

# excellence in air technology



## full line overview



**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.

To ensure fast, efficient delivery of products, Gast has a vast network of representatives/distributors throughout the United States and the world. Plus, we maintain a manufacturing and service facility in Denmark to serve the European Community, sales offices in England, The Netherlands, France, Sweden, Hong Kong and Shanghai, China, and Certified Service Centers® throughout the world.

**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. Chances are excellent we'll have a

high-quality, off-the-shelf product to fit your existing application or meet your anticipated needs. If not, we'll propose customized cost-effective design options that will serve your special requirements.

Our experienced Research and Development engineers and Product engineers work together to analyse the customers' needs and use computer-aided design to generate timely solutions to their air-handling problems. The design team has one goal: to create problem-solving products that capitalize on the latest available technology, meet all application requirements, and benefit from cost-effective production methods.

The end result: products 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.

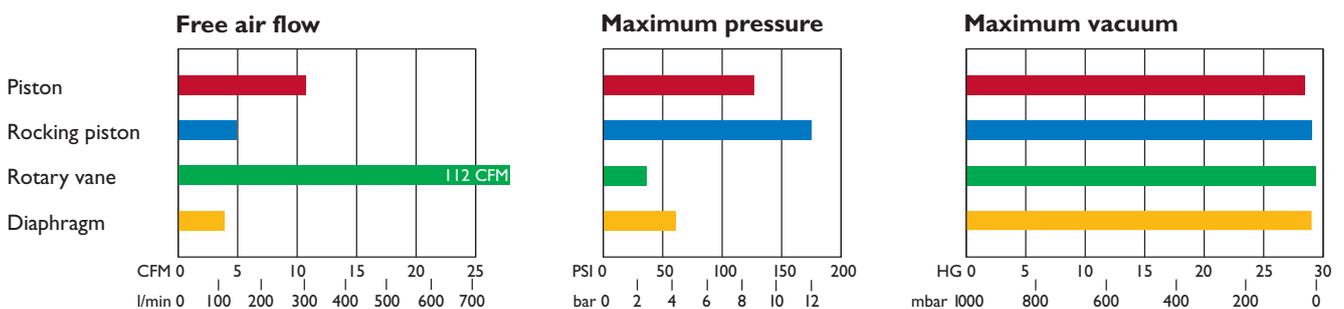
In keeping with that tradition, Gast has achieved ISO 9001 and 14001 certification, thus becoming a member of an elite group of the manufacturing companies of the world receiving that certification, the international symbol of world-class excellence. ISO 9001 and 14001 is the most stringent of the three ISO quality standards.

**European Community directives CE**

Given its international perspective, 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.

**Compressors and vacuum pumps performance overview\***



\* Shown here are performance ranges of our positive displacement models. Review sections inside for performance of our regenerative blowers, vacuum generators, and air motors/gearmotors.  
 Note: 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 Gast.

# rotary vane

## Performance

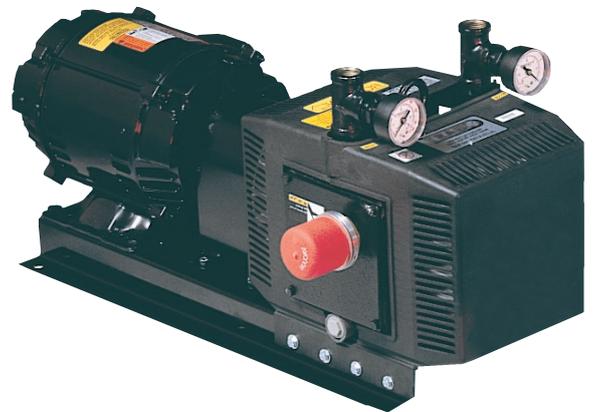
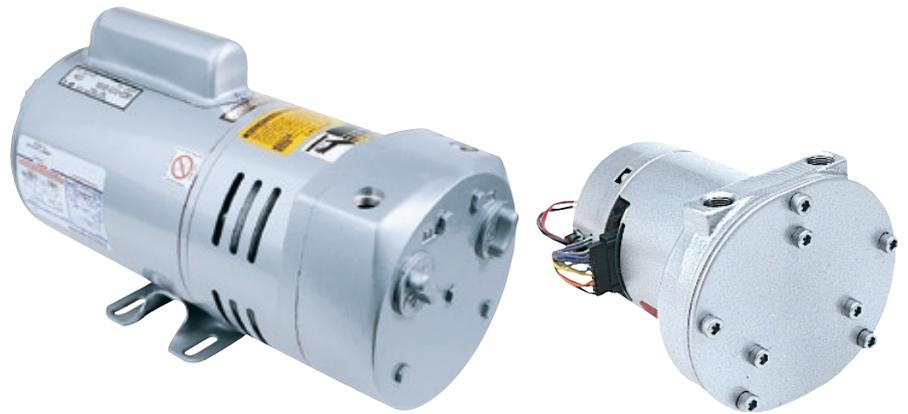
- Pressure to 1.7 bar (25 psi)
- Vacuum to 65 mbar (28" Hg)
- Air flow to 3171 l/min (112 cfm)

