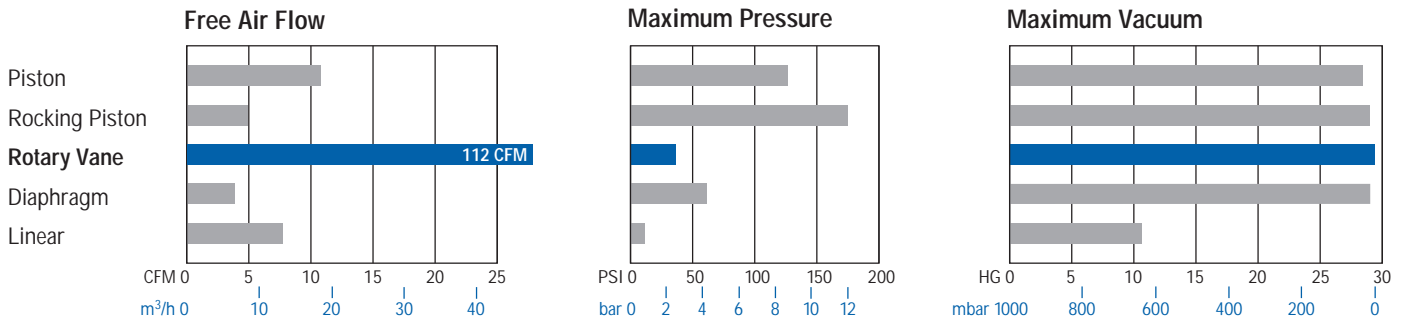


AIR COMPRESSORS • VACUUM PUMPS

Rotary Vane

Gast Rotary Vane air compressors and vacuum pumps are used in thousands of applications worldwide. Available in oilless, lubricated, motor-mounted and separate drive styles, they offer a wide choice of capabilities including air flow from .31 to 112 cfm (0,53 to 190 m³/h); vacuum up to 29.5 in. Hg (13 mbar); and pressure up to 30 psig (2,1 bar); also available are dual function styles. Electric motors are dual frequency, multi-voltage AC for worldwide applications, with smallest models rated 12 and 24 volts DC. Horsepowers range from 1/45 to 15 HP (0,02 to 11,1 kW). Vacuum tank systems come in simplex and duplex variations, with tank sizes ranging from 2 to 60 gallons. A complete line of recommended accessories is also available.

Here's how our Rotary Vane performance compares with that of our other popular positive displacement vacuum pumps and compressors. Use these charts to see if a Rotary Vane pump is the right choice for your application.



Why use a Rotary Vane pump?

Rotary Vane vacuum pumps and compressors have certain significant advantages. In addition to providing **smooth, pulse-free air flow** without receiver tanks, they are compact (or equivalently offer high flow capacities for a given size), are simple and **economical to install and operate**, have **low starting and running torque** requirements, produce **minimal noise or vibrations**, are capable of **long, service-free life** and are **easily serviced**.

If these features are what you need in your pneumatic application, a Gast Rotary Vane model can provide you the right solution.

Typical Applications

- Breathing Air Supply
- Circulation Therapy
- Packaging
- Graphic Arts
- Pond Aeration
- Vacuum Hold-Down
- Air Sampling
- Office/Business Machines
- Food Processing Equipment
- Laboratory Use
- Soil Sparging
- Vacuum Forming
- Air Bearings

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.

Warning: Units Should Not Pump Combustible Gases or Be Used in Combustible Ambients



This catalog presents the models primarily in ascending order of free air flow, with motor mounted styles first followed by our separate drive offerings. The table below will assist you in locating a particular model or series.

How does a Rotary Vane pump work?

Pumping action is produced by a series of sliding, flat vanes as they rotate in a cylindrical housing. As the diagram

shows, an eccentrically mounted rotor turns and the individual vanes slide in and out of their slots by centrifugal and pressure-loading forces. This creates a series of air compartments of unequal volume against the wall of the housing. These compartments get larger during the suction part of the cycle, creating vacuum at the intake port and smaller during the discharge portion of the cycle, creating pressure at the exhaust port.

The vacuum and pressure flows are free of pulsation because the inlet and exhaust ports do not have valves, and the air is moved continuously rather than intermittently.

