

THE PRESSURE IS THE DECISION

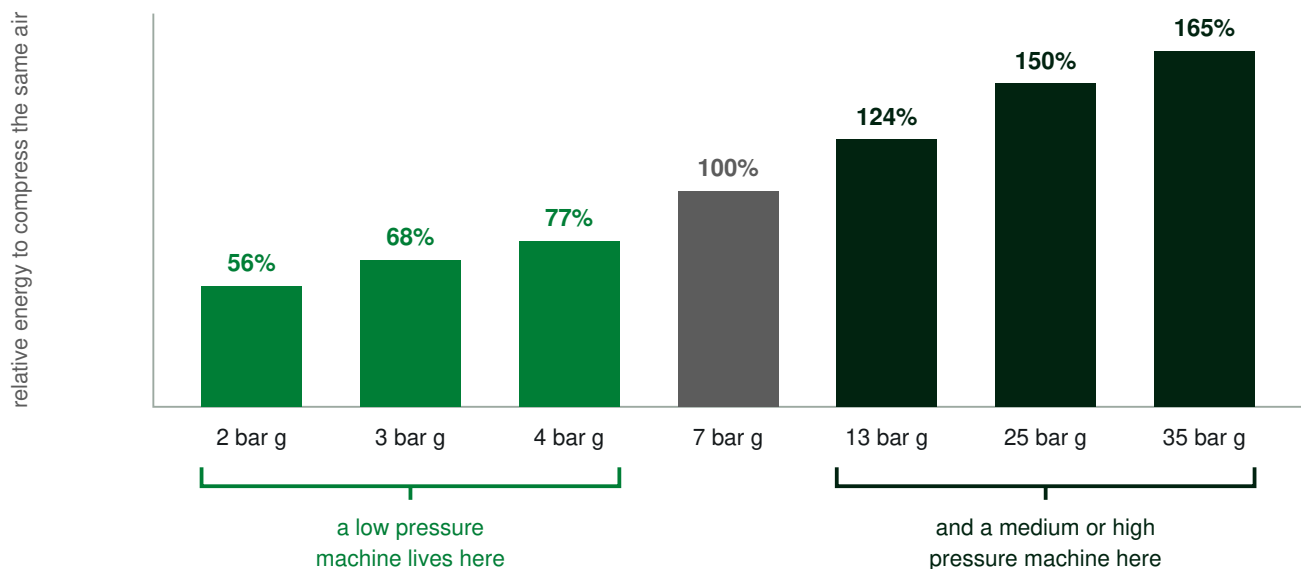
Low, medium and high pressure screw compressors — 2
to 35 bar g, 30 to 330 kW, 87 models

**GREEN AIR
COMPRESSOR**



WHAT PRESSURE IS COSTING YOU

Almost every plant runs one compressed air system at one pressure, set years ago to satisfy whatever needed the most. Everything else on the site then gets that pressure too, and pays for it. Raising a system by one bar costs roughly seven per cent of the energy going through it, every hour, for as long as the plant runs. Where a process genuinely needs three bar and is being fed from an eight bar main through a regulator, most of what the compressor did to that air is thrown away as heat and noise at the valve.



These are the compression figures, not the whole story. Throttling an eight bar supply down to three does not move you left along this chart — you still paid for the eight bar and then threw the difference away.



A regulator is not a saving

It lowers the pressure at the tool and changes nothing at the compressor. The energy was spent before the air reached the valve.



Two systems can beat one

Where a large low pressure demand sits alongside a small high pressure one, a dedicated machine for each is routinely cheaper to run than one big system.



Staging is what buys pressure

Above about 13 bar a single stage runs too hot and leaks too much back past the rotors. Two stages with intercooling keep both under control.