## Features

- Oil-less or lubricated models
- Easy serviceability
- Low vibration
- Pulse-free air delivery
- Extra quiet AT Series
- Long, service-free life

## Typical applications

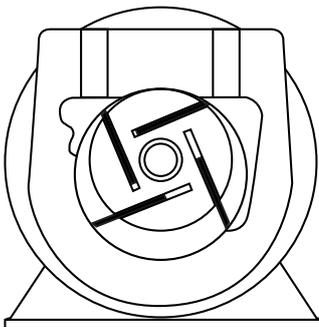
- Breathing air supply
- Circulation therapy
- Packaging
- Graphic arts
- Pond aeration
- Vacuum hold-down
- Air sampling
- Office/business machines
- Food processing equipment
- Laboratory use
- Soil sparging
- Vacuum forming
- Air bearings



## Air compressors - Vacuum pumps

Gast rotary vane air compressors and vacuum pumps are used in thousands of applications worldwide. Available in oil-less, lubricated, motor-mounted, and separate drive styles, they offer a wide choice of capabilities including air flow from 8.2 to 3171 l/min (0.29 to 112 cfm), vacuum up to 65 mbar (28" Hg), and pressure up to 1.7 bar (25 psi), also available are dual function styles. Electric motors are dual frequency, multi-voltage AC for worldwide applications, with smallest models rated 12 and 24 Volt DC. Horsepowers range from 1/45 to 15 HP (0.02 to 11 kW). AT Series sound level is up to 8 dB(A) below 23 series quiet sound level.

A complete line of recommended accessories is also available.



Sliding, flat vanes in an eccentric-mounted rotor are flung outward against the bore of the pump to generate pressure and vacuum in a rotary vane pump.



# specifications

Model/Series	Power rating @ 50Hz		Power rating @ 60Hz		Free air flow				Maximum pressure		Maximum vacuum	
	hp	kW	hp	kW	l/min		cfm		bar	psi	mbar	”Hg
					50Hz	60Hz	50Hz	60Hz				
<b>Motor mounted</b>												
I531 24V BLDC	-	-	1/10	0.07	48		1.7		0.7	10	167	25
I531	0.08	0.06	1/10	0.07	35	42	1.25	1.5	1.0	15	335	20
O532	0.05	0.04	1/15	0.05	8.2	17	0.29	0.6	1.0	15	335	20
I032	0.07	0.05	1/15	0.05	26	32	0.92	1.1	0.7	10	335	20
I532	0.08	0.06	1/10	0.07	37	42	1.3	1.5	0.7	10	335	20
2032	0.115	0.09	1/8	0.09	57	68	2.0	2.4	0.7	10	133	26
3032	0.032	0.02	1/6	0.12	68	73	2.4	2.6	0.7	10	116	26.5
O211	0.16	0.12	1/6	0.12	32	37	1.1	1.3	1.4	20	335	20
O323-1423 (5 models)	0.2-0.8	0.15-0.6	1/4-1	0.19-0.56	77-325	90-367	2.7-11.5	3.2-13	0.7	10	116	26.5
AT Series	0.13	0.10	1/6	0.12	-	-	3.8-4.8	6.5-8.2	0.4	5	150	24
2070	1.6	1.19	2	1.5	450	567	16	20	1.0	15	167	25
<b>Separate drive</b>												
O533	0.05	0.04	1/15	0.05	14	17	0.5	0.6	1.0	15	335	20
I033	0.07	0.05	1/10	0.07	26	32	0.9	1.1	1.0	15	335	20
I034	0.07	0.05	0.18	0.13	-	45	-	1.6	0.7	10	335	20
I534	0.08	0.06	0.18	0.13	-	62	-	2.2	0.7	10	335	20
O240-0740	0.085-0.29	0.06-0.21	1/4-1/3	0.19-0.25	42-138	53-170	1.5-4.9	1.9-6.0	0.7	10	335	20
O465	0.41	0.31	1/4	0.19	97	113	3.4	4.0	-	-	65	28
O765	0.39	0.29	1/3	0.25	142	170	5.0	6.0	-	-	65	28
I550	0.82	0.61	3/4	0.56	325	412	11.5	14.5	1.0	15	335	20
I065-2565	1.22-2.0	0.90-1.49	0.5-1.5	0.37-1.1	200-467	240-595	7.3-16.5	8.5-21	1.7	25	65	28
2067-2567	1.6-1.8	1.19-1.34	1-1.5	0.75-1.1	400-483	483-595	14-17	17-21	1.0	15	65	28
2080-4080	1.6-4.0	1.19-2.98	2-5	1.5-3.7	567-1050	707-1274	20-37	25-45	1.0	15	167	25
3040	3.0	2.24	2	1.5	877	1133	31	40	0.7	10	335	20
4565	4.5	3.36	3	2.2	1017	1345	36	47.5	1.0	15	167	25
5565	4.6	3.43	3	2.2	1274	1558	45	55	-	-	335	20
6066	5.2	3.88	5	3.7	1274	1558	45	55	1.0	15*	167	25
I290	9.6	7.16	10	7.5	-	3171	-	112	1.4	20	-	-
I290	10.4	7.76	7.5	5.6	-	3171	-	112	-	-	167	25

