

A LOT OF AIR, BARELY SQUEEZED

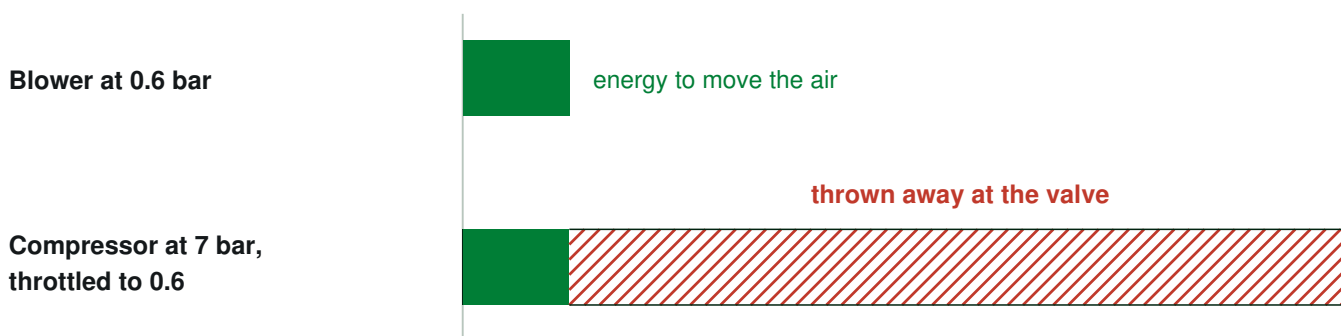
Air suspension · oil-free screw · centrifugal · turbo —
40 to 150 kPa, 12.6 to 418 m³/min, 22 to 450 kW

**GREEN AIR
COMPRESSOR**



WHY A BLOWER AND NOT A COMPRESSOR

A blower and a compressor are not the same machine doing different amounts of the same work. A compressor squeezes air to seven bar because something needs seven bar. A blower moves a great deal of air and barely squeezes it at all, because aeration, conveying and drying need volume and almost no pressure. Using a compressor for a blower duty, and throttling it down, is one of the most expensive habits in industry: roughly eight times the energy for the same job, paid every hour.



The throttle does not give the energy back. It was spent at the compressor before the air ever reached the valve.



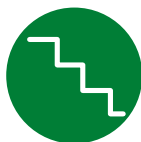
Pressure is the whole question

Above about 150 kPa you are into compressor territory and should buy one. Below it, a blower does the same job for a fraction of the energy.



Nothing in the air path

None of these four put oil into the air. On aeration that matters for the process; on food and packaging it matters for the product.



Turndown beats peak efficiency

An aeration load swings all day with the incoming flow. A machine that holds its efficiency from 45 to 100 per cent beats one that is brilliant at exactly one duty point.



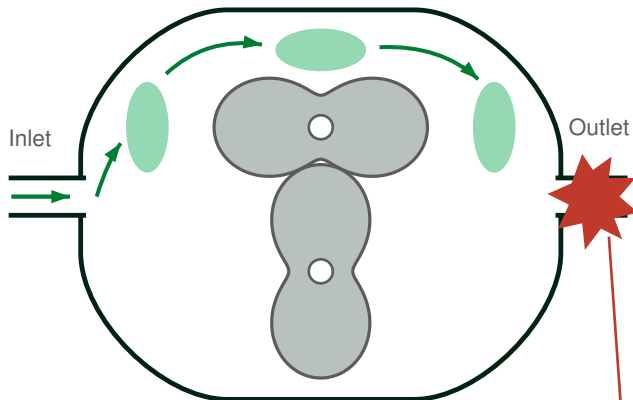
Measure before replacing

Blowers are routinely replaced like for like on a nameplate. The nameplate describes the machine that was oversized when it was installed.

WHERE THE SAVING COMES FROM

Almost every blower being replaced today is a roots blower, and the reason a screw blower saves twenty to thirty-five per cent is one difference you can draw.

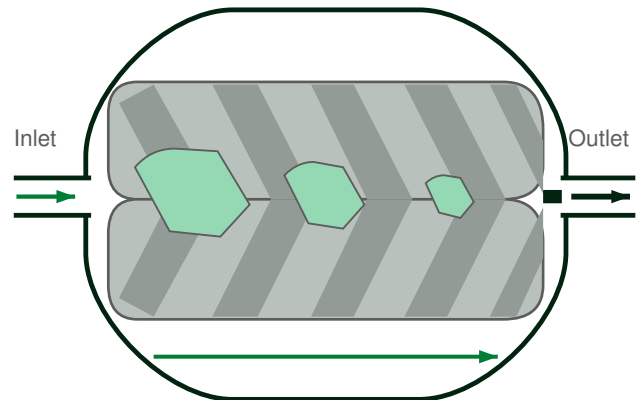
Roots: no internal compression



the air is compressed here, all at once,
by the pressure already in the pipe

That sudden compression is noise, pulsation and wasted work.

