		F	F
Recommended NEMA Starter Size		1/0	0
Net Weight (lbs/kg)		200/91	200/91

Product Performance



High Pressure Models



Model R4H3060A-1 (vacuum only)

Max. vacuum – 204 inH₂O (60 Hz), 176 inH₂O (50 Hz)

Max. air flow – 121 CFM (60 Hz), 101 CFM (50 Hz)

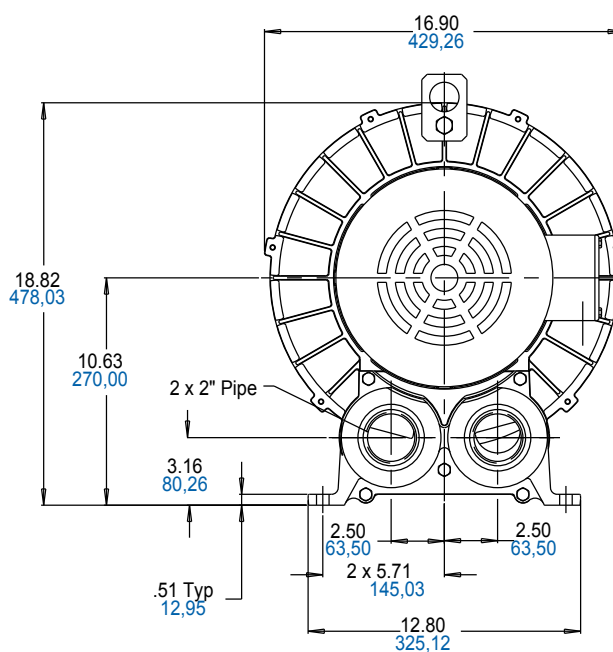
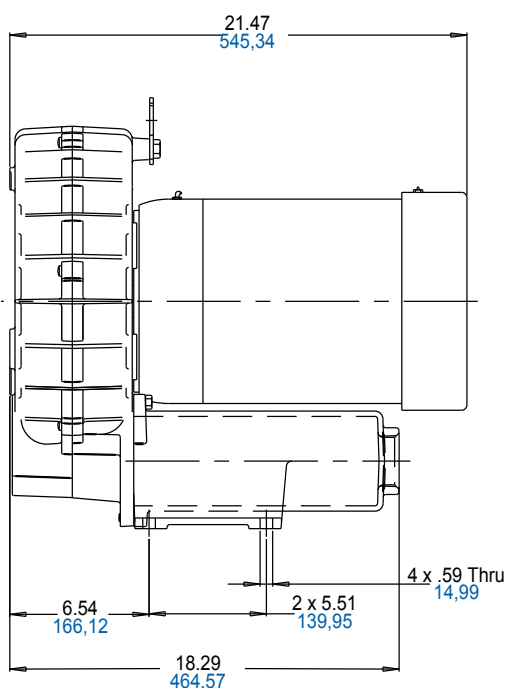
PRODUCT FEATURES

- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved TEFC motor with permanently sealed ball bearings
- IP54 rated enclosure on motors
- Cast aluminum dual impeller, blower housing, and cover
- Can be mounted in any plane
- Inlet and outlet have internal muffling

RECOMMENDED ACCESSORIES

- Vacuum gauge AE134F
- Vacuum relief valve AG258
- Silencer for vacuum relief valve AJ121D
- Inline filter AJ151E (vacuum)
- External muffler for additional silencing AJ121F

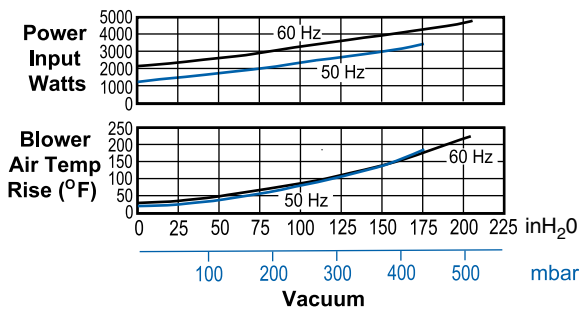
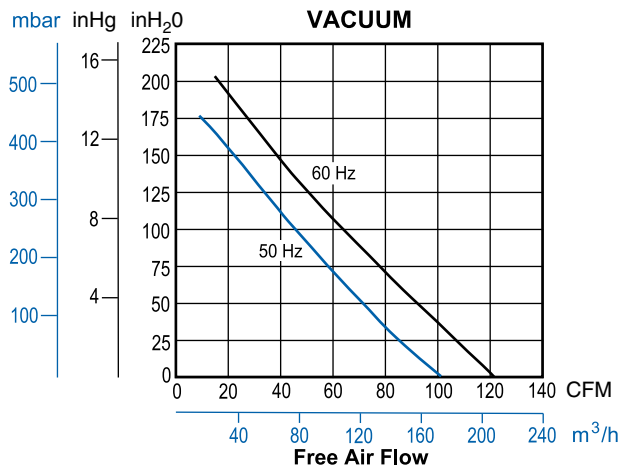
Product Dimensions (inches, mm)



Product Specifications

MODEL NUMBER		R4H3060A-1
Motor Enclosure		TEFC
HP/kW	60 Hz	6/4,5
	50 Hz	5/3,7
Voltage	60 Hz	208-230/460-3
	50 Hz	190-220/380-440-3
Amps	60 Hz	19.5-18.2/9.1
	50 Hz	16.8-16.0/8.4-8.0
Starting Amps	60 Hz	83 @ 460V
	50 Hz	72 @ 380V
Insulation Class		F
Recommended NEMA Starter Size		1/0
Net Weight (lbs/kg)		200/91

Product Performance



High Pressure Models



Model R6PS3110M (staged)

Max. pressure – 170 inH₂O (60 Hz), 145 inH₂O (50 Hz)

Max. vacuum – 130 inH₂O (60 Hz), 110 inH₂O (50 Hz)

Max. air flow – 280 CFM (60 Hz), 230 CFM (50 Hz)

PRODUCT FEATURES

- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved motor with permanently sealed ball bearings
- Aluminum impeller; cast iron cover and housing
- Includes muffler AJ121F
- Smaller and less costly than two motor-mounted units

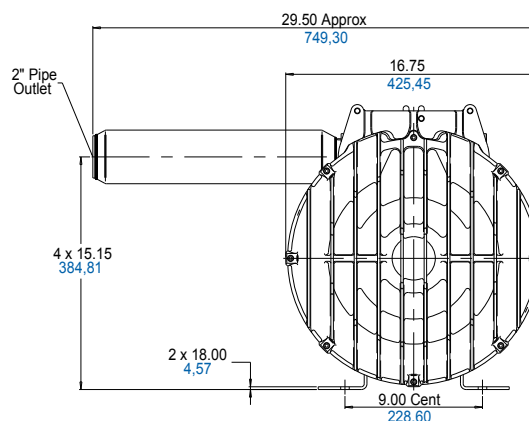
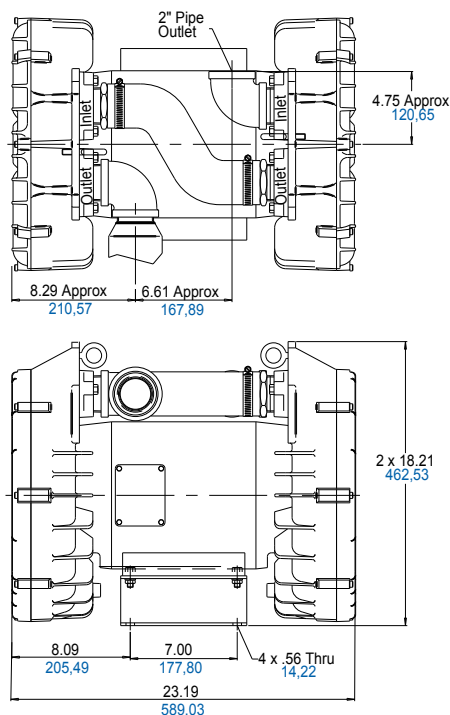
RECOMMENDED ACCESSORIES

- Pressure gauge AE133A
- Inlet filter AJ126F (pressure)
- Vacuum gauge AE134
- Inline filter AJ151H (vacuum)
- Relief valve AG258
- Liquid separator RMS300 (vacuum)

Product Dimensions (inches, mm)

Note: Unit must be mounted with shaft horizontal.

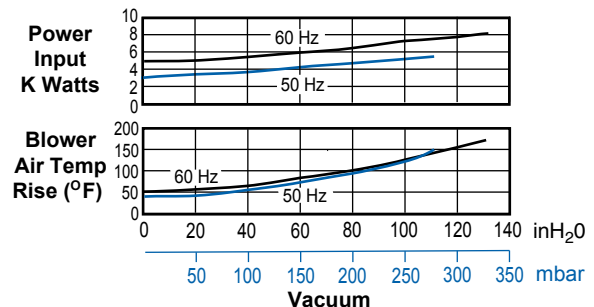
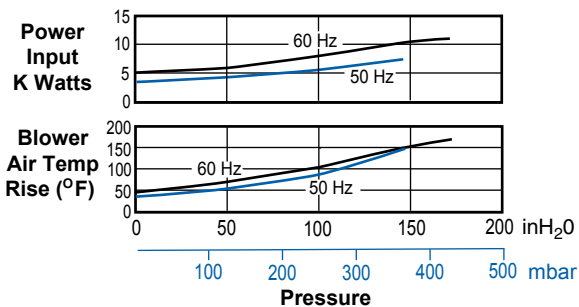
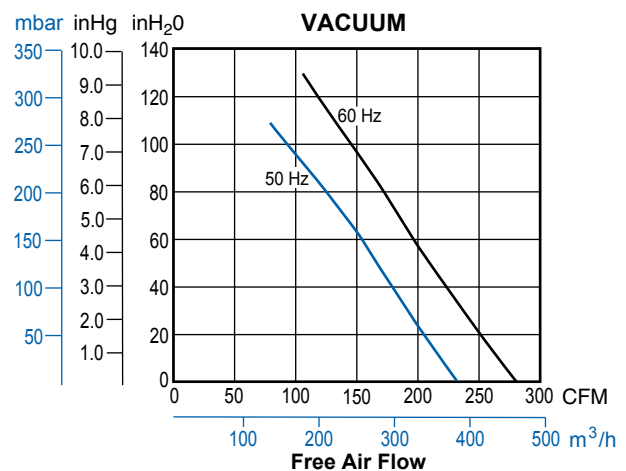
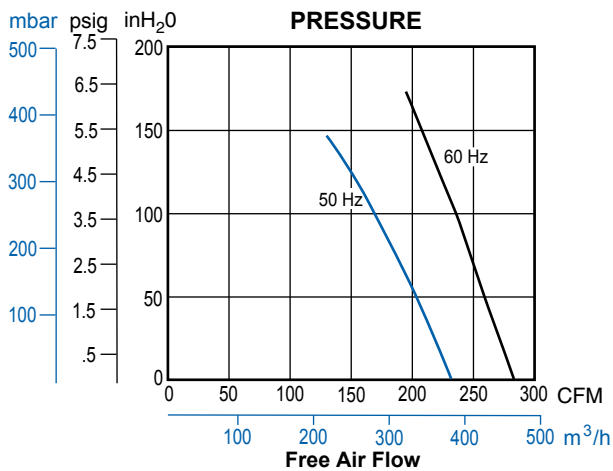
TOP VIEW



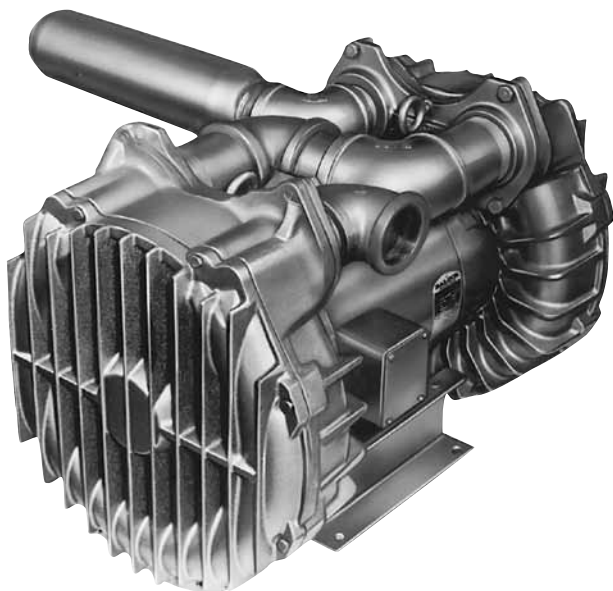
Product Specifications

MODEL NUMBER		R6PS3110M
Motor Enclosure		OPEN
HP/kW	60 Hz	11/8,2
	50 Hz	7/5,2
Voltage	60 Hz	208-230/460-3
	50 Hz	220/380-415-3
Amps	60 Hz	36-35/17.5
	50 Hz	32/15.5-13
Starting Amps	60 Hz	181 @ 460V
	50 Hz	176 @ 380V
Insulation Class		F
Recommended NEMA Starter Size		2/2
Net Weight (lbs/kg)		309/140

Product Performance



High Pressure Models



Model R7S3180M (staged)

Max. pressure – 200 inH₂O (60 Hz), 170 inH₂O (50 Hz)

Max. vacuum – 150 inH₂O (60 Hz), 130 inH₂O (50 Hz)

Max. air flow – 430 CFM (60 Hz), 350 CFM (50 Hz)

PRODUCT FEATURES

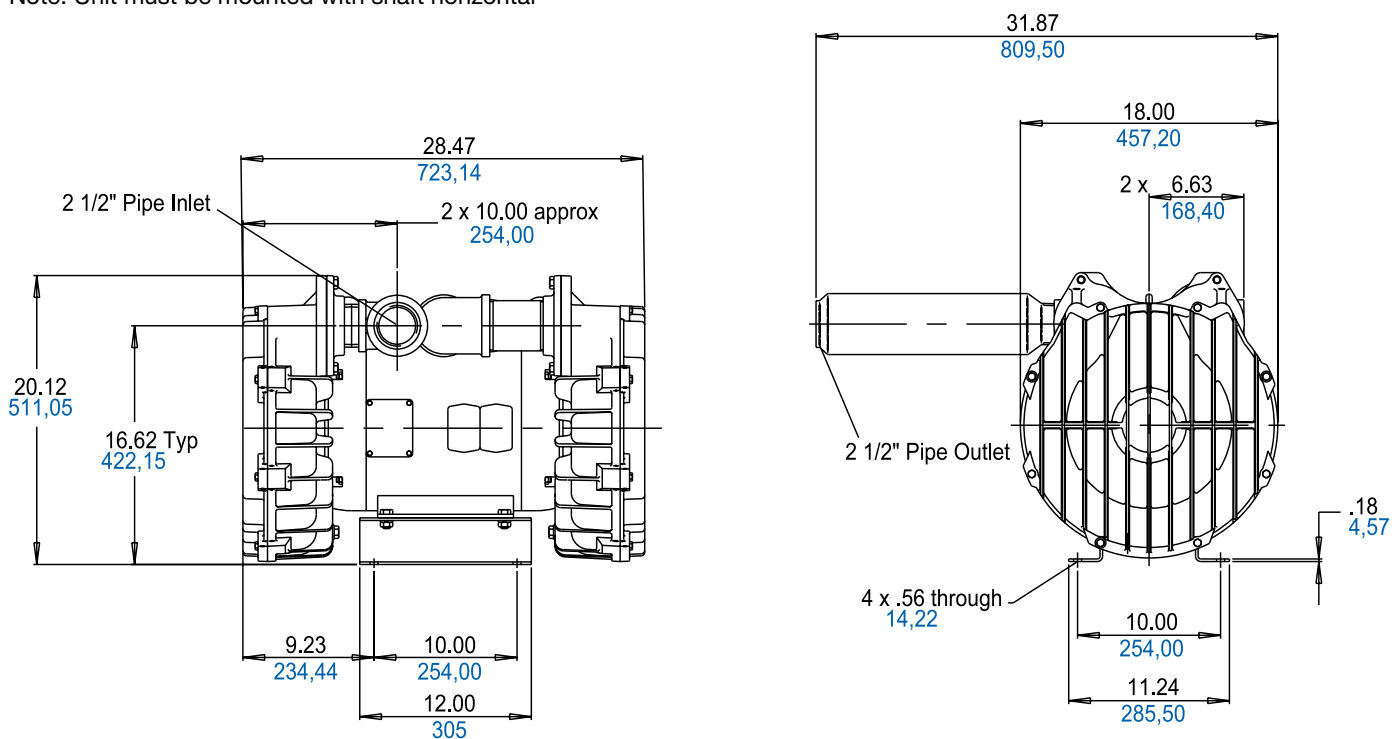
- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved motor with permanently sealed ball bearings
- Cast iron blower housing and cover. Cast aluminum impeller
- Includes external muffler for additional silencing AJ121G

RECOMMENDED ACCESSORIES

- Pressure gauge AE133A
- Inlet filter AJ126G (pressure)
- Vacuum gauge AE134
- Vacuum gauge for monitoring inlet filter restriction AJ497
- Pressure/vacuum relief valve AG258F
- Silencer for vacuum relief valve AJ121G
- Inline filter AJ151H (vacuum)
- Liquid separator RMS400 (for vacuum line)

Product Dimensions (inches, mm)

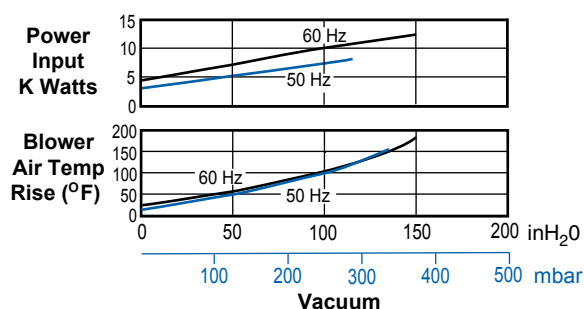
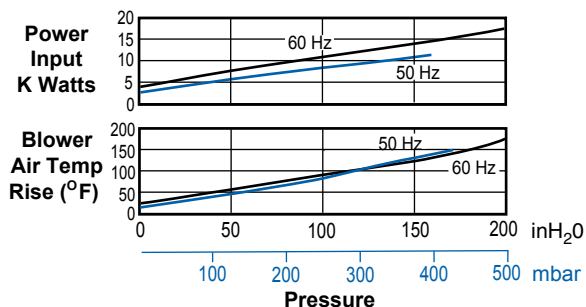
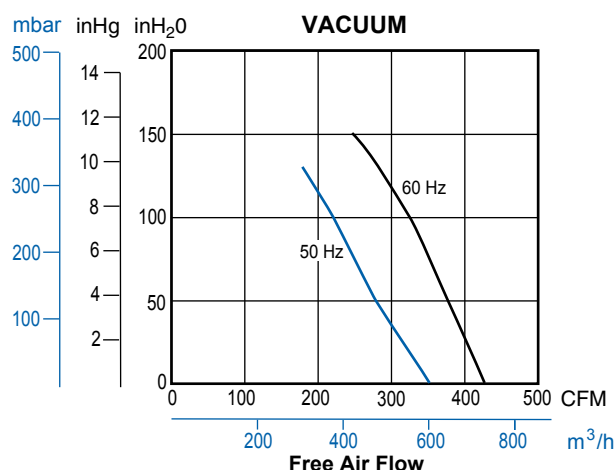
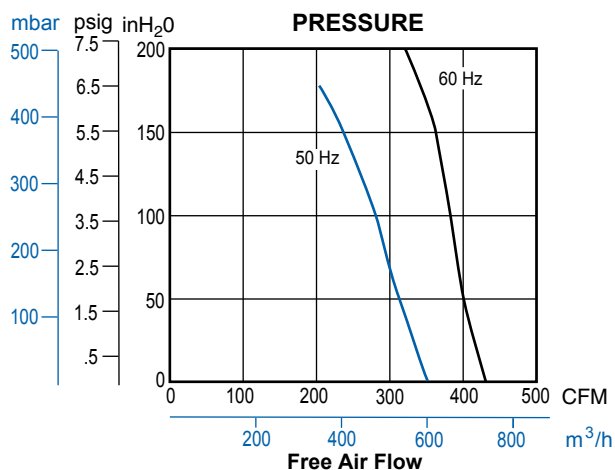
Note: Unit must be mounted with shaft horizontal



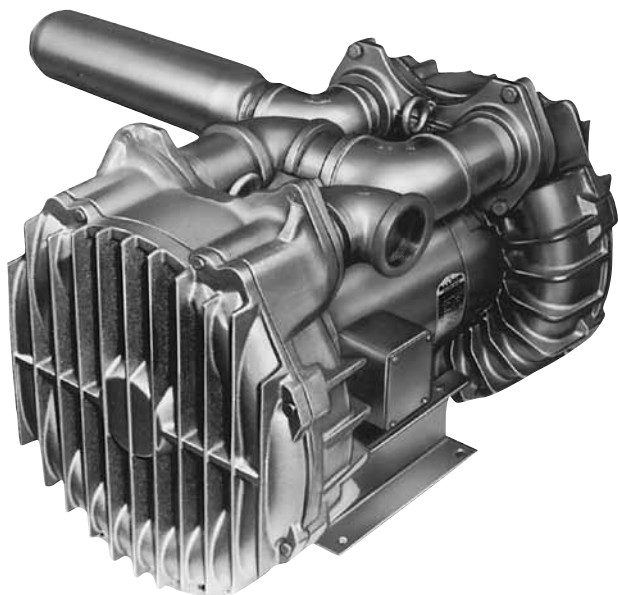
Product Specifications

MODEL NUMBER		R7S3180M
Motor Enclosure		ODP
HP/kW	60 Hz	18/13,4
	50 Hz	12/9
Voltage	60 Hz	230/460-3
	50 Hz	190-220/380-440-3
Amps	60 Hz	52/26
	50 Hz	52-45/26-23
Starting Amps	60 Hz	238 @ 460V
	50 Hz	Consult Factory
Insulation Class		F
Recommended NEMA Starter Size		3/2
Net Weight (lbs/kg)		431/195,7

Product Performance



High Pressure Models



Model R9S3300M

Max. pressure – 222 inH₂O (60 Hz), 208 inH₂O (50 Hz)

Max. vacuum – 149 inH₂O (60 Hz), 142 inH₂O (50 Hz)

Max. air flow – 660 CFM (60 Hz), 585 CFM (50 Hz)

PRODUCT FEATURES

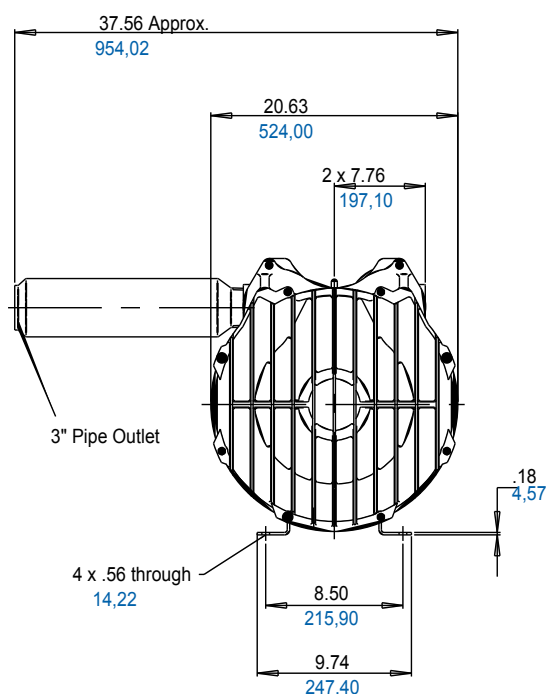
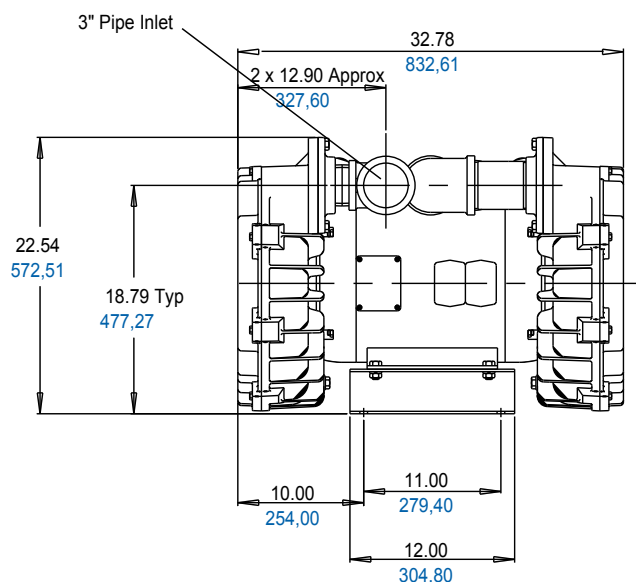
- Rugged construction, low maintenance
- Oilless operation
- UL and CSA approved motor with permanently sealed ball bearings
- Cast iron housing, cover and muffer enclosure. Cast aluminum impeller
- External muffer for additional silencing AJ121H
- Smaller and less costly than two motor-mounted units

RECOMMENDED ACCESSORIES

- Pressure gauge AE133F
- Inlet filter AJ126M (pressure)
- Vacuum gauge AE134
- Vacuum gauge for monitoring inlet filter restriction AJ497
- Pressure/vacuum relief valve AG258F
- Silencer for vacuum relief valve AJ121G
- Inline filter AJ151M (vacuum)

Product Dimensions (inches, mm)

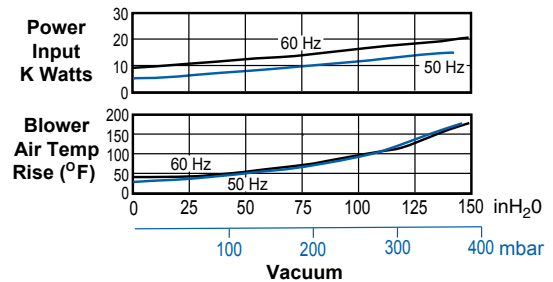
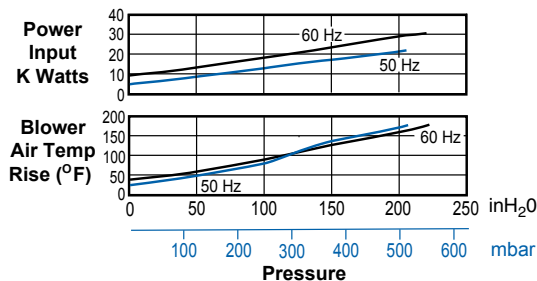
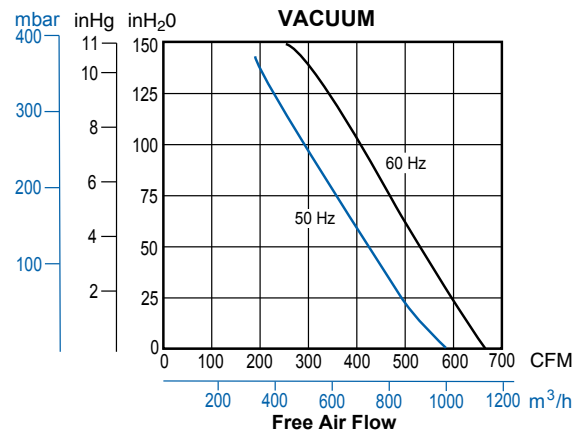
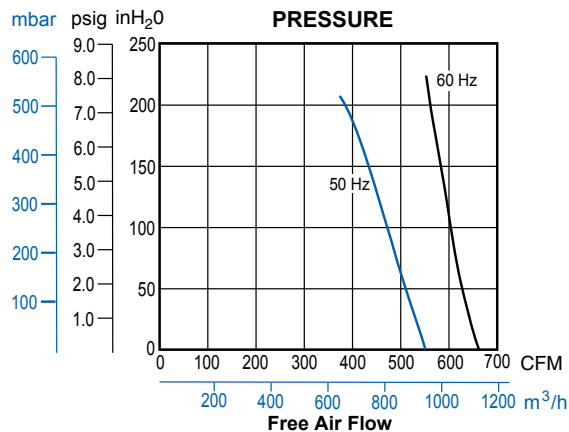
Note: Unit must be mounted with shaft horizontal



Product Specifications

MODEL NUMBER		R9S3300M
Motor Enclosure		ODP
HP/kW	60 Hz	30/22,3
	50 Hz	19/14,3
Voltage	60 Hz	230/460-3
	50 Hz	190-220/380-440-3
Amps	60 Hz	98/49
	50 Hz	82-47/41-39
Starting Amps	60 Hz	320 @ 460V
	50 Hz	308 @ 440V
Insulation Class		F
Recommended NEMA Starter Size		3/3
Net Weight (lbs/kg)		606,275

Product Performance



Explosion Proof Motors



R3105N-50



R4 - R7 Series

MODELS	Maximum Pressure (inH ₂ O)		Maximum Vacuum (inH ₂ O)		Maximum Air Flow (CFM)	
	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz
R3105N-50	43	31	40	28	53	44
R4110N-50 R4310P-50	51	38	48	35	92	74
R4P115N-50	65	45	60	40	133	112
R5125Q-50 R5325R-50	55	—	60	—	160	—
	65	50	65	47	160	133
R6130Q-50 R6340R-50	60	75	70	65	215	180
	100	75	80	65	215	180
R6P155Q-50 R6P355R-50	95	80	85	65	280	235
	100	80	85	65	280	232
R7100R-50	100	90	110	85	425	350

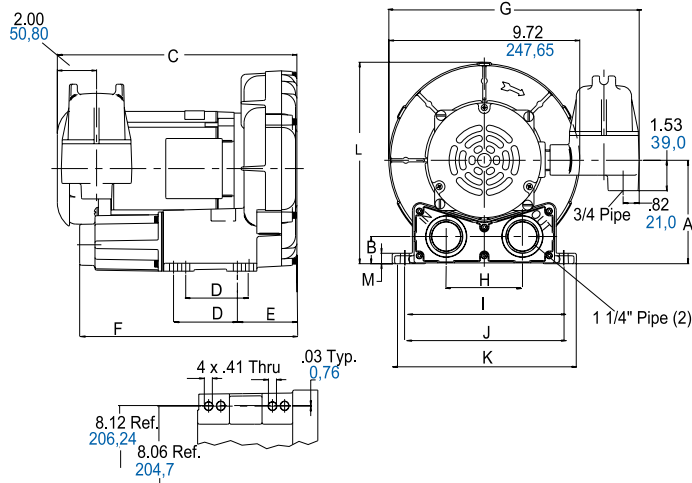
PRODUCT FEATURES

- Rugged design, maintenance free
- Quiet operation within OSHA standards
- Blowers and motors rated for continuous duty
- UL and CSA approved multi-voltage motors, incorporating approved thermal protection
- Motors classified as Explosion Proof Division 1 and 2, for Group D explosive atmospheres
- Motors carry full rated load at temperatures below Class B motor insulation limits
- Class F motor insulation used in motors larger than 1 HP
- Motors conform to NEMA frame sizes; motor enclosures conform to IP54 (suitable for outdoor use)
- Pilot duty thermal overload protection is standard on all 1 HP and larger motors
- Double sealed motor ball bearings with a B10 life exceeding 30,000 hours of continuous operation at the maximum rated continuous blower load
- Sealed air streams
- Aluminum impeller, housing, and cover; viton shaft seal
- Pressurized and leak-tested to less than 5 cc/minute

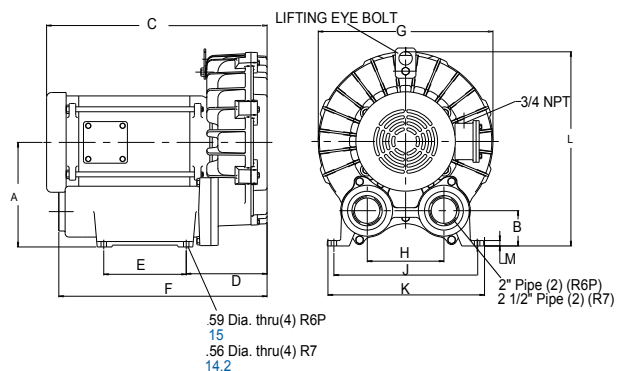
Recommended Accessories	R3 Series	R4 Series	R4P Series	R5 Series	R6 Series	R6P Series	R7 Series
Pressure Gauge	AJ496	AJ496	AE133	AE133	AE133	AE133	AE133
Vacuum Gauge	AJ497	AJ497	AE134	AE134	AE134	AE134	AE134
Pressure Filter	AJ126C	AJ126D	AJ126D	AJ126D	AJ126F	AJ126F	AJ126G
Vacuum Filter (Inline)	AJ151C	AJ151D	AJ151D	AJ151E	AJ151G	AJ151G	AJ151H

Product Dimensions (inches, mm)

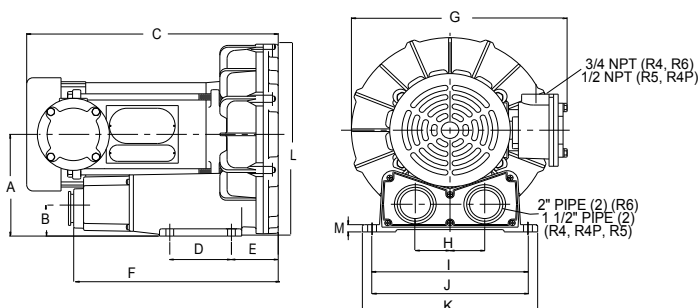
Model R3



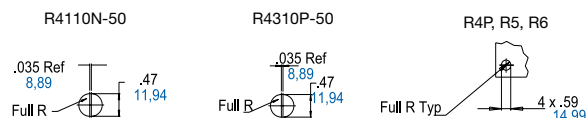
Models R6P, R7



Models R4, R4P, R5, R6



Mounting Hole Detail



Product Dimensions (inches, mm)

Model	A	B	C	D	E	F	G	H	I	J	K	L	M
R3105N-50	5.21 132	1.37 35	12.3 312	3.25 83	3.06 78	11.06 281	12.75 324	3.88 99	8.06 205	8.12 206	9.38 238	10.15 258	.53 13
R4110N-50	6.18 157	1.68 43	15.34 390	3.75 95	2.85 72	12.44 316	12.34 313	3.96 101	8.86 225	8.93 227	10.00 254	11.80 300	.44 11
R4310P-50	6.18 157	1.68 43	14.09 358	3.75 95	2.84 74	12.44 316	12.34 313	3.96 101	8.86 225	8.93 227	10.00 254	11.80 300	.44 11
R4P115N-50	6.98 177	1.84 47	17.41 442	4.50 114	3.25 83	13.93 354	13.75 349	4.75 121	10.25 260	10.31 262	11.75 298	13.61 346	.60 15
R5125Q-50	7.02 178	1.82 46	17.59 447	4.50 114	3.55 90	14.22 361	13.72 348	4.75 121	10.25 260	10.31 262	11.75 298	13.80 351	.59 15
R5325R-50	7.02 178	1.82 46	16.75 425	4.50 114	3.55 90	14.22 361	13.56 344	4.75 121	10.25 260	10.31 262	11.75 298	13.80 351	.59 15
R6130Q-50	7.75 197	1.94 49	18.97 482	5.50 140	3.85 98	16.02 407	15.17 385	4.92 125	11.38 289	11.42 290	12.96 329	15.34 390	.52 13
R6340R-50	7.75 197	1.94 49	18.82 478	5.50 140	3.85 98	15.89 404	15.17 385	4.92 125	11.38 298	11.42 290	12.96 329	15.34 390	.52 13
R6P155Q-50	9.77 248	3.15 80	22.81 579	5.12 130	5.51 140	16.85 428	16.75 425	5.00 127	- -	11.42 290	12.80 325	18.14 461	.50 13
R6P355R-50	9.77 248	3.15 80	19.92 506	5.12 130	5.51 140	16.85 428	16.75 425	5.00 127	- -	11.42 290	12.80 325	18.14 461	.50 13
R7100R-50	10.79 274	3.64 92	22.77 578	8.36 212	8.50 216	21.50 546	18.00 457	7.90 201	- -	14.76 375	16.14 410	20.03 509	.56 14

Notice: Specifications subject to change without notice.

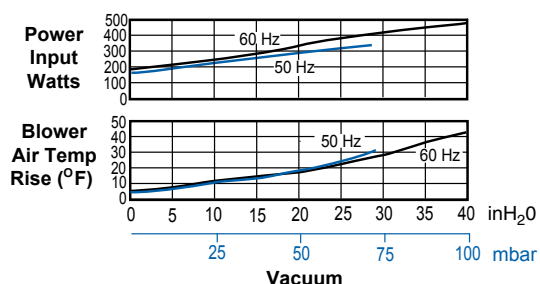
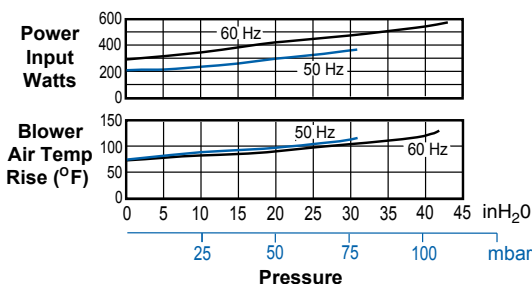
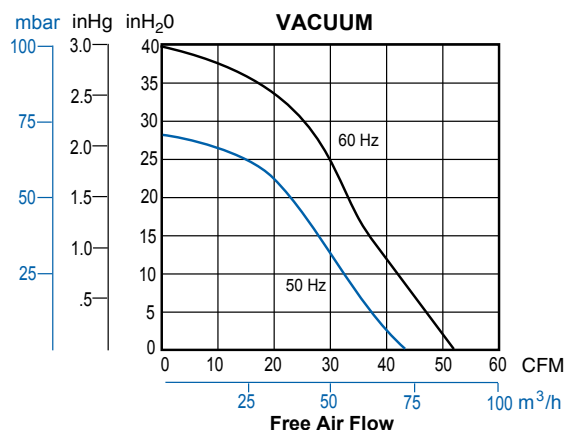
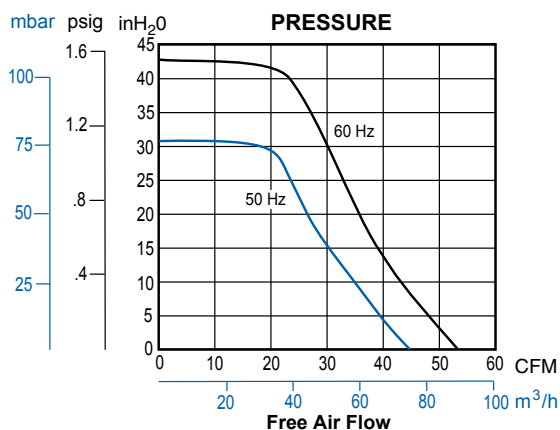
Product Specifications

MODEL NUMBER		R3105N-50	R4110N-50	R4310P-50	R4P115N-50
Motor Enclosure		XPFC	XPFC	XPFC	XPFC
HP/kW	60 Hz	.50/0,37	1.0/0,75	1.0/0,75	1.5/1,1
	50 Hz	.33/0,25	.60/0,45	.60/0,45	1.0/0,75
Voltage	60 Hz	115/208-230-1	115/208-230-1	208-230/460-3	115/208-230-1
	50 Hz	110/220-240-1	110/220-240-1	220/380-3	110/220-240-1
Amps	60 Hz	5.2/2.9-2.6	11.4/6.2-5.6	3.4-3.3/1.6	20.3/11.2-10.6
	50 Hz	4.8/2.4-2.2	9.2/5.2-4.6	3.2/1.6	15.2/7.6-8
Starting Amps	60 Hz	12.5 @ 230V	36.5 @ 230V	19.7 @ 230V	60.6 @ 230V
	50 Hz	13 @ 220V	40.6 @ 240V	23.3 @ 220V	Consult Factory
Insulation Class		B	B	B	F
Recommended NEMA Starter Size		00/00	0/00	0/0	1/0
Net Weight (lbs/kg)		52/24	60/28	58/27	79/36

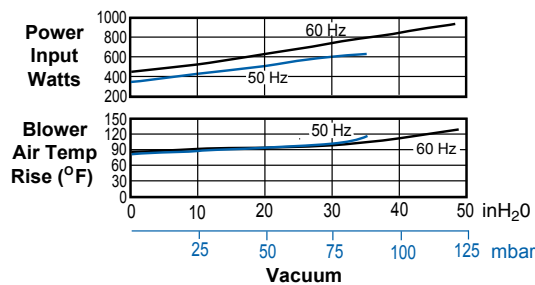
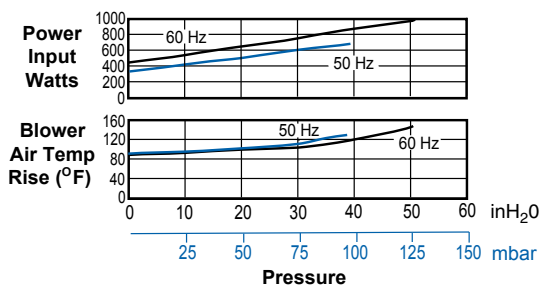
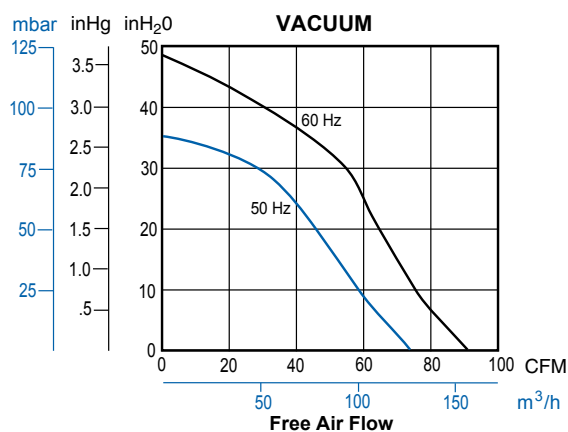
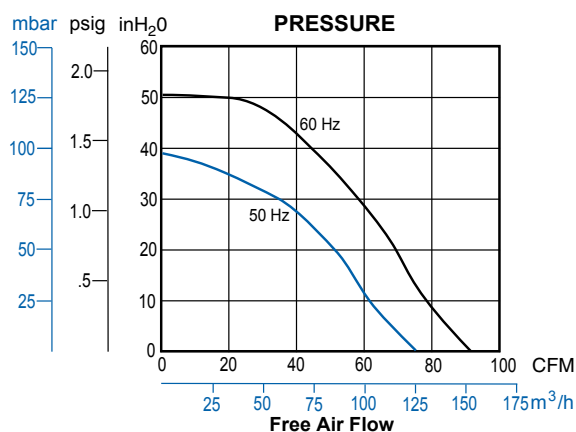
MODEL NUMBER		R5125Q-50	R5325R-50	R6130Q-50	R6340R-50
Motor Enclosure		XPFC	XPFC	XPFC	XPFC
HP/kW	60 Hz	2.0/1,5	2.0/1,5	3.0/2,2	4.0/3,0
	50 Hz	-	1.5/1,1	2.5/1,9	3.0/2,2
Voltage	60 Hz	115/230-1	208-230/460-3	230-1	208-230/460-3
	50 Hz	-	190-220/380-415-3	220-240-1	190-220/380-415-3
Amps	60 Hz	25/12.5	6.6-6.1/3.05	16.3	13-12/6
	50 Hz	-	5.0-4.4/2.5-2.6	14.7-13.5	14.4-13.4/7.2-6.8
Starting Amps	60 Hz	78 @ 230V	48 @ 230V	64 @ 230V	125 @ 230V
	50 Hz	-	Consult Factory	Consult Factory	Consult Factory
Insulation Class		F	F	F	F
Recommended NEMA Starter Size		1/0	0/0	1	1/0
Net Weight (lbs/kg)		77/35	75/34	129/59	112/51