# diaphragm/miniature plastic

## Performance

- Pressure to 4.2 bar (60 psi)
- Vacuum to 31 mbar (29" Hg)
- Air flow to 108 l/min (3.8 cfm)

## Features

- Oil-less
- Rugged construction
- Quiet
- Cooler air output
- Easy maintenance
- Compact, lightweight
- Corrosion resistant
- Low power consumption

## Typical applications

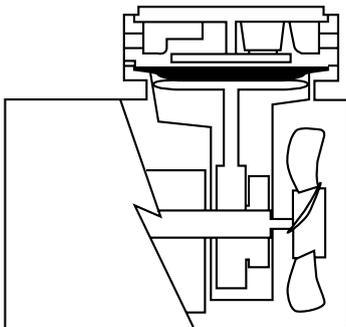
- Blood analysis
- Respirators/nebulizers
- Vacuum pad hold-down
- Dental/surgical
- Automobile cruise controls
- Graphic arts equipment
- Air and gas analysis
- Breast pumps
- Sterilizers
- Air brushes
- Agricultural foam markers
- Oil atomizers
- Lab equipment



## Air compressors - Vacuum pumps

If you need a small, quiet source of vacuum or pressure, you'll find the unit for your application in the Gast line of oil-less 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 0.65 up to 108 l/min, vacuum up to 31 mbar (29 in. Hg), and pressure up to 4.2 bar (60 psi). 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.

A full line of recommended accessories are also available.



In reciprocating motion, with a short stroke, the diaphragm at the top of the connecting rod flexes up and down in a closed chamber, creating pressure or vacuum.



# specifications

## Standard diaphragm models

Model/Series	Power rating @ 50Hz		Power rating @ 60Hz		Free air flow				Maximum pressure		Maximum vacuum	
	hp	kW	hp	kW	l/min		cfm		bar	psi	mbar	"Hg
					50Hz	60Hz	50Hz	60Hz				
MOA (AC/DC)	0.1	0.07	1/8	0.09	18	23	0.65	0.80	3.5	50	200	24
MAA (AC)	0.1	0.07	1/8	0.09	40	45	1.40	1.58	3.5	50	48	28.5
DOA (AC/DC)	0.26	0.19	1/3	0.25	44	54	1.55	1.90	4.2	60	150	25.5
DAA (AC)	0.4	0.30	1/2	0.37	92	108	3.25	3.80	4.2	60	31	29