Screw: internal compression



The air arrives at the outlet already at pressure.
Nothing slams.

Same duty, same pressure, same motor size. The difference is where the compression happens, and that is worth twenty to thirty-five per cent on a continuous aeration load.

No pulsation dampers

A roots installation needs them on the inlet and the outlet, and they cost money, space and pressure drop. A screw blower compresses continuously, so there is no pulse to damp and nothing to fit.



AIR SUSPENSION

How it works. The shaft rises on a film of air as it comes up to speed. From then on nothing touches anything: no bearings to replace, no oil, no gearbox, and no scheduled overhaul of the kind a geared machine needs.

Where it belongs. Continuous aeration, and any duty where the demand swings through the day. It holds efficiency across a wide flow range, which is what removes the need for several staged machines on one site.

Air suspension — GA-GDA

Model	Motor		Capacity		Pressure			Inlet	Weight		Dimensions
	kW	hp	m³/min	cfm	kPa	bar g	psi g	Inlet	kg	lb	L × W × H mm
GA-GDA22-06	22	30	20	706	60	0.60	8.7	DN150	525	1157	1580 × 700 × 1300
GA-GDA22-08	22	30	17	600	80	0.80	11.6	DN150	525	1157	1580 × 700 × 1300
GA-GDA37-06	37	50	35	1236	60	0.60	8.7	DN150	535	1179	1580 × 700 × 1300
GA-GDA37-08	37	50	28	989	80	0.80	11.6	DN150	535	1179	1580 × 700 × 1300
GA-GDA55-04	55	74	74	2613	40	0.40	5.8	DN200	750	1653	1760 × 855 × 1550
GA-GDA55-06	55	74	50	1766	60	0.60	8.7	DN200	750	1653	1760 × 855 × 1550
GA-GDA55-08	55	74	41	1448	80	0.80	11.6	DN200	750	1653	1760 × 855 × 1550
GA-GDA55-10	55	74	33	1165	100	1	14.5	DN200	750	1653	1760 × 855 × 1550
GA-GDA75-04	75	101	93	3284	40	0.40	5.8	DN300	800	1764	1760 × 855 × 1550
GA-GDA75-06	75	101	65	2295	60	0.60	8.7	DN200	800	1764	1760 × 855 × 1550
GA-GDA75-08	75	101	53	1872	80	0.80	11.6	DN300	800	1764	1760 × 855 × 1550
GA-GDA75-10	75	101	45	1589	90	0.90	13.1	DN300	800	1764	1760 × 855 × 1550
GA-GDA95-06	95	127	81	2860	60	0.60	8.7	DN250	1020	2249	1960 × 1020 × 1700
GA-GDA95-08	95	127	67	2366	80	0.80	11.6	DN250	1020	2249	1960 × 1020 × 1700
GA-GDA110-06	110	148	105	3708	60	0.60	8.7	DN300	1050	2315	2000 × 1020 × 1710
GA-GDA110-08	110	148	85	3002	80	0.80	11.6	DN250	1050	2315	2000 × 1020 × 1710
GA-GDA110-10	110	148	65	2295	100	1	14.5	DN300	1050	2315	2000 × 1020 × 1710
GA-GDA150-06	150	201	136	4803	60	0.60	8.7	DN250	1090	2403	2000 × 1020 × 1710