MODEL/ SERIES	POWER RATING @ 60 Hz		FREE AIR FLOW				MAXIMUM PRESSURE		MAXIMUM VACUUM		Page No.
	hp	kW	cfm		m ³ /h		psi	bar	" Hg	mbar	
			50 Hz	60 Hz	50 Hz	60 Hz					
Motor Mounted											
1531	1/10		1.25	.15	2.5		15	1.0	20	335	4
0532	1/15	0,05	.29	.6	0,49	1,0	15	1,0	20	335	5
1032	1/15	0,05	.92	1.1	1,56	1,9	10	0,7	20	335	5
1532	1/10	0,07	1.3	1.5	2,2	2,5	10	0,7	20	335	5
2032	1/8	0,09	2.0	2.4	3,4	4,1	10	0,7	26	133	7
3032	1/6	0,12	2.4	2.6	4,1	4,4	10	0,7	26.5	116	7
0211	1/6	0,12	1.1	1.3	1,9	2,2	20	1,4	20	335	9
0323-1423 (5 models)	1/4-1	0,19- 0,56	2.7-11.5	3.2-13	4,6- 19,5	5,4-22	10	0,7	26.5	116	11-14
RV Series	1/6	0,12	--	3.8-4.8	—	6.5-8.7	5	0,33	15	492	15
2070	2	1,5	16	20	27	34	--	--	25	167	16
Separate Drive											
0533	1/15	0,05	.5	.6	0,85	1,0	15	1,0	20	335	18
1033	1/10	0,07	.9	1.1	1,53	1,9	15	1,0	20	335	18
1034	.18	0,13	—	1.6	—	2,7	10	0,7	20	335	19
1534	.18	0,13	—	2.2	—	3,7	10	0,7	20	335	19
0240-0740	1/4-1/3	0,19- 0,25	1.5-4.9	1.9-6.0	2,5- 8,3	3,2-10	10	0,7	20	335	20
0465	1/4	0,19	3.4	4.0	5,8	6,8	—	—	28	65	22
0765	1/3	0,25	5.0	6.0	8,5	10	—	—	28	65	22
1550	3/4	0,56	11.5	14.5	19,5	24,7	15	1,0	20	335	22
1065-2565	1/2-1 1/2	0,37-1,1	7.3-16.5	8.5-21	12-28	14,4-35,7	25	1,7	28	65	24
2067-2567	1-1 1/2	0,75-1,1	14-17	17-21	24-29	29-35,7	15	1,0	28	65	26-28
2080-4080	2-5	1,5-3,7	20-37	25-45	34-63	42-76	15	1,0	25	167	29
3040	2	1,5	31	40	53	68	10	0,7	20	335	31
4565	3	2,2	36	47.5	61	80,1	15	1,0	25	167	33
5565	3	2,2	45	55	76	93,5	—	—	20	335	34
6066	5	3,7	45	55	76	93,5	15*	1,0	25	167	35
1290**	10	7,5	—	112	—	190	20	1,4	—	—	35

*Standard model performance. Soil sparging model capable of 20 psi.

**Soil sparging model.

Product and Application Information

Unit Life Expectancy

Many variables determine the life expectancy of a unit. Among them are:

1. Ambient temperature

Gast's units operate best within a temperature range of 32°F (0°C) to 100°F (38°C). Lower temperatures affect a unit's ability to start and higher temperatures affect its life. Contact the factory for authorization of unusual ambient conditions.

2. Duty level

3. Operating cycle

4. Operating speed

5. Condition of air handled

- Cleanliness
- Humidity
- Heat
- Chemical vapors present (corrosive, noncorrosive)

6. Unit maintenance

- Lubrication (if required)
- Filter maintenance
- Muffler maintenance

Electric Motors

All electric motors supplied with Gast vacuum pumps are designed to operate at plus or minus 10% of nameplate voltage. Motors to meet special requirements are available upon request. Various brand-name motors are furnished on any model at the discretion of Gast.

Starting Under Load

Rotary vane units will start under load. The vanes permit the internal chamber of the unit to bleed off during the cycle. At start-up, the pump is not subjected to full load until enough centrifugal force has been attained to throw the vanes out against the body. By that time, the motor has gained enough momentum to continue its cycle without stress.

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.

Continuous vs. Intermittent Operation

Continuous vs. intermittent duty usually must be considered. Our definition of intermittent duty is 10 minutes or less on and 10 minutes or more off. Please note that when you refer to performance curves in this catalog, the solid line indicates continuous operation, while the dashed line shows intermittent duty.

European Community's CE Machinery Directive

Given its international perspective, Gast has also pledged to conform to the European Community's Machinery Directive, a safety certification program for all products targeted for marketing in the European Community. Currently, all Gast products sold in the European Community are in compliance and include a Declaration Certificate.