## Miniature plastic models

Model/Series	Power rating @ 50Hz		Power rating @ 60Hz		Free air flow		Maximum pressure		Maximum vacuum	
	hp	kW	hp	kW	50Hz	60Hz	bar	psi	mbar	"Hg
2D (DC)	-	-	-	-	0.65 l/min		0.38	5.5	641	11
3D (DC)	-	-	-	-	1.18 l/min		0.49	7.1	631	11.3
5D (DC)	-	-	-	-	1.5 l/min		0.76	11	573	13
5D (DC) Twin	-	-	-	-	1.6-2.6 l/min		0.34	5	268	22
10D (AC)	-	-	-	-	-	3.8 l/min	1.0	15	505	15
10D (DC)	-	-	-	-	4.3 l/min		1.0	15	526	14
15D (AC)	-	-	-	-	5.2 l/min	7.0 l/min	1.9	24	335	20
15D (DC)	-	-	-	-	7.0 l/min		2.0	20	335	20
15D (DC) Twin	-	-	-	-	6-13 l/min		1.9	25	99	25
22D (AC)	0.04	0.03	1/20	0.04	-	0.7 / 1.2 m <sup>3</sup> /h	1.7	25	234	23
22D (DC)	-	-	1/8	0.09	1.3 cfm / 2.2 m <sup>3</sup> /h		1.7	25	251	22.5

# piston

## Performance

- Pressure to 8.8 bar (125 psi)
- Vacuum to 48 mbar (28.5" Hg)
- Air flow to 311 l/min (11 cfm)

## Features

- Oil-less
- Rugged construction
- Long service-free life
- Corrosion resistant

## Typical applications

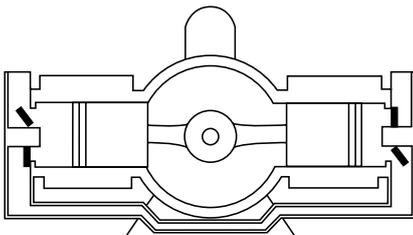
- Cable pressurization
- Tire inflators
- Air suspension
- Beverage dispensing
- Pneumatic temperature controls
- Door closures
- Power spraying
- Spray painting
- Medical/dental clinics



## Air compressors - Vacuum pumps

Gast piston air compressors and vacuum pumps are built to withstand the most rugged operating conditions with corrosion-resistant materials used for critical internal parts. Ring design provides consistent flows throughout the service life of the unit. All models are oil-less and come in motor-mounted or separate drive styles. Air flow capacities range from 37 to 311 l/min (1.3 to 11 cfm), with vacuum to 48 mbar (28.5" Hg) and pressure to 8.8 bar (125 psi). Dual frequency, AC multi-voltage electric motors accommodate worldwide applications; 12 and 24 Volt DC options are also available. Horsepowers range from 1/6 to 2 HP (0.12 to 1.5 kW).

A complete line of recommended accessories is also available.



In reciprocating motion, the piston moves up and down or back and forth inside a cylinder creating pressure or vacuum.

# specifications

Model/Series	Power rating @ 50Hz		Power rating @ 60Hz		Free air flow				Maximum pressure		Maximum vacuum	
	hp	kW	hp	kW	l/min		cfm		bar	psi	mbar	”Hg
					50Hz	60Hz	50Hz	60Hz				
1L	0.128	0.1	1/6	0.12	42	42	1.5	1.5	3.5	50	-	-
2L	0.2	0.15	1/4	0.19	68	68	2.4	2.4	3.5	50	-	-
3L	0.26	0.2	1/3	0.25	88	88	3.1	3.1	3.5	50	-	-
4L	0.4	0.3	1/2	0.37	127	127	4.5	4.5	3.5	50	-	-
5L	0.6	0.45	3/4	0.56	153	153	5.4	5.4	3.5	50	-	-
6L	0.8	0.6	1	0.74	178	178	6.3	6.3	3.5	50	-	-
7L	1.2-1.6	0.89-1.19	1.5-2	1.1-1.5	289	289	10.2	10.2	3.5	50	-	-
8L	1.6	1.19	2	1.5	258	351	9.1	12.4	3.5	50	-	-
1H	0.128	0.1	1/6	0.12	37	37	1.3	1.3	7.0	100	-	-
2H	0.2	0.15	1/4	0.19	59	59	2.1	2.1	7.0	100	-	-
3H	0.26	0.2	1/3	0.25	68	68	2.4	2.4	7.0	100	-	-
4H	0.4	0.3	1/2	0.37	99	99	3.5	3.5	7.0	100	-	-
5H	0.6	0.45	3/4	0.56	133	133	4.7	4.7	7.0	100	-	-
6H	0.8	0.6	1	0.74	153	153	5.4	5.4	7.0	100	-	-
7H	1.2-1.6	0.89-1.19	1.5-2	1.1-1.5	258	258	9.1	9.1	7.0	100	-	-
8H	1.6	1.19	2	1.5	311	311	11	11	7.0	100	-	-
•PAB	-	-	0.3	0.22	37		1.3		7.0	100	-	-
•PBB	-	-	0.6	0.45	71		2.5		7.0	100	-	-
•PCA	-	-	1.7	1.27	173		6.1		8.8	125	-	-
•PCD	-	-	1.1	0.82	133		4.7		7.0	100	-	-
IVAF	-	-	1/6	0.12	42	51	1.49	1.80	-	-	82	27.5
IVSF	-	-	1/6	0.12	71	85	2.49	3.00	-	-	48	28.5
IVBF	-	-	1/6	0.12	75	91	2.66	3.20	-	-	82	27.5
4VSF	-	-	1/2	0.37	96	119	3.38	4.2	-	-	48	28.5
4VCF	-	-	1/2	0.37	118	142	4.15	5.00	-	-	82	27.5
5VSF	-	-	1.5	1.1	147	177	5.19	6.25	-	-	48	28.5
5VDF	-	-	1.5	1.1	247	297	8.72	10.50	-	-	82	27.5
•VAB	-	-	0.13	0.10	37		1.3		-	-	82	27.5
•VBB	-	-	0.21	0.16	71		2.5		-	-	82	27.5
•VCD	-	-	0.26	0.19	136		4.8		-	-	82	27.5