MODEL NUMBER		R6P155Q-50	R6P355R-50	R7100R-50
Motor Enclosure		XPFC	XPFC	XPFC
HP/kW	60 Hz	5.5/4,1	6.0/4,5	10/7,5
	50 Hz	4.0/3,0	4.5/3,4	8.0/6,0
Voltage	60 Hz	230-1	208-230/460-3	208-230/460-3
	50 Hz	220-240-1	190-220/380-415-3	190-220/380-415-3
Amps	60 Hz	29.9	20-18/9	26.5-24/12
	50 Hz	20.8-19.1	14.9-11/7.45-5.8	23.2-21.0/11.6-10.9
Starting Amps	60 Hz	198.4 @ 230V	59 @ 460V	105 @ 460V
	50 Hz	189 @ 240V	Consult Factory	Consult Factory
Insulation Class		F	F	F
Recommended NEMA Starter Size		0/2	1/0	2/1
Net Weight (lbs/kg)		243/110	233/105	297/134

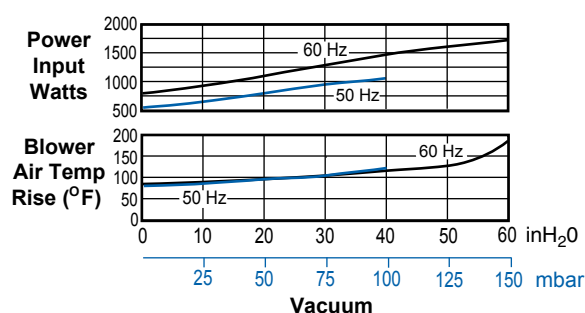
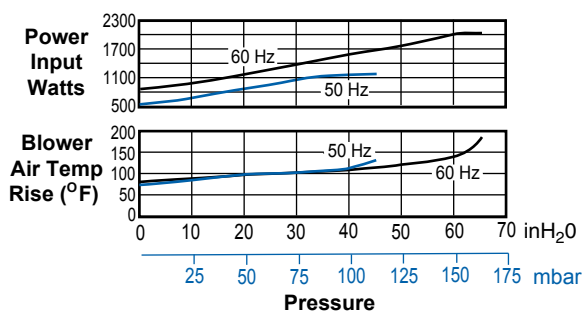
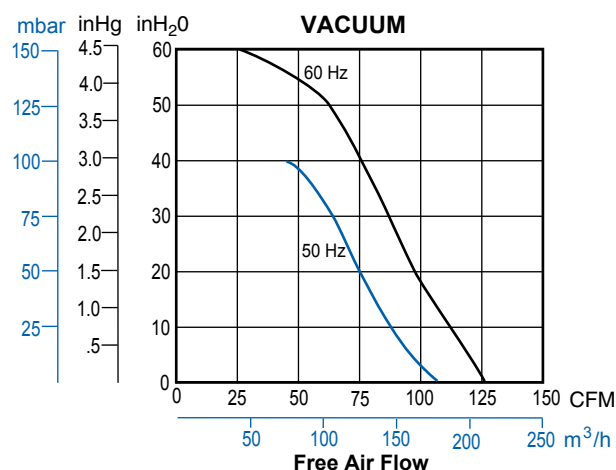
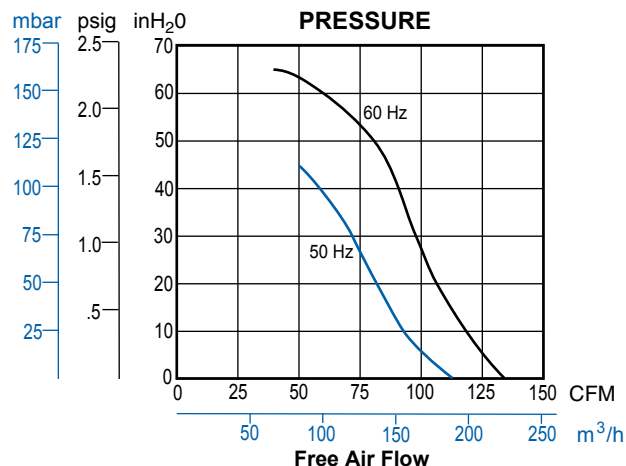
R3105N-50



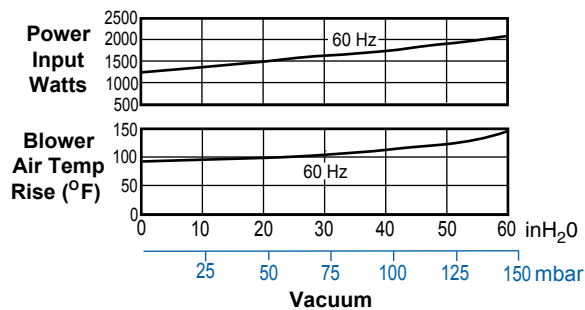
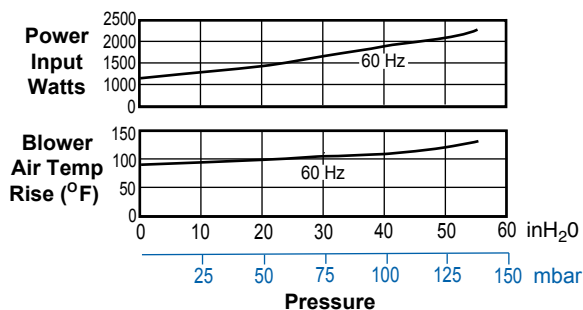
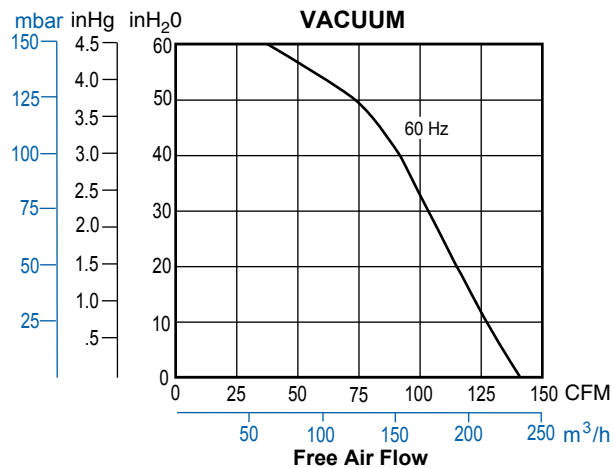
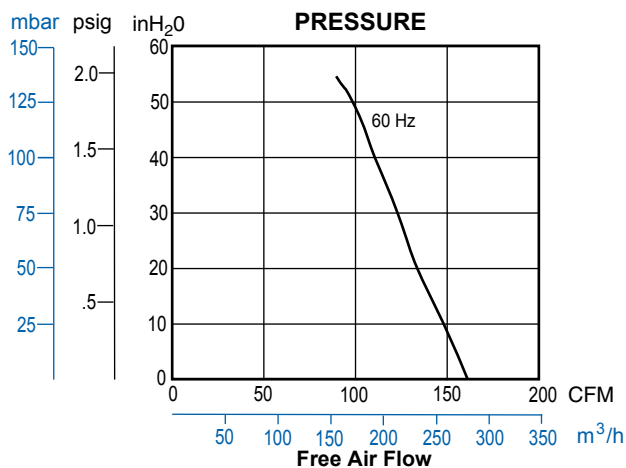
R4110N-50/R4310P-50



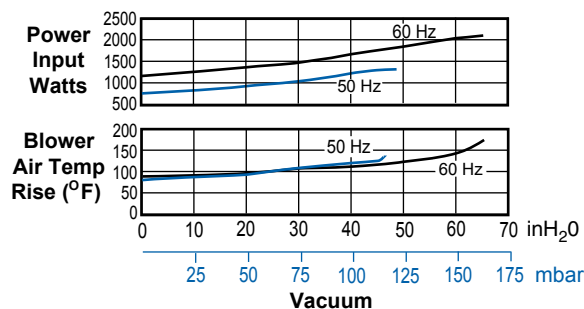
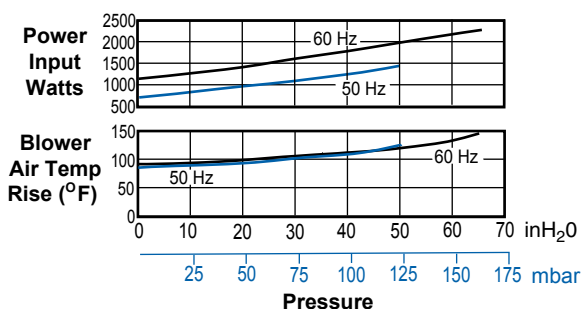
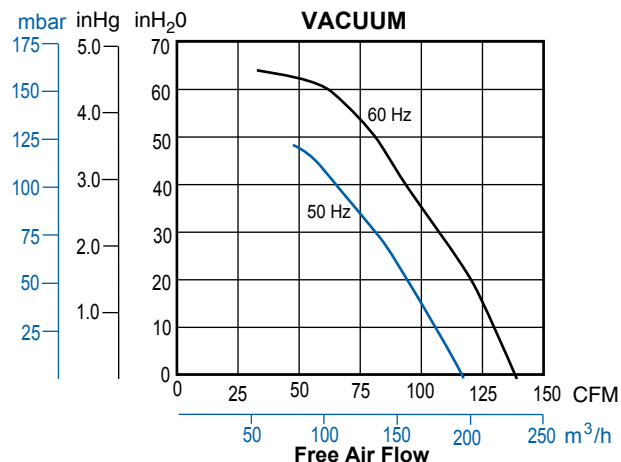
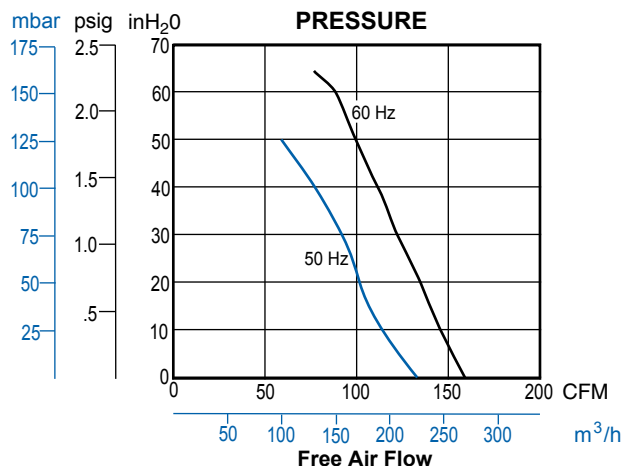
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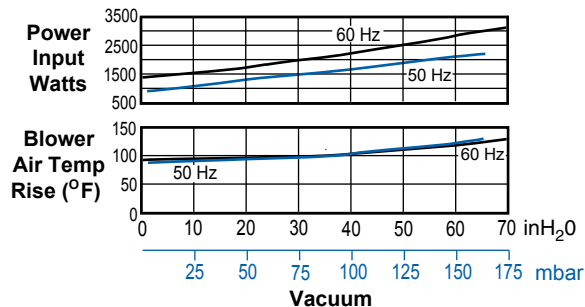
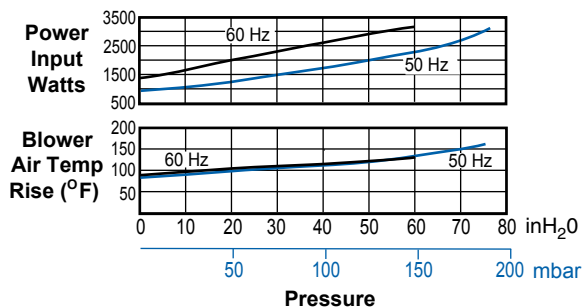
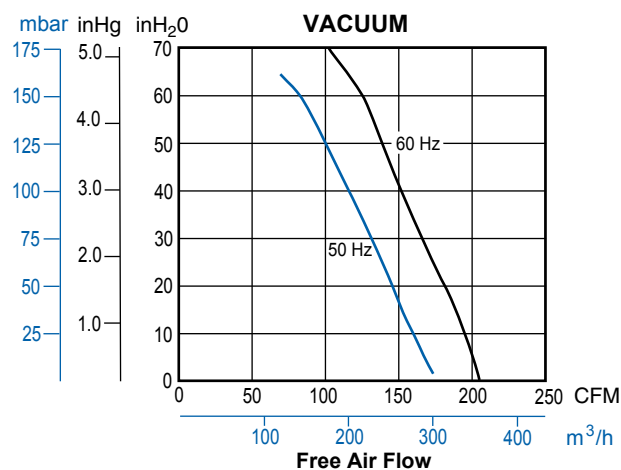
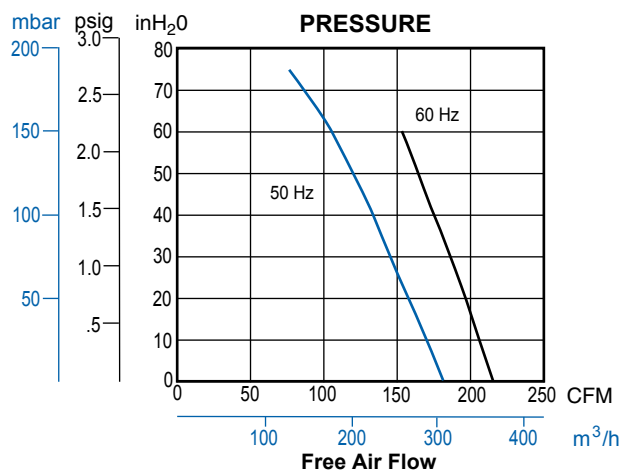
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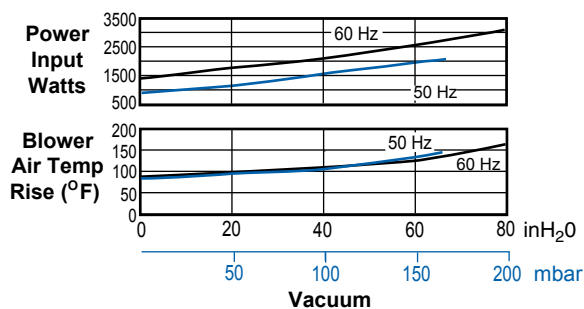
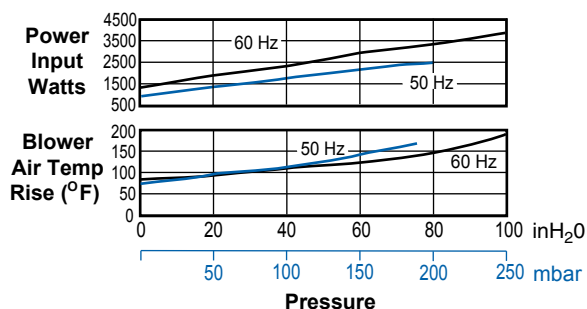
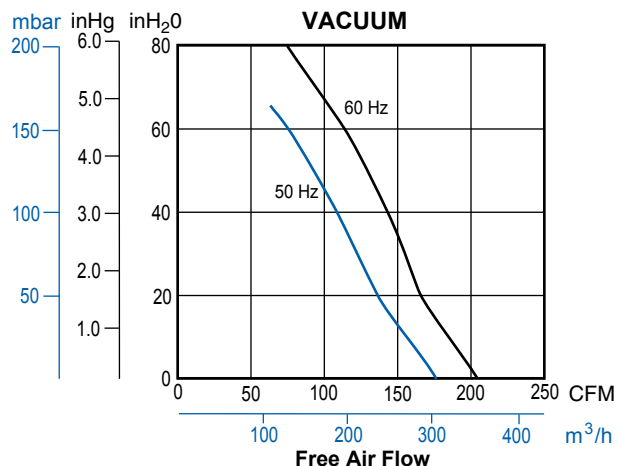
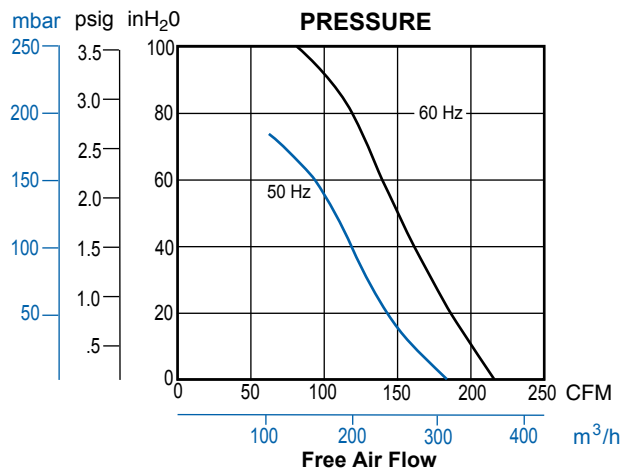
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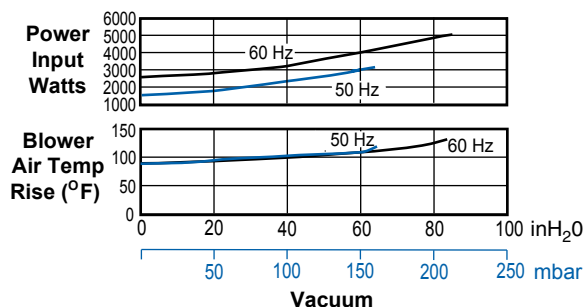
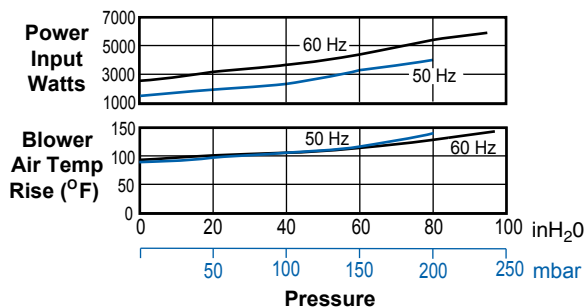
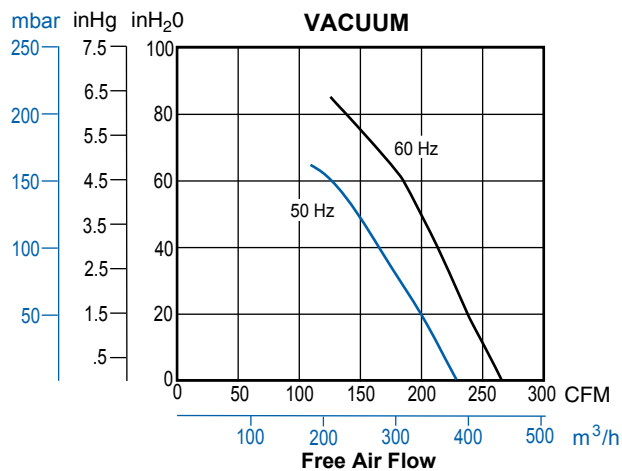
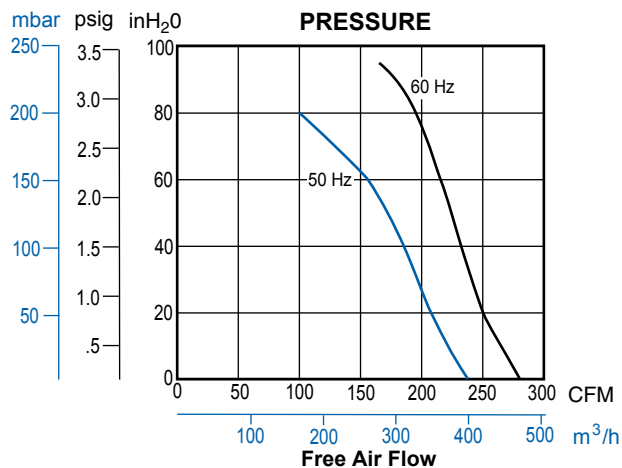
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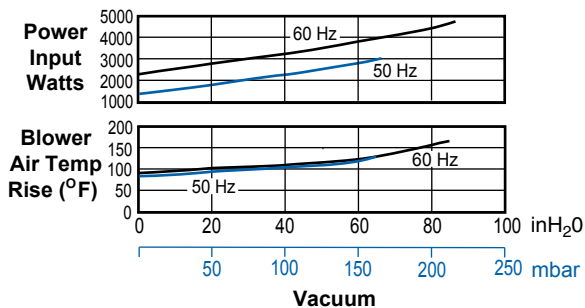
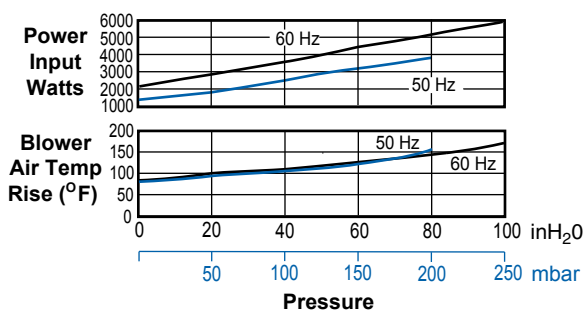
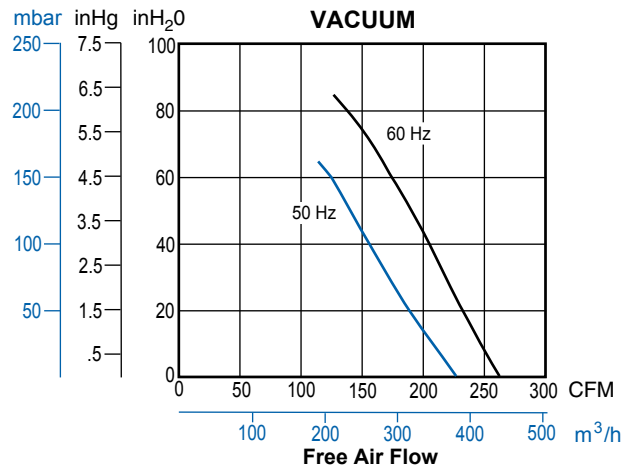
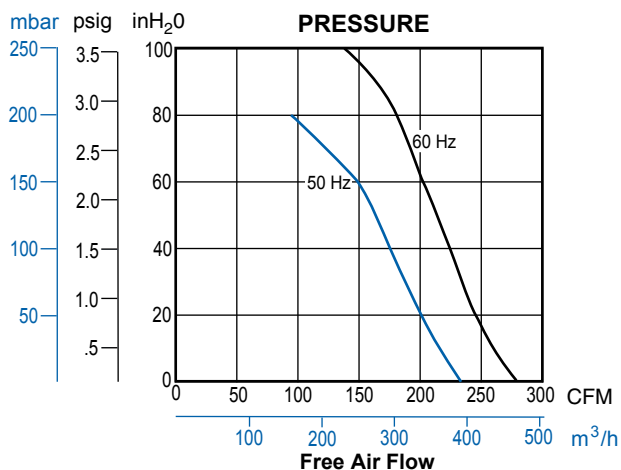
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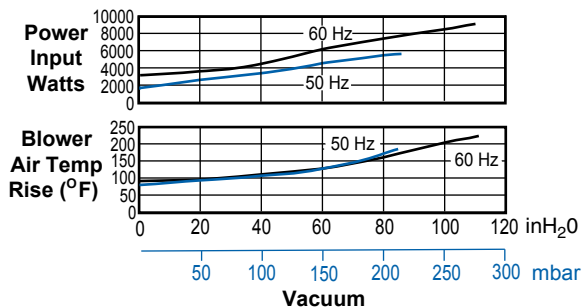
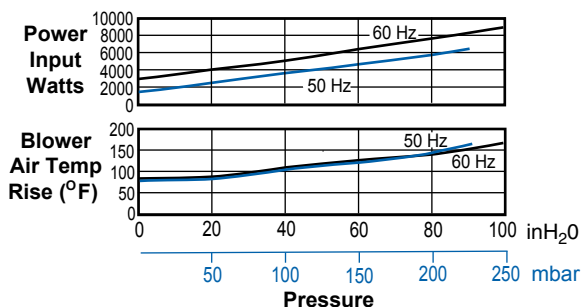
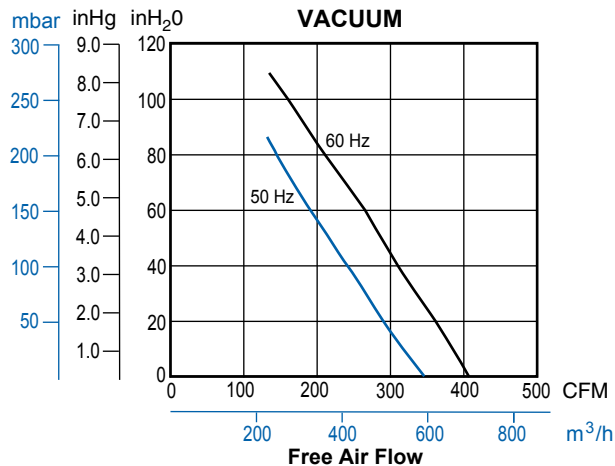
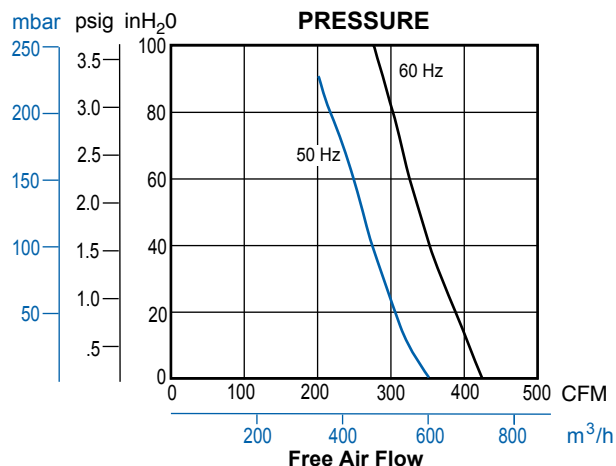
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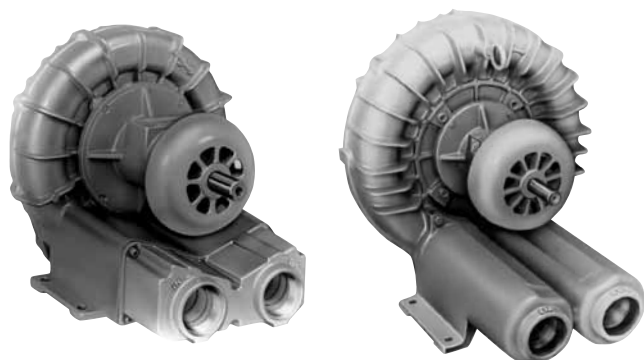


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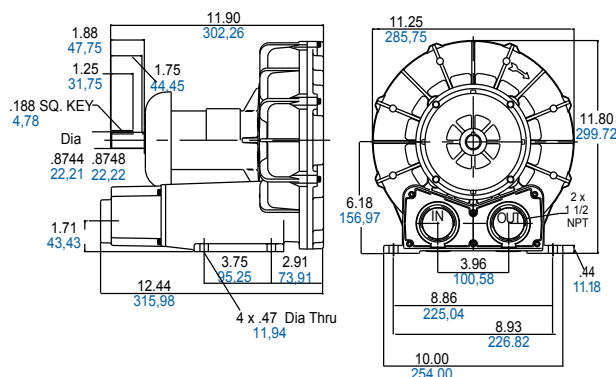
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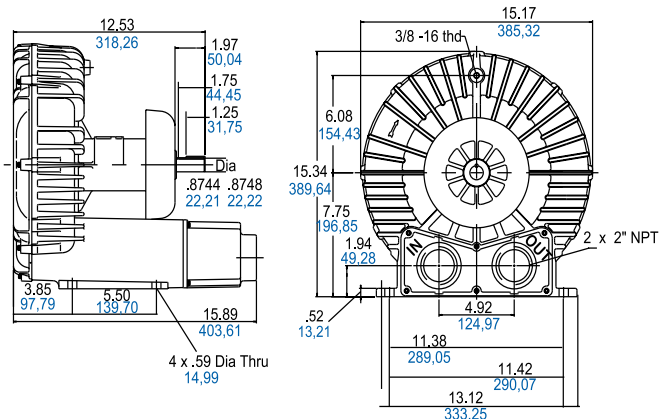
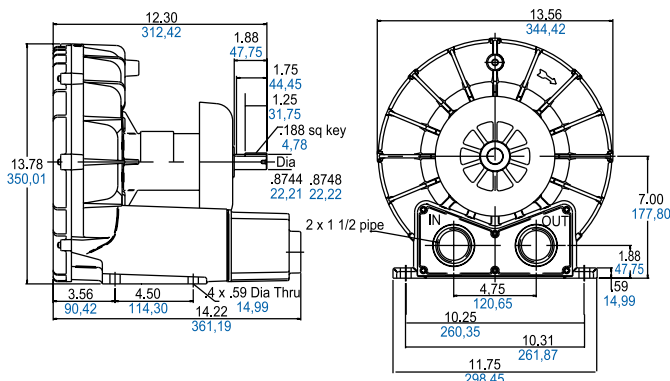


Product Dimensions (inches, mm)

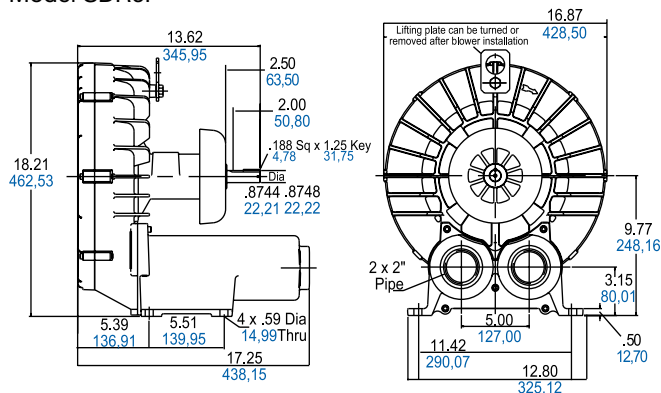
Model SDR4



Model SDR5



Model SDR6P



Separate Drive Models Models SDR4, SDR5, SDR6, SDR6P

Pressure, vacuum, and air flow varies for these models, depending on the RPM. Reference the individual model's performance grids for specific data. The performance charts below reflect maximum duty for each model.

MODELS	Maximum Pressure (inH ₂ O)	Maximum Vacuum (inH ₂ O)	Maximum Air Flow (CFM)
SDR4	110	90	147
SDR5	152	120	240
SDR6	155	135	300
SDR6P	150	125	360

PRODUCT FEATURES

- Oilless operation
- Rugged construction, low maintenance
- Drive pulley size can be changed to lower the speed and change blower performance
- Aluminum cover, impeller, and housing on models SDR4, SDR5, SDR6
- Aluminum impeller, cast iron, and housing on model SDR6P

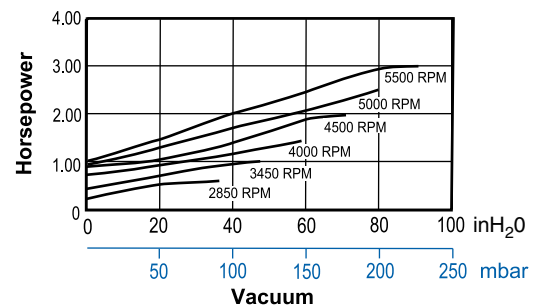
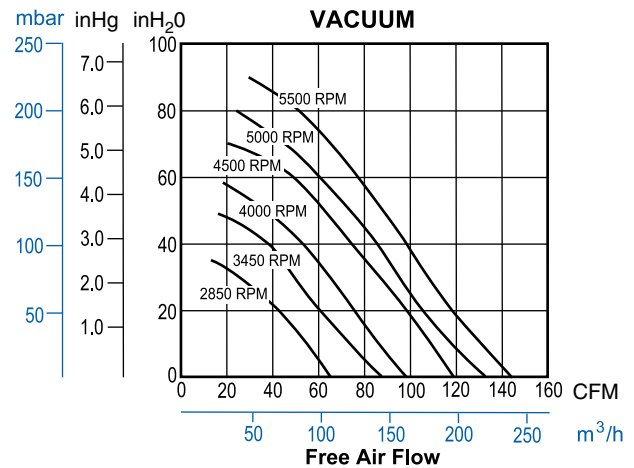
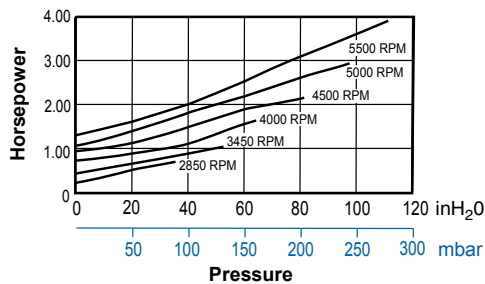
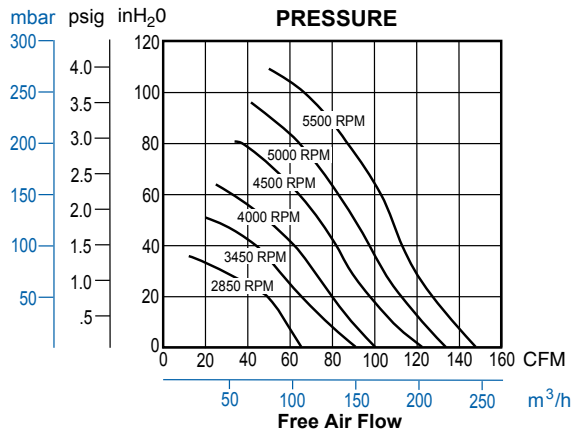
RECOMMENDED ACCESSORIES

- Pressure gauge AE133
- Inlet filter AJ126D (SDR4)
- AJ126F (SDR5 - SDR6)
- AJ126G (SDR6P)
- Vacuum gauge AE134
- Vacuum in-line filter AJ151E (SDR4)
- AJ151G (SDR5 - SDR6), AJ151H (SDR6P)
- Muffler AJ121D (SDR4, SDR5)
- AJ121F (SDR6, SDR6P)
- Relief valve AG258

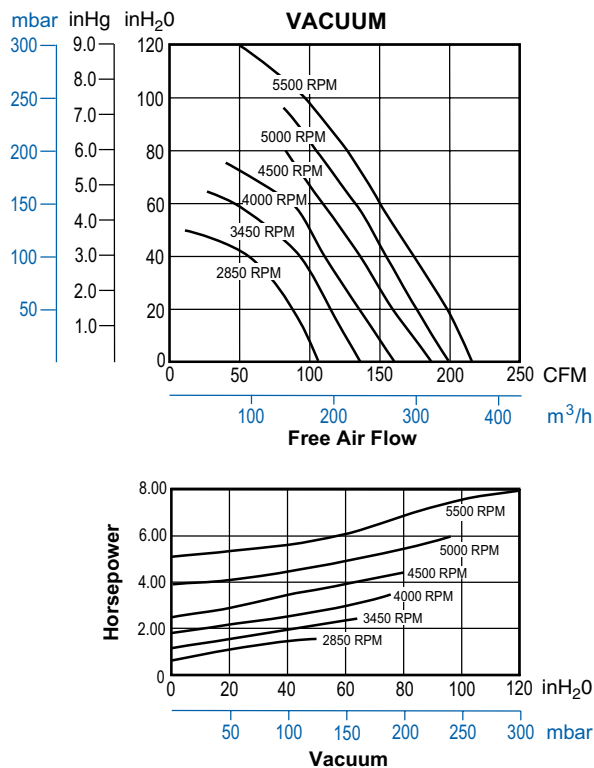
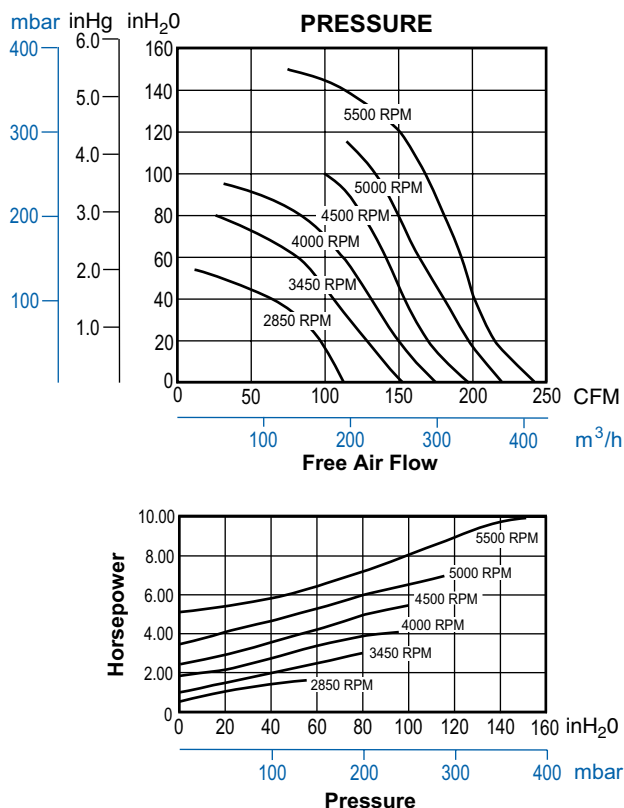
Product Specifications

MODEL NUMBER	SDR4	SDR5	SDR6	SDR6P
Maximum RPM	5500	5500	5500	4500
HP/kW required at maximum RPM and Vacuum	3/2,2	8/6	11.5/8,6	10.6/7,9
HP/kW required at maximum RPM and Pressure	4/3	10/7,5	15/11,1	15/11,1
Net Weight (lbs/kg)	27/12	37/17	70/32	111/50

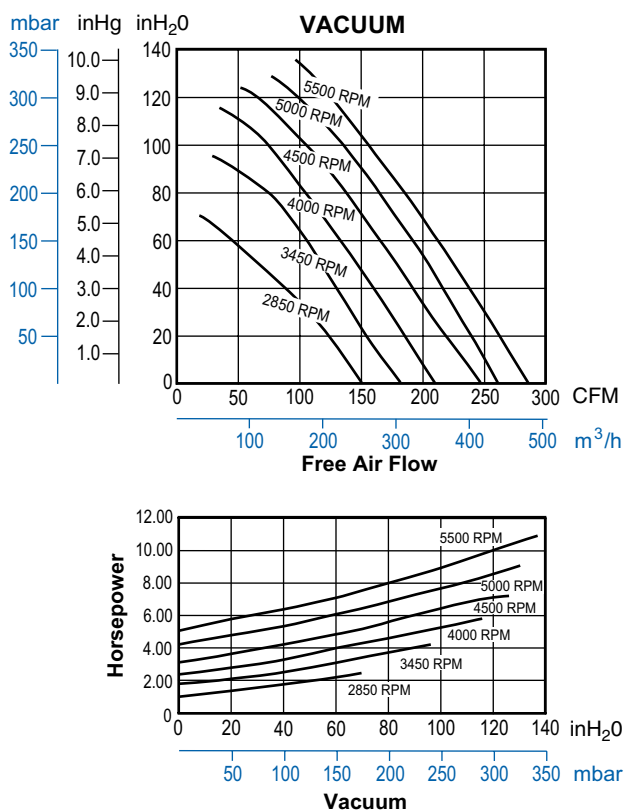
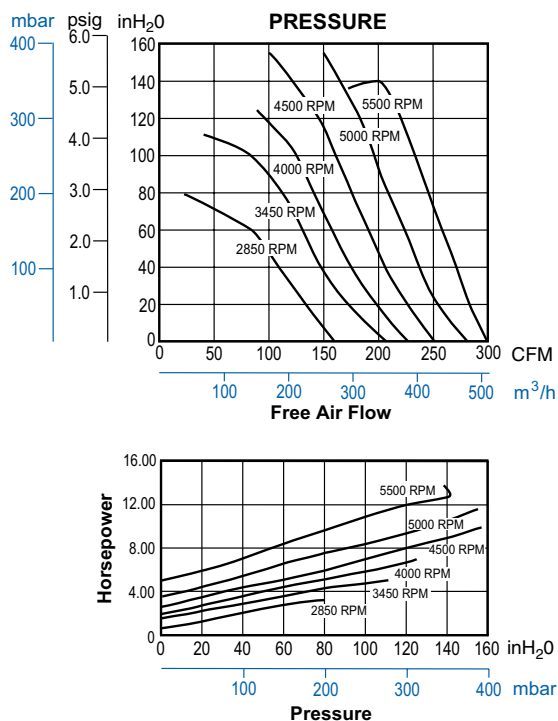
SDR4



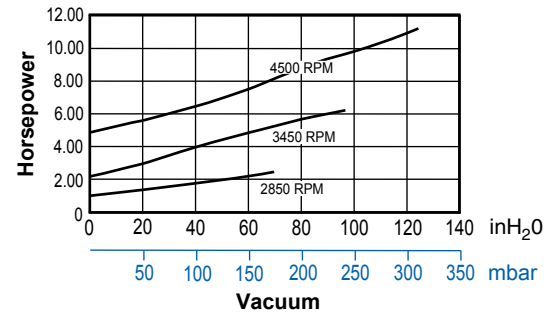
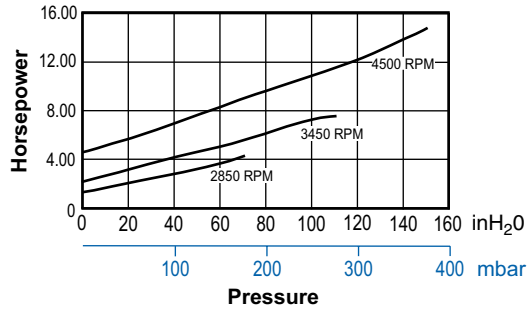
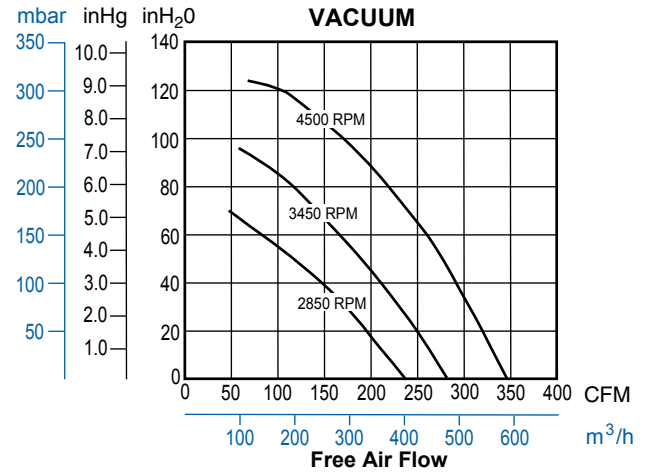
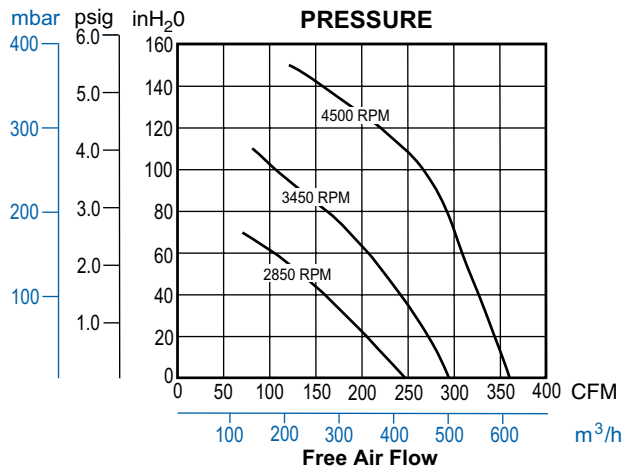
SDR5



SDR6



SDR6P

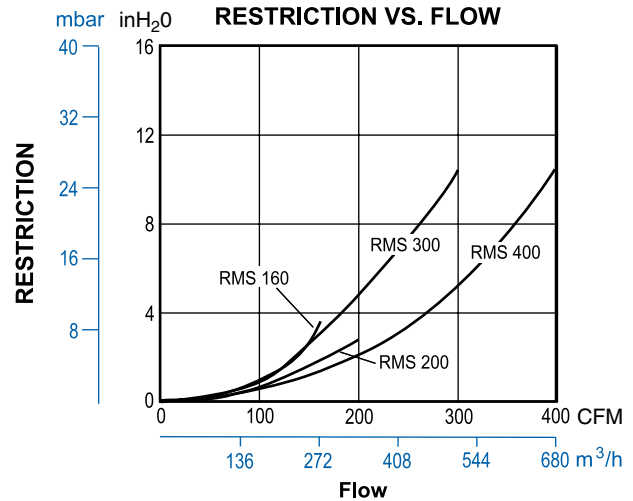


Regenair® Liquid Separator

The separator removes liquids from the gas stream in a soil vapor extraction process, to help protect both blower and vapor treatment system from corrosion and mineral deposit buildup. The separator is located between the extraction wells and the blower. An inline filter is installed between separator and blower.