AIR SUSPENSION

Air suspension — GA-GDA

Model	Motor		Capacity		Pressure			Inlet	Weight		Dimensions
	kW	hp	m³/min	cfm	kPa	bar g	psi g	Inlet	kg	lb	L × W × H mm
GA-GDA150-08	150	201	108	3814	80	0.80	11.6	DN250	1090	2403	2000 × 1020 × 1710
GA-GDA150-10	150	201	86	3037	100	1	14.5	DN250	1090	2403	2000 × 1020 × 1710
GA-GDA200-06	200	268	158	5580	60	0.60	8.7	DN300	1130	2491	2000 × 1020 × 1710
GA-GDA200-08	200	268	132	4662	80	0.80	11.6	DN300	1130	2491	2000 × 1020 × 1710
GA-GDA200-10	200	268	103	3637	100	1	14.5	DN300	1130	2491	2000 × 1020 × 1710
GA-GDA225-06	225	302	208	7345	60	0.60	8.7	DN400	1590	3505	2360 × 1300 × 2050
GA-GDA225-08	225	302	163	5756	80	0.80	11.6	DN400	1590	3505	2360 × 1300 × 2050
GA-GDA225-10	225	302	132	4662	100	1	14.5	DN400	1590	3505	2360 × 1300 × 2050
GA-GDA300-06	300	402	268	9464	60	0.60	8.7	DN500	2020	4453	3020 × 1620 × 2050
GA-GDA300-08	300	402	213	7522	80	0.80	11.6	DN400	2020	4453	3020 × 1620 × 2050
GA-GDA300-10	300	402	170	6003	100	1	14.5	DN500	2020	4453	3020 × 1620 × 2050
GA-GDA375-06	375	503	318	11230	60	0.60	8.7	DN500	2050	4519	3220 × 1760 × 2090
GA-GDA375-08	375	503	258	9111	80	0.80	11.6	DN500	2050	4519	3220 × 1760 × 2090
GA-GDA375-10	375	503	208	7345	100	1	14.5	DN400	2050	4519	3220 × 1760 × 2090
GA-GDA450-06	450	603	418	14762	60	0.60	8.7	DN600	2550	5622	3520 × 1960 × 2000
GA-GDA450-08	450	603	320	11301	80	0.80	11.6	DN600	2550	5622	3520 × 1960 × 2000
GA-GDA450-10	450	603	258	9111	100	1	14.5	DN500	2550	5622	3520 × 1960 × 2000

Capacities are at the stated pressure rise, at one atmosphere and 20 °C. At your site temperature and altitude the mass flow differs and we correct for it when sizing. Imperial figures are converted from the metric values and rounded.

OIL-FREE SCREW

How it works. Two helical rotors, timed by gears that run in oil sealed away from the air path, squeezing the air progressively as it travels along them. Internal compression, as on page 3.

Where it belongs. Continuous duty above about 70 kPa, where the pressure is beyond what a roots machine does efficiently and the saving is largest. It reaches 150 kPa, which is higher than anything else in this document.

Oil-free screw — GA-LG

Model	Motor		Capacity		Pressure			Inlet	Weight		Dimensions
	kW	hp	m³/min	cfm	kPa	bar g	psi g	Inlet	kg	lb	L × W × H mm
GA-LG-22-04	22	30	25	883	40	0.40	5.8	—	—	—	—
GA-LG-22-06	22	30	16	565	60	0.60	8.7	—	—	—	—
GA-LG-22-08	22	30	15	530	80	0.80	11.6	—	—	—	—
GA-LG-30-06	30	40	25	883	60	0.60	8.7	—	—	—	—
GA-LG-30-08	30	40	21	742	80	0.80	11.6	—	—	—	—
GA-LG-30-10	30	40	15	530	100	1	14.5	—	—	—	—
GA-LG-37-04	37	50	36	1271	40	0.40	5.8	—	—	—	—
GA-LG-37-08	37	50	25	883	80	0.80	11.6	—	—	—	—
GA-LG-37-10	37	50	21	742	100	1	14.5	—	—	—	—
GA-LG-37-12	37	50	16	565	120	1.20	17.4	—	—	—	—
GA-LG-37-15	37	50	15	530	150	1.50	21.8	—	—	—	—
GA-LG-45-06	45	60	36	1271	60	0.60	8.7	—	—	—	—
GA-LG-45-10	45	60	25	883	100	1	14.5	—	—	—	—
GA-LG-45-12	45	60	24	848	120	1.20	17.4	—	—	—	—
GA-LG-55-04	55	74	58	2048	40	0.40	5.8	—	—	—	—
GA-LG-55-06	55	74	43	1519	60	0.60	8.7	—	—	—	—
GA-LG-55-15	55	74	24	848	150	1.50	21.8	—	—	—	—
GA-LG-75-06	75	101	58	2048	60	0.60	8.7	—	—	—	—
GA-LG-75-08	75	101	49	1730	80	0.80	11.6	—	—	—	—
GA-LG-75-10	75	101	42	1483	100	1	14.5	—	—	—	—