• Separate drive model

# rocking piston

## Performance

- Pressure to 12 bar (175 psi)
- Vacuum to 31 mbar (29" Hg)
- Air flow to 155.7 l/min (5.5 cfm)

## Features

- Quiet
- Oil-less
- Durable
- Lightweight
- Rugged construction
- Field service capability
- Corrosion resistant models available

## Typical applications

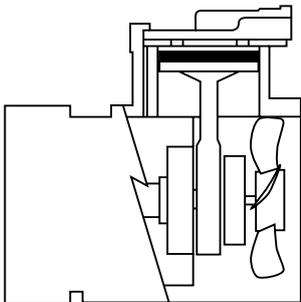
- Oxygen concentrators
- Beverage dispensing
- Body fluid analysis
- Automotive suspension
- Dental vacuum ovens
- Vacuum frames
- Core drilling



## Air compressors - Vacuum pumps

The outstanding performance and flexibility of Gast oil-less rocking piston air compressors and vacuum pumps, available in standard, twin, and miniature styles, make them the perfect choice for hundreds of applications. Air flow capabilities from 3.2 to 155.7 l/min (0.11 to 5.5 cfm) are available as are vacuum capabilities up to 31 mbar (29" Hg) and pressure to 12 bar (175 psi). Choose from dual frequency, shaded pole, and permanent split capacitor (psc) electric motors with AC multi-voltages available for worldwide applications as well as 6, 12, and 24 Volt DC models in brush and brushless types. Horsepowers range from 1/20 to 1/2 HP (0.04 to 0.37 kW).

A complete line of recommended accessories is also available.



Another reciprocating concept mounts a flexible cup at the top of the connecting rod and creates vacuum or pressure as the cup maintains a seal against the cylinder walls in a rocking motion.