Cut away to show ball float. Above model shows optional explosion proof float switch AJ213

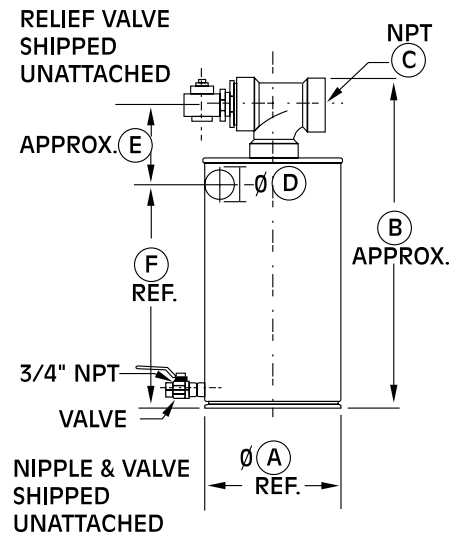


Specifications

Practical Design Engineered to remove and contain moisture ranging from a fine mist to slugs of water from blower inlet air streams, Gast separators incorporate a cyclonic action which results in a very high degree of efficiency. A floating ball valve which closes when the liquid level becomes too high prevents collected liquid from overflowing back into the air stream. When the float valve closes an integral vacuum relief valve opens, admitting air to cool the blower and prevent overheating.

Rugged Construction Gast separator drums are made from ribbed heavy gauge cold-rolled steel, with heavy steel inlet, drain and float switch ports welded to the drum wall. Drum interiors are epoxy coated to resist abrasion, corrosion and chemicals, while the drum exterior is coated with durable urethane. For ease of connection, the outlet port of female pipe threaded. The heavy-duty 304 stainless steel ball float resists chemicals. Maximum rated vacuum is 22 inHg (299 inH₂O).

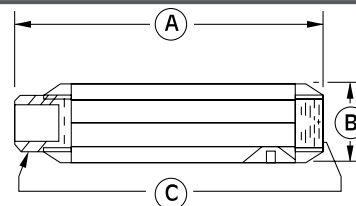
Included is a pilot operated precision relief valve capable of functioning over a wide duty range. This vacuum relief valve is designed and built to proven reliability and durability standards. Moving parts are nickelplated for corrosion resistance and smooth operation. Explosion proof AJ213 float switch is optional; single pole double throw, electrical rating 5 amp @ 125/250 VAC, 1" NPT mounting.



Part No.	Liq. Cap.(gal.)	A(dia.)	Dim. B	C(NPT)	D(dia.)	Dim. E	Dim. F	Used On
RMS160	10	14.8"	37.5"	2"	2"	7.5"	26.6"	R3, R4, R5
RMS200	19	19.7"	35"	2"	2"	7.5"	26.6"	R4, R4H, R4P, R5
RMS300	19	19.7"	35"	2.5"	2.5"	7.5"	26.6"	R4H, R4M, R5, R6, R6P, R6PS, R7H
RMS400	40	24"	44"	3"	3"	9.7"	29"	R6PP, R4M, R6, R6P, R7, R7S, R7P, R7H, R9, R9S

Mufflers

Designed to reduce noise by 5-8 dBA and remove high frequency sound associated with all blowers.



Part No.	Dim. A	Dim. B	Dim. C	Used On
AJ121B	7.46"	2.38"	1" NPT	R1, R2
AJ121C	7.94"	2.62"	1 1/4" NPT	R3
AJ121D	12.75"	3.25"	1 1/2" NPT	R4, R5, R4P, R4H, R7
AJ121F	17.05"	3.63"	2" NPT	R4H, R6, R6P, R6PP, R6PS
AJ121G	17.44"	4.25"	2 1/2" NPT	R7, R7P, R7S,
AJ121H	20.25"	4.75"	3" NPT	R6PP (Exhaust), R9, R9P, R9S
AJ121M	33.50"	6.00"	4" NPT	R7P (Exhaust)

Pressure-Vacuum Gauge

To monitor the system performance so maximum duties are not exceeded. Using two gauges (one on each side of the filter) is a great way to know when the filter needs servicing.

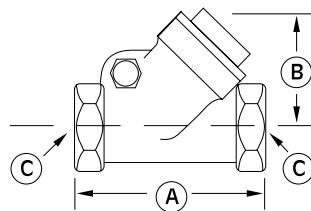


Part No.	Used On
AJ497 Vacuum gauge	0-60 inH ₂ O, 1/4" NPT connection R1, R2, R3, R4 R4H, R4P, R5, R7, R7P, R7S, R9, R9P, R9S
AE134 Vacuum gauge	0-160 inH ₂ O, 1/4" NPT connection R4P, R6PP, R6PS, R6P, R4M, R6, R7, R7S, R7P, R9, R9P, R9S
AE134F Vacuum gauge	0-15 inHg, 1/4" NPT connection R4H,
AE133 Pressure gauge	0-160 inH ₂ O, 1/4" NPT connection R6PP, R6P, R5, R4P, R6, R7P, R9, R9P
AE133A Pressure gauge	0-200 inH ₂ O, 1/4" NPT connection R6PS, R7, R7S
AE133F Pressure gauge	0-15 psi, 1/4" NPT connection R4H, R9S
AJ496 Pressure gauge	0-60 inH ₂ O, 1/4" NPT connection R1, R2, R3, R4

Check Valve

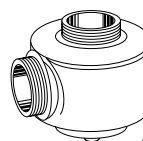
Designed to prevent back-wash of fluids that would enter the blower. Also prevents air back-streaming if needed. Can be mounted with discharge either vertical or horizontal. Valve will open with 3" of water pressure.

Part No.	Dim. A	Dim. B	Dia. C
AH326B	3.57"	2.32"	1" NPT
AH326C	4.19"	2.69"	1 1/4" NPT
AH326D	4.50"	2.94"	1 1/2" NPT
AH326F	5.25"	3.82"	2" NPT

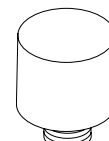


Relief Valve

By setting a relief valve at a given pressure/vacuum you can ensure excessive duties will not harm the blower or products in your application.



AG258 Series



PV Series

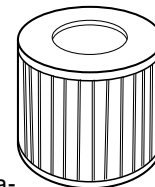
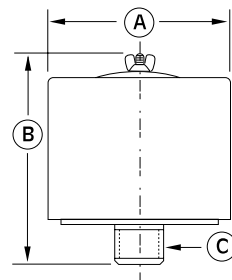
Part No.	Used On
AG258 Relief valve	1-1/2" NPT adjustable 30-200 inH ₂ O, vac. or press., 200 CFM max. R4, R4H, R4P, R5, R6, R6P, R6PS, R7
AG258F Relief valve	2-1/2" NPT adjustable 25-200 inH ₂ Os, vacuum or pressure, 570 CFM R6PP, R7P, R7S, R9, R9P, R9S
PV102 Relief valve	For pressure, pre-set for 10.2 psi, 1-1/4" NPT connection (60 Hz) R4H

Filters

Inlet filters (for pressure)

Part No.	Dim. A	Dim. B	Dim. C	Filter Replacement	Used On
AJ126B	6.00"	4.62"	1" MPT	AJ134B (10 micron)	R1, R2
AJ126C	6.00"	7.12"	1 1/4" MPT	AJ134C (10 micron)	R3
AJ126D	7.70"	7.25"	1 1/2" MPT	AJ134E (10 micron)	R4, R4H, R4P, R5
AJ126F	10.63"	4.81"	2" MPT	AG340 (10 micron)	R6, R6P, R6PS, R6PP, R9
AJ126G	10.00"	13.12"	2 1/2" MPT	AJ135A (10 micron)	R7, R7P,
AJ126L	10.00"	14.62"	4" MPT	AJ135C (10 micron)	Consult factory
AJ126M	16.00"	14.62"	5" MPT	AJ135H (10 micron)	Consult factory

MPT = Male Pipe Thread. FPT = Female Pipe Thread. All are heavy-duty for high amounts of particulates.
Inlet filters for REGENAIR® blowers are drip-proof when mounted as shown.



Filters

In locations where there are high amounts of dust, powder, or dirt suspended in the air, inline filters (for vacuum applications) and inlet filters (pressure applications), should be used. Keeping particulates from entering the blower will ensure smooth operation and trouble free service life.

Inline filters (for vacuum)

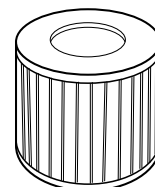
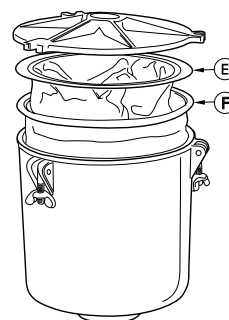
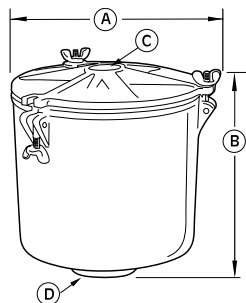
AV series

Part No.	Dim. A	Dim. B	Dim. C	Dim. D	Used On
AV460	8 1/4"	8 7/8"	1" FPT	1" FPT	R1, R2
AV460C	8 1/4"	8 7/8"	1 1/4" FPT	1 1/4" FPT	R3

Replacement elements for AV460 and AV460C:

AV463A - Cloth bag, 50 micron, sold in 3 pack (letter F on diagram).

AV469A - Paper filter, 5-10 micron, sold in 12 pack (letter E on diagram).

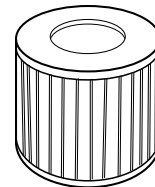
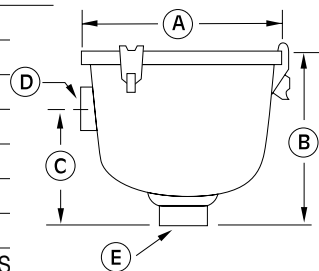


AJ series

Part No.	Dim. A	Dim. B	Dim. C	Dim. D	Dim. E	Filter Replacement	Used On
AJ151A	5.88"	4.50"	2.75"	1" FPT	1" FPT	AJ135D (10 micron)	R1
AJ151B	7.38"	6.81"	4.62"	1" FPT	1" FPT	AJ135E (10 micron)	R2
AJ151C	7.38"	6.81"	4.62"	1 1/4" FPT	1 1/4" FPT	AJ135E (10 micron)	R3
AJ151D	7.38"	6.81"	4.62"	1 1/2" FPT	1 1/2" FPT	AJ135E (10 micron)	R4, R4P
AJ151E	8.75"	10.25"	5.00"	2" FPT	2" FPT	AJ135F (10 micron)	R4H, R4P, R5
AJ151G	8.75"	10.50"	5.50"	2 1/2" FPT	2 1/2" FPT	AJ135G (10 micron)	R6, R6P,
AJ151H	14.00"	27.13"	18.50"	3" MPT	3" MPT	AJ135C (10 micron)	R6PP, R6PS, R7
AJ151M	18.50"	28.13"	19.50"	5" MPT	5" MPT	AJ135H (10 micron)	R7P, R7S, R9, R9P, R9S

MPT = Male Pipe Thread. FPT = Female Pipe Thread. All are heavy-duty for high amounts of particulates.

Inline filters for REGENAIR® blowers are drip-proof when mounted as shown.



Regenair® Filter Restrictions with Clean Element**Inlet Filters**

Blower	Filter	Restriction in inH ₂ O at CFM Flow Indicated
R1	AJ126B	2.2" @ 27 CFM
R2	AJ126B	4.5" @ 40 CFM
R3	AJ126C	2.5" @ 50 CFM
R4H	AJ126D	8" @ 120 CFM
R4	AJ126D	4" @ 85 CFM
R4P	AJ126D	8" @ 120 CFM
R5	AJ126D	11" @ 146 CFM
R6	AJ126F	7" @ 200 CFM
R6P/R6PS	AJ126F	11" @ 265 CFM
R6PP	(2) AJ126F	10" @ 240 CFM
R7/R7S	AJ126G	12" @ 400 CFM
R7P	(2) AJ126G	12" @ 400 CFM
R9S	AJ126M	Consult factory
R9P	AJ126M	Consult factory

Inline Filters

Blower Size	Filter Number	Restriction in inH ₂ O at CFM Flow Indicated
R1	AJ151A	1" @ 25 CFM
	AV460	2" @ 25 CFM
R2	AJ151B	2" @ 40 CFM
	AV460	5" @ 40 CFM
R3	AJ151C	2" @ 50 CFM
	AV460C	3" @ 50 CFM
R4	AJ151D	3" @ 100 CFM
R4P	AJ151E	3" @ 100 CFM
R4H	AJ151E	3" @ 120 CFM
R5	AJ151E	4" @ 160 CFM
R6	AJ151G	2" @ 200 CFM
R6P/R6PS	AJ151G	3" @ 300 CFM
6PP	AJ151H	8" @ 400 CFM
R9S	AJ151 M	Consult factory
R9P	AJ151 M	Consult factory

Standard Conversions

Multiply	By	To Get
Atmospheres	29.92	Inches of Mercury
Atmospheres	14.70	Psi
Atmospheres	76.0	Cms of Mercury
Bars	0.9869	Atmospheres
Bars	14.50	Psi
British Thermal Units	3.927×10^{-4}	Horsepower-Hours
British Thermal Units	2.928×10^{-4}	Kilowatt-Hours
Centimeters of Mercury	0.1934	Psi
Cubic Feet	7.481	Gallons
Cubic Feet	28.32	Liters
Cubic Feet/Minute	1.6992	Cubic Meters/Hour
Cubic Meters/Hour	.5886	Cubic Feet/Minute
Cubic Meters	35.31	Cubic Feet
Cubic Meters	61,023	Cubic Inches
Cubic Meters	1.308	Cubic Yards
Horsepower	42.44	British Thermal Units/Min.
Horsepower	745.7	Watts
Horsepower	.746	Kilowatts
Horsepower-Hours	2547	British Thermal Units
Inches	2.540	Centimeters
Inches	25.40	Millimeters
Inches of Mercury	0.03342	Atmospheres
Inches of Mercury	13.60	Inches of Water
Inches of Mercury	0.4912	Psi
Inches of Water	0.07355	Inches of Mercury
Inches of Water	25.40	Kgs/Sq. Meter
Inches of Water	0.03613	Psi
Inches of Water	1.868	Mm of Mercury
Inches of Water	2.491	mbar
Kilograms/Sq. cm	14.22	Psi
Kilopascals (kpa)	0.145	Psi
Kilowatts	1.341	Horsepower
Kilowatts	56.92	British Thermal Units/Min.
Kilowatt-Hours	3415	British Thermal Units
Liters	61.02	Cubic Inches
Liters	0.03531	Cubic Feet
Millibar	.0145	Psi
Millibar	.402	Inches of Water
Mms. of Mercury	0.0394	Inches of Mercury
Mms. of Mercury	0.01934	Psi
Psi	0.06804	Atmospheres
Psi	27.7	Inches of Water
Psi	2.036	Inches of Mercury
Psi	.07031	Kgs/Sq. Centimeter
Psi	6.895	Kilopascals (kpa)
Psi	68.95	mbar
Psi	.069	bar
Pounds of Water	27.68	Cubic Inches
Pounds of Water		
Evaporated at 212° F	970.3	British Thermal Units
Temp. (Degs.C.) + 273	1	Abs. Temp. (Degs.C.)
Temp. (Degs.C.) + 17.8	1.8	Temp. (Degs. Fahr.)
Temp. (Degs. F.) + 460	1	Abs. Temp. (Degs F.)
Temp. (Degs. F.) - 32	5/9	Temp. (Degs. Cent.)
Watts	0.05692	British Thermal Units/Min.
Watts	1.341×10^{-3}	Horsepower
Watts	10^{-3}	Kilowatts
Watts-Hour	3.415	British Thermal Units
Watts-Hour	1.341×10^{-3}	Horsepower/Hours
Watts-Hour	10^{-3}	Kilowatt-Hours

VACUUM-PRESSURE EQUIVALENCE TABLE

in Water	in Mercury	PSI	mbar
360	22.4	11	760
300	22		750
290	21		
280	21	10	700
270	20		
260	19		650
250	18	9	
240	18		600
230	17		
220	16	8	550
210	15		
200	15		500
190	14	7	
180	13		450
170	12	6	
160	12		400
150	11		
140	10	5	350
130	9		
120	9		300
110	8	4	
100	7		250
90	7		
80	6	3	200
70	5		
60	4	2	150
50	4		
40	3		100
30	2	1	
20	2		50
10	1		
0	0	0	0

IP Codes (Ingress Protection)

IEC 60529 outlines an international classification system for the sealing effectiveness of enclosures of electrical equipment against the intrusion into the equipment of foreign bodies (i.e., tools, dust, fingers) and moisture. This classification system utilizes the letters "IP" ("Ingress Protection") followed by two digits. (An "X" is used for one of the digits if there is only one class of protection; i.e., IP X 4 which addresses moisture resistance only.)

Degrees of Protection - First Digit

The first digit of the IP code indicates the degree that persons are protected against contact with moving parts (other than smooth rotating shafts, etc.) and the degree that equipment is protected against solid foreign bodies intruding into an enclosure.

- 0 No special protection
- 1 Protection from a large part of the body such as a hand (but no protection from deliberate access); from solid objects greater than 50 mm in diameter
- 2 Protection against fingers or other objects not greater than 80mm in length and 12 mm in diameter

- 3 Protection from entry by tools, wires, etc., with a diameter or thickness greater than 2.5 mm
- 4 Protection from entry by solid objects with a diameter or thickness greater than 1.0 mm
- 5 Protection from the amount of dust that would interfere with the operation of the equipment
- 6 Dust-tight

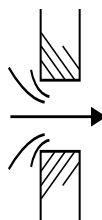
Degrees of Protection - Second Digit

The second digit indicates the degree of protection of the equipment inside the enclosure against the harmful entry of various forms of moisture (e.g. dripping, spraying, submersion, etc.).

- 0 No special protection
- 1 Protection from dripping water
- 2 Protection from vertically dripping water
- 3 Protection from sprayed water
- 4 Protection from splashed water
- 5 Protection from water projected from a nozzle
- 6 Protection against heavy seas, or powerful jets of water
- 7 Protection against immersion
- 8 Protection against complete, continuous submersion in water

Air Flow Through An Orifice (in CFM)

- Downstream pressure = 14.7 psia (standard atmospheric pressure)
- Air Temperature = 70 °F (21 °C)
- Cd (discharge coefficient) = 0.65 (for sharp edge orifice — See drawing)



Up Stream Pressure

Orifice Diameters (in Inches)

in. H ₂ O	1/32	1/16	1/8	3/16	1/4	5/16	3/8	7/16	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3
1.00	0.014	0.054	0.217	0.489	0.869	1.36	1.96	2.66	3.48	7.82	13.9	21.7	31.3	42.6	55.6	70.4	86.9	105	125
2.00	0.019	0.077	0.307	0.691	1.23	1.92	2.76	3.76	4.92	11.1	19.7	30.7	44.2	60.2	78.6	99.5	123	149	177
3.00	0.024	0.094	0.376	0.846	1.50	2.35	3.39	4.61	6.02	13.5	24.1	37.6	54.2	73.7	96.3	122	150	182	217
4.00	0.027	0.109	0.434	0.977	1.74	2.71	3.91	5.32	6.95	15.6	27.8	43.4	62.6	85.1	111	141	174	210	250
5.00	0.030	0.121	0.486	1.09	1.94	3.04	4.37	5.95	7.77	17.5	31.1	48.6	69.9	95.2	124	157	194	235	280
10.00	0.043	0.172	0.686	1.54	2.75	4.29	6.18	8.41	11.0	24.7	43.9	68.6	98.9	135	176	222	275	332	395
15.00	0.053	0.210	0.840	1.89	3.36	5.25	7.56	10.3	13.4	30.3	53.8	84.0	121	165	215	272	336	407	484
20.00	0.061	0.242	0.970	2.18	3.88	6.06	8.73	11.9	15.5	34.9	62.1	97.0	140	190	248	314	388	469	559
25.00	0.068	0.271	1.08	2.44	4.34	6.77	9.76	13.3	17.3	39.0	69.4	108	156	212	277	351	434	525	624
30.00	0.074	0.297	1.19	2.67	4.75	7.42	10.7	14.5	19.0	42.7	76.0	119	171	233	304	385	475	574	684
35.00	0.080	0.320	1.28	2.88	5.13	8.01	11.5	15.7	20.5	46.1	82.0	128	185	251	328	415	513	620	738
40.00	0.086	0.342	1.37	3.08	5.48	8.56	12.3	16.8	21.9	49.3	87.6	137	197	268	351	444	548	663	789
45.00	0.091	0.363	1.45	3.27	5.81	9.07	13.1	17.8	23.2	52.3	92.9	145	209	285	372	470	581	703	836
50.00	0.096	0.382	1.53	3.44	6.12	9.56	13.8	18.7	24.5	55.1	97.9	153	220	300	392	496	612	740	881
55.00	0.100	0.401	1.60	3.61	6.41	10.0	14.4	19.6	25.7	57.7	103	160	231	314	411	520	641	776	924
60.00	0.105	0.419	1.67	3.77	6.70	10.5	15.1	20.5	26.8	60.3	107	167	241	328	429	542	670	810	964
65.00	0.109	0.435	1.74	3.92	6.97	10.9	15.7	21.3	27.9	62.7	111	174	251	341	446	564	697	843	1003
70.00	0.113	0.452	1.81	4.06	7.23	11.3	16.3	22.1	28.9	65.0	116	181	260	354	463	585	723	874	1041
75.00	0.117	0.467	1.87	4.21	7.48	11.7	16.8	22.9	29.9	67.3	120	187	269	366	479	606	748	905	1077
80.00	0.121	0.482	1.93	4.34	7.72	12.1	17.4	23.6	30.9	69.5	124	193	278	378	494	625	772	934	1112
85.00	0.124	0.497	1.99	4.47	7.95	12.4	17.9	24.4	31.8	71.6	127	199	286	390	509	644	795	962	1145
90.00	0.128	0.511	2.04	4.60	8.18	12.8	18.4	25.1	32.7	73.6	131	204	294	401	524	663	818	990	1178
95.00	0.131	0.525	2.10	4.73	8.40	13.1	18.9	25.7	33.6	75.6	134	210	302	412	538	680	840	1016	1210
100.00	0.135	0.538	2.15	4.85	8.61	13.5	19.4	26.4	34.5	77.5	138	215	310	422	551	698	861	1042	1241
105.00	0.138	0.551	2.21	4.96	8.82	13.8	19.9	27.0	35.3	79.4	141	221	318	432	565	7151	882	1068	1271
110.00	0.141	0.564	2.26	5.08	9.03	14.1	20.3	27.6	36.1	81.2	144	226	325	442	578	731	903	1092	1300

Technical Information and Definitions

Definitions:

CFM – cubic feet of air per minute

SP – static pressure inches of water

HP – horsepower

RPM – speed in revolutions per minute

d – density in pounds per cubic foot

1 – known conditions

2 – desired conditions

Standard Air-air at 68 °F (absolute temperature 528°) and 29.92 inHg. (barometric pressure at sea level). The density of such air is 0.075 lbs/cu ft. and the specific volume is 13.29 cu ft./lb The specific gravity is 1.0.

H₂O CFM vs SCFM

The difference between “Cubic Feet Per Minute” and “Standard Cubic Feet Per Minute” is simply one of air density. The word “Standard”, in this unit of measure, refers to the air being at standard temperature and pressure. In this case it will have standard air density. Regenair blowers performance is stated in terms of CFM, the volume of air they move.

Fan Laws

The following fan laws apply for the range of air performance where induction motor-driven blowers operate, that is, under 100 inches of water static pressure or vacuum (where it may be assumed that air is incompressible). The fan laws may also be used if the pressure of both fan conditions is over 100 inches of water but the pressure change is less than 30%.

1. Effect Of A Speed Change

CFM is proportional to Speed

(The volume changes in direct ratio to the speed)

SP is proportional to Speed²

(The pressure changes as the square of the speed ratio)

HP is proportional to Speed³

(The horsepower changes as the cube of the speed ratio)

$$CFM_2 = CFM_1 \times (RPM_2/RPM_1)$$

$$SP_2 = SP_1 \times (RPM_2/RPM_1)^2$$

$$HP_2 = HP_1 \times (RPM_2/RPM_1)^3$$

(Also known as the 1-2-3 rule of blowers)

2. Altitude And Temperature Change The Density Of Air

CFM is constant

SP is proportional to density

HP is proportional to density

$$CFM_2 = CFM_1$$

$$SP_2 = SP_1 (d_2/d_1)$$

$$HP_2 = HP_1 (d_2/d_1)$$

Volume Changes In Direct Ratio To Speed

For example, a blower is operating at 3500 RPM and delivering 800 cfm. If the speed is reduced to 3000 RPM, what is the new volume?

Let:

V₁ – original volumeV₂ – new volumeRPM₁ – original speedRPM₂ – new speed

$$V_2 = V_1 \times (RPM_2/RPM_1)^1$$

$$V_2 = 800 \times (3000/3500)^1 = 800 \times .857 = 686 \text{ CFM}$$

Pressure Changes As The Square Of The Speed Ratio

For example, a blower is operating at a speed of 3500 RPM and delivering air at 3 psi. If the speed is reduced to 3000 RPM, what is the new pressure?

Let:

P₁ – original pressure (3 psi)P₂ – new pressureRPM₁ – original speedRPM₂ – new speed

$$P_2 = P_1 \times (RPM_2/RPM_1)^2$$

$$P_2 = 3 \times (3000/3500)^2 = 3 \times .735 = 2.21 \text{ psig} = 83 \text{ inches of water pressure}$$

Air Density Varies In Inverse Proportion To Absolute Temperature

For example, a blower is to handle 150 °F air at 40 inches of water pressure. What pressure (standard air) blower is required?

Let:

P_1 – pressure hot air (40 inches of water)

P_2 – pressure standard air

AT_1 – absolute temperature hot air (150+460=610°)

AT_2 – absolute temperature standard air (68+460=528°)

$$P_2 = P_1 \times (AT_1/AT_2)$$

$$P_2 = 40 \times (610/528) = 40 \times 1.15 = 46 \text{ inches of water}$$

Temperature in Degrees of Fahrenheit	% Of Change In Air Density Compared to 70°
100	-5
90	-4
70	0
60	+2
50	+4
40	+6
30	+8
20	+10
10	+13

If a blower is capable of delivering 30 inches of water pressure with standard air, what pressure will it develop handling 150 °F inlet air?

$$P_1 = P_2 \times (AT_2/AT_1)$$

$$P_1 = 30 \times (528/610) = 30 \times .866 = 26 \text{ inches of water pressure}$$

Relation Of Density To Inlet Volume

At high altitudes it is frequently specified that a specific blower must be capable of handling a given volume of "standard air". For example, a blower is to operate at 5000 feet and is to handle 500 CFM of standard air. To determine the equivalent volume of air the blower must handle at the higher altitude:

Let:

V_1 – volume of standard air (500 CFM)

Hg_1 – barometric pressure sea level (29.92)

$$V_2 = V_1 \times (Hg_1/Hg_2)$$

V_2 – volume of thinner air

Hg_2 – barometric pressure at altitude (24.89 for 5000 feet)

$$V_2 = 500 \times (29.92/24.89) = 601 \text{ CFM of air at 5000 feet altitude}$$

Pressure Varies In Direct Proportion To Density

For example, a blower operating at 80 inches of water with standard air is to be used to handle air having a specific gravity of 0.8. What pressure does the blower create when handling the air?

Let:

P_a – air pressure

SG – specific gravity of gas

$$P_g = P_a \times SG$$

P_g – gas pressure

$$P_g = 80 \times 0.8 = 64 \text{ inches of water}$$

Horsepower Changes As The Cube Of The Speed Ratio

For example, a blower is operating at a speed of 3500 RPM and requiring 5 horsepower. If the speed is reduced to 3000 RPM, what is the new required horsepower?

Let:

HP_1 – original horsepower

HP_2 – new horsepower

RPM_1 – original speed

RPM_2 – new speed

$$HP_2 = HP_1 \times (RPM_2/RPM_1)^3 \quad HP_2 = 5 \times (3000/3500)^3 = 5 \times .630 = 3.15 \text{ horsepower}$$

Pressure Varies In Direct Proportion To Altitude

At low altitudes in an indoor environment, the small changes in Regenair® Blower performance are usually ignored. At high altitudes, these changes become significant and should not be ignored.

The performance of all regenerative blowers varies directly with changes in air density according to the Fan Laws. These Fan Laws don't apply to our positive displacement pumps. Altitude changes air density as well as air temperature.

All the catalog performance tests for Regenair® Blowers were conducted at an altitude of 635 ft. This makes the Regenair® Blowers capable of 2% more pressure than the nominal advertising indicates. So in predicting changes in performance we should use the 635 ft. altitude as a starting point.

A 10% decrease in air density reduces pressure performance by 10%. For example: if a blower like the R5 produces 110 CFM at 40 inches of water pressure, with a 10% decrease in air density, it will produce this same air flow at 90% of 40" or 36" of water pressure. The open, no duty flow ratings of any of the blower don't change with air density changes. The maximum rated pressure or vacuum changes the most.

For example, a blower is to operate at an elevation of 5000 feet and is to deliver 60 inches of water pressure gage. What pressure at standard air is required?

Let:

PB – pressure (standard air) blower = 60 inches of water

inH₂O – inches of water pressure

PSL – absolute pressure at sea level, inHg. = 29.92 inches Hg.

PA – absolute pressure at altitude, inHg. = 24.89 inches Hg. from table for 5000 feet altitude.

$$PB = \text{inH}_2\text{O} \times (PSL/PA)$$

$$PB = 60 \times (29.92/24.89) = 72 \text{ inches of water at standard conditions}$$

To determine what pressure a 90 inches of water (standard air) blower will deliver at 5000 feet:

Let:

PD – pressure delivered by a 90 inches of water (standard air) blower

$$PD = \text{inH}_2\text{O} \times (PA/PSL)$$

$$PD = 90 \times (24.89/29.92) = 74.9 \text{ inches of water}$$

Gast offers a program called "REGPER" that calculates changes in performance at 60 Hz. for changes in altitude or air temperature and the effect of operating with both pressure and vacuum on a blower at the same time. This program can be found on Gast's Web Site, www.gastmfg.com; you may also contact your Gast Representative for more information on this program.

Ft. Altitude	InHg	inH ₂ O	PSIA
0	29.92	406.73	14.69
500	29.39	399.53	14.43
1000	28.86	392.32	14.17
1500	28.34	385.25	13.91
2000	27.82	378.19	13.66
2500	27.32	371.39	13.41
3000	26.82	364.59	13.17
3500	26.33	357.93	12.93
4000	25.84	351.27	12.69
4500	25.37	344.88	12.46
5000	24.89	338.49	12.23
5500	24.44	332.24	12.00
6000	23.98	325.98	11.77
6500	23.53	319.87	11.55
7000	23.09	313.89	11.34
7500	22.66	308.04	11.13
8000	22.23	302.19	10.91
8500	21.81	296.49	10.71
9000	21.39	290.78	10.50
9500	20.98	285.20	10.30
10000	20.58	279.76	10.10

Calculating System Friction Loss

Friction causes pressure loss in all systems. Plumbing design and length affect this loss in air flow.

1. Determine total straight pipe equivalent.

List number of each fitting in system. Circle the column under the supply pipe size. Multiply the number of each item by the pipe size conversion factor to find the equivalent amount of straight pipe. Add equivalent figures to actual straight pipe figures.

Friction loss in pipe fittings equivalent length of straight pipe

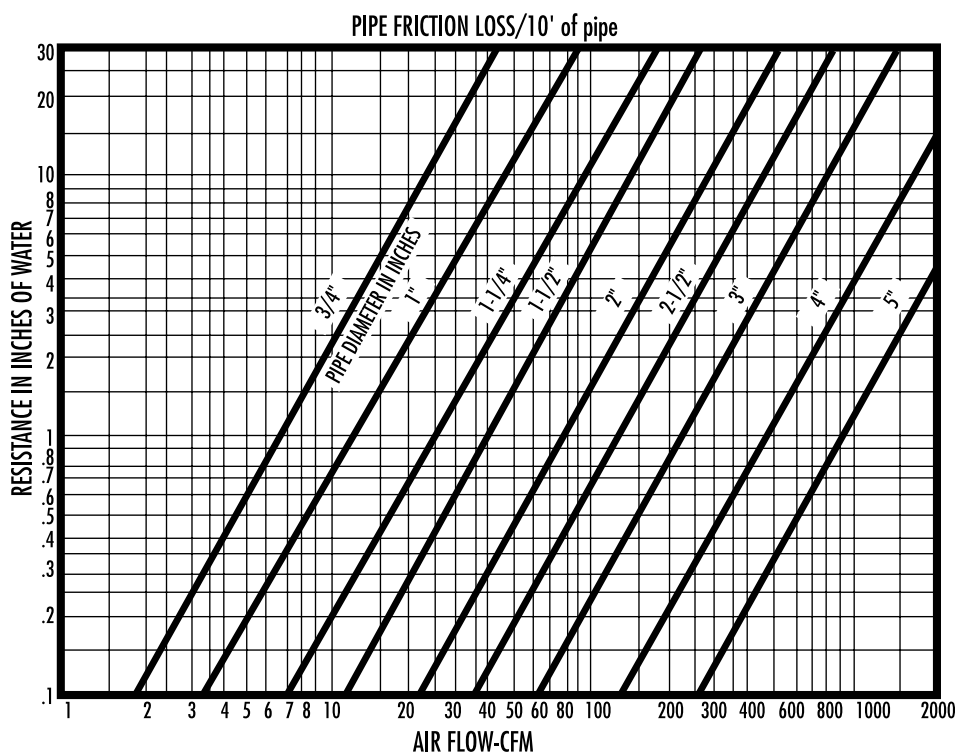
Fitting	#	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	Equivalent Ft.
90° Elbows	___x	2.0	3.0	3.5	4.0	5.0	6.0	8.0	10.0	12.6	=
Std. through tees	___x	1.5	2.0	2.5	3.0	3.5	4.0	5.0	7.0	8.4	=
Std. branch tees	___x	4.0	5.0	7.0	8.0	10.5	12.5	15.5	20.0	25.2	=
Check valves	___x	7.0	9.0	11.5	13.5	17.0	20.5	25.5	34.0	42.0	=
Gate Valves	___x	0.55	0.7	0.9	1.0	1.5	2.0	2.0	3.0	3.4	=

Total length of straight pipe = _____ ft.

Total straight pipe equivalent = _____ ft.

2. Determine total friction loss in pipe system.

On bottom line of the pipe friction loss chart, mark the air flow needed. Using a ruler, scan vertically from the CFM figure to the diagonal line for the proper pipe size. Mark the intersection and then scan to the left (vertical) axis to find the friction loss figure.



3. Divide the Total straight pipe equivalent from step 1 by 10; multiply by friction loss figure just determined to get the total friction loss in the pipe system.

$$\text{Total feet of pipe in system} \div 10 \times \text{Friction loss factor} = \text{Total friction loss in system in inches of H}_2\text{O}$$

Total feet of pipe in system

Friction loss factor

Total friction loss in system in inches of H₂O

Sound Pressure Level Decreases With Distance According To This Formula:

$$(SPL)2 = (SPL)1 - 20\text{LOG} (d2/d1)$$

Where:

(SPL)2 = New Sound Pressure Level

(SPL)1 = Original Sound Pressure Level

d2 = New distance from sound generator

d1 = Original distance from sound generator

Thus, each doubling of distance results in 6 dBa reduction in Sound Pressure Level

NOTE: this formula assumes that no noise is reflected. In a room that reflects most sound energy (having walls with a low noise reduction co-efficient) much less reduction in noise level with increased distance will be observed than is predicted with this formula.

Noise Q & A

Q. How do I decrease blower noise?

A. Common methods used to decrease blower noise include:

- Having the cover side face where you want the reduction in noise to be and having sound absorbing material diminish sound reflected from the motor side of the blower
- Checking the supporting structure for rattling
- Controlling reflected noise with sound absorbing material
- Moving the blower away from the operator, in another room, possibly in a different area or outside.

Q. Typically how much does the noise output of Gast blowers vary with changes in pressure or vacuum?

A. This varies a lot from model to model with some models little or no change and with others, as much as 9 dBa.

Q. Typically how much does the noise output of Gast blowers change between 60 Hz and 50 Hz?

A. Generally 50 Hz is 3 dBa quieter than 60Hz but this varies from model to model.

Q. On Gast dual blowers when do I need the large accessory muffler?

A. These blowers provide silencing for either the inlet or exhaust but not both. If, for example, the discharge of the blower is underwater or in some location where the noise passing through the pipe is contained and not objectionable no additional silencer is needed. Where this ringing noise is not contained and noise control is needed, we manufacture accessory mufflers to greatly reduce noise levels.

Q. What happens to the noise when I locate two blowers close together?

A. If the blowers are of the same design they produce sound frequencies that are close together. These may cause a “beating” change in volume of the blower noise. This is because the units are not synchronized. If two small blowers are needed this change in volume can be reduced by moving them further apart. With larger blowers a dual blower with two blowers on one motor will solve this problem.

Q. What causes the noise relief valves make?

A. Air rush through the valve.

Q. How do I control relief valve or bleed off valve noise?

A. Attach AJ121 Series silencer on the port of the relief valve that is open to atmosphere.

Contact Gast at 269-926-6171 or www.gastmfg.com with any further questions you may have on reducing blower noise in your application.

Blower Sound Levels of Gast Blowers

Data is highest sound level out of 4 places around the blower at 1 meter.

Data represents average of several units run at nominal voltage.

Lowest to highest maximum dba level throughout performance range is shown.

Readings at other than the maximum around the blower at 1 meter may be from 2 to 10 dba less than data shown.

Readings taken in a laboratory sound room that does not reflect much noise.

Note: For comparison purposes, some blower manufacturers show sound data from 1-1/2 meters instead of from 1 meter; also, some blower manufacturers show an "average" sound level across performance instead of the full range between minimum and maximum sound levels; either of these methods will provide different and usually lower sound levels compared to Gast's sound level method.

60Hz	dBa at Pressure	50Hz	dBa at Pressure
R1	59-67	R1	59-64
R2	66	R2	61-63
R3	67-70	R3	63-68
R4	69-73	R4	64-69
R4P	69-75	R4P	64-71
R5	73-77	R5	71-77
R6	73-79	R6	70-79
R6P	82-83	R6P	77-80
R6PP	77-79	R6PP	73-76
R6PS	76-77	R6PS	72-75
R7	82-84	R7	77-79
R7P	77-80	R7P	74-79
R7H	83	R7H	79-81

60Hz	dBa at Vacuum	50Hz	dBa at Vacuum
R1	58-63	R1	54-60
R2	67	R2	63-64
R3	67-71	R3	64-69
R4	70-72	R4	66-70
R4P	73-74	R4P	68-71
R5	75-76	R5	71-73
R6	78-80	R6	74-77
R6P	81-85	R6P	79-81
R6PP	81-83	R6PP	78-79
R6PS	79-81	R6PS	76-77
R7	85-87	R7	79-84
R7P	84-86	R7P	80-83
R7S	82-83	R7S	78-80
R9	85-90	R9	83-84
R9P	88-90	R9P	84-87
R9S	87-88	R9S	83-86
R4H	82-89	R4H	79-88
R4M	85-89	R4M	80-85
R7H	82-91	R7H	80-90
R7S	75-77	R7S	72-76
R9	82-85	R9	78-85
R9P	81-88	R9P	79-86
R9S	79-81	R9S	77-81
R4H	80-82	R4H	75-81
R4M	82-83	R4M	78-79

The GAST logo is in a bold, blue, sans-serif font.The IDEX CORPORATION logo features the word "IDEX" in a bold, blue, sans-serif font with a stylized star above the 'X', and the word "CORPORATION" in a smaller, blue, sans-serif font below it.