OIL-FREE SCREW

Oil-free screw — GA-LG

Model	Motor		Capacity		Pressure			Inlet	Weight		Dimensions
	kW	hp	m³/min	cfm	kPa	bar g	psi g	Inlet	kg	lb	L × W × H mm
GA-LG-75-12	75	101	34	1201	120	1.20	17.4	—	—	—	—
GA-LG-90-04	90	121	89	3143	40	0.40	5.8	—	—	—	—
GA-LG-90-06	90	121	76	2684	60	0.60	8.7	—	—	—	—
GA-LG-90-08	90	121	58	2048	80	0.80	11.6	—	—	—	—
GA-LG-90-10	90	121	56	1978	100	1	14.5	—	—	—	—
GA-LG-90-12	90	121	47	1660	120	1.20	17.4	—	—	—	—
GA-LG-90-15	90	121	34	1201	150	1.50	21.8	—	—	—	—
GA-LG-110-04	110	148	98	3461	40	0.40	5.8	—	—	—	—
GA-LG-110-06	110	148	88	3108	60	0.60	8.7	—	—	—	—
GA-LG-110-08	110	148	75	2649	80	0.80	11.6	—	—	—	—
GA-LG-110-10	110	148	64	2260	100	1	14.5	—	—	—	—
GA-LG-110-12	110	148	56	1978	120	1.20	17.4	—	—	—	—
GA-LG-110-15	110	148	48	1695	150	1.50	21.8	—	—	—	—
GA-LG-132-08	132	177	88	3108	80	0.80	11.6	—	—	—	—
GA-LG-132-10	132	177	75	2649	100	1	14.5	—	—	—	—
GA-LG-132-12	132	177	64	2260	120	1.20	17.4	—	—	—	—
GA-LG-132-15	132	177	56	1978	150	1.50	21.8	—	—	—	—
GA-LG-160-12	160	215	86	3037	120	1.20	17.4	—	—	—	—
GA-LG-160-15	160	215	63	2225	150	1.50	21.8	—	—	—	—
GA-LG-180-12	180	241	90	3178	120	1.20	17.4	—	—	—	—

Weights and dimensions for this family are supplied with the quotation. Imperial figures are converted and rounded.

CENTRIFUGAL AND TURBO

Centrifugal. An impeller accelerates the air and a diffuser turns that speed into pressure. Large volumes, long life, and no rubbing contact in the air path at all. Flow is controlled by inlet guide vanes or speed, never by throttling, which on this type is both wasteful and a route to surge.

Turbo. A high-speed impeller driven directly by a variable-speed motor, with no gearbox. Chosen where the aeration load varies and the efficiency has to hold across the swing rather than at one point.

Centrifugal — GAC-CB

Model	Motor		Capacity		Pressure			Inlet	Weight		Dimensions
	kW	hp	m³/min	cfm	kPa	bar g	psi g	Inlet	kg	lb	L × W × H mm
GAC-CB 121	22	30	12.6	445	110	1.10	16	—	760	1675	1600 × 1000 × 1500
GAC-CB 221	37	50	23	812	110	1.10	16	—	1100	2425	1900 × 1200 × 1700
GAC-CB 410	75	101	45	1589	110	1.10	16	—	1850	4079	2300 × 1500 × 2000
GAC-CB 720	110	148	72	2543	110	1.10	16	—	2600	5732	2700 × 1700 × 2200
GAC-CB 1050	160	215	105	3708	110	1.10	16	—	3400	7496	3100 × 1900 × 2400
GAC-CB 1600	250	335	160	5650	110	1.10	16	—	4600	10141	3600 × 2100 × 2600

Turbo — GAC-TB

Model	Motor		Capacity		Pressure			Inlet	Weight		Dimensions
	kW	hp	m³/min	cfm	kPa	bar g	psi g	Inlet	kg	lb	L × W × H mm
GAC-TB 50	50	67	32	1130	70	0.70	10.2	—	—	—	—
GAC-TB 110	110	148	72	2543	90	0.90	13.1	—	—	—	—
GAC-TB 200	200	268	135	4767	100	1	14.5	—	—	—	—

Pressures across all four families on this page and the preceding ones have been converted to a single scale so they can be compared directly. Weights, dimensions and inlet sizes for the turbo family are supplied with the quotation. Imperial figures are converted and rounded.

Also in this range

Magnetic levitation blowers, 37 to 350 kW, where the shaft is held on a magnetic field rather than a film of air, have a brochure of their own. Ask us for it, or compare the two before you choose: below about 37 kW the saving rarely justifies the difference, and we will say so.



GREEN AIR COMPRESSOR

SEND US THE DUTY, NOT THE OLD NAMEPLATE

The commonest way a blower gets chosen is by reading the plate on the one being replaced. That plate describes a machine that was sized for the worst case, on a process that has since changed, by somebody who was protecting themselves rather than your electricity bill. Tell us the airflow the process actually needs, the pressure at the diffuser rather than at the blower, how much the demand swings across a day, and your site temperature and altitude. We log the existing installation for a week where there is one, and send back a written recommendation with the measured figures and what the difference is worth over ten years. It costs nothing and carries no obligation.

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Specifications are subject to change without notice. Figures are nominal and apply at the reference conditions stated. © Green Air Compressor.