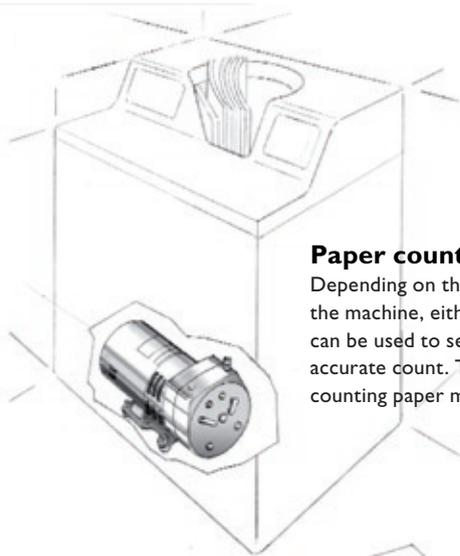


# specifications

Model/Series	Power rating @ 50Hz		Power rating @ 60Hz		Free air flow				Maximum pressure		Maximum vacuum	
	hp	kW	hp	kW	l/min		cfm		bar	psi	mbar	”Hg
					50Hz	60Hz	50Hz	60Hz				
8R (DC)	-	-	-	-	3.4		0.12		1.55	22.5	438	17
8R (AC)	0.02	0.02	-	-	-	3.2	-	0.11	1.4	21	471	16
20R (AC)	0.024	0.02	0.03	0.02	12.0	14.7	0.42	0.52	-	31	-	-
30R (DC)	0.07	0.05	1/15	0.05	13.6		0.48		8.3	120	-	-
55R (PSC•)	0.04	0.03	1/20	0.04	4.5	5.7	0.16	0.20	2.1	30	200	24
55R (DC)	0.08	0.06	1/10	0.07	7.1		0.25		2.1	30	200	24
34R (DC)	0.25	0.18	1/4	0.18	28.3		0.8		13.7	200	-	-
LOA (ShP••)	0.05	0.04	1/16	0.05	-	10.8	-	0.38	6.2	90	167	25
LOA (PSC•)	0.13	0.10	1/6	0.12	14.7	18.1	0.52	0.64	7.0	100	133	26
LOA (DC)	0.08	0.06	1/10	0.07	17.6		0.62		7.0	100	99	27
LAA	0.10	0.07	1/6	0.12	36.2	43.0	1.28	1.52	3.5	50	31	29
SOA	0.13	0.10	1/6	0.12	39.6	48.1	1.4	1.7	2.1	30	82	27.5
SAA	0.13	0.10	1/6	0.12	-	49.6	-	1.75	-	-	15	29.5
SAA	0.13	0.10	1/6	0.12	-	93.4	-	3.30	-	-	99	27
SAA	0.13	0.10	1/6	0.12	-	55.2	-	1.95	2.1	30	-	-
ROA (ShP••)	0.10	0.07	1/8	0.09	29.7	35.4	1.05	1.25	7.0	100	133	26
ROA (PSC•)	0.20	0.15	1/4	0.19	42.5	45.3	1.50	1.60	7.0	100	99	27
ROA (DC)	0.10	0.07	1/8	0.09	42.5		1.50		-	-	133	26
RAA	0.20	0.15	1/4	0.19	70.8	76.5	2.5	2.7	7.0	100	82	27.5
71R/72R (1 cyl.)	0.26	0.20	1/3	0.25	59.5	68.0	2.1	2.4	7.0	100	-	-
71R/72R (2 cyl.)	0.26	0.20	1/3	0.25	155.7		5.5		1.7	25	31	29
71R (2 cyl.)	0.40	0.30	1/2	0.37	48.1	56.6	1.7	2.0	12	175	-	-
74R	0.20	0.15	1/4	0.19	36.8	42.5	1.3	1.5	7.0	100	-	-
75R	0.26	0.20	1/3	0.25	127.4	144.4	4.5	5.1	2.8	40	99	27
82R	0.26	0.20	1/3	0.25	127.4	144.4	4.5	5.1	2.8	40	99	27

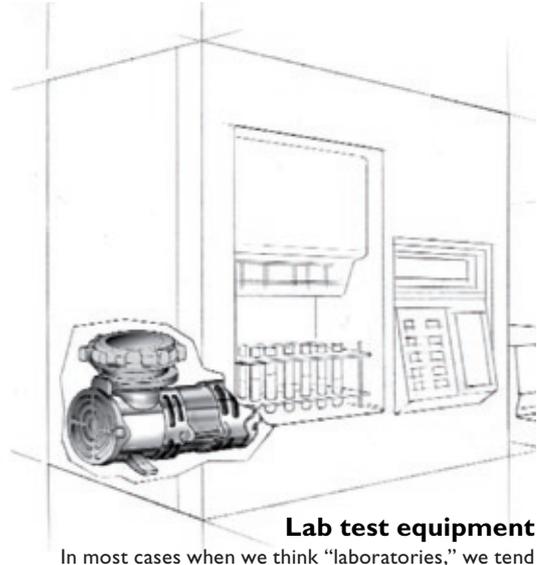
• PSC - Permanent Split Capacitor motor  
 ••ShP - Shared Pole motor

# applications



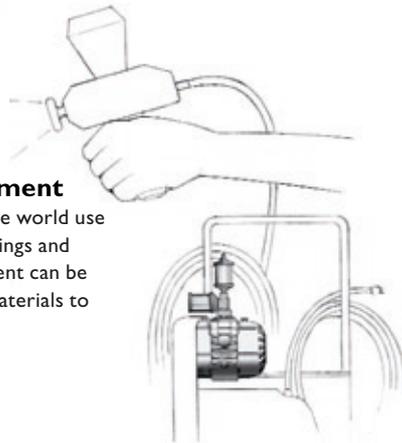
## Paper counting machines

Depending on the operating principle of the machine, either vacuum or pressure can be used to separate sheets for an accurate count. This can be a big help in counting paper money, for example.