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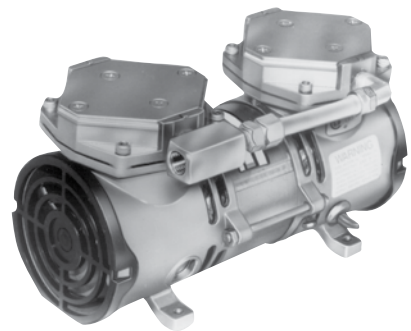
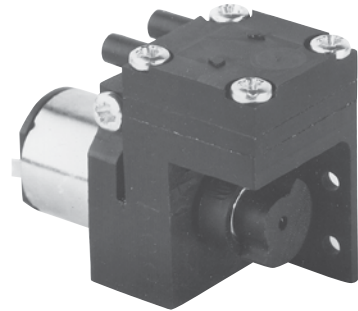
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Diaphragm Compressors and Vacuum Pumps



The Gast Group Difference

For over 90 years, Gast Manufacturing has been providing innovative air solutions to a broad breadth of customers. With the relatively recent addition of JUN-AIR, we have expanded our capabilities and formed, “The Gast Group.” Together, our diverse engineering background and pneumatic experience allow us to provide both component and system solutions to meet all of your pneumatic needs...all backed by our strong commitment to quality and customer support.

Products for Almost Any Application – Worldwide

We offer an extensive and versatile line of air-moving products, including vacuum pumps, compressors, air motors, gearmotors, vacuum generators, and regenerative blowers. We design and build these components for original equipment manufacturers worldwide, but we also develop complete pneumatic solutions to solve tough customer challenges.

To ensure fast, efficient delivery of products, Gast has a vast network of sales representatives/distributors throughout the United States and the world. Plus, we maintain direct sales and service facilities in Europe, Hong Kong, and Shanghai, China.

Unparalleled Design Expertise

Unlike other manufacturers, who might expect you to modify your pneumatic system to fit their available product(s), Gast is committed to finding the right product to meet your specific needs. If we don't have a high-quality, off-the-shelf product to fit your existing application or meet your anticipated needs, we'll propose customized cost-effective design options that will serve your special requirements. We can even develop and produce your complete pneumatic system for you.

Our experienced Research and Development engineers and Product engineers work together to analyze customer needs and use computer-aided design to generate timely solutions for air-handling problems. The design team has one goal: to create problem-solving solutions that capitalize on the latest available technology, meet all application requirements, and benefit from cost-effective production methods. The end result: products and solutions that are the best value in the marketplace for our customers.

A Lasting Commitment to Quality

We invest heavily in both equipment and people to maintain the consistent quality for which our products are known worldwide, and we have done so since day one. As early as 1983, we implemented a total quality process designed to ensure the quality of our products. In keeping with that tradition, Gast has achieved ISO 9001 certification, making us a member of the elite group of manufacturing companies in the world to receive that certification.

European Community Directives ☞☞

With extensive sales outside the United States, Gast has pledged to conform to the European Community Directives. These directives contain essential requirements concerning health, safety, environment, and consumer protection for all products targeted for the European Community market. Currently, all Gast products available for sale in the European Community are in compliance with the Machinery, Low Voltage, and Electromagnetic Compatibility Directives.

Pictorial and dimensional data is subject to change without notice. The information presented is based on technical data and test results of nominal units. It is believed to be accurate and is offered as an aid in the selection of Gast products. It is the user's responsibility to determine suitability of the product for intended use and the user assumes all risk and liability whatsoever in connection therewith. Environmental and application conditions may affect advertised life.

Why use a Gast Compressor and Vacuum Pump?

Worldwide Excellence in Air Technology – Dedicated to the Success of Your Pneumatic Applications

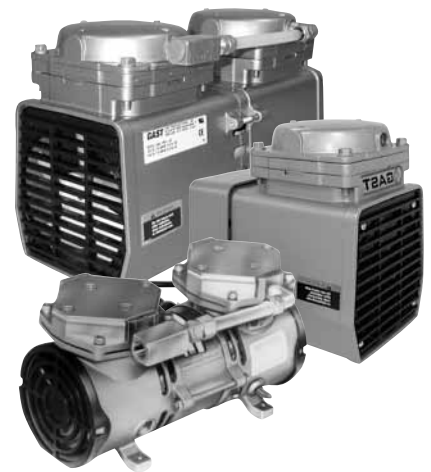
If you need a small, quiet source of vacuum or pressure, you'll find the unit for your application in the Gast line of oilless Diaphragm air compressors and vacuum pumps, which come in standard, twin, and miniature styles. Plastic component construction on the miniature pumps makes them especially compact and lightweight...ideal for light-duty applications.

Air flow capabilities for the entire line range from .65 LPM up to 3.8 CFM (6,5 m³/h), vacuum up to 29 inHg (31 mbar), and pressure up to 60 psig (4,2 bar). Electric motors are available in dual frequency, shaded pole, and permanent split capacitor (psc) versions as well as AC multi voltages for worldwide applications, plus 4-24 volt DC options on the miniature styles. Horsepowers range from 1/16 to 1/2 HP (0,05 to 0,37 kW) on the standard size models.

Tank models for the DOA series and a full line of recommended accessories are also available.



- AC and DC models
- Low noise, low vibration
- Compact, lightweight
- Oilless
- Long life
- Corrosion resistant
- Low power consumption



Reciprocating Diaphragm Vacuum Pump and Compressors

Here's why you can count on 60 psi (4,2 bar), 29 inHg (31 mbar)

Our connecting rod is bonded to its bearing - not clamped as in lighter duty pumps. In all pumps except our Miniatures we use larger bearings. So with a Gast unit, you get greater strength and durability where work loads are greatest.

Easy maintenance

When you need to change air filters, it's just a 60-second screw-driver job to get inside.

Putting the head assembly back together is no problem either. The fasteners are made in non-symmetrical patterns. So the only way the head goes together is the right way.

Cooler air output

Even at maximum duty, output air is cool and oil-free. As ambient air enters and leaves the head, it never goes near the motor to pick up heat and foreign matter. Cooler temperatures add to overall efficiency and service life.

Variety of electric motors

Gast diaphragm pumps are available in a wide range of popular voltages and frequencies. Motor types range from economical shaded pole to more efficient permanent split capacitor (PSC) which can also provide improved starting characteristics for certain applications. Two and four pole motors are also available.

Model Number	Motor Voltage & HP	Motor Type	RPM		CFM @ 0 psi		m ³ /h @ 0 bar		Maximum Pressure		Maximum Vacuum		kW	Page Number
			60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	psi	bar	inhg	mbar		
MOA-P101-AA	1/16, 115-60-1	Shaded pole	1575	-----	0.51	-----	0.85	-----	50	3,5	-----	-----	0,05	20
MOA-P101-CA	1/16, 115-60-1	Shaded pole	1575	-----	0.52	0.40	0.86	0.67	50	3,5			0,05	20
MOA-P101-CD	1/16, 220/230-50/60-1	Shaded pole	1575	1275	0.51	0.40	0.85	0.68	50	3,5			0,05	20
MOA-P101-JH	1/16, 12 Volt	DC	1800		0.56	0.95	30	3,5					0,05	20
MOA-P101-KH	1/8, 12 Volt	DC	3000		0.80	1.36	50	3,5					0,09	20
MOA-P101-JK	1/16, 24 Volt	DC	1800		0.56	0.95	50	3,5					0,05	20
MOA-P108-FB	1/8, 110/115-50/60-1	PSC (2 pole)	3000	2500	0.80	0.65	1.40	1,10	50	3,5			0,09	20
MOA-P108-FD	1/8, 220/230-50/60-1	PSC (2 pole)	3000	2500	0.80	0.65	1.40	1,10	50	3,5			0,09	20
MOA-P108-HB	1/16, 110/115-50/60-1	PSC (4 pole)	1575	1275	0.52	0.40	0.86	0.67	50	3,5			0,05	20
MOA-P108-HD	1/16, 230/220-60/50-1	PSC	1575	1275	0.52	0.40	0.86	0.67	50	3,5			0,05	20
MOA-P109-AA	1/16, 115-60-1	Shaded pole			0.52	0.40	0.86	0.67	50	3,5			0,05	20
MOA-P109-CA	1/16, 115-60-1	Shaded pole	1575	-----	0.52	0.40	0.86	0.67	50	3,5			0,05	20
MOA-V111-JH	1/16, 12 Volt	DC	1800		0.56	0.95			24.0	812,64			0,05	20
MOA-V111-KH	1/8, 12 Volt	DC	3000		0.80	1.36			24.0	812,64			0,09	20
MOA-V111-JK	1/16, 24 Volt	DC	1800		0.56	0.95			24.0	812,64			0,05	20
MOA-V111-CD	1/16, 220/230-50/60-1	Shaded pole	1575	1275	0.49	0.40	0.83	0,68			24.0	812,64	0,05	20
MOA-V112-AE	1/16, 110/115-50/60-1	Shaded pole	1575	1275	0.49	0.40	0.83	0,68			24.0	812,64	0,05	20
MOA-V112-FB	1/8, 110/115-50/60-1	PSC (2 pole)	3000	2500	0.72	0.60	1,22	1,02			24.0	812,64	0,09	20
MOA-V112-FD	1/8, 220/230-50/60-1	PSC (2 pole)	3000	2500	0.72	0.60	1,22	1,02			24.0	812,64	0,09	20
MOA-V113-AE	1/16, 110/115-50/60-1	Shaded pole	1575	1275	0.49	0.40	0.83	0,68			24.0	812,64	0,05	20
MAA-P102-HB	1/16, 115/110-60/50-1	PSC (4 pole)	1575	1275	1.02	0.90	1,73	1,53	50	3,5			0,05	22
MAA-P102-HD	1/16, 220/230-50/60-1	PSC (4 pole)	1575	1275	1.02	0.90	1,73	1,53	50	3,5			0,05	22
MAA-P102-MB	1/8, 115/110-60/50-1	PSC (2 pole)	3000	2500	1.60	1.40	2,72	2,38	50	3,5			0,09	22
MAA-V103-HB	1/16, 115/110-60/50-1	PSC (4 pole)	1575	1275	1.02	0.85	1,73	1,45			24.0	812,64	0,05	22
MAA-V103-MB	1/8, 115/110-60/50-1	PSC (2 pole)	3000	2500	1.70	1.60	2,89	2,72			24.0	812,64	0,09	22
MAA-V109-HB	1/16, 115/110-60/50-1	PSC (4 pole)	1575	1275	0.47	0.39	0.80	0,66			28.0	948,08	0,05	22
MAA-V109-HD	1/16, 220/230-60/50-1	PSC (4 pole)	1575	1275	0.47	0.39	0.80	0,66			28.0	948,08	0,05	22
MAA-V109-MB	1/8, 115/110-60/50-1	PSC (2 pole)	3000	2500	0.80	0.66	1,36	1,12			28.5	965,01	0,09	22
MAA-V109-MD	1/8, 208-230/220-240-60/50-1	PSC (2 pole)	3000	2500	0.80	0.66	1,36	1,12			28.5	965,01	0,09	22

Performance Overview

Model Number	Motor Voltage & HP	Motor Type	RPM		CFM @ 0 psi		m ³ /h @ 0 bar		Maximum Pressure		Maximum Vacuum		kW	Page Number
			60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	psi	bar	inHg	mbar		
DOA-P701-AA	1/8, 115-60-1	Shaded pole	1575	-----	1.10	-----	1,87	-----	60	4,2			0,09	24
DOA-P704-AA	1/8, 115-60-1	Shaded pole	1575	-----	1.10	-----	1,87	-----	60	4,2			0,09	28
DOA-P504-BN	1/8, 220/240-50-1	Shaded pole	-----	1275	-----	1.10	-----	1,87	60	4,2			0,09	28
DOA-P703-AA	1/8, 115-60-1	Shaded pole	1575	-----	1.10	-----	1,87	-----	60	4,2			0,09	24
DOA-P701-AC	1/8, 230-60-1	Shaded pole	1575	-----	1.10	-----	1,87	-----	60	4,2			0,09	24
DOA-P501-BN	1/8, 220/240-50-1	Shaded pole	-----	1275	-----	0.90	-----	1,53	60	4,2			0,09	24
DOA-P509-BN	1/8, 220/240-50-1	Shaded pole	-----	1275	-----	0.90	-----	1,53	60	4,2			0,09	24
DOA-P501-DB	1/8, 115/110-60/50-1	PSC (4 pole)	1575	1275	1.10	0.90	1,87	1,53	60	4,2			0,09	24
DOA-P501-DD	1/8, 230/220-60/50-1	PSC (4 pole)	1575	1275	1.10	0.90	1,87	1,53	60	4,2			0,09	24
DOA-P501-FB	1/3, 115/110-60/50-1	PSC (2 pole)	3000	2500	1.90	1.55	3,23	2,63	60	4,2			0,25	24
DOA-P703-FB	1/3, 115/110-60/50-1	PSC (2 pole)	3000	2500	1.90	1.55	3,23	2,63	60	4,2			0,25	24
DOA-P501-FD	1/3, 220/230-60/50-1	PSC (2 pole)	3000	2500	1.90	1.55	3,23	2,63	60	4,2			0,25	24
DOA-P518-FD	1/3, 220/230-60/50-1	PSC (2 pole)	3000	2500	1.90	1.55	3,23	2,63	60	4,2			0,25	24
DOA-P501-JH	1/8, 12 Volt	DC		2100	1.10	1,87	60	4,2					0,09	24
DOA-P501-KH	1/6, 12 Volt	DC		3200	1.90	3,23	60	4,2					0,12	24
DOA-P501-JK	1/8, 24 Volt	DC		2100	1.10	1,87	60	4,2					0,09	24
DOA-V722-AA	1/8, 115-60-1	Shaded pole	1575	-----	1.10	-----	1,87	-----			25.5	863,43	0,09	24
DOA-V702-AC	1/8, 230-60-1	Shaded pole	1575	-----	1.10	-----	1,87	-----			25.5	863,43	0,09	24
DOA-V502-BN	1/8, 220/240-50-1	Shaded pole	-----	1275	-----	0.95	-----	1,62			25.5	863,43	0,09	24
DOA-V502-DB	1/8, 115/110-60/50-1	PSC (4 pole)	1575	1275	1.10	0.95	1,87	1,62			25.5	863,43	0,09	24
DOA-V502-DD	1/8, 230/220-60/50-1	PSC (4 pole)	1575	1275	1.10	0.95	1,87	1,62			25.5	863,43	0,09	24
DOA-V502A-FB	1/3, 110/115-60/50-1	PSC (2 pole)	3000	2500	1.80	1.50	3,06	2,55			25.5	863,43	0,25	24
DOA-V502A-FD	1/3, 220/230-60/50-1	PSC (2 pole)	3000	2500	1.80	1.50	3,96	2,55			25.5	863,43	0,25	24
DOA-V502-JH	1/8, 12 Volt	DC		2100		1.26		2,14			25.5	863,43	0,09	24
DOA-V502-JK	1/8, 24 Volt	DC		2100		1.26		2,14			25.5	863,43	0,09	24
DOL-701-AA	1/8, 115-60-1	Shaded pole	1575	-----	1.10	-----	2,14	-----	60	4,2	25.5	863,43	0,09	32
DOA-V505-BN	220/240-50-1	Shaded pole		1275	-----	0.95	-----	1,62			25,0	846,50	0,09	30
DOA-P701-DB	110/115-60/50-1	PSC motor	1575	1275	1.10	0.90	1,87	1,53	60	4,2	25.5	863,43	0,09	30
DAA-P501-EB	1/4, 110/115-60/50-1	PSC (4 pole)	1575	1275	2.40	1.90	4,08	3,23	60	4,2			0,19	26
DAA-P501-ED	1/4, 220/230-60/50-1	PSC (4 pole)	1575	1275	2.40	1.90	4,08	3,23	60	4,2			0,19	26
DAA-P517-ED	1/4, 220/230-60/50-1	PSC (4 pole)	1575	1275	2.40	1.90	4,08	3,23	60	4,2			0,19	26
DAA-P513-EG	1/4, 240-50-1	PSC 4 pole	-----	1275	-----	1.90	-----	3,23	60	4,2			0,19	26
DAA-P501-GB	1/2, 110/115-50/60-1	PSC 2 pole	3000	2500	3.80	3.25	6,46	5,52	60	4,2			0,37	26
DAA-P503-GB	1/2, 110/115-50/60-1	PSC 2 pole	3000	2500	3.80	3.25	6,46	5,52	60	4,2			0,37	26
DAA-P501-GD	1/2, 220/230-50/60-1	PSC (2 pole)	3000	2500	3.80	3.25	6,46	5,52	60	4,2			0,37	26
DAA-P503-GD	1/2, 220/230-50/60-1	PSC (2 pole)	3000	2500	3.80	3.25	6,46	5,52	60	4,2			0,37	26
DAA-P512-GD	1/2, 220/230-50/60-1	PSC (2 pole)	3000	2500	3.80	3.25	6,46	5,52	60	4,2			0,37	26
DAA-V505-EB	1/4, 110/115-50/60-1	PSC (4 pole)	1575	1275	2.20	1.80	3,74	3,06			25.5	863,43	0,19	26
DAA-V502-EB	1/4, 110/115-50/60-1	PSC (4 pole)	1575	1275	1.16	0.85	1,97	1,45			29.0	981,94	0,19	26
DAA-V505-ED	1/4, 220/230-50/60-1	PSC (4 pole)	1575	1275	2.20	1.80	3,74	3,06			25.5	863,43	0,19	26
DAA-V502-ED	1/4, 220/230-50/60-1	PSC (4 pole)	1575	1275	1.16	0.85	1,97	1,45			29.0	981,94	0,19	26
DAA-V510-EG	1/4, 240-50-1	PSC (4 pole)	-----	1275	-----	0.85	-----	1,45			29.0	981,94	0,19	26
DAA-V505-GB	1/2, 110/115-50/60-1	PSC (2 pole)	3000	2500	3.60	3.00	6,12	5,10			25.5	863,43	0,37	26
DAA-V507-GB	1/2, 110/115-50/60-1	PSC (2 pole)	3000	2500	1.95	1.40	3,32	2,38			29.0	981,94	0,37	26
DAA-V505-GD	1/2, 220/230-50/60-1	PSC (2 pole)	3000	2500	3.60	3.00	6,12	5,10			25.5	863,43	0,37	26
DAA-V507-GD	1/2, 220/230-50/60-1	PSC (2 pole)	3000	2500	1.95	1.40	3,32	2,38			29.0	981,94	0,37	26

CSA approved by Canadian Standards Association
cUR - UL recognized for use in Canada
CE conforms to European Standards
UL UR recognized

Diaphragm Miniature Pump Performance Overview

Model/ SERIES	POWER RATING 60 hz		FREE AIR FLOW	MAXIMUM PRESSURE		MAXIMUM VACUUM	
	hp	kW	LPM	psi	bar	inHg	mbar
MINIATURE DIAPHRAGM MODELS							
2D (DC)	-	-	.65	5.5	0,38	11	641
3D (DC)	-	-	1.18	7.1	0,49	11.3	631
5D (DC)	-	-	1.5	11	0,76	13	573
10D (AC)	-	-	3.8	15	1,0	15	505
10D (DC)	-	-	4.3	15	1,0	14	526
15D (AC)	-	-	7.0	24	1,9	20	335
15D (DC)	-	-	7.0	20	2,0	20	335
15D (DC) Twin	-	-	6-13	25	1,9	25	99
22D (AC)	1/20	0,04	26.3	25	1,7	23	234
22D (DC)	1/8	0.09	36.8	25	1.7	22.5	251

Catalog Performance Specifications

The specifications listed are that of a unit at sea level with an ambient temperature of 70 °F (21 °C), operating with normal electrical current conditions. The figures stated in this catalog are nominal approximations for models without accessories. Intake filters and exhaust mufflers, and the accumulation of contaminants in them during operation, will decrease the flow of air as well as the achievable pressure.

The units that we list in this catalog are a small portion of what we actually make. Those listed are considered “standard units” and are normally available from stock in small quantities. Variations are produced for many customers and by informing us of the application specifications we might find an existing unit that fits your requirement. If we don’t and the quantity is sufficient, we will design a “special unit” for the application.

Pictorial and dimensional data is subject to change without notice.

The information presented in this catalog is based on technical data and test results of nominal units. It is believed to be accurate and is offered as an aid in the selection of Gast products. It is the user's responsibility to determine suitability of the product for intended use and the user assumes all risk and liability whatsoever in connection therewith.

Typical Applications



Medical Applications

- Air and gas analysis
- Blood pressure monitors
- Respiration monitors
- Portable aspirators
- Breast pumps
- Body fluid analysis
- Sterilizers
- Ambulance/emergency vehicles
- Portable dental equipment
- Aspirators/suction units
- Sterilizers/autoclaves

Agriculture Applications

- Agricultural foam markers
- Crop sprayers
- Pest control equipment

Other Applications

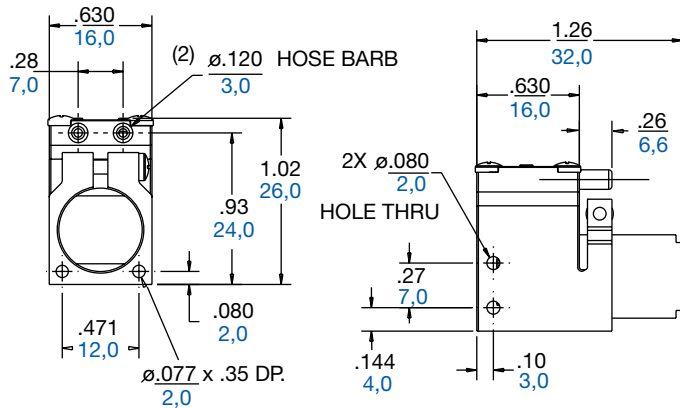
- Vacuum pick-and-place for electronic industry
- Portable dosimeters
- Air brushes
- Oil atomizers
- Tape drives
- Ink-jet printers
- Package labeling equipment
- Lab equipment
- Air and water sampling
- Water purification systems
- Pond aeration
- Automotive emissions testing
- Food processing
- Graphic arts equipment



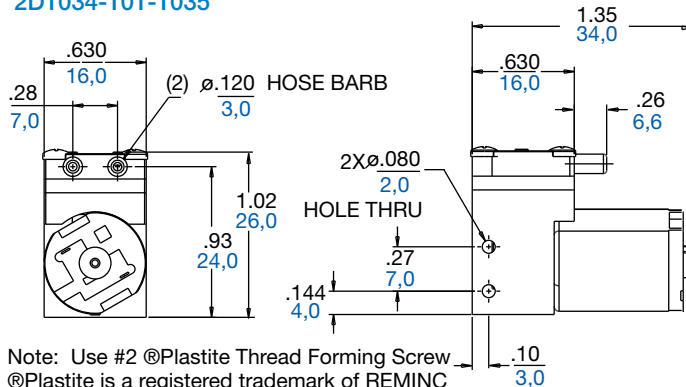
Product Dimensions (inches, mm)

Reference only

2D1034-101-1060
2D1034-101-1061



2D1034-101-1075
2D1034-101-1058
2D1034-101-1034
2D1034-101-1035



Note: Use #2 @Plastite Thread Forming Screw
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(RESEACH ENGINEERING & MANUFACTURING INC.)

Ironless Core Motor (DC)

5.5 psi max. pressure, 11 inHg max. vacuum
0.55 LPM open flow

Iron core motor (DC)

5 psi max. pressure, 11 inHg max. vacuum
0.65 LPM open flow

PRODUCT FEATURES

- Can be used as compressor or vacuum pump (same model)
- Can be mounted in any plane
- Custom mounting configurations available
- Head mounts in any of four positions
- Consult factory for voltage options
- Stroke options available

MATERIALS OF CONSTRUCTION

- EPDM (Ethylene Propylene Diene Monomer) valve and diaphragm
- Chemically resistant PPS (Polyphenylene Sulfide) for all other wetted components

Product Specifications

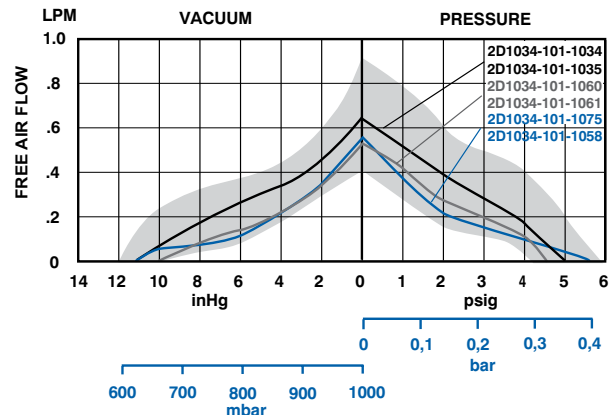
Model Number	Milliamps at Nominal Voltage	Potential Operating Voltage Range	Net Weight	
			oz	g
2D1034-101-1060*	30-70	4.5V DC	.56	16
2D1034-101-1061*	25-45	6V DC	.56	16
2D1034-101-1075*	30-80	6V DC	.56	16
2D1034-101-1058*	20-50	7.5 DC	.56	16
2D1034-101-1034**	70-110	6V DC	.56	16
2D1034-101-1035**	45-100	12V DC	.56	16

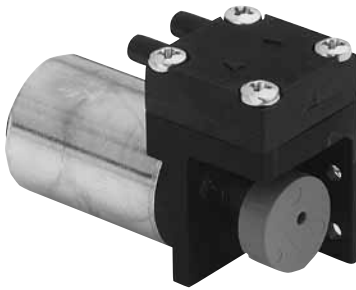
* Ironless core motor

** Iron core motor

Product Performance

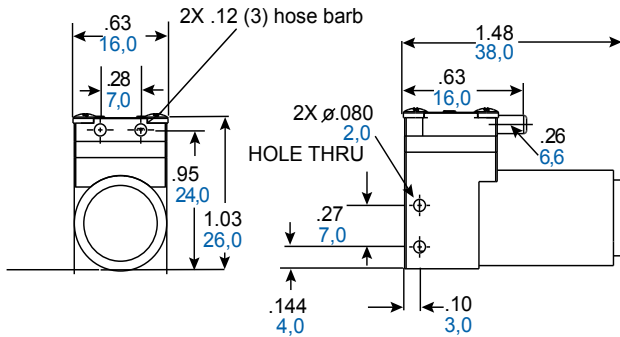
Note: The 2D performance is based on test results of nominal units. Solid lines show standard performance of models in the chart. Shaded area represents capabilities when models are customized for specific requirements. Please consult factory for customized models.





Product Dimensions (inches, mm)

Reference only



Note: Use #2 @Plastite Thread Forming Screw
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Ironless Core Motor (DC)

7.1 psi max. pressure, 11.2 inHg max. vacuum
 .91" LPM open flow

Iron Core Motor (DC)

6.5 psi max. pressure, 11.3 inHg max. vacuum
 1.18 LPM open flow

PRODUCT FEATURES

- Can be used as compressor or vacuum pump (same model)
- Can be mounted in any plane
- Custom mounting configurations available
- Head mounts in any of four positions
- Consult factory for voltage options
- Stroke options available

MATERIALS OF CONSTRUCTION

- EPDM (Ethylene Propylene Diene Monomer) valve and diaphragm
- Chemically resistant PPS (Polyphenylene Sulfide) for all other wetted components

Product Specifications

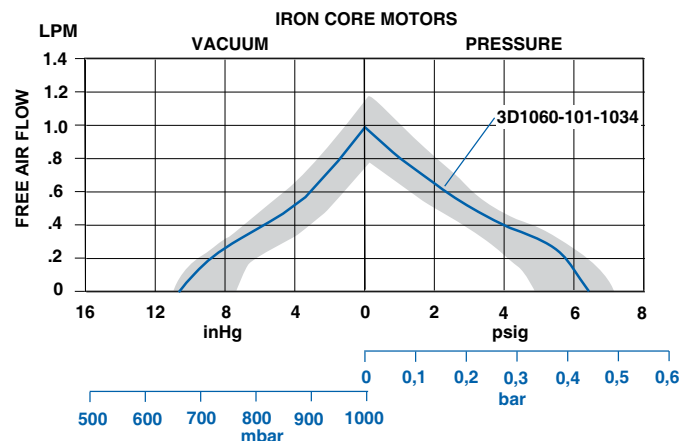
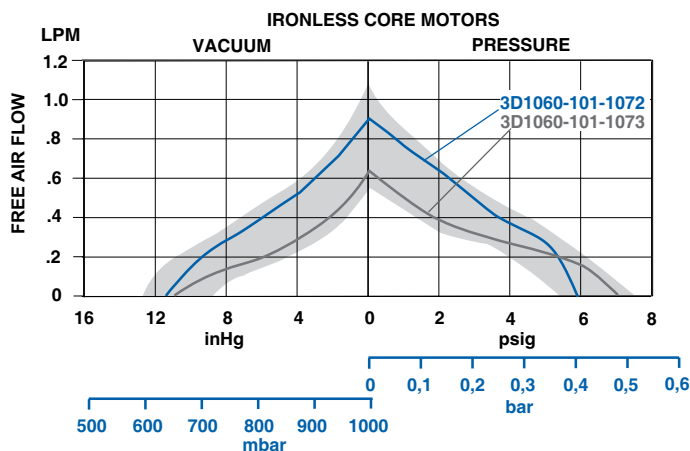
Model Number	Milliamps at Nominal Voltage	Potential Operating Voltage Range	Net Weight	
			oz	g
3D1060-101-1072*	30-60	6V DC	.56	16
3D1060-101-1073*	15-40	12V DC	.56	16
3D1060-101-1034**	90-130	6V DC	.56	16

* Ironless core motor

** Iron core motor

Product Performance

Note: The 3D performance is based on test results of nominal units. Solid lines show standard performance of models in the chart. Shaded area represents capabilities when models are customized for specific requirements. Please consult factory for customized models.





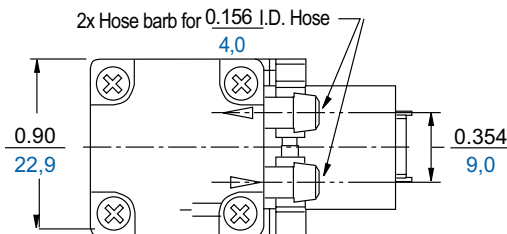
Single head model pictured.
Also available in twin head style.

Product Dimensions (inches, mm)

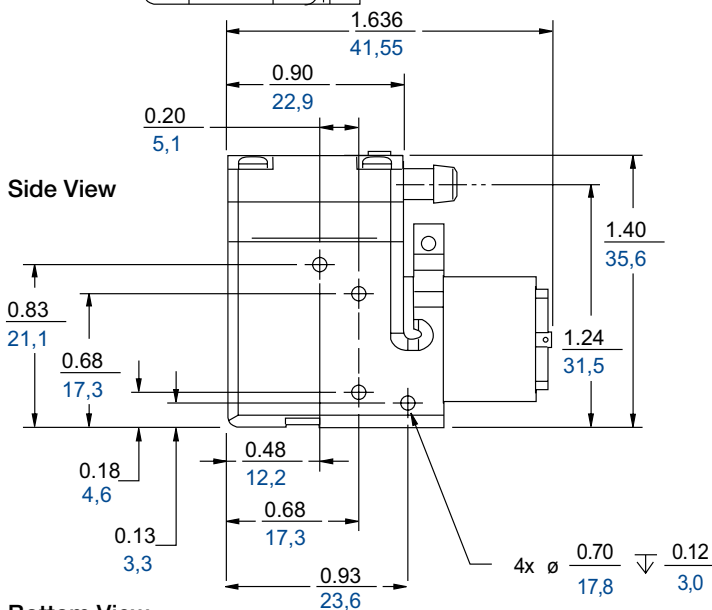
Reference only

Single Head 5D1060-101-1030
5D1060-101-1073
5D1060-102-1034

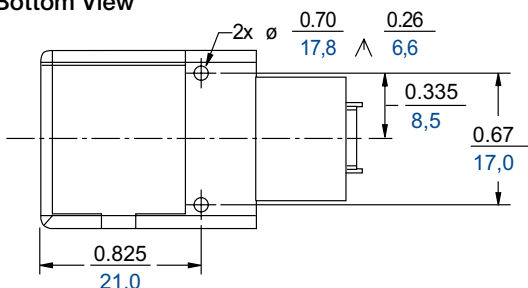
Top View



Side View



Bottom View



Ironless Core Motor (DC) Single Head

11 psi max. pressure, 13 inHg max. vacuum,
.95 LPM open flow

Iron Core Motor (DC) Single Head

8.5 psi max. pressure, 11 inHg max. vacuum,
1.5 LPM open flow

Ironless Core Motor (DC) Twin Head

5 psi max. pressure, 16/22 inHg max. vacuum*,
1.6/2.6 LPM open flow*

PRODUCT FEATURES

- Can be used as compressor or vacuum pump (same model)
- Can be mounted in any plane
- Diaphragm and valve are easily field serviceable, if required
- Custom mounting configurations available
- Head mounts in any of four positions
- Consult factory for voltage/stroke options

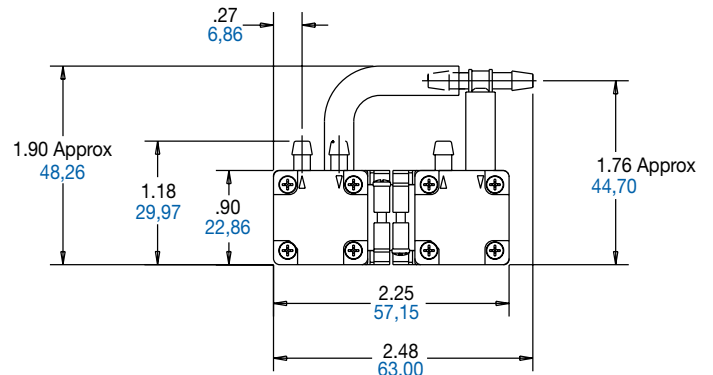
MATERIALS OF CONSTRUCTION

- Chemically resistant PPS (Polyphenylene Sulfide) head assembly
- EPDM (Ethylene Propylene Diene Monomer) valve and diaphragm

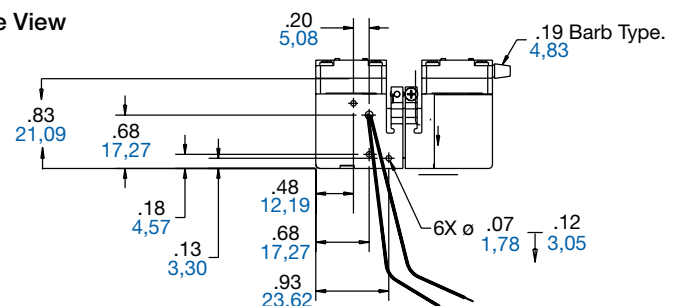
Staged/parallel vacuum configuration chart on page 11

Twin Head 5D6070-101-1076

Top View



Side View



Product Specifications

Model Number	Milliamps at Nominal Voltage	Potential Operating Voltage Range	Net Weight	
			oz	g
5D1060-101-1030*	15-60	12V DC	1.5	42,5
5D1060-102-1034**	90-200	6V DC	1.5	42,5
5D1060-101-1073*	20-50	12V DC	1.5	42,5
5D6070-101-1076*†	60-160	6V DC	2.0	56,7

* Ironless core motor ** Iron core motor † Twin head model

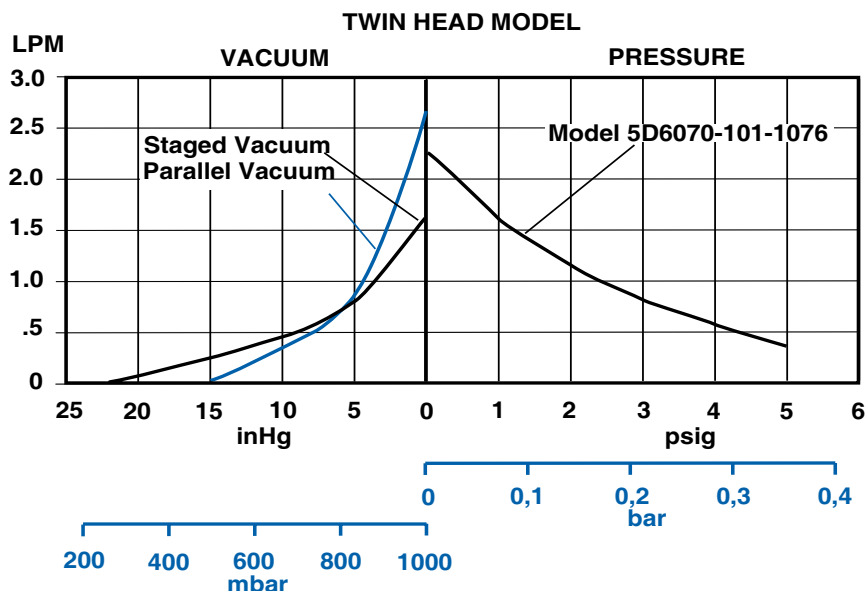
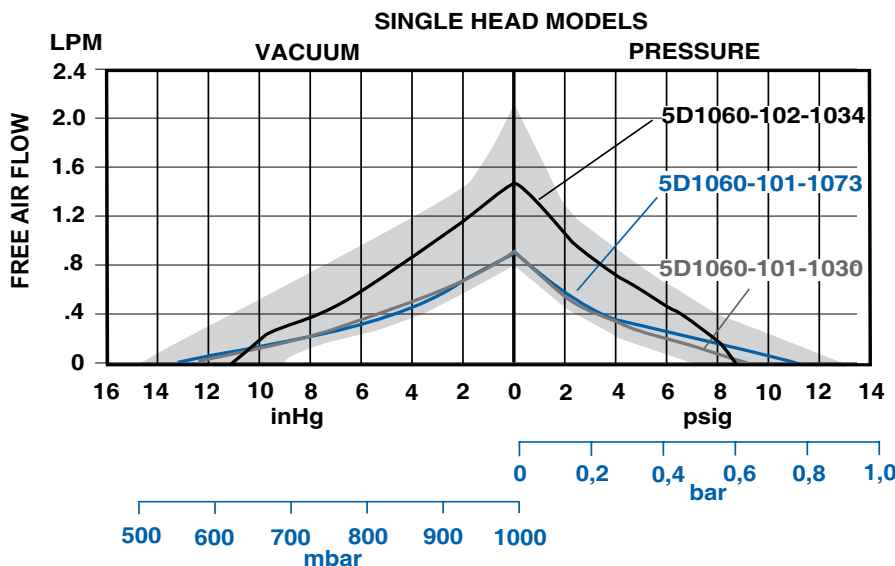
Product Performance

Note: The 5D performance is based on test results of nominal units.

Solid lines show standard performance of models in the chart.

Shaded area represents capabilities when models are customized for specific requirements.

Please consult factory for customized models.





DC Model



AC Model

AC Motor

15 psi max. pressure, 15 inHg max. vacuum
3.8 LPM open flow

DC Motor

15 psi max. pressure, 14 inHg max. vacuum
4.3 LPM open flow

PRODUCT FEATURES

- Use as compressor or vacuum pump (same model)
- Mount in any plane
- Maintenance-free ball bearings are sized for long life
- Diaphragm and valve are easily field serviceable, if required
- Alternate stroke options available
- Custom mounting configurations available
- Heads mount in any of four positions
- Heads available with threaded or barbed ports
- Motor equipped with Electromagnetic Interference (EMI) Suppression

MATERIALS OF CONSTRUCTION

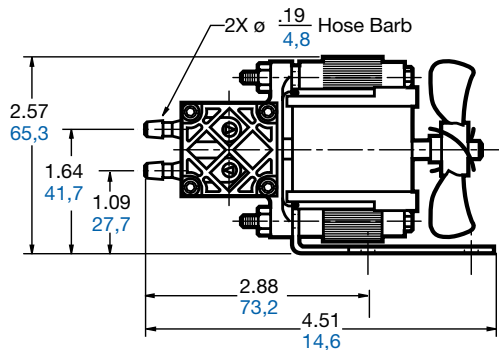
- Head assembly of chemical/heat resistant PPS (Polyphenylene Sulfide) for corrosion resistance
- EPDM (Ethylene Propylene Diene Monomer) valve and diaphragm

Product Dimensions (inches, mm)

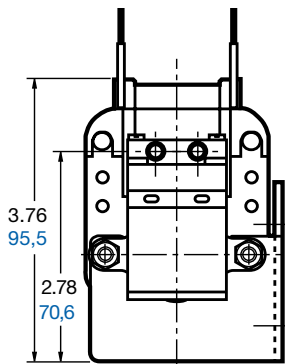
Reference only

AC MODELS

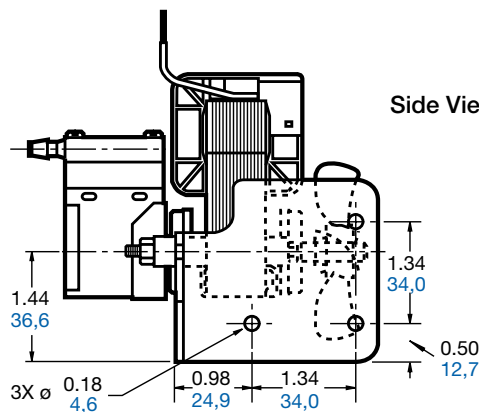
Top View



Front View



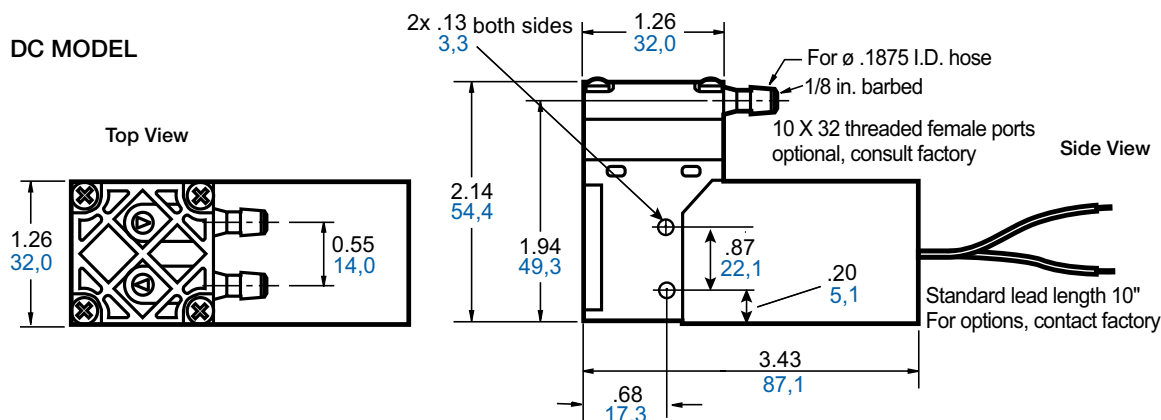
Side View



Product Dimensions (inches, mm)

Reference only

DC MODEL

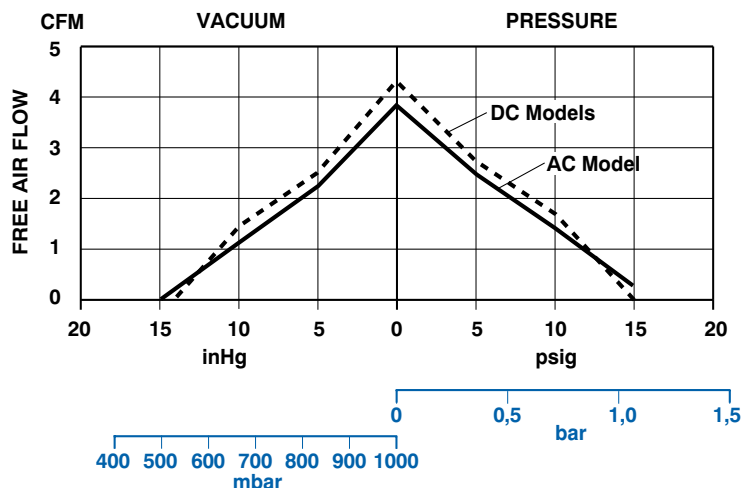


Product Specifications

Model Number	Motor	Max. Amp. Draw	Net Weight	
			lbs	kg
10D1125-101-1051	6V DC	1	.5	0,23
10D1125-101-1052	12V DC	.5	.5	0,23
10D1125-101-1053	24V DC	.3	.5	0,23
10D1110-101-1043	115-60-1	.6	1.85	0,83

Product Performance

Note: DC performance data taken at nominal voltage.