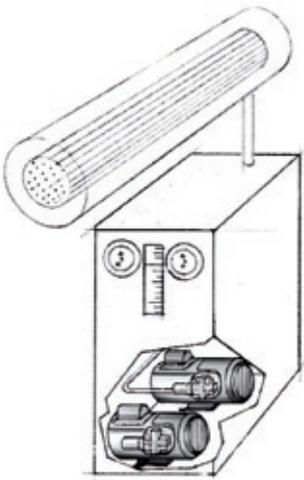
## Lab test equipment

In most cases when we think "laboratories," we tend to think of medical operations. Environmental labs, metallurgical labs and calibration facilities are a few examples of the technical facilities that require equipment to move and test samples. This equipment may use vacuum, compressed air or both to perform these functions.



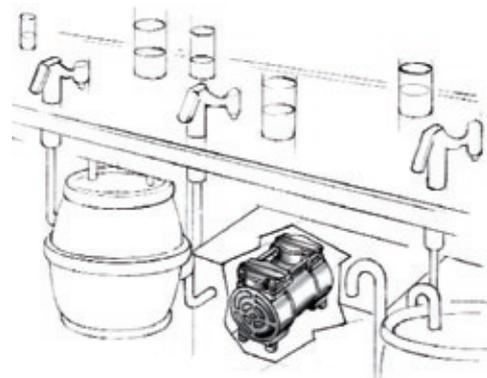
## Texture spraying equipment

Construction workers all over the world use air to apply fancy textures to ceilings and walls. The same spraying equipment can be used to apply sound-absorbing materials to walls or pipes.



## Cable pressurization equipment

Telephone cables stretch for millions of miles throughout the world. If moisture enters any of them, communication signals can be affected. The threat of moisture can be eliminated by maintaining a constant positive pressure with dried compressed air in these cables.

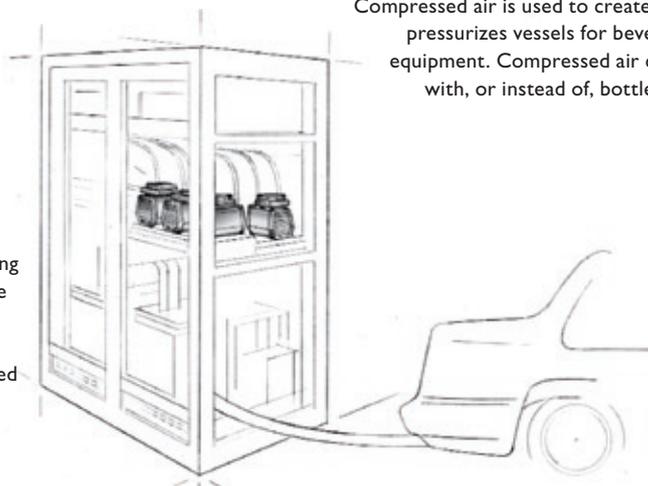


## Beverage dispensing equipment

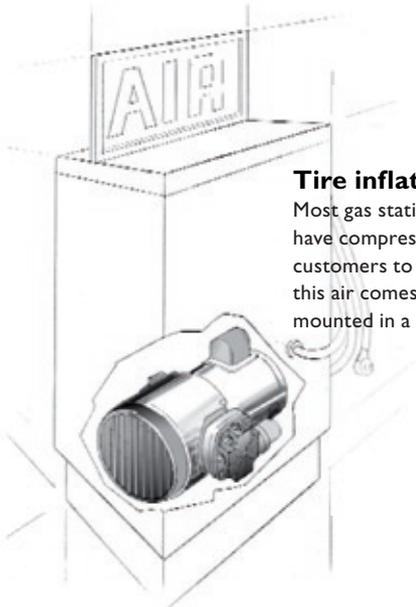
Compressed air is used to create nitrogen which pressurizes vessels for beverage dispensing equipment. Compressed air can also be used with, or instead of, bottled CO<sub>2</sub> in some applications.