AC Models



DC Models

DC Motor

20 psi max. pressure, 20 inHg max. vacuum
7.0 LPM open flow

AC Motor

25 psi max. pressure, 20 inHg max. vacuum
7.0 LPM open flow

PRODUCT FEATURES

- Flow-enhanced design meets compressed air/vacuum demand
- Easy install design can be mounted on any plane
- Oversized ball bearings ensure maintenance-free operation
- Robust valve design tolerant of small amounts of intake liquid
- Field serviceable diaphragm/valve designs: K813 (EPDM)
- Ethylene Propylene Diene Monomer, K813A (Neoprene)

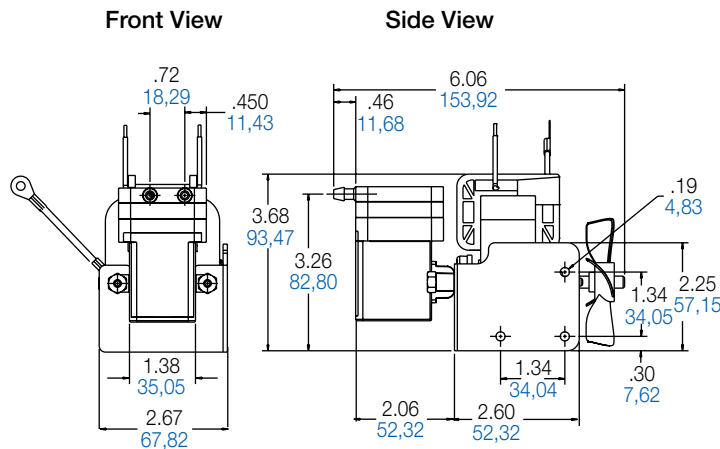
MATERIALS OF CONSTRUCTION

- Heat/chemical resistant Polyphenylene Sulfide (PPS) head assembly for greater corrosion resistance
- Ethylene Propylene Diene Monomer (EPDM) diaphragm, Ethylene Propylene Diene Monomer (EPDM) valve assembly. Neoprene diaphragm, neoprene valve assembly. 100 Series models are Ethylene Propylene Diene Monomer (EPDM), 200 Series models are Neoprene

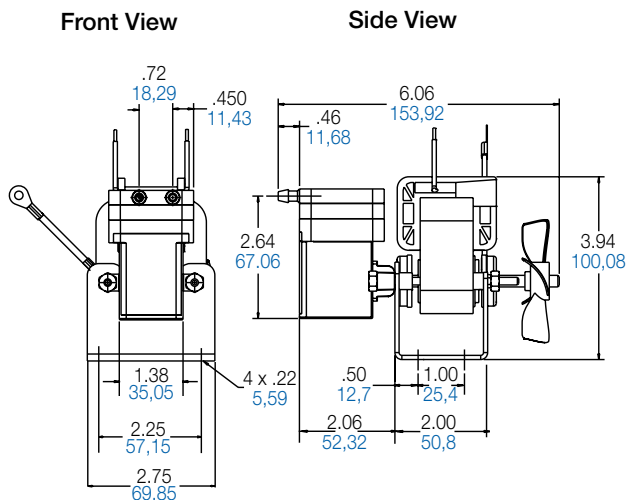
Product Dimensions (inches, mm)

Reference only

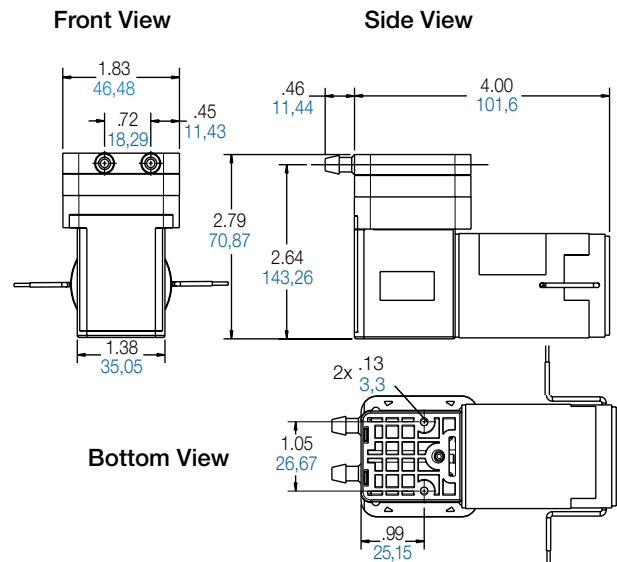
AC Units Schematic A (Right Angle Foot Bracket)



AC Units Schematic B (U-Shaped Foot Bracket)



DC Units



Note: Use #2 @Plastite Thread Forming Screw 3/16" I.D. Tube Hose Best Fit
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Product Specifications

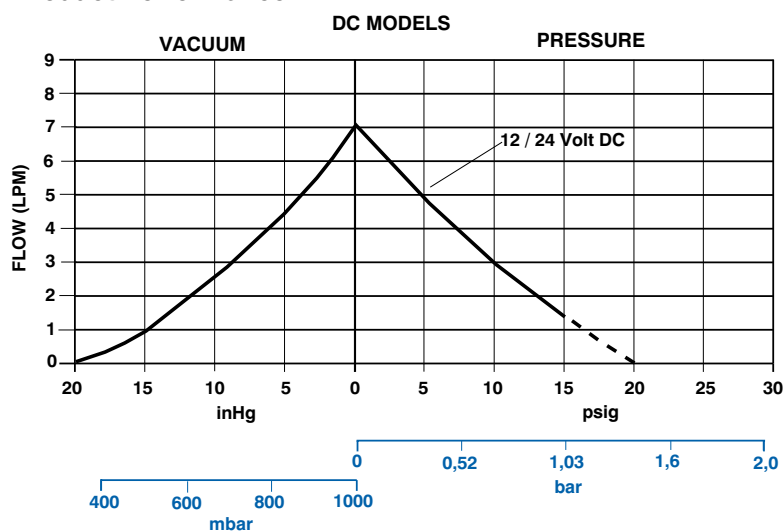
Model Number	Motor	Maximum Amp Draw		Net Weight		Diaphragm Material
		60 Hz	50 Hz	lbs/oz	g/kg	
15D1150-101-1006	12 V DC	1.2		14 oz	397 g	EPDM
15D1150-201-1006	12 V DC	1.2		14 oz	397 g	Neoprene
15D1150-101-1014	24 V DC	.6		14 oz	397 g	EPDM
15D1150-201-1014	24 V DC	.6		14 oz	397 g	Neoprene
15D1150-101-1012**	100-115-60/50-1	.9	.5	2.5 lbs	1,14 kg	EPDM
15D1150-102-1012*	100-115-60/50-1	.9	.5	2.5 lbs	1,14 kg	EPDM
15D1150-201-1012**	100-115-60/50-1	.9	.5	2.5 lbs	1,14 kg	Neoprene
15D1150-101-1021**	230-60/50-1	.9	.5	2.5 lbs	1,14 kg	EPDM
15D1150-202-1021*	230-60/50-1	.9	.5	2.5 lbs	1,14 kg	Neoprene

* Standard right angle foot bracket see schematic A

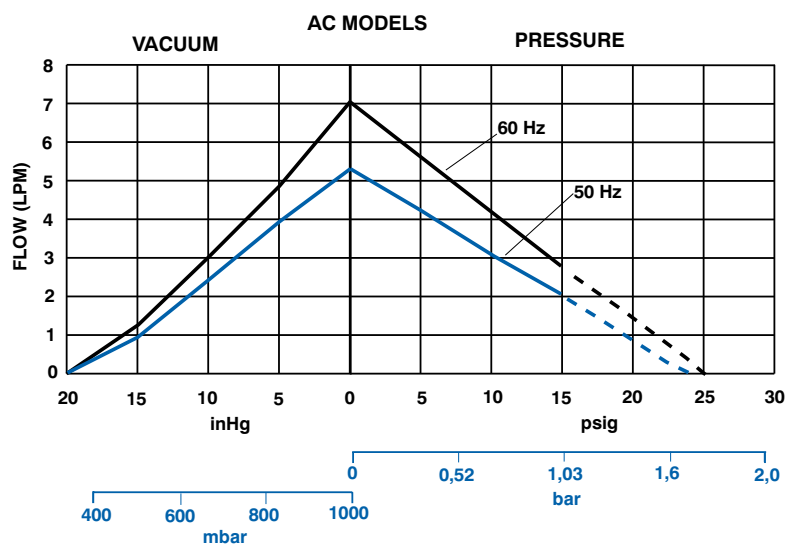
** Optional U-Shaped foot bracket see schematic B

Note: The above units are not EU RoHS

Product Performance



Dashed Line Indicates Intermittent Duty



Dashed Line Indicates Intermittent Duty



DC Motor

25 psi max. pressure*, 13.0 LPM open flow
26 inHg max. vacuum, 6.0 LPM open flow

PRODUCT FEATURES

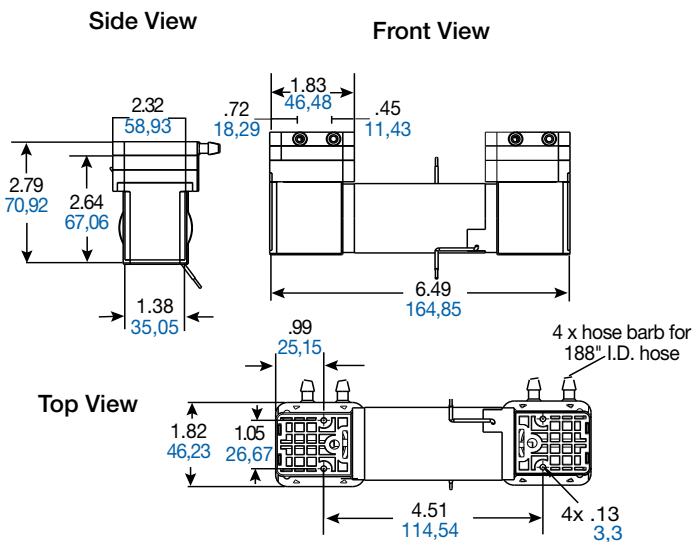
- Flow-enhanced design meets compressed air/vacuum demand
- Ultra quiet noise level down to 45dB(A)
- Easy install design can be mounted on any plane
- Oversized ball bearings ensure maintenance-free operation
- Robust valve design tolerant of small amounts of intake liquid
- Field serviceable diaphragm/valve designs: K813 EPDM (Ethylene Propylene Diene Monomer) & K813A (Neoprene)

MATERIALS OF CONSTRUCTION

- Heat/chemical resistant Polyphenylene Sulfide (PPS) head assembly for greater corrosion resistance
- EPDM (Ethylene Propylene Diene Monomer) diaphragm, EPDM (Ethylene Propylene Diene Monomer) valve assembly (standard)
- Neoprene diaphragm, neoprene valve assembly (optional)
- 100 Series models are EPDM (Ethylene Propylene Diene Monomer), 200 Series models are Neoprene

Product Dimensions (inches, mm)

Reference only



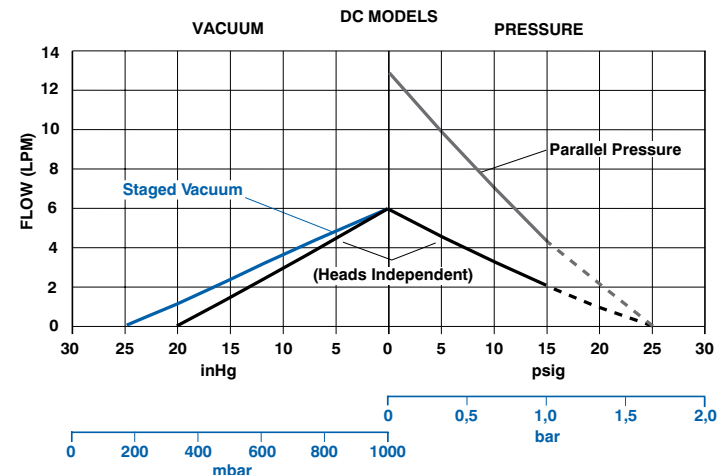
Note: Use #6 @Plastite Thread Forming Screw
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 (RESEACH ENGINEERING & MANUFACTURING INC.)

Product Specifications

Model Number	Motor	Maximum Amp Draw	Net Weight oz	Net Weight kg	Diaphragm Material
15D5150-101-1039*	12 V DC	1.2	42.5	0,64	EPDM
15D5150-201-1039*	12 V DC	1.2	42.5	0,64	Neoprene
15D7150-101-1039+	12 V DC	1.5	42.5	0,64	EPDM

* Staged vacuum models - shipped with tubing connected to ports
 + Independent models - provided with one head as vacuum and one head as pressure

Product Performance



Dashed Line Indicates Intermittent Duty
 Parallel pressure, staged vacuum



DC Motor

25 psi max. pressure, 22.5 inHg max. vacuum
26.8 LPM open flow

PRODUCT FEATURES

- Permanently lubricated ball bearings on rod and motor drive bearing
- Rear sleeve bearing (1002, 1005 models have ball bearing for higher pressure)
- Field service capability
- Includes AJ988 filter assembly, unattached

MATERIALS OF CONSTRUCTION

- Head assembly and bracket made of Polyphenylene Sulfide (PPS) for excellent chemical and heat resistance
- Stainless steel valves
- Neoprene/nylon diaphragm standard
- Other diaphragm materials available

RECOMMENDED ACCESSORIES

- AA640 Vacuum gauge
- AA204 Vacuum relief valve
- AA644B Pressure gauge
- AA203 Pressure relief valve
- AF584A Rubber feet (3)
- B300Q Muffler/filter (high capacity; to be used in dirty environments or when superior noise reduction is required)

Product Dimensions (inches, mm)

Reference only

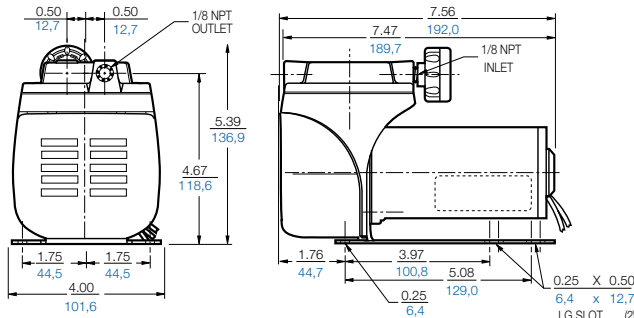
22D1180-201-1002

22D1180-201-1005

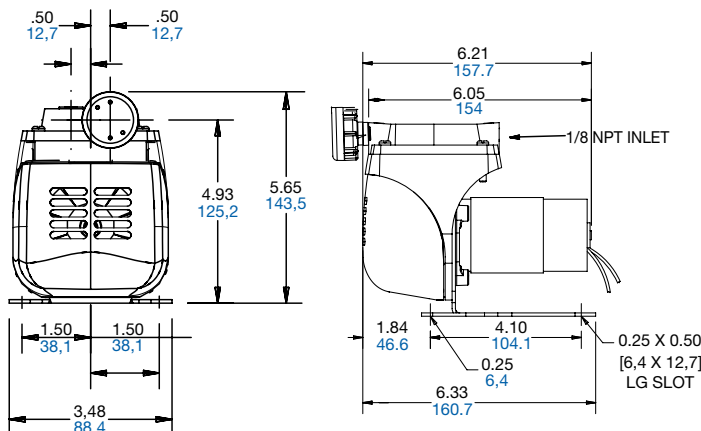
*22D1180-205-1002

*22D1180-202-1005

*Ports in opposite positions to the below diagrams



22D1180-201-1088



Shown with attached filter/muffler

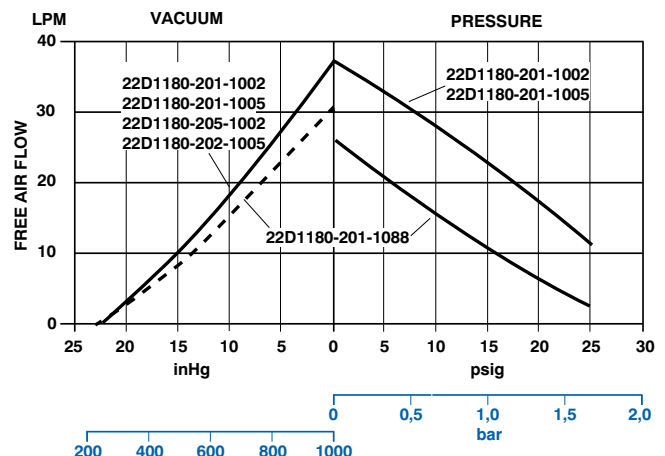
12V & 24V units have the shorter 3.97" mtg foot dimension.
24V units also have the longer 5.08" mtg foot dimension.

Product Specifications

Model Number	Motor	RPM	Running Amps	HP	kW	Net Weight lbs	Net Weight kg
22D1180-201-1088	12V DC	3000	3.6	1/20	0,04	2.7	1,22
22D1180-201-1002	12V DC	3200	6.2	1/8	0,09	4.9	2,21
22D1180-201-1005	24V DC	3200	3.5	1/8	0,09	4.9	2,21
*22D1180-205-1002	12V DC	3200	6.2	1/8	0,09	4.9	2,21
*22D1180-202-1005	24V DC	3200	3.5	1/8	0,09	4.9	2,21

* Ports in opposite positions to the diagrams on the previous page.

Product Performance





Shaded Pole Motor

20 psi continuous pressure (25 psi inter.)
22 inHg max. vacuum, 18.7 LPM open flow (60 Hz)

PSC Motor

25 psi max. pressure, 23 inHg max. vacuum
26.3 LPM open flow (60 Hz)

PRODUCT FEATURES

- Permanently lubricated ball bearings on rod and motor drive bearing
- Rear sleeve bearing (DC 1002, 1005 models have ball bearing for higher pressure)
- Field service capability
- PSC models include attached capacitor
- Includes AJ988 filter assembly, unattached

MATERIALS OF CONSTRUCTION

- Head assembly and bracket made of Polyphenylene Sulfide (PPS) for excellent chemical and heat resistance
- Stainless steel valves
- Neoprene/nylon diaphragm standard
- Other diaphragm materials available

RECOMMENDED ACCESSORIES

- AA640 Vacuum gauge
- AA204 Vacuum relief valve
- AA644B Pressure gauge
- AA203 Pressure relief valve
- AF584A Rubber feet (3)
- B300Q Muffler/filter (high capacity; to be used in dirty environments or when superior noise reduction is required)
- K588 Service kit Assembled head

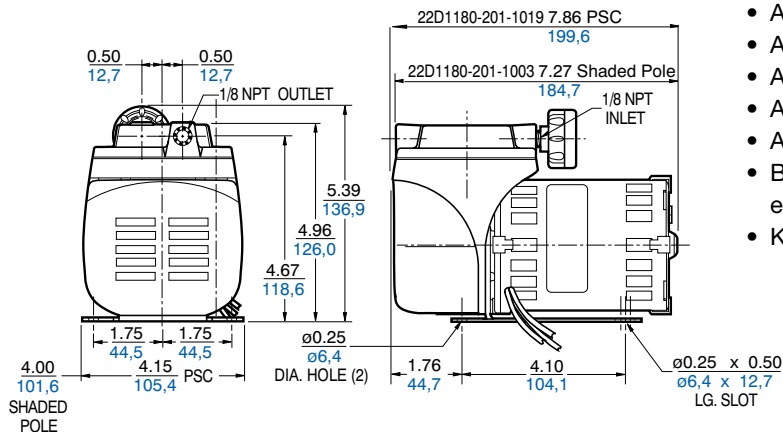
Product Dimensions (inches, mm)

Reference only

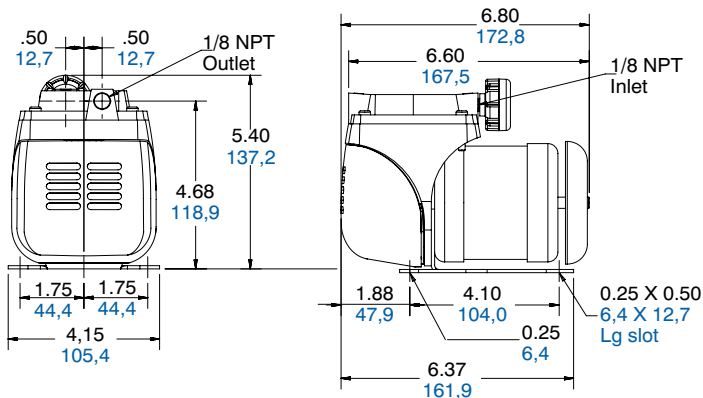
22D1180-201-1003

22D1180-201-1019

Shown with attached filter/muffler



22D1180-201-1087 Shown with attached filter/muffler



Product Specifications

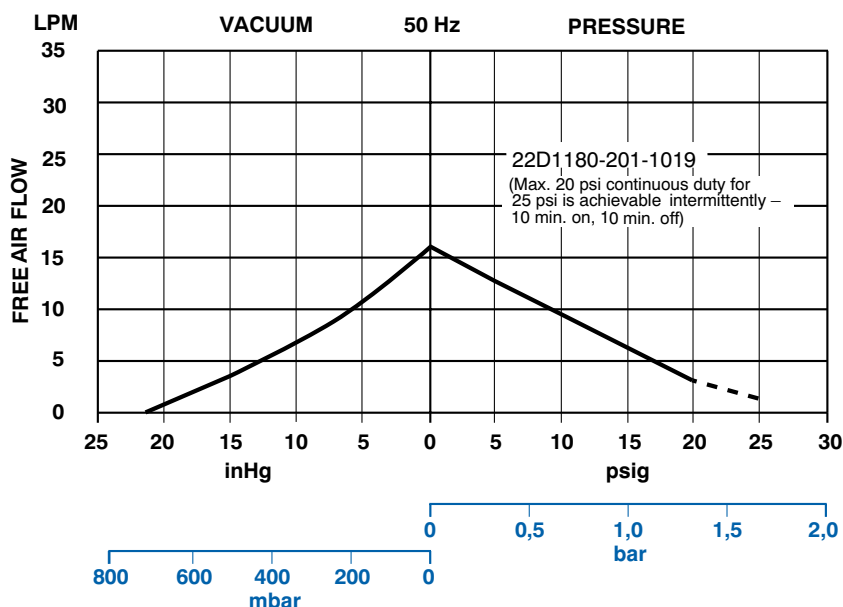
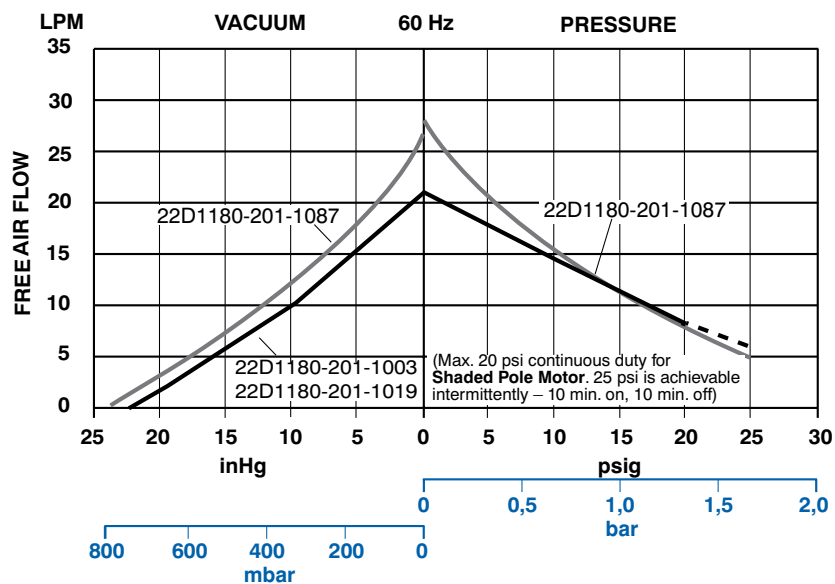
Model Number	Motor	RPM	Running Amps	HP	kW	Net Weight	
						lbs	kg
22D1180-201-1003	*115-60-1	1725	1.6	1/20	0,04	4.8	2,16
† 22D1180-201-1019	PSC 230-50/60-1	1725	0.8	1/20	0,04	5.5	2,48
22D1180-201-1087	PSC 115-60-1	1725	0.5	1/20	0,04	5.1	2,31

* Shaded Pole

† @60 Hz – 50 Hz is 1425 RPM

Product Performance

Metric, AC model shows 60 Hz performance.





PSC 4 Pole AC

50 psi max. pressure, 24 inHg max. vacuum,
.52 CFM open flow (60 Hz)

PSC 2 Pole AC

50 psi max. pressure, 24 inHg max. vacuum,
.80 CFM open flow (60 Hz)

DC Low Speed DC

50 psi max. pressure, 24 inHg max. vacuum,
.56 CFM open flow

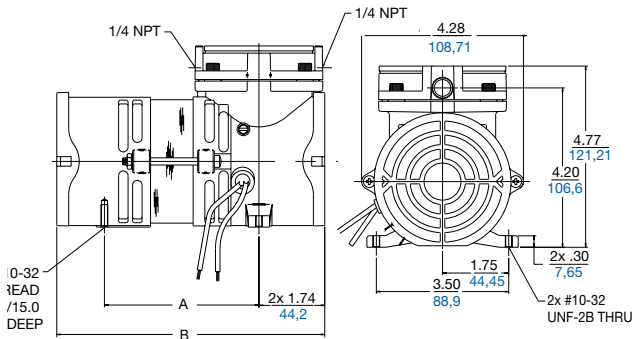
High Speed DC

50 psi max. pressure, 24 inHg max. vacuum,
.81 CFM open flow

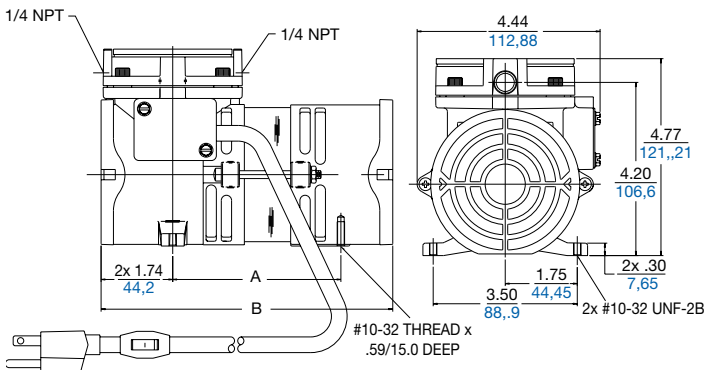
Product Dimensions (inches, mm)

Reference only

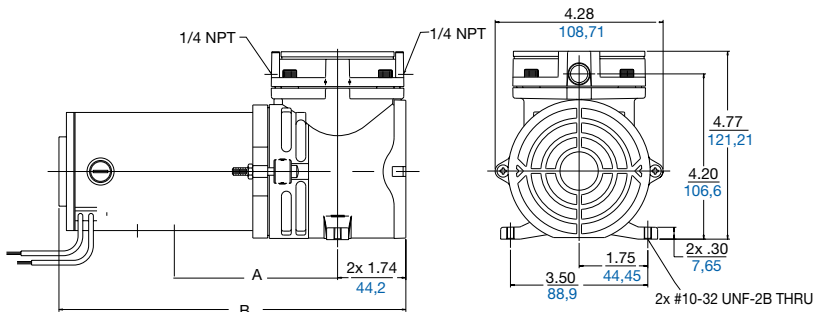
AC Models



AC Models (+ with electrical box)



DC Models



PRODUCT FEATURES

- Oilless operation
- Motor-mounted
- Rugged construction
- Low maintenance

INCLUDES

- Capacitors for PSC motors: AG331 (FB, HB, and HD motors), AF873A (FD motor)

RECOMMENDED ACCESSORIES

- Pressure gauge AF583 / Vacuum gauge AA640
- Pressure relief valve AF887 / Vacuum relief valve AA550C-V
- Rubber feet AG505
- Repair kit K309 for all diaphragm units but MOA-P109-AA, which uses Repair kit K309A

	A Dimension		B Dimensions	
	Inches	Metric	Inches	Metric
MOA-P101-AA	4.09	103,89	7.09	180,09
+MOA-P109-AA	4.09	103,89	7.09	180,09
MOA-V112-AE	4.09	103,76	7.09	180,09
+MOA-V113-AE	4.09	103,89	7.09	180,09
MOA-P101-CA	4.59	116,59	7.59	192,79
+MOA-P109-CA	4.59	116,59	7.59	192,79
MOA-P101-CD	4.59	116,59	7.59	192,79
MOA-V111-CD	4.59	116,59	7.59	192,79
MOA-P108-FB	4.09	103,89	7.09	180,09
MOA-V112-FB	4.09	103,89	7.09	180,09
MOA-P108-FD	4.09	103,89	7.09	180,09
MOA-V112-FD	4.09	103,89	7.09	180,09
MOA-P108-HB	4.59	116,59	7.59	192,79
MOA-P108-HD	4.59	116,59	7.59	192,79
MOA-P101-JH	4.16	105,66	8.84	224,54
MOA-V111-JH	4.16	105,66	8.84	224,54
MOA-P101-JK	4.16	105,66	8.84	224,54
MOA-V111-JK	4.16	105,66	8.84	224,54
MOA-V111-KH	4.16	105,66	8.76	222,50
MOA-P101-KH	4.16	105,66	8.76	222,50

+ with electrical box

Product Specifications

Model Number	Motor	Motor Type	RPM		HP	kW	Net Weight		Regulatory
			60 Hz	50 Hz			lbs	kg	
MOA-P101-AA	115-60-1	Shaded Pole	1575	-----	1/16	0,05	5.63	2,56	cUR/CE
MOA-P101-CA	115-60-1	Shaded Pole	1575	-----	1/16	0,05	5.63	2,56	cUR
MOA-P101-CD	220/230-50/60-1	Shaded Pole	1575	1275	1/16	0,05	5.63	2,56	CSA/CE
MOA-P101-JH	12 Volt	DC		1800	1/16	0,05	5.63	2,56	CE
MOA-P101-KH	12 Volt	DC		3000	1/8	0,09	5.63	2,56	CE
MOA-P101-JK	24 Volt	DC		1800	1/16	0,05	5.63	2,56	CE
**MOA-P108-FB	110/115-50/60-1	PSC (2 Pole)	3000	2500	1/8	0,09	5.63	2,56	CE
**MOA-P108-FD	220/230-50/60-1	PSC (2 Pole)	3000	2500	1/8	0,09	5.63	2,56	CSA/CE
**MOA-P108-HB	110/115-50/60-1	PSC (4 Pole)	1575	1275	1/16	0,05	5.63	2,56	cUR/CE
**MOA-P108-HD	230/220-60/50-1	PSC	1575	1275	1/16	0,05	5.63	2,56	CSA/CE
*MOA-P109-AA	115-60-1	Shaded Pole	1575	-----	1/16	0,05	5.63	2,56	UR/CSA
*MOA-P109-CA	115-60-1	Shaded Pole	1575	-----	1/16	0,05	5.63	2,56	UR
MOA-V111-JH	12 Volt	DC		1800	1/16	0,05	5.63	2,56	
MOA-V111-KH	12 Volt	DC		3000	1/8	0,09	5.63	2,56	CE
MOA-V111-JK	24 Volt	DC		1800	1/16	0,05	5.63	2,56	CE
MOA-V111-CD	220/230-50/60-1	Shaded Pole	1575	1275	1/16	0,05	5.63	2,56	CSA/CE
MOA-V112-AE	110/115-50/60-1	Shaded Pole	1575	1275	1/16	0,05	5.63	2,56	CSA/CE
**MOA-V112-FB	110/115-50/60-1	PSC (2 Pole)	3000	2500	1/8	0,09	5.63	2,56	CSA
**MOA-V112-FD	220/230-50/60-1	PSC (2 Pole)	3000	2500	1/8	0,09	5.63	2,56	CSA/CE
*MOA-V113-AE	110/115-50/60-1	Shaded Pole	1575	1275	1/16	0,05	5.63	2,56	CSA

* Cord, switch and plug assembly

** Capacitor shipped with unit - not attached

CSA – Approved by the Canadian Standards Association

cUR – UL recognized for use in Canada and US

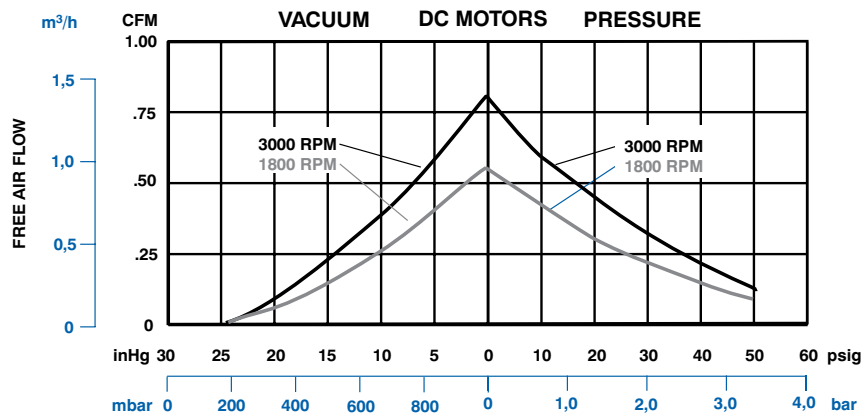
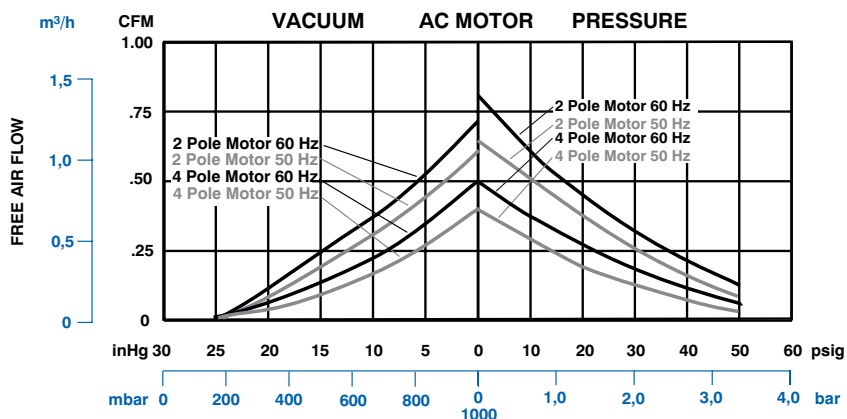
CNL – UL listed for use in Canada and US

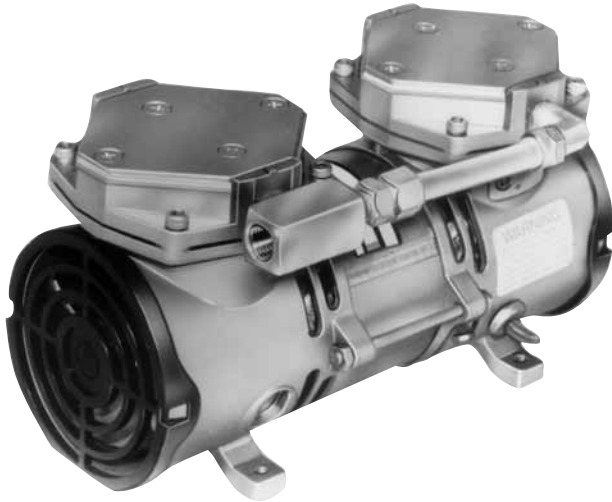
CE – Conforms to European Standards

UL – UL Listed for US

UR – UL recognized for US

Product Performance





PSC 4 Pole, Single Stage

50 psi max. pressure, 1.03 CFM open flow (60 Hz)

PSC 2 Pole, Single Stage

50 psi max. pressure, 1.58 CFM open flow (60 Hz)

PSC 4 Pole, Single Stage

24 inHg max. vacuum, 1.0 CFM open flow (60 Hz)

PSC 2 Pole, Single Stage

24 inHg max. vacuum, 1.4 CFM open flow (60 Hz)

PSC 4 Pole Two Stage

28 inHg max. vacuum, .47 CFM open flow (60 Hz)

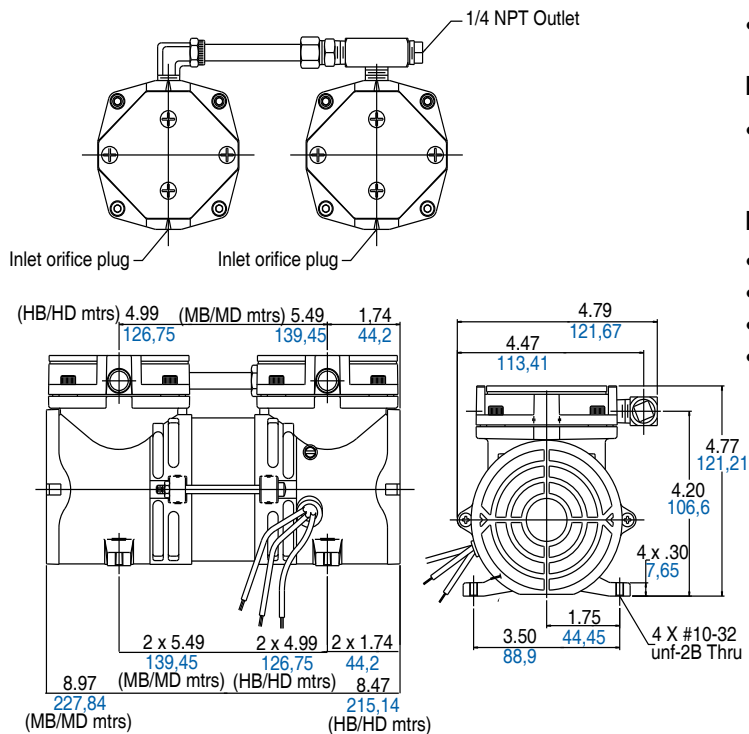
PSC 2 Pole, Two Stage

28.5 inHg max. vacuum, .80 CFM open flow (60 Hz)

Product Dimensions (inches, mm)

Reference only

Single Staged Shown



PRODUCT FEATURES

- Oilless operation
- Motor-mounted
- Rugged construction
- Low maintenance

INCLUDES

- Capacitors shipped unattached AG331 (4-pole motors), AF485A (2-pole motor)

RECOMMENDED ACCESSORIES

- Pressure gauge AF583, vacuum gauge AA640
- Pressure relief valve AF887, Vacuum relief valve AA550C-V
- Rubber feet (4) AG505
- Repair kit K309 (Use 2)

Product Specifications

Model Number	Motor	Type	Stages Vacuum Models	RPM		HP	kW	Net Weight		Regulatory
				60 Cycle	50 Cycle			lbs	kg	
**MAA-P102-HB	115/110-60/50-1	PSC (4 pole)	—	1575	1275	1/16	0,05	8	3,6	cUR/CE
**MAA-P102-HD	220/230-50/60-1	PSC (4 pole)	—	1575	1275	1/16	0,05	8	3,6	cUR/CE
**MAA-P102-MB	115/110-60/50-1	PSC (2 pole)	—	3000	2500	1/8	0,09	9	4,1	CE
**MAA-V103-HB	115/110-60/50-1	PSC (4 pole)	One	1575	1275	1/16	0,05	8	3,6	cUR/CE
**MAA-V109-HB	115/110-60/50-1	PSC (4 pole)	Two	1575	1275	1/16	0,05	8	3,6	cUR
**MAA-V109-HD	220/230-50/60-1	PSC (4 pole)	Two	1575	1275	1/6	0,05	8	3,6	cUR
**MAA-V103-MB	115/110-60/50-1	PSC (2 pole)	One	3000	2500	1/8	0,09	9	4,1	CE
**MAA-V109-MB	115/110-60/50-1	PSC (2 pole)	Two	3000	2500	1/8	0,09	9	4,1	CE
**MAA-V109-MD	208-230/ 220-240-60/50-1	PSC (2 pole)	Two	3000	2500	1/8	0,09	9	4,1	CE

** Capacitor shipped with unit - not attached

CSA – Approved by the Canadian Standards Association

cUR – UL recognized for use in Canada and US

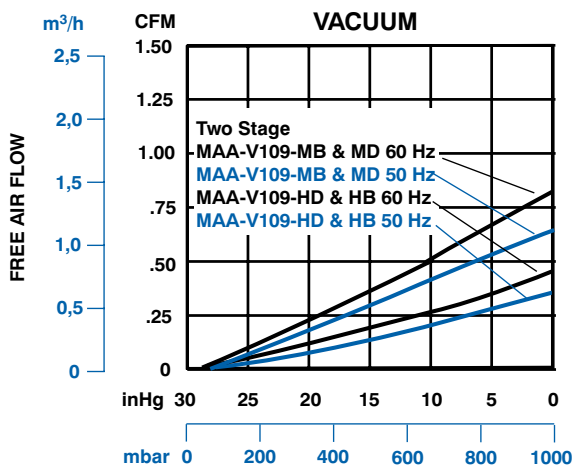
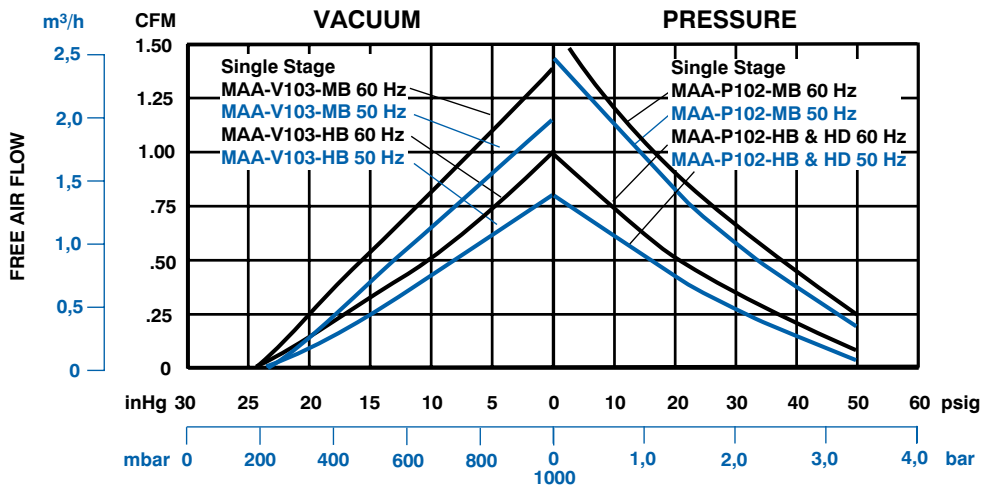
CNL – UL listed for use in Canada and US

CE – Conforms to European Standards

UL – UL Listed for US

UR – UL recognized for US

Product Performance





Shaded Pole/ PSC 4 Pole

60 psi max. pressure, 25.5 inHg max. vacuum
1.1 CFM open flow (60 Hz)

PSC 2 Pole

60 psi max. pressure, 25.5 inHg max. vacuum
1.9 CFM open flow (60 Hz)

Low Speed DC (Brush Type)

60 psi max. pressure, 25.5 inHg max. vacuum
1.1 CFM open flow

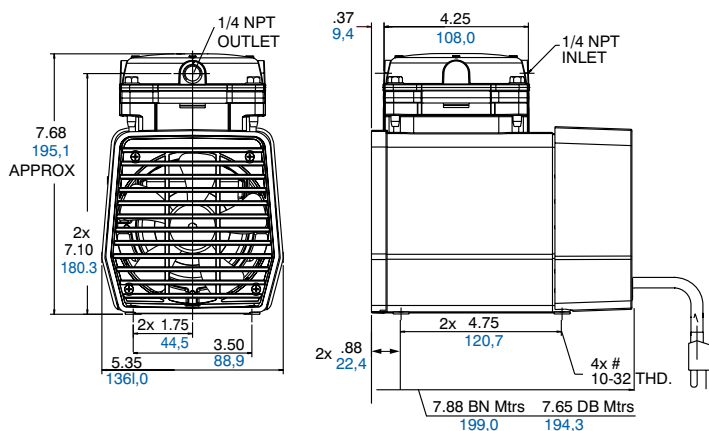
High Speed DC (Brush Type)

60 psi max. pressure, 25.5 inHg max. vacuum
1.9 CFM open flow

Product Dimensions (inches, mm)

Reference only

AC Models



PRODUCT FEATURES

- Oilless operation
- Motor mounted
- Rugged construction/low maintenance

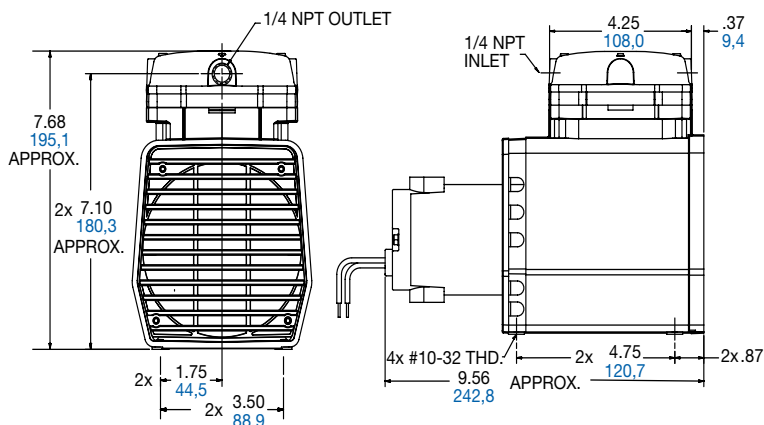
INCLUDES

- Muffler AH190A for vacuum
- Capacitor AF873A unattached (DB and DD motors)
- Capacitor AF485A unattached (FB motor)
- Capacitor AF876 unattached (FD motor)

RECOMMENDED ACCESSORIES

- Pressure gauge AF583 / Vacuum gauge AA640
- Pressure relief valve AF887 / Vacuum relief valve AA550C-V
- Rubber feet (4) AF584A
- Repair kit K294A

DC Models



Product Specifications

Note: "P" model are pressure; "V" models are vacuum only

Model Number	Motor	Motor Type	RPM		HP	kW	Net Weight		Regulatory
			60 Hz	50 Hz			lbs	kg	
*DOA-P701-AA	115-60-1	Shaded pole	1575	----	1/8	0,09	14.5	6,6	UL/CNL
**DOA-P703-AA	115-60-1	Shaded pole	1575	----	1/8	0,09	16.0	6,6	UL/CNL
*DOA-P701-AC	230-60-1	Shaded pole	1575	----	1/8	0,09	14.5	6,6	CSA
***DOA-P501-BN	220/240-50-1	Shaded pole	----	1275	1/8	0,09	14.5	6,6	CE
+DOA-P509-BN	220/240-50-1	Shaded pole	----	1275	1/8	0,09	16.0	7,3	CE
DOA-P501-DB	115/110-60/50-1	PSC (4 pole)	1575	1275	1/8	0,09	14.5	6,6	CE
DOA-P501-DD	230/220-60/50-1	PSC (4 pole)	1575	1275	1/8	0,09	14.5	6,6	cUR
DOA-P501-FB	115/110-60/50-1	PSC (2 pole)	3000	2500	1/3	0,25	14.5	6,6	cUR
##DOA-P703-FB	115/110-60/50-1	PSC (2 pole)	3000	2500	1/3	0,25	14.5	6,6	UL/CNL
DOA-P501-FD	230/220-60/50-1	PSC (2 pole)	3000	2500	1/3	0,25	14.5	6,6	UL/CNL/CE
#DOA-P518-FD	230/220-60/50-1	PSC (2 pole)	3000	2500	1/3	0,25	14.5	6,6	cUR/CE
DOA-P501-JH	12 Volt	DC		2100	1/8	0,09	13.0	5,9	CE
DOA-P501-KH	12 Volt	DC		3200	1/8	0,09	13.0	5,9	
DOA-P501-JK	24 Volt	DC		2100	1/8	0,09	13.0	5,9	CE
*DOA-V722-AA	115-60-1	Shaded pole	1575	----	1/8	0,09	14.5	6,6	UL/CNL
*DOA-V702-AC	230-60-1	Shaded pole	1575	----	1/8	0,09	14.5	6,6	CSA
***DOA-V502-BN	220/240-50-1	Shaded pole	----	1275	1/8	0,09	14.5	6,6	CE
DOA-V502-DB	115/110-60/50-1	PSC (4 pole)	1575	1275	1/8	0,09	14.5	6,6	CSA/CE
DOA-V502-DD	230/220-60/50-1	PSC (4 pole)	1575	1275	1/8	0,09	14.5	6,6	cUR/CE
DOA-V502A-FB	115/110-60/50-1	PSC (2 pole)	3000	2500	1/3	0,25	14.5	6,6	UR/cUR
DOA-V502A-FD	230/220-60/50-1	PSC (2 pole)	3000	2500	1/3	0,25	14.5	6,6	cUR/CE
DOA-V502-JH	12 Volt	DC		2100	1/8	0,09	13.0	5,9	CE
DOA-V502-JK	24 Volt	DC		2100	1/8	0,09	13.0	5,9	CE

* Includes cord and plug

** Unloader model, includes cord and plug (no rubber feet or handle)

*** Includes cord no plug

+ VDE Listed model. Includes unloader valve, rubber feet, and carrying handle

Capacitor mounted in mini-box (add 1.54 (39,1) to width), two meter cord (European color-coded), no plug

Capacitor mounted in mini-box (add 1.54 (39,1) to width), cord, and plug

CSA – Approved by the Canadian Standards Association

cUR – UL recognized for use in Canada and US

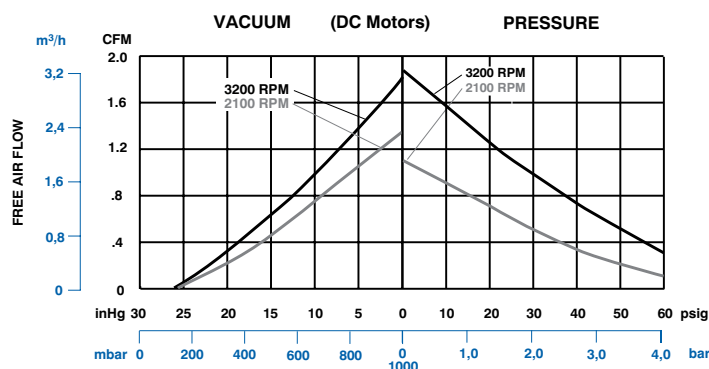
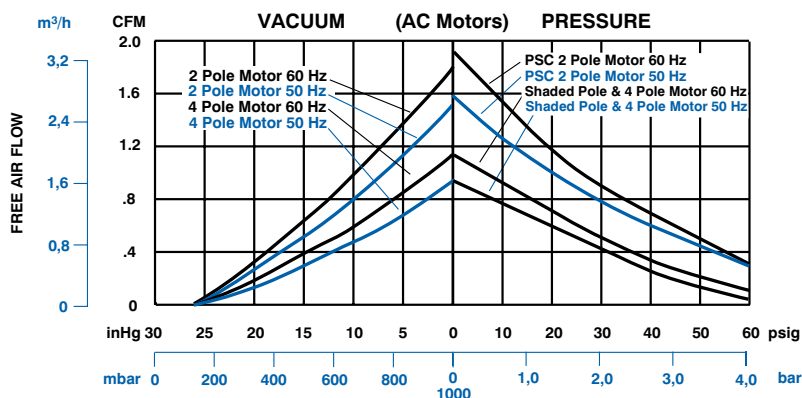
CNL – UL listed for use in Canada and US

CE – Conforms to European Standards

UL – UL Listed for US

UR – UL recognized for US

Product Performance





PSC 4 Pole

60 psi max. pressure, 2.4 CFM open flow (60 Hz)

PSC 2 Pole

60 psi max. pressure, 3.8 CFM open flow (60 Hz)

PSC 4 Pole Two Stage

25.5 inHg max. vacuum, 2.2 CFM open flow (60 Hz)

PSC 2 Pole Two Stage

25.5 inHg max. vacuum, 3.6 CFM open flow (60 Hz)

PSC 4 Pole Two Stage

29.0 inHg max. vacuum, 1.15 CFM open flow (60 Hz)

PSC 2 Pole Two Stage

29.0 inHg max. vacuum, 2.0 CFM open flow (60 Hz)

PRODUCT FEATURES

- Oilless operation
- Motor mounted
- Rugged construction/low maintenance

INCLUDES

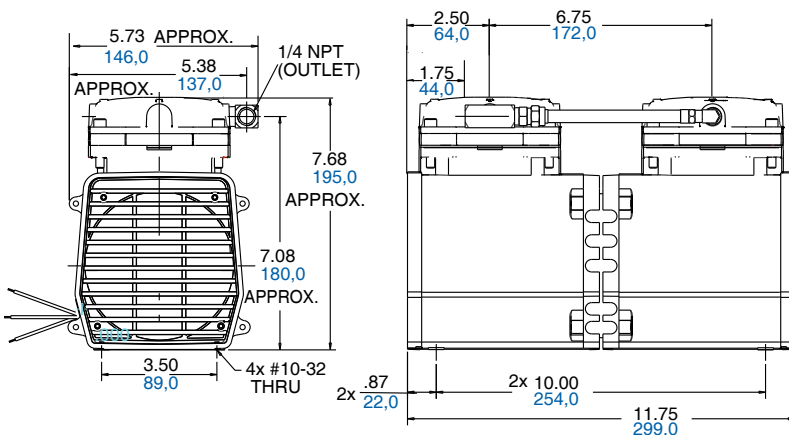
- Muffler AH190A for vacuum
- Capacitor AF876 (EB motors), AF873A (ED motors), AF485A (GB and GD motors)

RECOMMENDED ACCESSORIES

- Pressure gauge AF583 / Vacuum gauge AA640
- Pressure relief valve AF887 / Vacuum relief valve AA550C-V
- Rubber feet (4) AF584A
- Repair kit K294A (use 2)

Product Dimensions (inches, mm)

Reference only



Product Specifications

Note: "P" model are pressure; "V" models are vacuum only

Model Number	Motor	Motor Type Stages for Vacuum Models	RPM		HP	kW	Net Weight		Regulatory
			60 Hz	50 Hz			lbs	kg	
DAA-P501-EB	115/110-60/50-1	PSC (4 pole)	1575	1275	1/4	0,19	28	12,7	cUR/CE
DAA-P501-ED	230/220-60/50-1	PSC (4 pole)	1575	1275	1/4	0,19	28	12,7	cUR/CE
*DAA-P517-ED	230/220-60/50-1	PSC (4 pole)	1575	1275	1/4	0,19	28	12,7	cUR/CE
**DAA-P513-EG	240-50-1	PSC (4 pole)	-----	1275	1/4	0,19	28	12,7	CE
***DAA-P501-GB	115/110-60/50-1	PSC (2 pole)	3000	2500	1/2	0,37	28	12,7	cUR
+DAA-P503-GB	115/110-60/50-1	PSC (2 pole)	3000	2500	1/2	0,37	28	12,7	cUR/CE
***DAA-P501-GD	230/220-60/50-1	PSC (2 pole)	3000	2500	1/2	0,37	28	12,7	cUR/CE
+DAA-P503-GD	230/220-60/50-1	PSC (2 pole)	3000	2500	1/2	0,37	28	12,7	cUR/CE
++DAA-P512-GD	230/220-60/50-1	PSC (2 pole)	3000	2500	1/2	0,37	28	12,7	cUR/CE
DAA-V505-EB	115/110-60/50-1	PSC (4 pole) single stage	1575	1275	1/4	0,19	23	10,4	cUR
DAA-V502-EB	115/110-60/50-1	PSC (4 pole) two stage	1575	1275	1/4	0,19	23	10,4	cUR/CE
DAA-V505-ED	230/220-60/50-1	PSC (4 pole) single stage	1575	1275	1/4	0,19	23	10,4	cUR/CE
DAA-V502-ED	230/220-60/50-1	PSC (4 pole) two stage	1575	1275	1/4	0,19	23	10,4	cUR
**DAA-V510-EG	240-50-1	PSC (4 pole) two stage	-----	1275	1/4	0,19	23	10,4	CE
DAA-V505-GB	115/110-60/50-1	PSC (2 pole) single stage	3000	2500	1/2	0,37	23	10,4	cUR
DAA-V507-GB	115/110-60/50-1	PSC (2 pole) two stage	3000	2500	1/2	0,37	23	10,4	cUR
DAA-V505-GD	230/220-60/50-1	PSC (2 pole) single stage	3000	2500	1/2	0,37	23	10,4	cUR/CE
DAA-V507-GD	230/220-60/50-1	PSC (2 pole) two stage	3000	2500	1/2	0,37	23	10,4	cUR/CE

* Available only in Europe capacitor mounted on unit in mini-box.
(European color-coded), no plug

** Capacitor mounted on unit in mini-box, two meter cord
(European color-coded), no plug

*** No capacitor, parallel manifold for pressure (single stage only)

+ Capacitor unattached, parallel manifold for pressure (single stage only)

++ Capacitor attached, parallel manifold for pressure (single stage only)

CSA – Approved by the Canadian Standards Association

cUR – UL recognized for use in Canada and US

CNL – UL listed for use in Canada and US

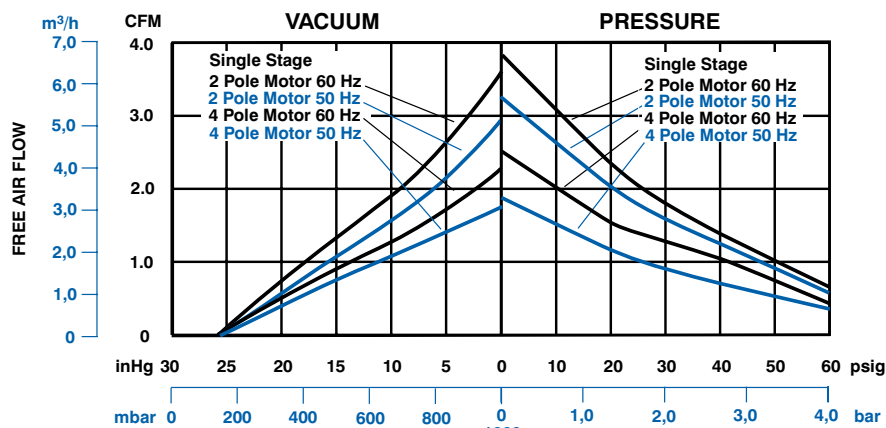
CE – Conforms to European Standards

UL – UL Listed for US

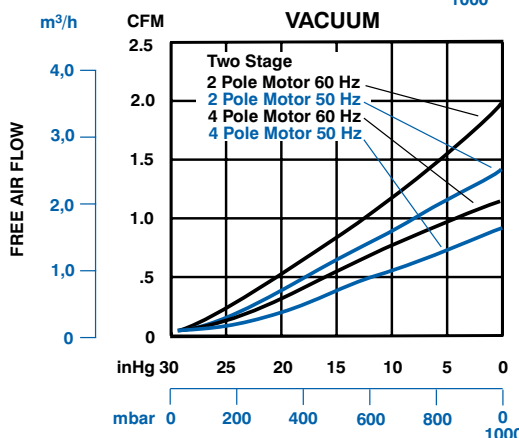
UR – UL recognized for US

Product Performance

Single Stage



Two Stage





Shaded Pole

60 psi max. pressure, 25.5 inHg max. vacuum
1.1 CFM open flow (60 Hz)

PRODUCT FEATURES

- Oilless operation
- Motor mounted
- Rugged construction/low maintenance

INCLUDES

- Gauges - Vacuum AE136, Pressure AA806
- Hose barbs - AG613
- Regulators - Vacuum AA550C-V, Pressure AF887
- Carrying handle - AP523A
- Rubber feet - AF584A

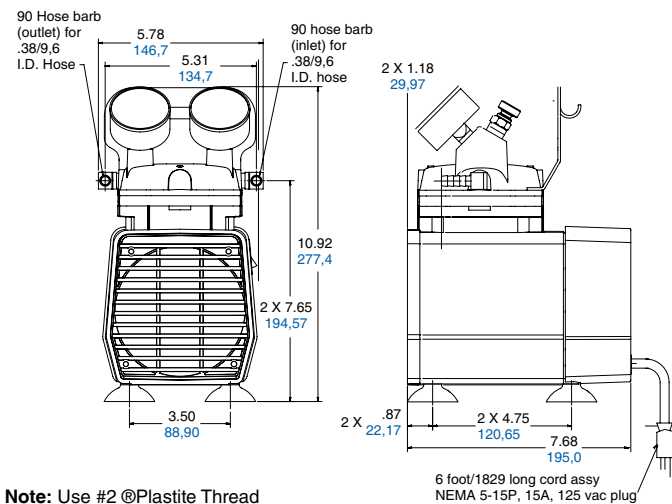
RECOMMENDED ACCESSORIES

- Repair kit K294J

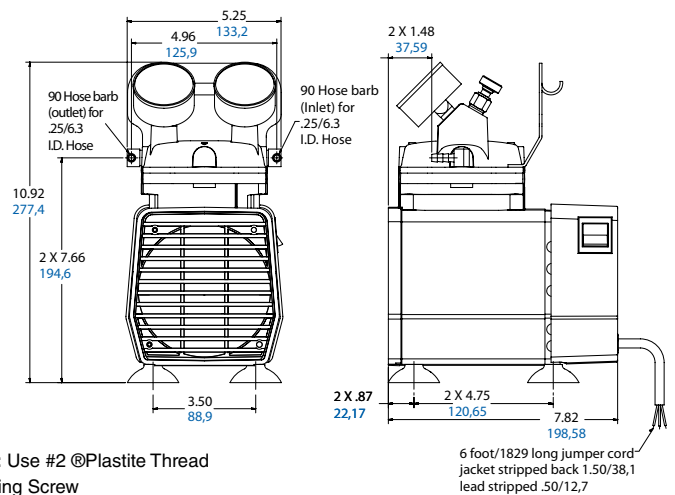
Product Dimensions (inches, mm)

Reference only

DOA-P704-AA



DOA-P504-BN



Product Specifications

Model Number	Motor	Motor Type	RPM		HP	kW	Net Weight		Regulatory
			60 Hz	50 Hz			lbs	kg	
DOA-P704-AA	115-60-1	Shaded pole	1575	----	1/8	0,09	16.0	7,3	UL/CNL
DOA-P504-BN	220/240-50-1	Shaded pole	----	1275	1/8	0,09	16.0	7,3	CE

CSA – Approved by the Canadian Standards Association

cUR – UL recognized for use in Canada and US

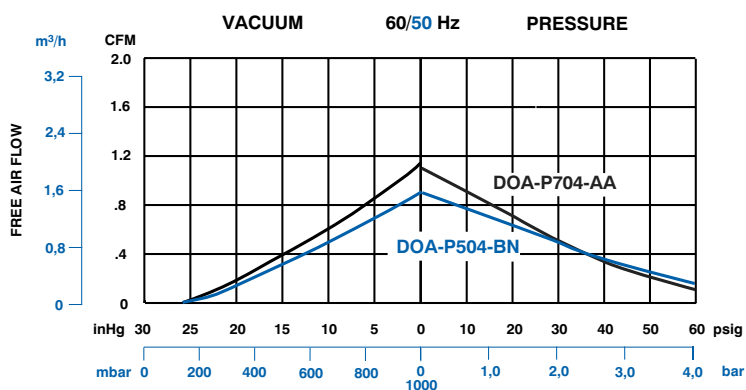
CNL – UL listed for use in Canada and US

CE – Conforms to European Standards

UL – UL Listed for US

UR – UL recognized for US

Product Performance





Shaded Pole

25 inHg max. vacuum,
.95 CFM open flow (50 Hz)

PRODUCT FEATURES

- Oilless operation
- Motor-mounted
- Rugged construction
- Low maintenance

MATERIALS OF CONSTRUCTION

- ®Teflon coated head assembly
- Stainless steel valves
- ®Neoprene diaphragm
- ®Teflon diaphragm cover

INCLUDES

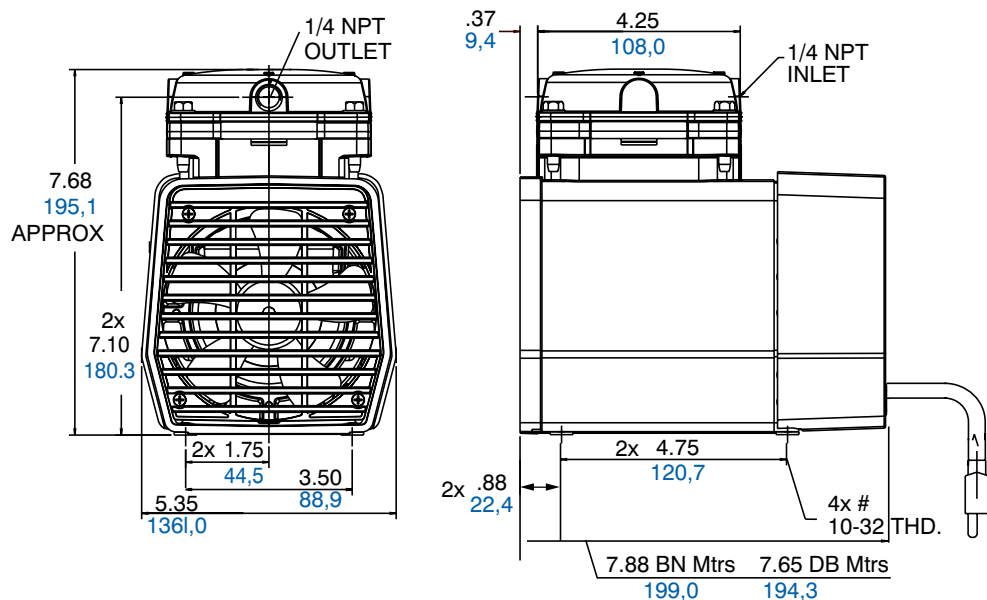
- Capacitor

RECOMMENDED ACCESSORIES

- Pressure gauge AF583 / Vacuum gauge AA640
- Pressure regulator AF887 / Vacuum regulator assyAA550C-V
- (4) Rubber feet AF584A
- Repair kit K294A for Shaded Pole
- Repair kit K294H for PSC motor

Product Dimensions (inches, mm)

Reference only



Product Specifications

Model Number	Motor and Motor Type	RPM		HP	kW	Net Weight		Regulatory
		60 Hz	50 Hz			lbs	kg	
DOA-V505-BN	Shaded pole 220/240-50-1	1275	----	1/8	0,09	19.0	8,6	CE
DOA-P701-DB	PSC 110/115-50/60-1 motor	1575	1275	1/8	0,09	20.0	9,0	CSA

CSA – Approved by the Canadian Standards Association

cUR – UL recognized for use in Canada and US

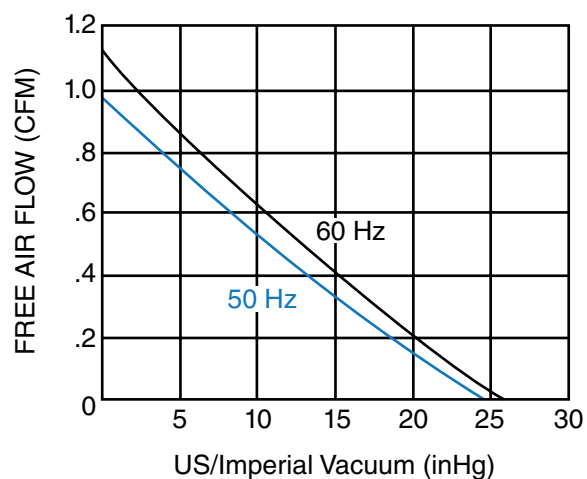
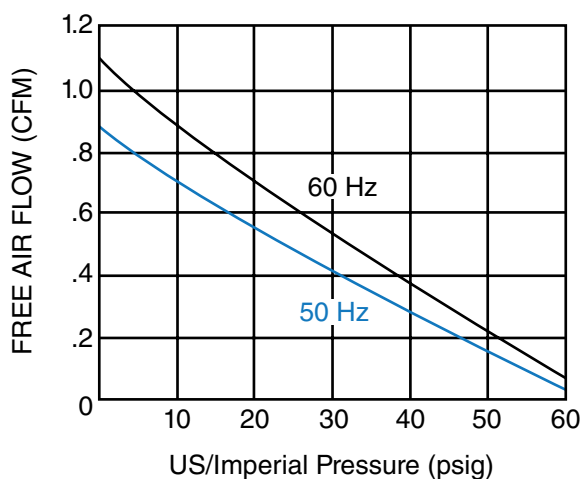
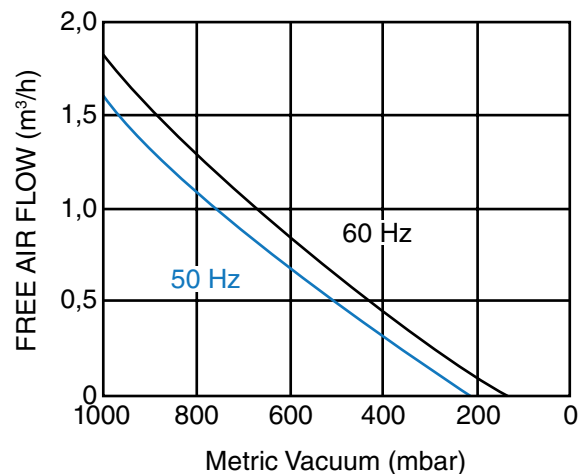
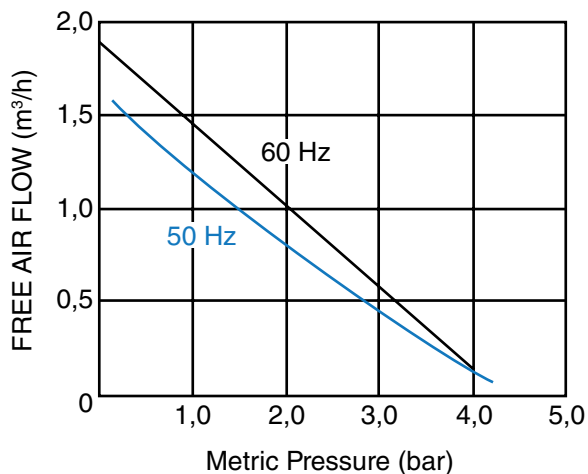
CNL – UL listed for use in Canada and US

CE – Conforms to European Standards

UL – UL Listed for US

UR – UL recognized for US

Product Performance





Shaded Pole/PSC 4 Pole

60 psi max. pressure, 25.5 inHg max. vacuum
1.1 CFM Open Flow (60 Hz)

PRODUCT FEATURES

- Oilless operation
- Motor mounted
- Rugged construction/low maintenance
- Meets UL standard 544, CUL and CNL of UL1450 & CSA C22.2 No. 68-92

INCLUDES

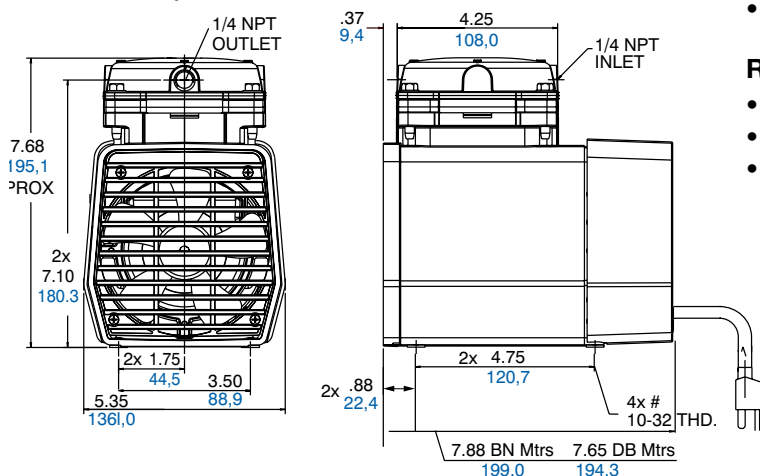
- Cord and hospital grade plug
- Carrying handle - AP523A
- Mounted on/off switch
- Rubber feet - AF584A

RECOMMENDED ACCESSORIES

- Pressure gauge AF583 / Vacuum gauge AA640
- Pressure relief valve AF887 / Vacuum relief valve AA550C-V
- Repair kit K294A

Product Dimensions (inches, mm)

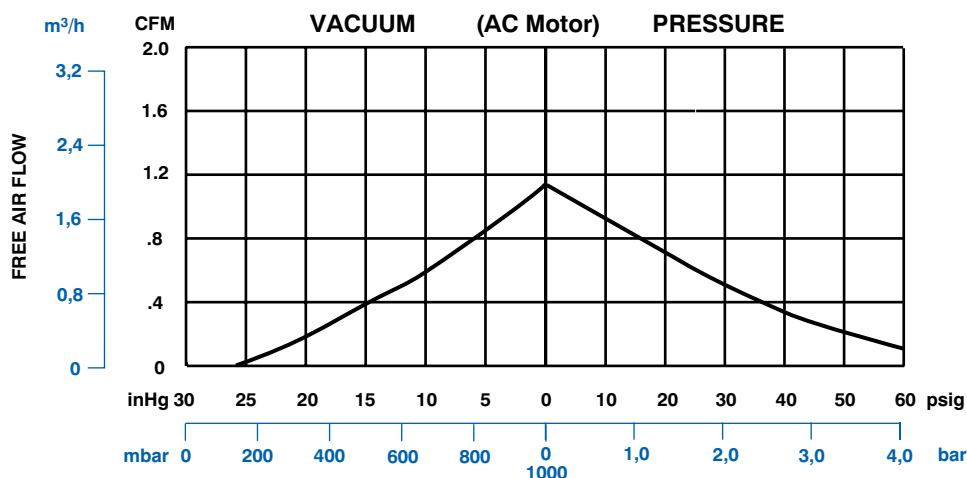
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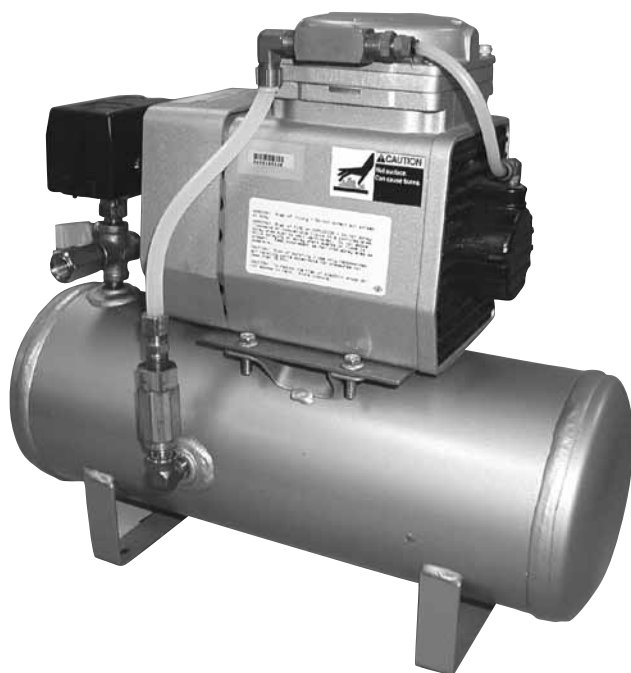


Product Specifications

Model Number	Motor	Motor Type	RPM		HP	kW	Net Weight		Regulatory
			60 Cycle	50 Cycle			lbs	kg	
DOL-701-AA	115-60-1	Shaded pole	1575	----	1/8	0,09	14.8	6,7	UL/CNL

Product Performance





PRODUCT FEATURES

- AE163A pressure switch
- AE248 manual drain
- AS100B pressure safety valve (ASME)
- AA806 pressure gauge
- Globe valve
- Unloading capability
- 100% oilless operation

APPLICATIONS

- Beverage dispensing
- Lab use
- Portable displays
- Commercial door actuation
- Portable - off site use

RECOMMENDED ACCESSORIES

- Repair kit K294A

Product Specifications

Model Number	Tank Size Gallons	CFM @ PSIG						ON/OFF psig	0 to 50 Setting	Recovery of Standard Setting	Motor Voltage	Shipping Weight	
		0	10	30	50	70	100					HP	lbs
DOA-P706T-AA	2	1.00	.85	.50	.20	-	-	30/50	1:30	0:55	115-60-1	1/8	39

When to specify a compressed air or vacuum tank system

Many find it difficult to decide whether to use stand-alone pumps or complete tank packages for their applications.

The tank system offers many advantages, which satisfy:

High Volumes

If your application requires an instantaneous supply of high pressure or vacuum, then the reservoir provided by a tank system is essential. Even the largest of pumps has to start at atmospheric pressure and therefore will not be able to give that instantaneous supply of pressure/vacuum.

Cost Savings

Using a tank system can reduce initial maintenance and replacement costs. Here's why: Applications that require high volumes of air in intermittent cycles can use relatively small pumps. The longer the interval between cycles, the more applicable a tank system can be. For example, a 1 HP compressor on a tank can supply the same amount of flow for one minute as a stand alone 10 HP compressor.

Quiet Operation

In a tank system the pump runs on demand, which means that it is not operating a good part of the time. No operation, no operating noise.

Pulse Free

Pulse-free air is required by many pneumatic systems for proper operation of pneumatic tools or components. A tank provides pulsation free air from the reciprocating compressor.

Central System

Small industrial shops where different tools are required at different times find tank systems ideal, since one tank system can supply air to multiple locations.

	Part No	Description	Used On
Capacitor	AF876	EB, FD Motors	DAA
	AF873A	DB, DD, ED, and FD Motors	DOA
	AF485A	FB, GB, and GD Motors	DAA
	AG331	FB, HB, HD, and 4 Pole Motors	MAA
	AF485A	2-Pole motor PSC Motors:	
	AF873A	FD Motor	MOA
Drains	AE248	Manual Drain Cock, 1/4" NPTM	Diaphragm tank units;
Filter/Muffler Assembly	AA617G		DOA, DAA
Gauge	AF583	1/4" NPT, 0-160 PSI	DOA
Handle	AF870	Stamped Aluminum	DOA
	AP523A		DOA, LAB, DOL Medical unit
Hose Barbs	AG613		Diaphragm lab and tank units
Muffler	AF353A		DOA, MOA, DAA
	AH190A		Vacuum DAA Series, MAA
	B300Q	High capacity; to be used in dirty environments or when superior noise reduction is required	22D
Pressure Gauge	AA806		DOA, DAA, Diaphragm pumps
	AA644B		22D
	AF583		DOA, DOL Medical unit, corrosive resistant Diaphragm MAA, MOA
Pressure Relief Valve	AF887		DOL Medica unit, DOA MAA, MOA
	AA203		22D
Pressure Safety Valve	AS100B		Diaphragm tank units
Pressure Switch	AE163A		Diaphragm tank unit

	Part No	Description	Used On
Regulators	AA806		Diaphragm lab models, Diaphragm tank
	AA550C-V, Vacuum		DOL Medical unit, DOA lab, DOA Corrosive resistant
AF887, Pressure		DOL Medical unit, DOA lab,	DOA Corrosive resistant
Rubber Feet	AG505		MOA, MAA
	AF584A		22D, DOA, DOL medical, DOA Lab DOA corrosive resistant
Service Kits	K294A		Diaphragm tank units, DOL medical Units, Shaded pole, DOA Corrosive resistant, DOA Lab unit
	K294J		DOA, DAA (use 2)
	K294K		All diaphragm units except MOA-P109-AA, MAA use 2
	K309		MOA-P109-A
	K309A`		22D
	K588	Assembled head	22D
	K588A	Old style head	5D
	K788		10D
	K811		15D
	K813	EPDM	15D
	K813A	Neoprene	15D
Tank Assemblies (complete package minus pump)	AF599D	2 gallon tank assembly	DOA/ROA-P106T-AA
Vacuum Gauge	AE136		Diaphragm lab models
	AA640		DOL Medical unit, DOA MAA. MOA
	AA640		22D
Vacuum Relief Valve	AA550C-V		DOL Medical unit, MAA, MOA
	AA204		22D

**Gast Manufacturing, Inc.**

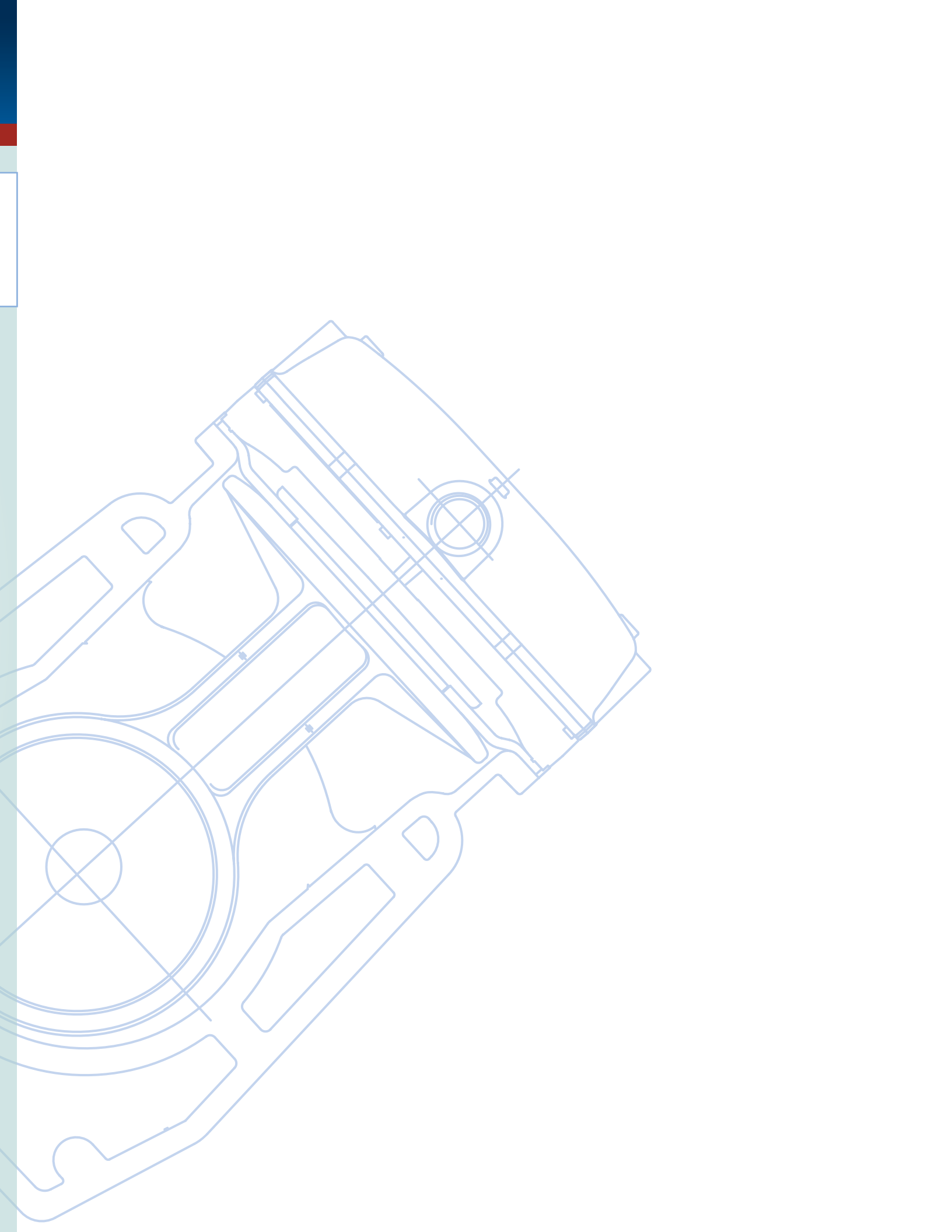
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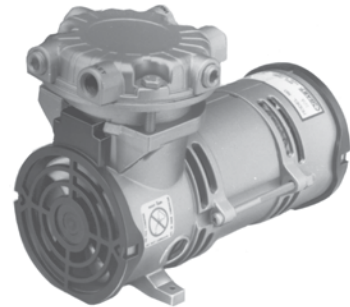
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Rocking Piston

Compressors and Vacuum Pumps



The Gast Group Difference

For over 90 years, Gast Manufacturing has been providing innovative air solutions to a broad breadth of customers. With the relatively recent addition of JUN-AIR, we have expanded our capabilities and formed, "The Gast Group." Together, our diverse engineering background and pneumatic experience allow us to provide both component and system solutions to meet all of your pneumatic needs...all backed by our strong commitment to quality and customer support.