## Auto emissions test equipment

Government regulations on auto emissions are making it necessary for more and more test equipment to be used. This equipment uses vacuum to draw samples from emission gasses for analysis. Because some of these gasses are highly aggressive, vacuum pumps used in these applications must be corrosion resistant.

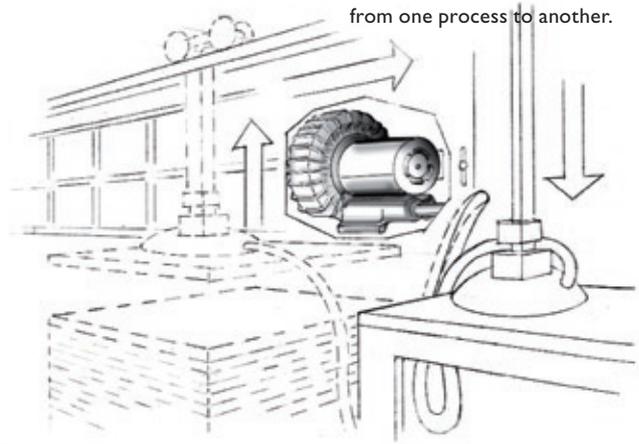


# applications



## Tire inflation equipment

Most gas stations and car wash facilities have compressed air available for customers to inflate tires. Many times this air comes from a compressor mounted in a coin-operated box.

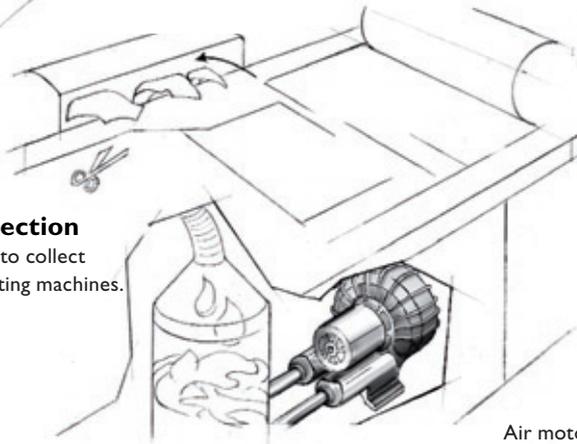


## Automated product feeding

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

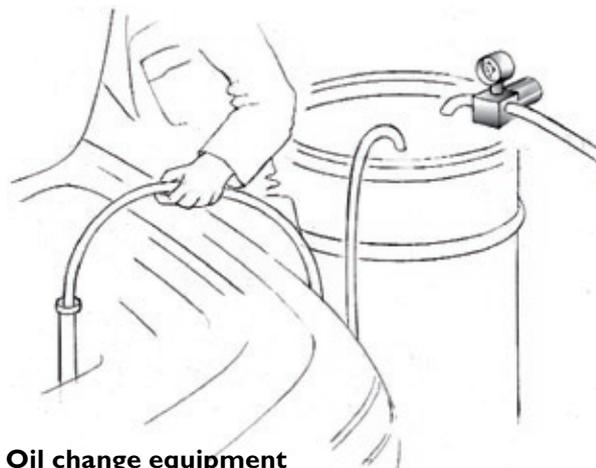
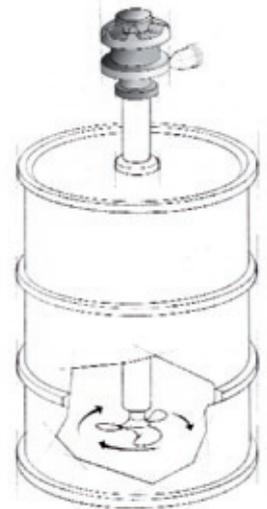
## Waste Collection

Vacuum is used to collect scraps from cutting machines.



## Mixing equipment

Air motors are widely used for mixing applications of all types. Variable speed, compact size and non-sparking operation make air motors popular with paint, chemical and even food producers.



## Oil change equipment

Vacuum is used to pull oil from the oil pan and deposit it in a collection drum, eliminating the mess usually associated with changing engine oil.



## Liquid pump drives

Air motors are a good option for liquid pumps when speed control is necessary or when pumps must be installed in remote locations or explosive environments.