Products for Almost Any Application – Worldwide

We offer an extensive and versatile line of air-moving products, including vacuum pumps, compressors, air motors, gearmotors, vacuum generators, and regenerative blowers. We design and build these components for original equipment manufacturers worldwide, but we also develop complete pneumatic solutions to solve tough customer challenges.

To ensure fast, efficient delivery of products, Gast has a vast network of sales representatives/distributors throughout the United States and the world. Plus, we maintain direct sales and service facilities in Europe, Hong Kong, and Shanghai, China.

Unparalleled Design Expertise

Unlike other manufacturers, who might expect you to modify your pneumatic system to fit their available product(s), Gast is committed to finding the right product to meet your specific needs. If we don't have a high-quality, off-the-shelf product to fit your existing application or meet your anticipated needs, we'll propose customized cost-effective design options that will serve your special requirements. We can even develop and produce your complete pneumatic system for you.

Our experienced Research and Development engineers and Product engineers work together to analyze customer needs and use computer-aided design to generate timely solutions for air-handling problems. The design team has one goal: to create problem-solving solutions that capitalize on the latest available technology, meet all application requirements, and benefit from cost-effective production methods. The end result: products and solutions that are the best value in the marketplace for our customers.

A Lasting Commitment to Quality

We invest heavily in both equipment and people to maintain the consistent quality for which our products are known worldwide, and we have done so since day one. As early as 1983, we implemented a total quality process designed to ensure the quality of our products. In keeping with that tradition, Gast has achieved ISO 9001 certification, making us a member of the elite group of manufacturing companies in the world to receive that certification.

European Community Directives € €

With extensive sales outside the United States, Gast has pledged to conform to the European Community Directives. These directives contain essential requirements concerning health, safety, environment, and consumer protection for all products targeted for the European Community market. Currently, all Gast products available for sale in the European Community are in compliance with the Machinery, Low Voltage, and Electromagnetic Compatibility Directives.

Pictorial and dimensional data is subject to change without notice. The information presented is based on technical data and test results of nominal units. It is believed to be accurate and is offered as an aid in the selection of Gast products. It is the user's responsibility to determine suitability of the product for intended use and the user assumes all risk and liability whatsoever in connection therewith. Environmental and application conditions may affect advertised life.

Why use a Rocking Piston Product?

Variety

Gast oilless Rocking Piston air compressors and vacuum pumps, available in single, twin, miniature, and tank-mounted styles, are the perfect choice for hundreds of applications. Choose from dual frequency, shaded pole, and permanent split capacitor (psc) electric motors with AC multi-voltage motors to match North American, European, and worldwide power supplies. A complete line of recommended accessories as well as 6, 12, and 24 volt DC models in brush and brushless types are also available.

Performance

The rocking piston combines the best characteristics of piston and diaphragm air compressors into a small unit with exceptional performance. Air flow capabilities from 3.4 LPM to 5.5 CFM (9.35 m³/h), pressure to 175 psi (12.0 bar) and vacuum capabilities up to 29 inHg (31 mbar). Horsepowers range from 1/20 to 1/2 HP (0.04 to 0.37 kW).

Reliable

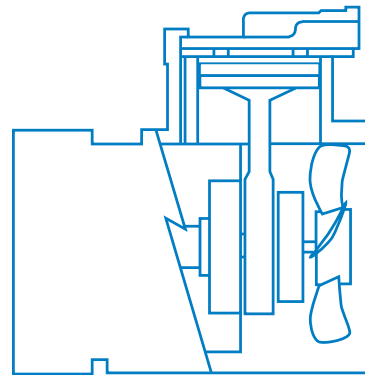
These pumps are made to stand up through years of use. The piston rod and bearing assembly are bonded together, not clamped; they will not slip, loosen, or misalign to cause trouble.

Clean Air

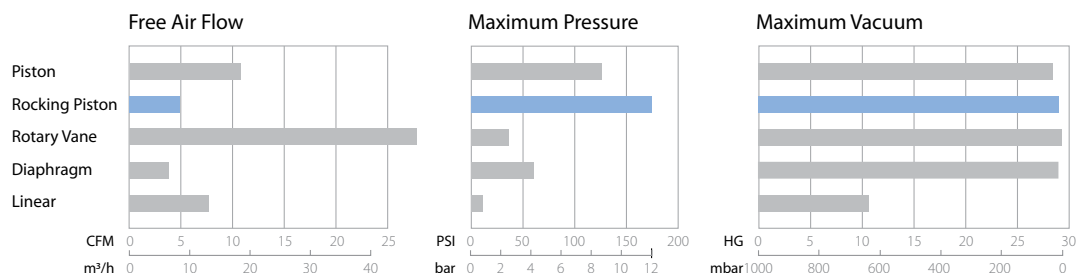
Because Gast ROC-R pumps are oil-free, they are ideal for use in applications in laboratories, hospitals, and the food industry where oil mist contamination is undesirable.

How Does a Rocking Piston Pump Work?

In a reciprocating motion, a flexible cup mounted on top of the connecting rod creates vacuum or pressure as the cup maintains a seal against the cylinder walls in a rocking motion.



Gast Compressors and Vacuum Pumps Performance*



*Shown here are performance ranges of our positive displacement models. Performance shown on inside charts is for continuous operation. Higher performance is possible on an intermittent basis (10 min. on/10 min. off) for some of the models listed. Consult Factory.

Rocking Piston Performance Overview

MODEL/ SERIES	MOTOR TYPE	POWER RATING		FREE AIR FLOW				MAXIMUM PRESSURE		MAXIMUM VACUUM	
		60 Hz hp	60 Hz kW	CFM		m³/h		psi	bar	inHg	mbar
8R (DC)		—	—	3.4 LPM		3.4 LPM		22.5	1.55	17	438
20R (AC)		1/30	0.025	12 LPM	14.7 LPM	12 LPM	14.7 LPM	35	2.41	21	302
30R (DC)		1/10	0.08	0.61		1.04		120	8.28	—	—
34R (DC)		1/4	0.19	0.80		1.36		200	13.8	—	—
55R	PSC	1/20	0.04	0.16	0.20	0.27	0.34	30	2.1	24	200
55R (DC)		1/10	0.07	0.25		0.42		30	2.1	24	200
LOA	ShP	1/16	0.05	—	0.38	—	0.65	90	6.2	25	167
LOA	PSC	1/6	0.12	0.52	0.83	0.88	1.41	100	6.9	26	133
LOA (DC)		1/10	0.07	0.62		1.05		100	6.9	27	99
LAA		1/6	0.12	1.28	1.52	2.17	2.58	60	4.1	29	31
SAA (STAGED)		1/6	0.12	—	1.75	—	3.00	—	—	29.5	15
SAA (PARALLEL)		1/6	0.12	—	3.00	—	5.10	—	—	27	99
SAA		1/6	0.12	—	1.95	—	3.31	30	2.1	—	—
ROA	ShP	1/8	0.09	1.05	1.25	1.87	2.12	100	6.9	26	133
ROA	PSC	1/4	0.19	1.50	1.60	2.55	2.72	100	6.9	27	99
ROA (DC)		1/8	0.09	1.50		2.55		—	—	26	133
RAA		1/4	0.19	2.5	2.7	4.25	4.59	100	6.9	27.5	82
71R (SINGLE CYL)		1/3	0.25	2.4	2.0	4.08	3.40	100	6.9	—	—
71R (TWIN CYL)		1/3 - 3/4	0.25 - 0.56	3.25 - 4.5	4.0 - 4.5	5.52 - 7.65	6.80 - 7.65	15 - 100	1.04 - 7.0	28	65
71R (TWIN CYL HIGH PRESSURE)		1/3 - 1/2	0.25 - 0.37	1.7	1.9	2.89	3.23	175	12.1	—	—
72R (SINGLE CYL)		1/3	0.25	2.0 - 2.5	2.5	3.4 - 4.25	4.25	100	7.0	28	65
72R (TWIN CYL)		1/3 - 3/4	0.25 - 0.56	2.5 - 5.5	2.5 - 5.5	4.25 - 9.35	4.25 - 9.35	25 - 100	1.73 - 7.0	29	31
74R		1/4	0.19	1.30	1.50	2.21	2.55	100	7.0	—	—
75R (SINGLE CYL)		1/4	0.25	1.9	1.9	3.23	3.23	—	—	27	99
75R (TWIN CYL)		1/3	0.25	4.5	5.1	7.65	8.67	40	2.8	27	99
81R		1/3	0.25	3.0	3.7	5.1	6.3	100	7.0	—	—
82R		1/3	0.25	4.4	4.9	7.1	7.6	100	7.0	—	—
82R (BLDC)		1/3	0.25	3.8		6.5		30	2.1	26	133

PSC - Permanent Split Capacitor

ShP - Shaded Pole motor

Catalog Performance Specifications

The specifications listed are that of a unit at sea level with an ambient temperature of 70°F (21°C), operating with normal electrical current conditions. The figures stated in this catalog are nominal approximations for models without accessories. Intake filters and exhaust mufflers, and the accumulation of contaminants in them during operation, will decrease the flow of air as well as the achievable pressure.

The units that we list in this catalog are a small portion of what we actually make. Those listed are considered “standard units” and are normally available from stock in small quantities. Variations are produced for many customers and by passing on to us the application specifications we might find an existing unit that fits your requirement. If we don’t and the quantity is sufficient, we will design a “special unit” for the application.

Pictorial and dimensional data is subject to change without notice.

The information presented in this catalog is based on technical data and test results of nominal units. It is believed to be accurate and is offered as an aid in the selection of Gast products. It is the user’s responsibility to determine suitability of the product for intended use and the user assumes all risk and liability whatsoever in connection therewith.

Typical Applications



Medical Applications

- Oxygen concentrators
- Eye surgery equipment
- Ventilation equipment
- Surgical aspiration equipment



Dental Applications

- Dental vacuum ovens
- Dental compressors
- Portable dental equipment



Laboratory Applications

- Lab test equipment
- Body fluid analysis
- Vacuum filtering
- Vacuum centrifuge



Other Applications

- Vacuum food sealer
- Tire inflation equipment
- Automotive suspensions
- Auto detailing equipment
- Refrigerants reclamation
- Dry sprinkler system
- Beverage dispensing
- Cable pressurization
- Vacuum frames
- Core drilling
- Paper counting machines
- Vacuum mixing
- Handicapped accessible doors
- Diving air



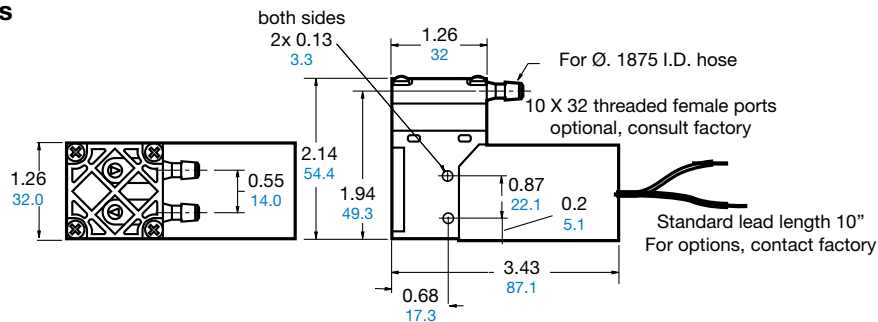


DC Motor

22.5 psi max. pressure
(1.55 bar)
17 inHg max. vacuum
3.4 LPM open flow

Optional cover shown on unit

Product Dimensions (inches, mm)



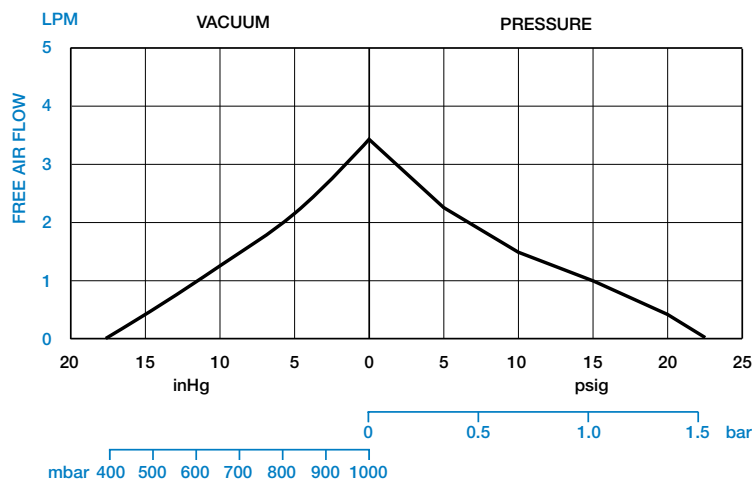
Product Specifications

Model Number	Motor Type	Amp. Draw	Valve Material	Net Weight lb	kg
8R1110-201-1049	12V DC	0.60	®Neoprene	0.5	0.23
8R1110-201-1048	24V DC	0.30	®Neoprene	0.5	0.23
8R1110-101-1050	6V DC	1.10	* @EPDM	0.5	0.23
8R1110-101-1049	12V DC	0.60	* @EPDM	0.5	0.23
8R1110-101-1048	24V DC	0.30	* @EPDM	0.5	0.23

- Use as compressor or vacuum pump (same model)
- Maintenance-free ball bearings are sized for long life
- Cup and valve are easily field serviceable, if required
- Alternate stroke options available
- Custom mounting configurations available
- Head mounts in any of four positions
- Heads available with threaded or barbed ports
- Motor equipped with Electromagnetic Interference (EMI) Suppression
- Head assembly of chemical and heat resistant PPS for corrosion resistance
- EPDM (Ethylene Propylene Diene Monomer) valve and Neoprene valves

Product Performance

Note: Performance data taken at nominal voltage

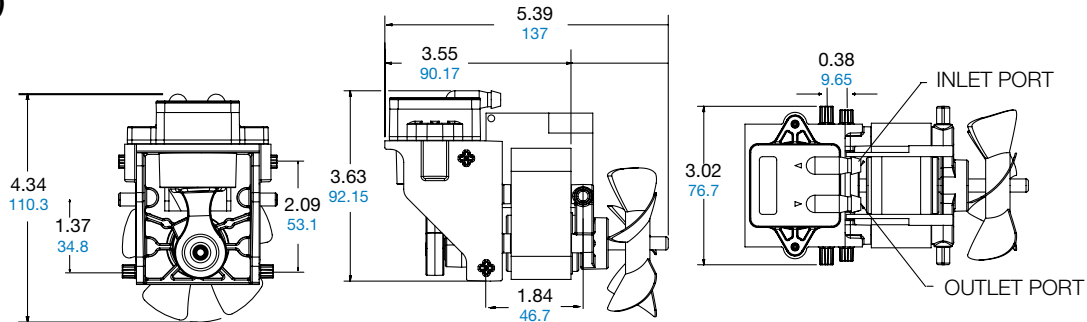




AC Motor

31 psi max. pressure (2.14 bar) 20.5 inHg max. vacuum
14.7 LPM open flow (20r125-101-c400asx, 60 Hz)

Product Dimensions (inches, mm)

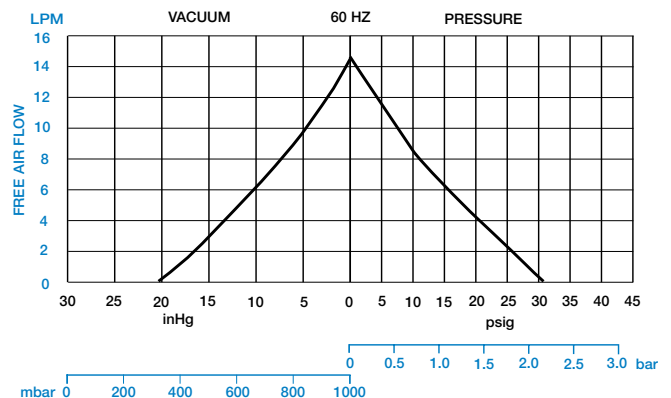
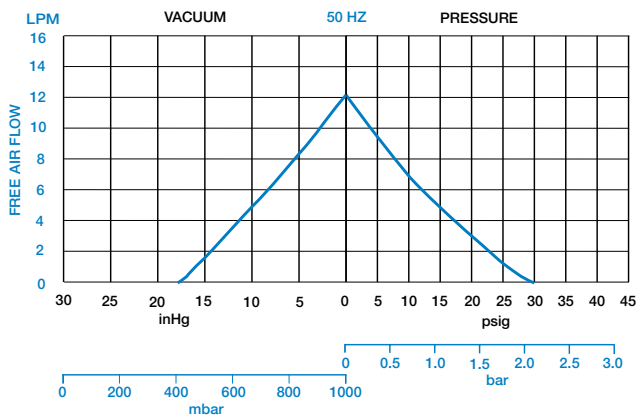


Product Specifications

Model Number	Motor Type	Amp. Draw	RPM	HP	KW	Net Weight lb	Net Weight kg
20R125-101-C400ASX	120-60 AC	1.5	3000	1/30	.025	2.40	1.09
20R125-101-C400CSX	230-50 AC	0.8	2500	1/30	.025	2.48	1.18

- Oilless operation
- Use as compressor or vacuum pump (same model)
- Excellent compressor life with full ball bearing construction
- Single shot thermal and current cutoff protection
- Alternate head mounting position available

Product Performance

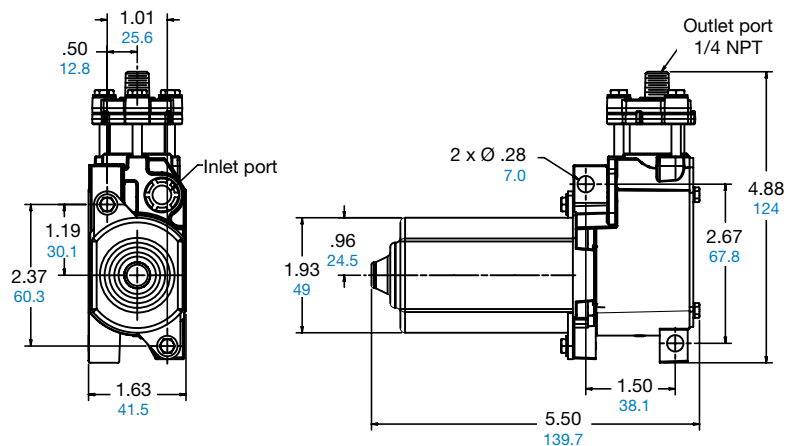




DC Motor

120 psi max. pressure, intermittent
0.61 CFM open flow

Product Dimensions (inches, mm)

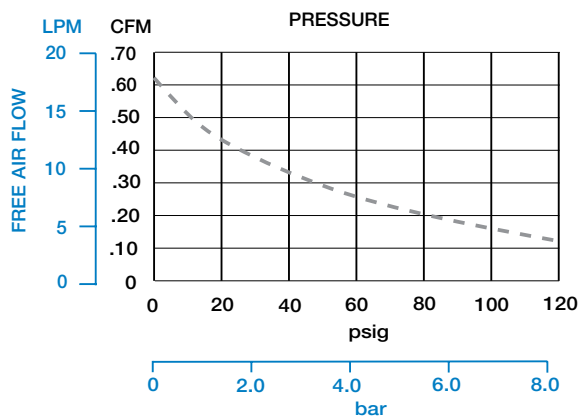


Product Specifications

Model Number	Motor Type	Amp. Draw	RPM	HP	KW	Net Weight lb	Net Weight kg
30R157-P101-L200	12V DC	8.0	3800	1/10	0.08	1.7	0.8

- Oilless operation
- 10% duty cycle (1 minute ON, 9 minutes OFF)
- Long-life cup material
- Custom specific mounting configurations available
- Custom exhaust port locations available

Product Performance



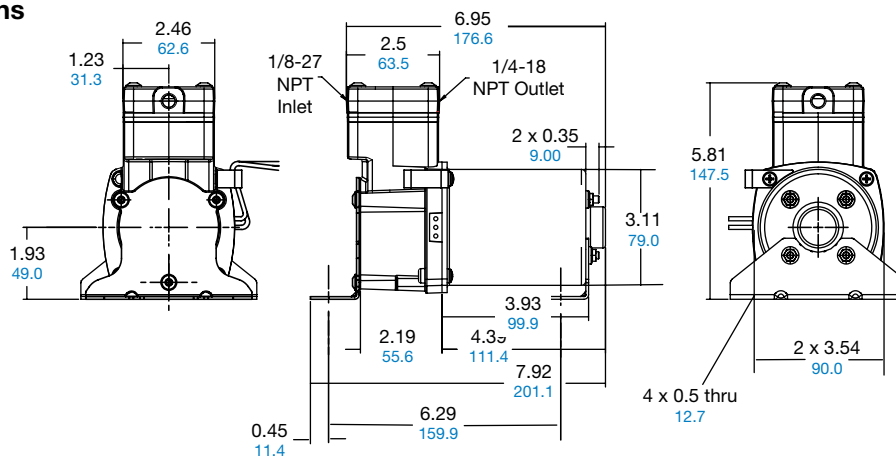
Duty cycle: At 120 psig, pump is rated for 10% duty (1.0 minute on, 9.0 minutes off)



DC Motor

200 psi max. pressure, intermittent
0.8 CFM open flow

Product Dimensions (inches, mm)



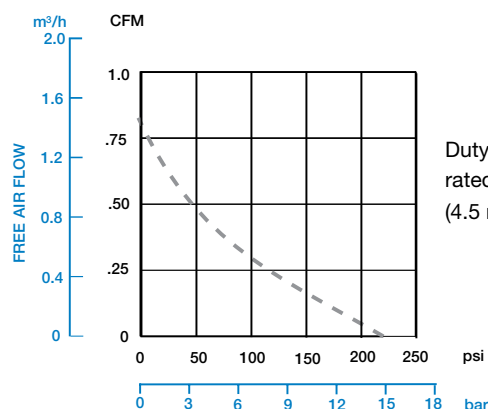
Product Specifications

Model Number	Motor Type	Amp. Draw	RPM	HP	KW	Net Weight lb	Net Weight kg
34R156-P101-L100X	12V DC	13	2750	1/4	.0175	6.5	3.0
*34R156-P160-L100X	12V DC	13	2750	1/4	.0175	7.0	3.2

*Accessorized unit includes: braided hose with check valve, vibration isolators, and mounting hardware

- Oilless operation
- Motor mounted
- All wetted aluminum parts for corrosion resistance
- IP68 rating available
- Thermal overload protector
- 4-way reversible head
- Optional standard NPT inlet and exhaust port head
- VG2016 sintered bronze inlet silencer
- Robust intermittent duty cycle
- Bulk or individual pack available

Product Performance

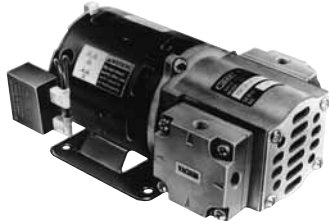


Duty cycle: At 150 psig, pump is rated for 30% duty (4.5 minutes on, 10.5 minutes off)



Brushless DC Motor

30 psi max. pressure continuous
(45 psi intermittent)
24 inHg max. vacuum
0.25 CFM open flow (each head)



PSC Motor

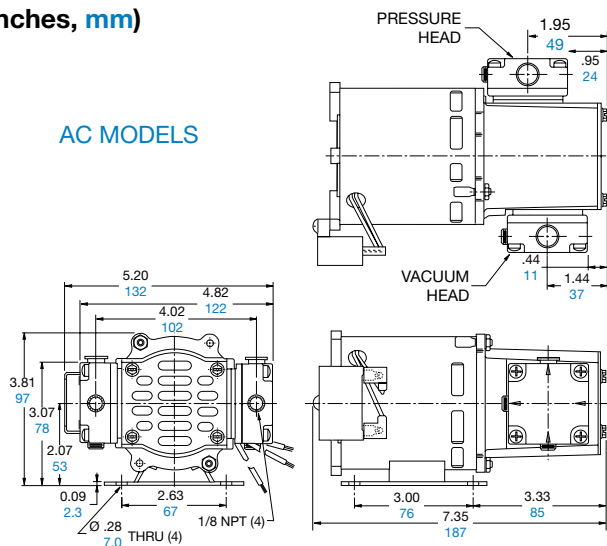
30 psi max. pressure continuous
(45 psi intermittent)
24 inHg max. vacuum
0.20 CFM open flow (each head)

Recommended Accessories

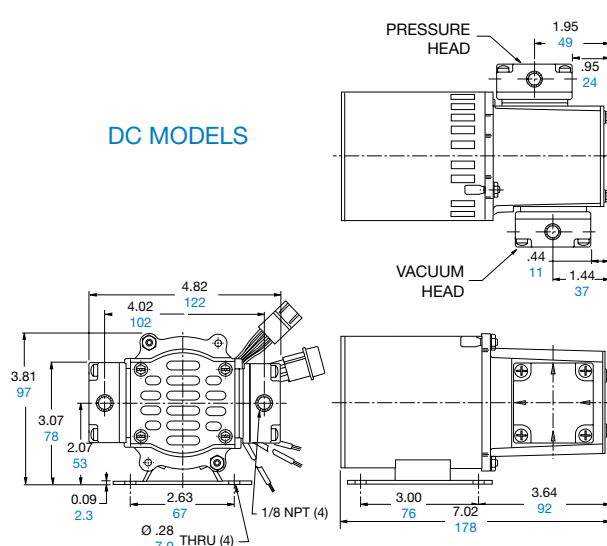
Repair kit part #K531
Vacuum gauge AA640
Vacuum relief valve AA204
Pressure gauge AA644B
Pressure relief valve AA203
Filter/muffler pressure VG2016
Filter/muffler vacuum AA922H

Product Dimensions (inches, mm)

AC MODELS



DC MODELS



Product Specifications

Model Number	Motor	Motor Type	RPM 60 Hz 50 Hz	HP	KW	Net Weight lb kg
55R720-101-TKP	24V	BrushlessDC	1900*	10	0.07	5.0 2.25
55R720-101-STP	100-110/100-115V, 50/60-1	PSC (4 Pole)	1575 1275	0.054	0.04	5.0 2.25

*Speed can be varied by customer supplied electronics

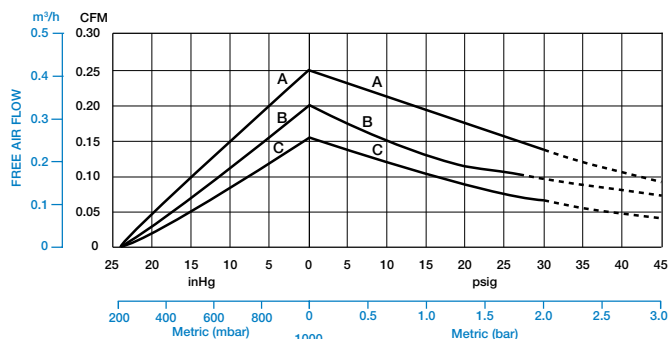
Note: These units can be configured for either staged vacuum or parallel pressure operation.

Staged vacuum units capable of 27.5 inHg maximum vacuum.

Parallel pressure units capable of 20 psi continuous duty (approx. twice the flow shown in graphs)

- Pressure/vacuum simultaneously in a very small package
- Very low noise levels approx. 55 dB(a)
- All wetted aluminum parts treated for corrosion protection from moisture
- Very low power consumption (approx. 75 watts - AC version, 50 watts - DC version)
- Long life/non-service life (up to 12,000 hours depending on application)

Product Performance



A: 24V DC
B: 1575 RPM
C: 1275 RPM

Pressure flow with one head running at max. vac.
Vacuum flow with one head running at 30 psi.

Dashed lines indicate intermittent duty



Shaded Pole Motor

90 psi max. pressure,
25 inHg max. vacuum
0.38 CFM open flow

PSC Motor

100 psi max. pressure
26 inHg max. vacuum
0.83 CFM open flow

DC Motor

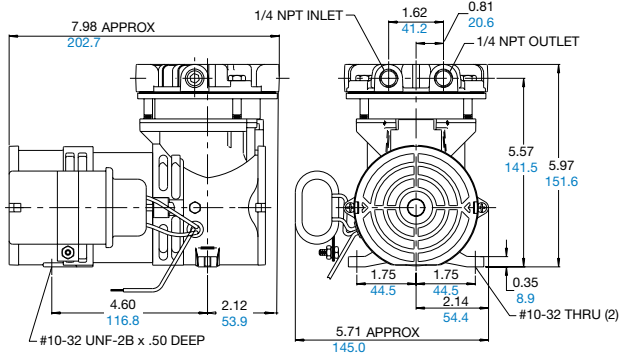
100 psi max. pressure,
27 inHg max. vacuum
0.62 CFM open flow

Recommended Accessories

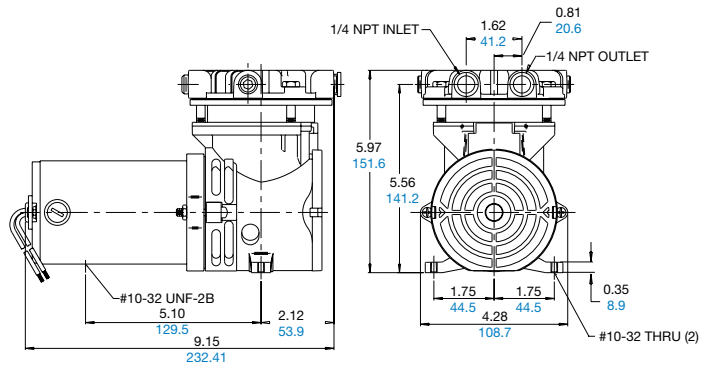
Muffler/filters AH190
Pressure gauge AF583
Vacuum gauge AA640
Pressure relief valve AF592S
Vacuum relief valve AA207
(3) Rubber feet AF584A
Repair kit K476

Product Dimensions (inches, mm)

AC MODELS (capacitor shipped unattached)



DC MODELS



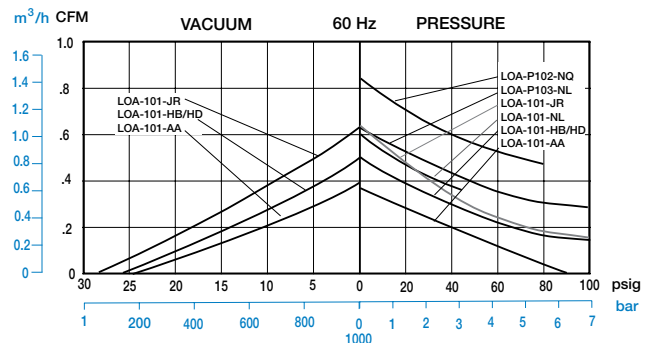
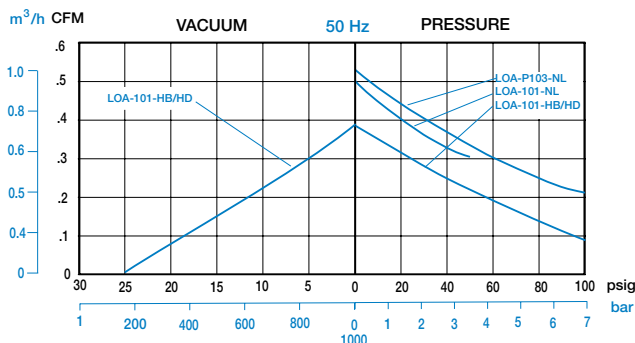
Product Specifications

Model Number	Motor	Motor Type	RPM	HP	KW	Net Weight	
			60 Hz	50 Hz		lb	kg
LOA-101-AA	115-60-1	Shaded pole	1575		1/16	0.05	6.6 3.0
LOA-101-HB	115/110-60/50-1	PSC	1575		1/16	0.05	8.6 3.9
LOA-101-HD	230/220-60/50-1	PSC	1575	1275	1/16	0.05	8.6 3.9
LOA-101-NL	100-50/60-1	PSC	1575	1275	1/8	0.09	7.6 3.5
LOA-P103-NL	100-50/60-1	PSC	1575	1275	1/6	0.12	7.6 3.5
LOA-P102-NQ	115-60-1	PSC	1575	1275	1/6	0.12	7.6 3.9
LOA-101-JR	11-15V DC		2000		1/10	0.07	6.6 3.0

- Oilless operation
- Motor mounted
- Rugged construction / low maintenance
- Low noise levels
- Capacitor AG331 (HB, HD motors) AF485A NL motor) AH364 (NQ motor) included

"P" models are pressure only

Product Performance





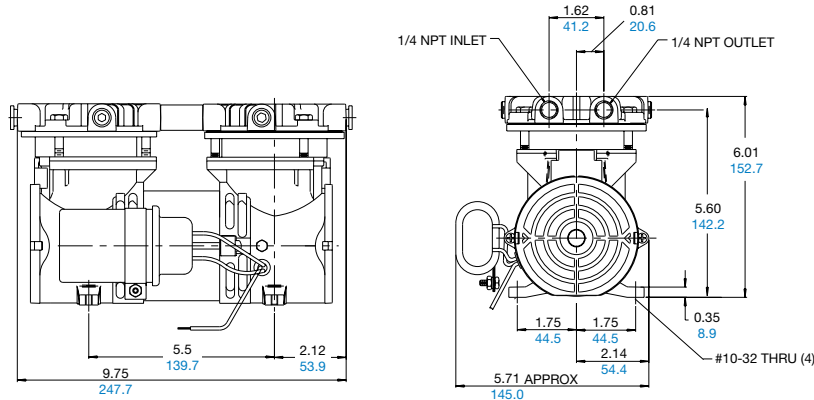
PSC Motor

60 psi max. pressure
29 inHg max. vacuum
1.5 CFM open flow

Recommended Accessories

Muffler/filters AH190
Pressure gauge AF583
Vacuum gauge AA640
Pressure relief valve AF592S
Vacuum relief valve AA207A
(4) Rubber feet AF584A
Repair kits
-K773 (LAA-101-NQ, LAA-V103-NQ)
-K767 (LAA-V104-NQ)

Product Dimensions (inches, mm)



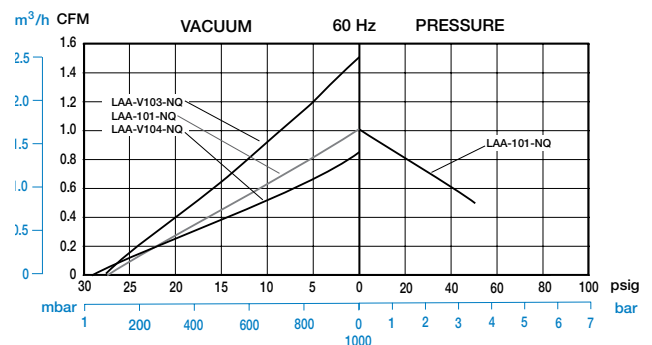
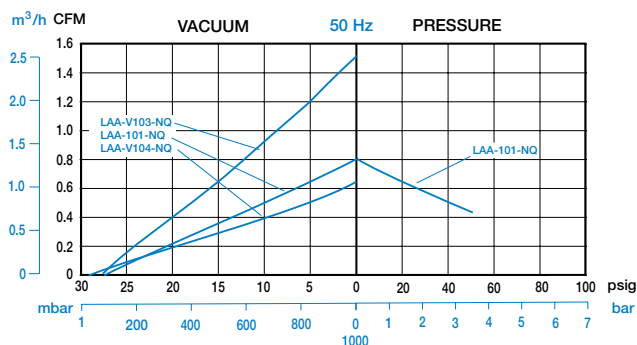
Product Specifications

Model Number	Motor	Motor Type	Staged/Parallel	RPM 60 Hz 50 Hz	HP	KW	Net Weight lb kg
LAA-101-NQ	100-60/50-1;115-60-1	PSC	Parallel	1575 1275	1/6	0.12	11.3 5.1
LAA-V103-NQ	100-60/50-1;115-60-1	PSC	Parallel	1575 1275	1/6	0.12	11.3 5.1
LAA-V104-NQ	100-60/50-1;115-60-1	PSC	Staged	1575 1275	1/6	0.12	11.3 5.1

- Oilless operation
- Motor mounted
- Rugged construction / low maintenance
- Low noise levels
- Capacitor AH364 included

"V" models are vacuum only

Product Performance





Standard units ship with
grilles covering fans

PSC 4 Pole Motor

30 psi max. pressure,
29.5 inHg max. vacuum
3.0 CFM open flow

Recommended Accessories

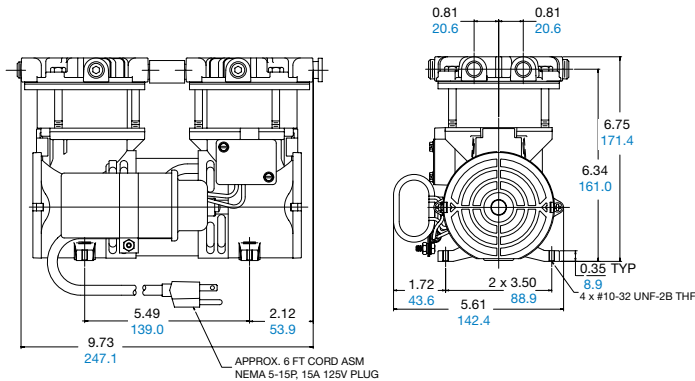
Mufflers/filters AH190
Pressure gauge AF583
Vacuum gauge AA640
Pressure relief valve AA205
Vacuum relief valve AA207
(4) Rubber feet AF584A

Repair kit(s):

SAA-P107-NQ, SAA-V108-NQ
-1 each K756, K757
SAA-V109-NQ
-2 each K757

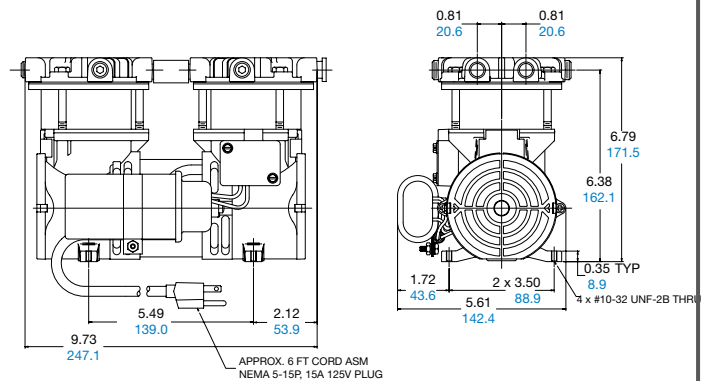
Product Dimensions (inches, mm)

SAA-P107-NQ



APPROX. 6 FT CORD ASM
NEMA 5-15P, 15A 125V PLUG

SAA-V108-NQ, SAA-V109-NQ



APPROX. 6 FT CORD ASM
NEMA 5-15P, 15A 125V PLUG

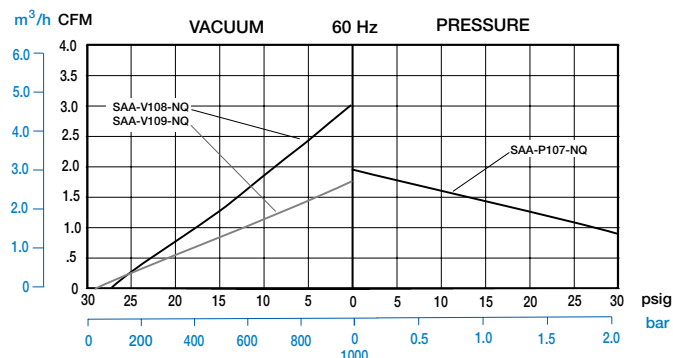
Product Specifications

Model Number	Motor	Motor Type	Parallel/Staged	RPM 60 Hz	HP	KW	Net Weight lb	kg
SAA-P107-NQ	115-60-1	PSC	Parallel	1575	1/6	0.12	11.1	5.0
SAA-V108-NQ	115-60-1	PSC	Parallel	1575	1/6	0.12	11.1	5.0
SAA-V109-NQ	115-60-1	PSC	Staged	1575	1/6	0.12	11.1	5.0

- Oilless operation
- Motor mounted
- Rugged construction / low maintenance
- Low noise levels

"P" models are pressure only; "V" models are vacuum only

Product Performance





Shaded Pole Motor

100 psi max. pressure
26 inHg max. vacuum
1.6 CFM open flow

PSC 4 Pole Motor

100 psi max. pressure
27 inHg max. vacuum
.78 CFM open flow

DC Motor

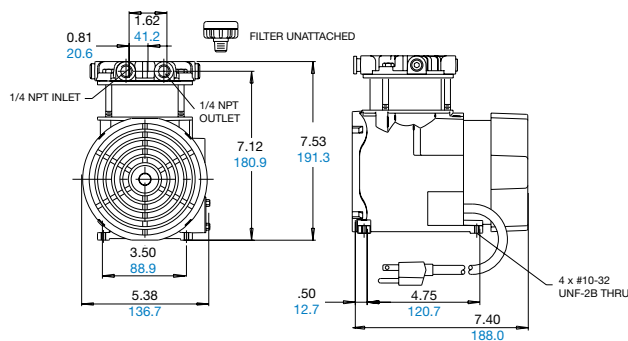
100 psi max. pressure
26 inHg max. vacuum
1.1 CFM open flow

Recommended Accessories

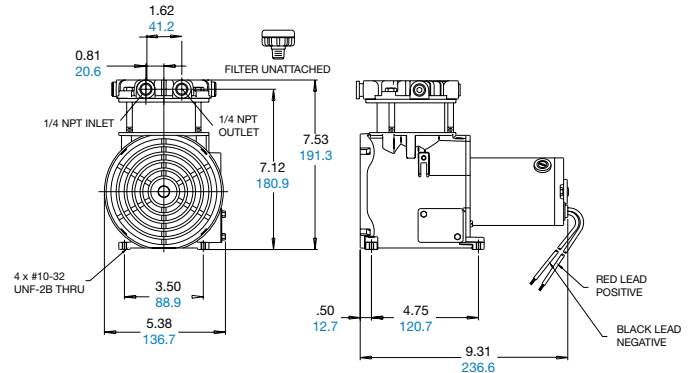
Filter for vacuum only AA617G
Pressure gauge AF583
Vacuum gauge AA640
Pressure relief valve AF592S
Vacuum relief valve AA550C-V
(4) Rubber feet AF584A
Repair kit K757

Product Dimensions (inches, mm)

AC MODELS



DC MODELS



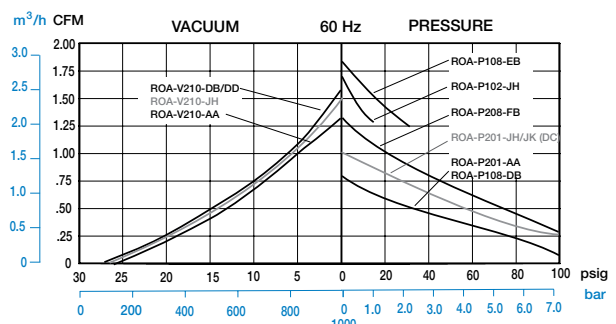
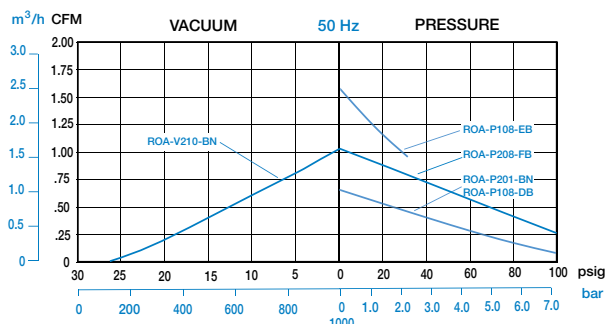
Product Specifications "P" models are pressure only; "V" models are vacuum only

Model Number	Motor	Motor Type	RPM 60 Hz	50 Hz	HP	KW	Net Weight lb	kg
*ROA-P201-AA	115-60-1	Shaded pole	1575	--	1/8	0.09	12.0	5.6
ROA-P201-BN	220/240-50-1	Shaded pole	--	1275	1/8	0.09	12.0	5.6
ROA-P108-DD	230/220-60/50-1	PSC	1575	1275	1/8	0.09	15.0	6.8
ROA-P108-EB	115/110-60/50-1	PSC	1575	1275	1/4	0.19	15.0	6.8
ROA-P208-DB	115/110-60/50-1	PSC (4 pole)	1575	1275	1/8	0.09	12.3	5.6
ROA-P208-FB	115/110-60/50-1	PSC (2 pole)	3000	2500	1/4	0.19	12.3	5.6
ROA-P209-DB	115/110-60/50-1	PSC	1575	1275	1/8	0.09	12.0	5.6
ROA-P201-JH	12V	DC	2100		1/8	0.09	10.0	4.5
ROA-P201-JK	24V	DC	2100		1/8	0.09	10.0	4.5
*ROA-V210-AA	115-60-1	Shaded pole	1575	--	1/8	0.09	12.3	5.6
†ROA-V210-BN	220/240-50-1	Shaded pole	--	1275	1/8	0.09	12.3	5.6
ROA-V210-JH	12V	DC	2100		1/8	0.09	10.0	4.5

- Oilless operation
- Motor mounted
- Rugged construction / low maintenance
- Low noise levels
- Muffler/filter AH190,
Capacitor AF873A (DB and DD motors)
Capacitor AF485A (FB motor) included

* Includes 10 foot cord, switch, and plug
† Includes 2 meter European color coded cord (no plug)

Product Performance





Shaded Pole Motor

100 psi max. pressure
25 inHg max. vacuum
0.8 CFM open flow (60 Hz)

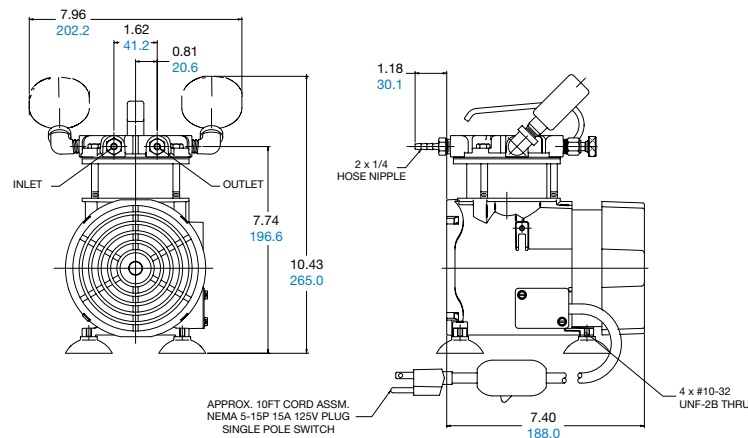
Recommended Accessories

Repair kit K757

Includes

Pressure gauge AF806
Vacuum gauge AE136
Pressure relief valve AF887
Vacuum relief valve AA550C-V
Hose barbs AG613
Carrying handle AP523A
Rubber feet AF584A

Product Dimensions (inches, mm)

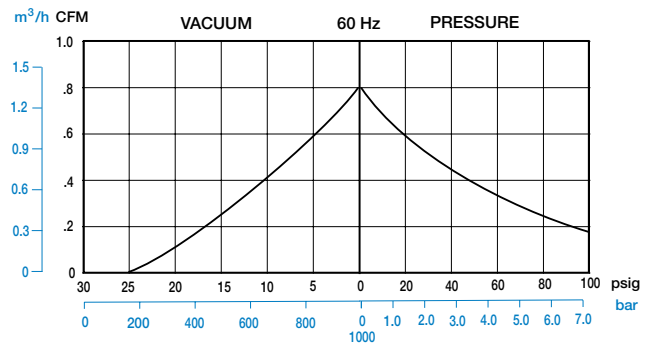
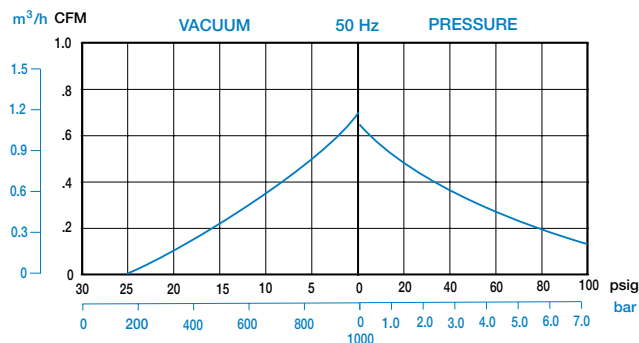


Product Specifications

Model Number	Motor	Motor Type	RPM 60 Hz 50 Hz	HP	KW	Net Weight lb kg
ROA-P104-AA	115-60-1	Shaded pole	1725 --	1/8		20 7.0
ROA-P104-BN	220/240-50-1	Shaded pole	-- 1425	1/8	0.10	14 6.4

- Oilless operation
- Motor mounted
- Rugged construction / low maintenance
- CNL UL listed for use in Canada
- CE conforms to European standards

Product Performance





PSC 4 Pole Motor

100 psi max. pressure
1.55 CFM open flow (60 Hz)
27.5 inHg max. vacuum
2.7 CFM open flow (60 Hz)

PSC 4 Pole Motor Single Stg

29.0 inHg max. vacuum
1.5 CFM open flow (60 Hz)

PSC 2 Pole Motor

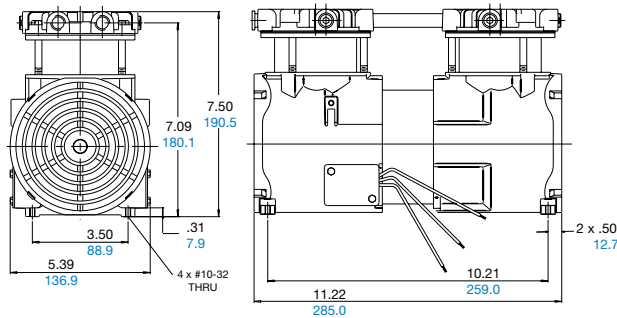
100 psi max. pressure
2.4 CFM open flow (60 Hz)

Recommended Accessories

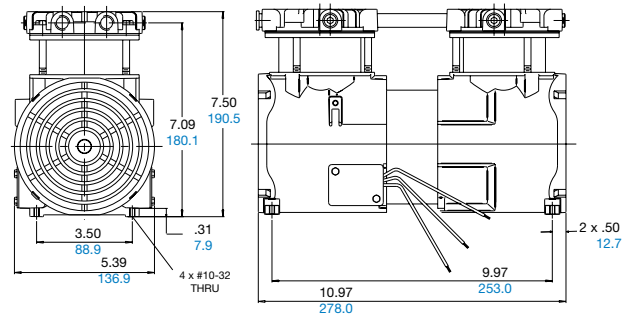
Filter for vacuum only AA617G
Pressure gauge AF583
Vacuum gauge AA640
Pressure relief valve AF592S
Vacuum relief valve AA550C-V
(4) Rubber feet AF584A
(2) Repair kits K757

Product Dimensions (inches, mm)

EB/ED MOTORS



GB/GD MOTORS



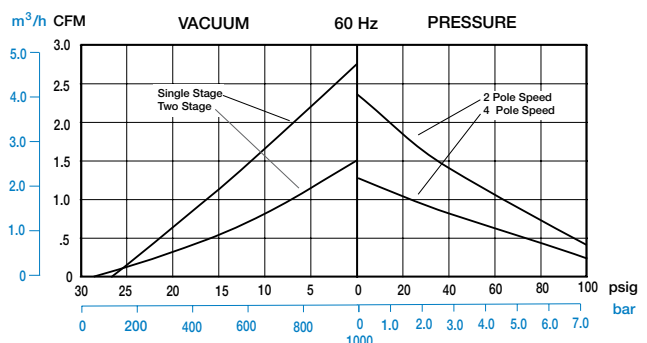
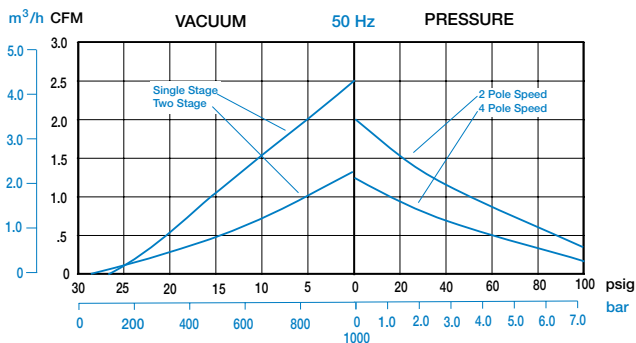
Product Specifications

Model Number	Motor	Motor Type	Staged/Parallel	RPM 60 Hz 50 Hz	HP	KW	Net Weight lb kg
RAA-P203-EB	115/110-60/50-1	PSC (4 pole)	--	1575 1275	1/4	0.19	19 8.6
RAA-P203-ED	230/220-60/50-1	PSC (4 pole)	--	1575 1275	1/4	0.19	19 8.6
RAA-P203-GB	115/110-60/50-1	PSC (2 pole)	--	3000 2500	1/4	0.19	19 8.6
RAA-P203-GD	230/220-60/50-1	PSC (2 pole)	--	3000 2500	1/4	0.19	19 8.6
RAA-V210-EB	115/110-60/50-1	PSC (4 pole)	Parallel	1575 1275	1/4	0.19	19 8.6
RAA-V211-EB	115/110-60/50-1	PSC (4 pole)	Staged	1575 1275	1/4	0.19	19 8.6
RAA-V210-ED	230/220-60/50-1	PSC (4 pole)	Parallel	1575 1275	1/4	0.19	19 8.6

- Oilless operation
- Motor mounted
- Rugged construction / low maintenance
- Low noise levels
- Muffler/filter AH190,
unattached capacitor AF876 (EB motors)
AF873A (EB motors) included

"P" models are pressure only; "V" models are vacuum only

Product Performance





Models 71R142

100 psi max. pressure
2.0 CFM open flow (60 Hz)

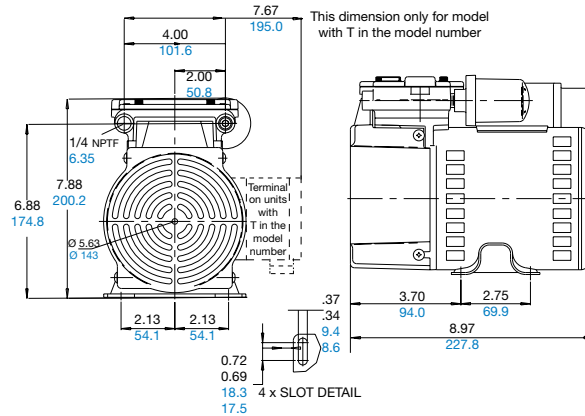
Model 72R142

50 psi max. pressure
2.4 CFM open flow (60 Hz)

Recommended Accessories

In-line filter for vacuum units AA617G
Pressure gauge AF583
Vacuum gauge AA640
Pressure relief valve AF592S
Vacuum relief valve AA550C-V
(4) Rubber feet AB319A
Repair kit: 71R - K704
72R - K705

Product Dimensions (inches, mm)

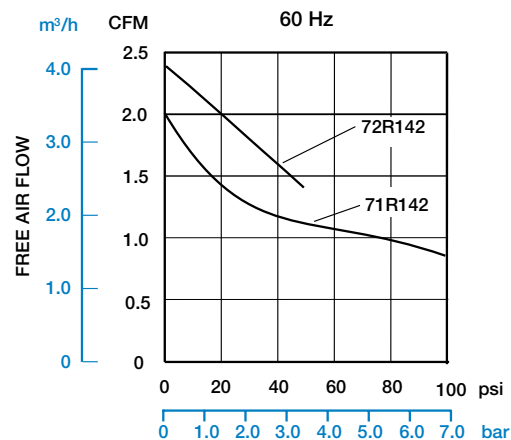
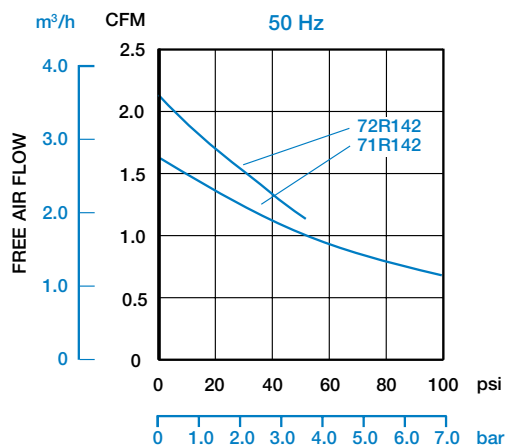


Product Specifications

Model Number	Motor	Motor Type	RPM 60 Hz	50 Hz	HP	KW	Net Weight lb	kg
71R142-P001B-D300X	100/115-60/50-1	PSC (4 Pole)	1675	1400	1/3	0.25	14	6.4
71R142-P001B-D301X	200/240-50/60-1	PSC (4 Pole)	1675	1400	1/3	0.25	14	6.4
72R142-P0018-D300X	100/115-60/50-1	PSC (4 Pole)	1675	1400	1/3	0.25	17	7.7
72R142-P0018-D301X	200/240-50/60-1	PSC (4 Pole)	1675	1400	1/3	0.25	17	7.7

- Oilless operation
- All wetted aluminum parts treated for corrosion protection from moisture
- Rugged motor shell construction
- Muffler/filter B300F included

Product Performance





Model 71R545 Staged

175 psi max. pressure
2.0 CFM open flow (60 Hz)

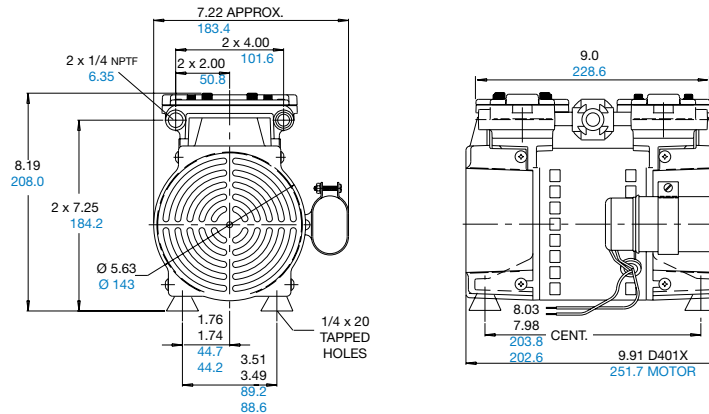
Recommended Accessories

Repair kit K634

Includes

Capacitor AK385
Safety valve AS100J
Interstage filter AT441
(4) Rubber feet AF713A
Filter B300F not pictured,
shipped unattached

Product Dimensions (inches, mm)

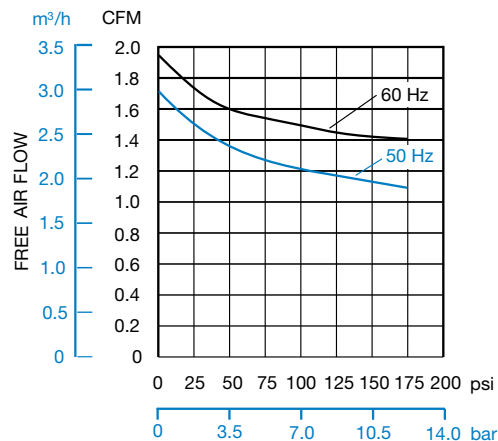


Product Specifications

Model Number	Motor	Motor Type	RPM 60 Hz 50 Hz	HP	KW	Net Weight lb kg
71R545-P315B-D401X	100/115-60-1	PSC (4 Pole)	1725 1425	1/2	0.37	15.6 7.09
71R545-P315B-D302CX	220/240-50-1	PSC (4 Pole)	-- 1425	1/3	0.25	15.6 7.09

- Oilless operation
- All wetted aluminum parts treated for corrosion protection from moisture
- Rugged motor shell construction
- Muffler/filter B300F included

Product Performance





Model 71R642

100 psi max. pressure
3.5 CFM open flow (60 Hz)

Model 71R645/71R655

100 psi max. pressure
4.35 CFM open flow (60 Hz)

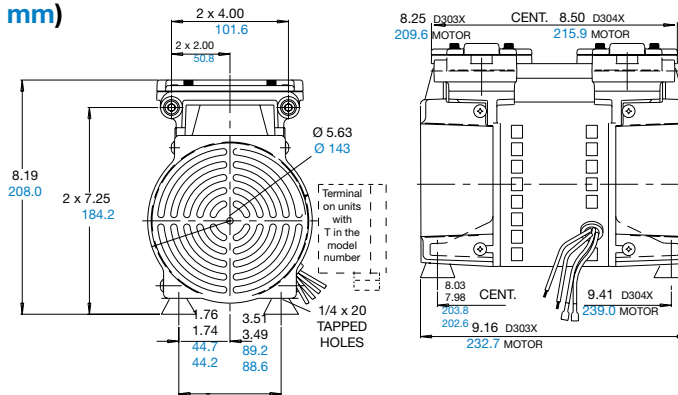
Models 71R645/71R655

100 15 psi max. pressure
5.5 CFM open flow (60 Hz)

Recommended Accessories

Relief valve AA600
Pressure gauge AA644B
Repair kit 71R K557
72R K558

Product Dimensions (inches, mm)



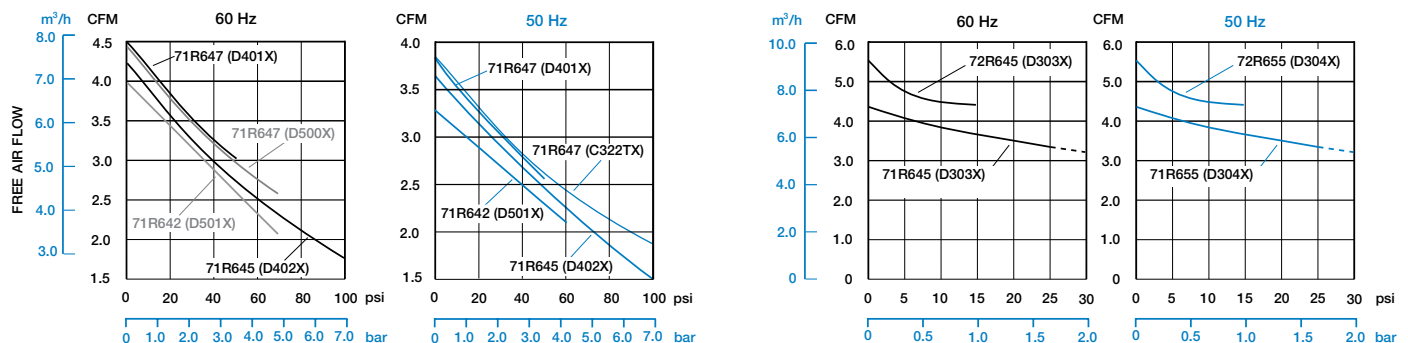
Product Specifications

Model Number	Motor	Motor Type	RPM 60 Hz 50 Hz	HP	KW	Net Weight lb kg
71R645-P112-D303X	115-60-1	PSC (4 pole)	1650 --	1/3	0.25	15.6 7.09
71R647-P10-C322X	220/240-50-1	PSC (4 pole)	-- 1400	1/2	0.37	23.4 10.6
71R647-P10-C322	220/240-50-1	PSC (4 pole)	-- 1450	1/3	0.25	19.8 9.0
*71R647-P10-C322TX	220/240-50-1	PSC (4 pole)	-- 1450	1/3	0.25	23.4 10.6
71R655-P112-D304X	220/240-50-1	PSC (4 pole)	-- 1425	1/3	0.25	16.0 7.27
72R645-P112-D303X	115-60-1	PSC (4 pole)	1650 --	1/3	0.25	15.6 7.09
72R655-P112-D304X	220/240-50-1	PSC (4 pole)	-- 1425	1/3	0.25	16.0 7.27
71R647-P112-D401X	115-60-1	PSC (4 pole)	1650 --	1/2	0.37	15.6 7.09
71R642-P112-D501X	100/115-60-1	PSC (4 pole)	1650 --	3/4	0.37	15.6 7.09
	100-50-1		-- 1425			
71R645-P112D-D402CX	220/230-60-1	PSC (4 pole)	1650 --	1/2	0.37	15.6 7.09
	220/240-50-1		-- 1425			
71R647-P112U-D500CX	115-60-1	PSC (4 pole)	1650 --	3/4	0.56	15.6 7.09

* Unit with terminal box

- Oilless operation
- All wetted aluminum parts treated for corrosion protection from moisture
- Rugged motor shell construction
- Includes
Dry-cell capacitor AT250 (D303X motor),
AT251 (D304X motor)-not pictured, shipped unattached
(4) rubber feet AF713A

Product Performance





Models 71R645/71R655

28 inHg max. vacuum
4.5 CFM open flow (60 Hz)

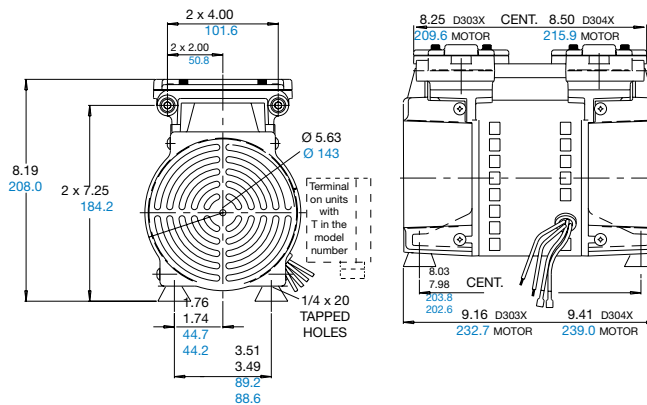
Models 72R547/72R555 Staged

29 inHg max. vacuum
2.6 CFM open flow (60 Hz)

Models 72R645/72R655

28 inHg max. vacuum
5.5 CFM open flow (60 Hz)

Product Dimensions (inches, mm)



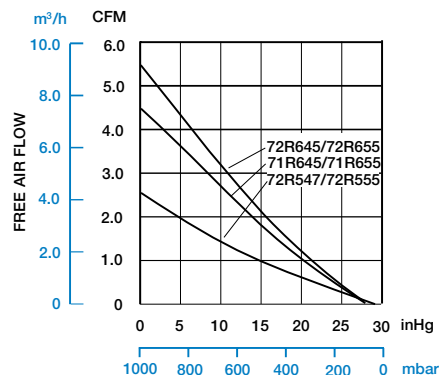
Product Specifications

Model Number	Motor	Motor Type	Parallel/ Staged	RPM 60 Hz 50 Hz	HP	KW	Net Weight lb kg
71R645-V114-D303X	115-60-1	PSC (4 pole)	Parallel	1650 --	1/3	0.25	15.6 7.09
71R655-V10-C222X	220/240-50-1	Shaded Pole	Parallel	-- 1450	1/3	0.25	16.0 7.27
*71R655-V10-C222TX	220/240-50-1	Shaded Pole	Parallel	-- 1450	1/3	0.25	16.0 7.27
71R655-V114-D304X	220/240-50-1	PSC (4 pole)	Parallel	-- 1425	1/3	0.25	16.0 7.27
72R547-V116-D303X	115-60-1	PSC (4 pole)	Staged	1650 --	1/3	0.25	15.6 7.09
72R555-V10-C222X	220/240-50-1	Shaded Pole	Staged	-- 1450	1/3	0.25	19.8 9.0
72R555-V10-C222TX	220/240-50-1	Shaded Pole	Staged	-- 1450	1/3	0.25	19.8 9.0
72R555-V116B-D204X	220/240-50-1	PSC (4 pole)	Staged	-- 1425	1/3	0.25	16.0 7.27
72R645-V114-D303X	115-60-1	PSC (4 pole)	Parallel	1650 --	1/3	0.25	15.6 7.09
72R655-V10-C222X	220/240-50-1	Shaded Pole	Parallel	-- 1450	1/3	0.25	21.8 9.9
72R655-V10-C222TX	220/240-50-1	Shaded Pole	Parallel	-- 1450	1/3	0.25	21.8 9.9
72R655-V114-D304X	220/240-50-1	PSC (4 pole)	Parallel	-- 1425	1/3	0.25	16.0 7.27

* All model numbers with T have a terminal box attached

- Oilless operation
- All wetted aluminum parts treated for corrosion protection from moisture
- Rugged motor shell construction
- Includes
Dry-cell capacitor AT250 (D303X motor),
AT251 (D304X motor)-not pictured,
shipped unattached
(4) rubber feet AF713A

Product Performance





Model 74R130

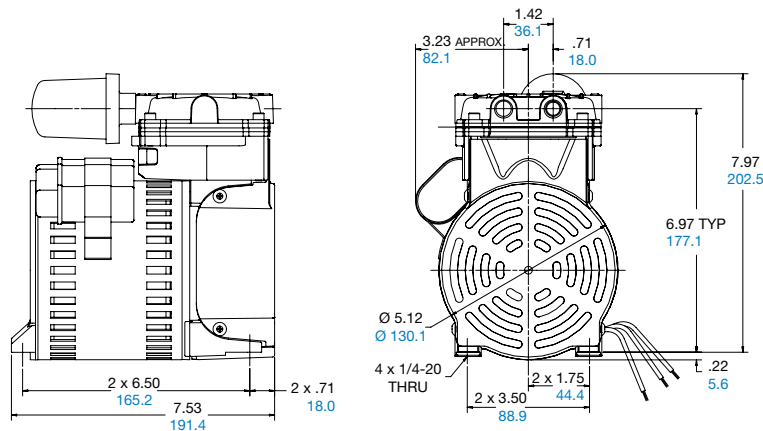
100 psi max. pressure
1.50 CFM open flow (60 Hz)

100 psi max. pressure
1.25 CFM open flow (50 Hz)

Recommended Accessories

Pressure gauge AF583
Pressure relief valve AF592S
(4) Rubber feet AF713A
Repair kit K806

Product Dimensions (inches, mm)



Product Specifications

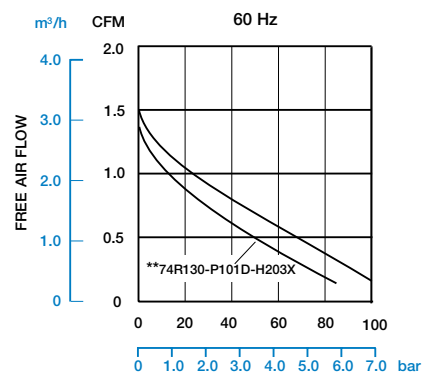
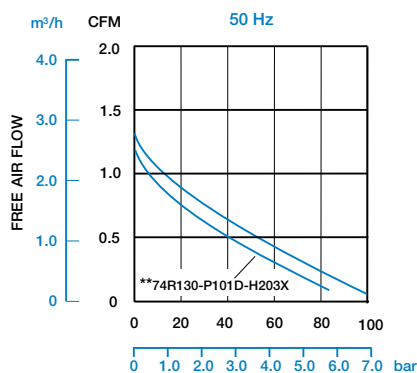
Model Number	Motor	RPM		HP	KW	Net Weight	
		60 Hz	50 Hz			lb	kg
74R130-P101-H200X	100-115-60/50-1	1625	1375	1/4	0.19	14.2	6.4
74R130-P101-H200X	220-240/230-50/60-1	1625	1375	1/4	0.19	14.3	6.5
74R130-P101-H203X	115/230-60-1 :220/240-50-1	1625	1375	1/4	0.19	14.3	6.5
**74R130-P101D-H203X	115/230-60-1 :220/240-50-1	1625	1375	1/4	0.19	14.3	6.5
*74R130-P114-H200X	100-115-60/50-1	1625	1375	1/4	0.19	14.2	6.4
*74R130-P114-H201X	220-240/230-50/60-1	1625	1375	1/4	0.19	14.3	6.5

* Has M5 foot mount

** Biased valve

- Oilless operation
- All wetted aluminum parts treated for corrosion protection from moisture
- Rugged motor shell construction
- Filter B300A included
- H200 and H201 motors have 3 pigtail wire arrangement
- H203 has 6 pigtail wire arrangement

Product Performance





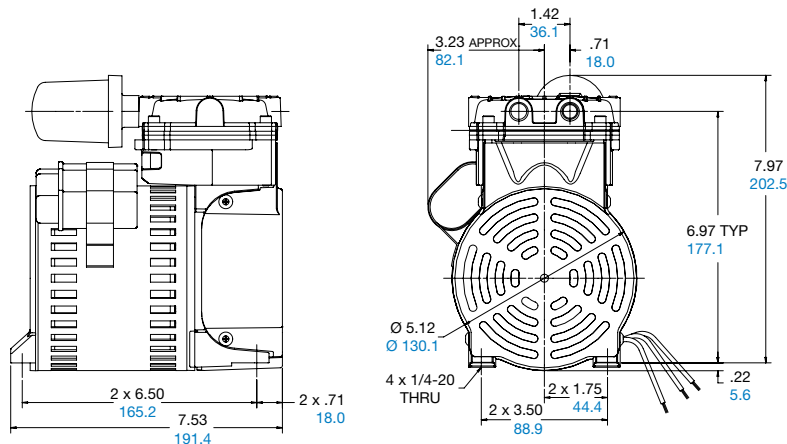
Model 75R135

27 inHg max. vacuum
1.9 CFM open flow (60 Hz)

Recommended Accessories

Vacuum gauge AA640
Vacuum relief valve AA204
(4) Rubber feet AF713A
Repair kit K806

Product Dimensions (inches, mm)

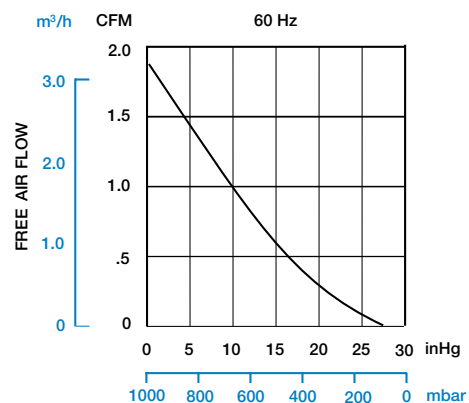
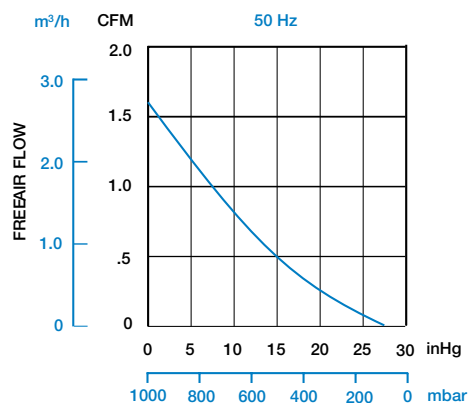


Product Specifications

Model Number	Motor	Motor Type	RPM 60 Hz	RPM 50 Hz	HP	KW	Net Weight lb	Net Weight kg
75R135-V102-H200X	100/100-115-50/60-1	PSC	1625	1375	1/4	0.19	14.3	6.5
75R135-V103-H203X	115/230-60-220-240-50	PSC	1625	1375	1/4	0.19	14.3	6.5

- Oilless operation
- All wetted aluminum parts treated for corrosion protection from moisture
- Rugged motor shell construction
- Filter/muffler included

Product Performance





Model 81R640

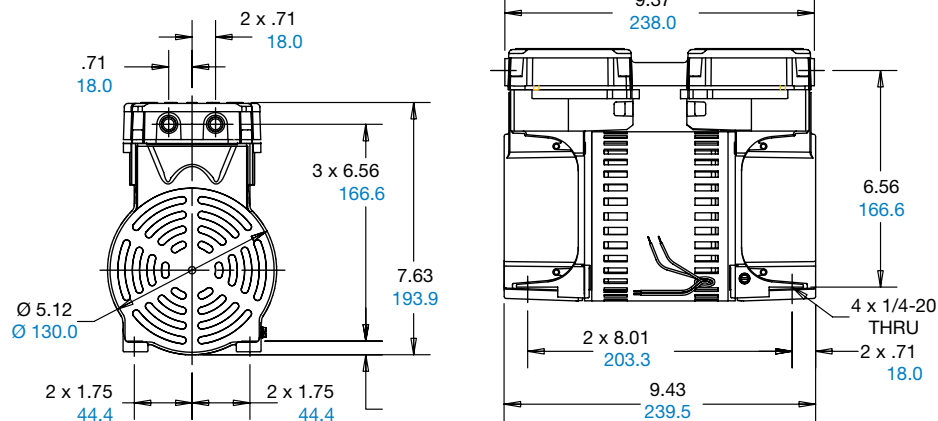
100 psi max. pressure
3.7 CFM open flow (60 Hz)

100 psi max. pressure
3.0 CFM open flow (50 Hz)

Recommended Accessories

Pressure gauge AA806
Safety valve AP202
Filter B300A
Capacitors AT251 dry or AJ594 wet
Repair kit K934

Product Dimensions (inches, mm)

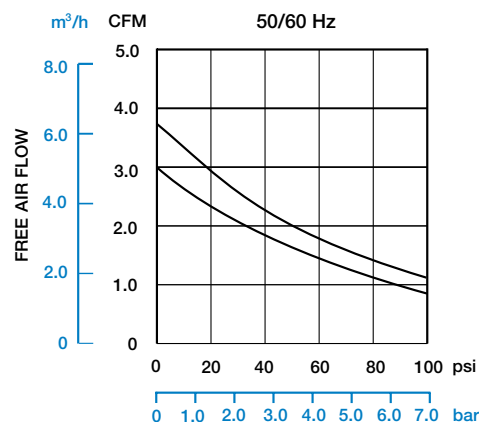


Product Specifications

Model Number	Motor	Motor Type	RPM 60 Hz 50 Hz	HP	KW	Net Weight lb kg
81R640-P101-H311CX	115-60-1	PSC	1725 --	1/3	0.25	17.1 7.8
81R640-P101-H302CX	220-240-50-1	PSC	-- 1450	1/3	0.25	17.1 8.0

- Oilless operation
- All wetted aluminum parts treated for corrosion protection from moisture
- Rugged motor shell construction

Product Performance





MODEL 82R637 Series

30 psi max. pressure
4.3 CFM open flow (60 Hz)

30 psi max. pressure
3.8 CFM open flow (BLDC)

MODEL 82R637 Series

30 psi max. pressure
4.7 CFM open flow (60 Hz)

30 psi max. pressure
4.1 CFM open flow (50 Hz)

MODEL 82R642 Series

100 psi max. pressure
4.4 CFM open flow (60 Hz)

100 psi max. pressure
3.2 CFM open flow (50 Hz)

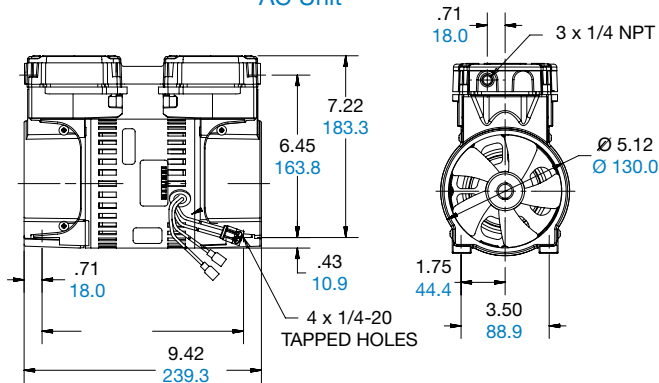
MODEL 82R645 Series

30 psi max. pressure
4.9 CFM open flow (60 Hz)

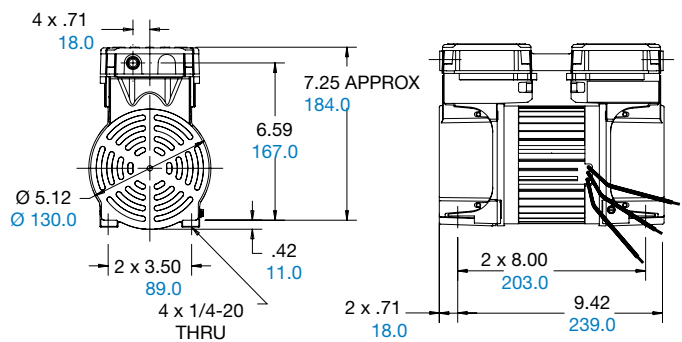
30 psi max. pressure
4.4 CFM open flow (50 Hz)

Product Dimensions (inches, mm)

AC Unit



DC Unit



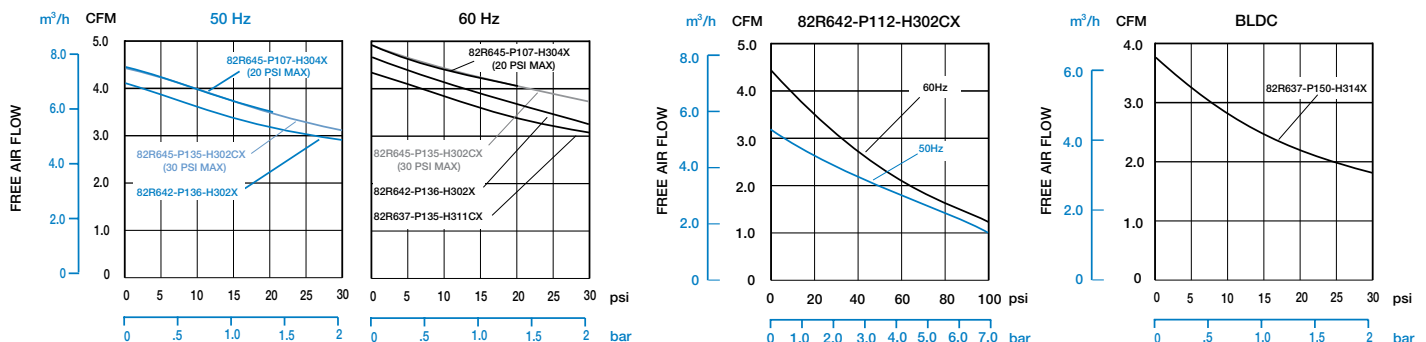
Product Specifications

Model Number	Motor	Motor Type	RPM 60 Hz 50 Hz	HP	KW	Net Weight lb kg
82R637-P135-H311CX	115-60-1	PSC	1725 --	1/3	0.25	17.1 7.8
82R637-P150-H314X	24V	PM	2000	1/3	0.25	17.9 8.1
*82R642-P112-H302CX	230-60-1	PSC	1725 1425	1/3	0.25	17.1 7.8
	220/240-50-1	PSC	1725 1425	1/3	0.25	17.1 7.8
82R642-P136-H302CX	230-60-1	PSC	1725 1425	1/3	0.25	17.1 7.8
	220/240-50-1	PSC	1725 1425	1/3	0.25	17.1 7.8
82R645-P107-H304X	110-115/230-60-1	PSC	1725 1425	1/3	0.25	17.1 7.8
	10/220-50-1	PSC	1725 1425	1/3	0.25	17.1 7.8
82R645-P135-H302CX	230-60-1	PSC	1725 1425	1/3	0.25	17.1 7.8
	220/240-50-1	PSC	1725 1425	1/3	0.25	17.1 7.8

* Units will start against 50 psi back pressure

- Oilless operation
- All wetted aluminum parts treated for corrosion protection from moisture
- Rugged motor shell construction
- Recommended Accessories
 - Pressure gauge AF583
 - Relief valve AP202
 - Filter B300A
 - Repair kit K797A
 - Capacitors: AT251 (82R637-P135-H311CX)
 - AT251B 82R642-P112-H302CX
 - 82R642-P136-H302CX
 - 82R645-P135-H302CX
 - AT385 (82R645-P107-H304X, shipped with unit)

Product Performance





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