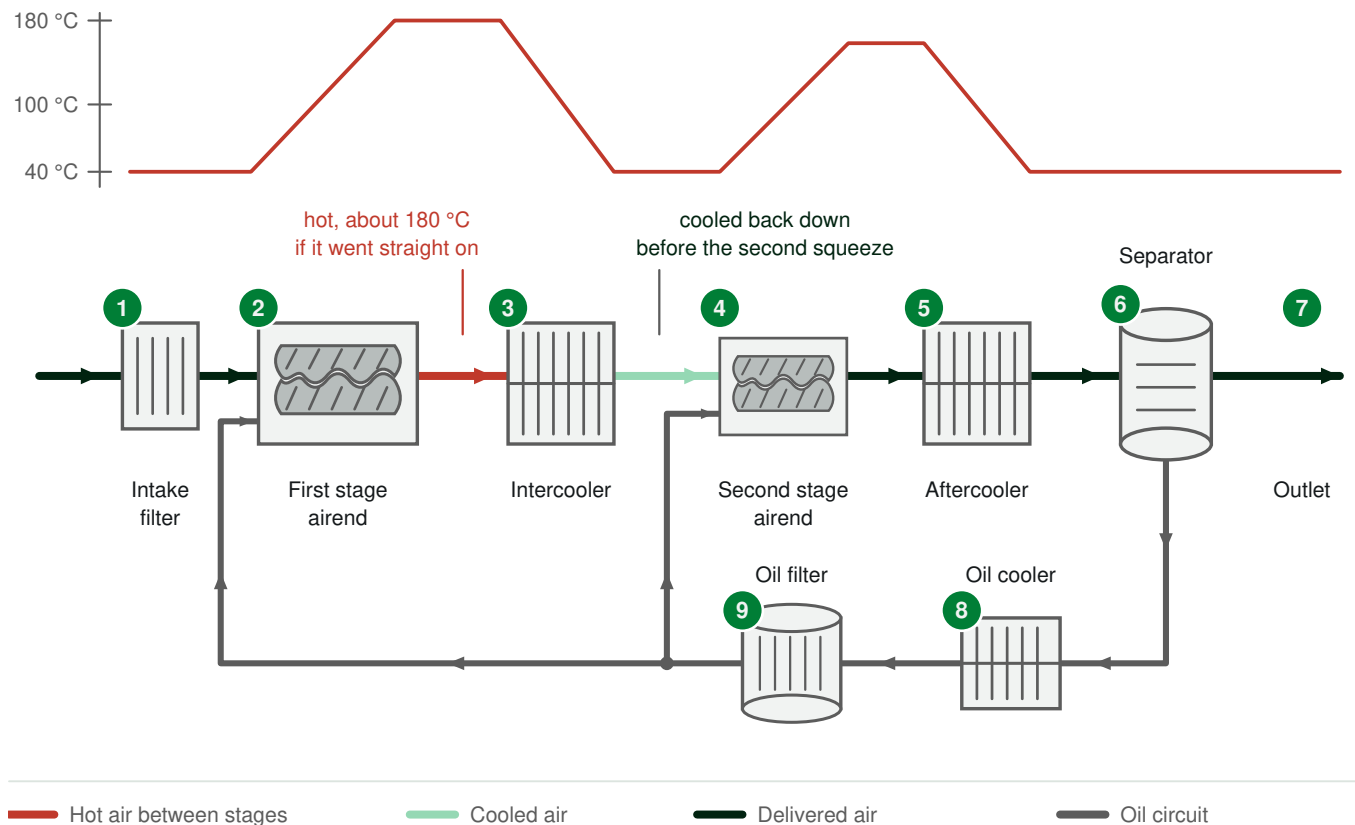


Measure at the machine that needs it

Not at the compressor. The gap between the two is pipework and filter loss, and that is what you should fix before raising anything.

WHY HIGH PRESSURE NEEDS TWO STAGES

A screw compressor reaching 35 bar does not do it by squeezing harder. It does it twice, and cools the air in between.



Compressing cool air takes less work than compressing hot air. That is the whole mechanism, and it is why a two-stage machine at 25 bar uses less energy than a single stage machine would — if a single stage machine could get there at all without cooking its own oil.

Cooling is the limit, not the motor

At these pressures the machine is water cooled for a reason. How hard you can run it is set by how fast you can take the heat out, not by the kilowatts on the nameplate.



LOW PRESSURE

Where it belongs. Aeration, pneumatic conveying, bottle blowing feed air, drying, fermentation and any process that was specified in bar because that is the unit on the gauge, not because it needs the pressure.

What it saves. A machine built for 3 bar does not throttle an 8 bar machine, it never makes 8 bar air in the first place. On a plant with a genuine low pressure process running continuously, that is routinely a third of the energy going to that process.

Low pressure — GA-LP variable speed

Model	Motor		Pressure		Capacity		Weight		Dimensions
	kW	hp	bar g	psi g	m³/min	cfm	kg	lb	L × W × H mm
GA-LP-40PML	30	40	2	29	2.9~11.3	102~399	1700	3748	2000 × 1400 × 1900
GA-LP-40PML	30	40	2.5	36	2.5~10.1	88~357	1700	3748	2000 × 1400 × 1900
GA-LP-50PML	37	50	2	29	3.4~14.0	120~494	1800	3968	2000 × 1400 × 1900
GA-LP-50PML	37	50	3	44	3.5~11.5	124~406	1800	3968	2000 × 1400 × 1900
GA-LP-50PML	37	50	4	58	2.5~10.1	88~357	1800	3968	2000 × 1400 × 1900
GA-LP-60PML	45	60	2	29	4.0~16.0	141~565	2400	5291	2300 × 1600 × 1850
GA-LP-60PML	45	60	4	58	3.0~11.2	106~396	1900	4189	2000 × 1400 × 1900
GA-LP-60PML	45	60	4.5	65	2.6~10.2	92~360	1900	4189	2000 × 1400 × 1900
GA-LP-75PML	55	74	2	29	5.2~21.0	184~742	2500	5512	2300 × 1600 × 1850
GA-LP-75PML	55	74	3.5	51	4.4~17.0	155~600	2500	5512	2300 × 1600 × 1850
GA-LP-75PML	55	74	4.5	65	3.7~14.8	131~523	2500	5512	2300 × 1600 × 1850
GA-LP-100PML	75	101	2	29	7.1~28.0	251~989	3000	6614	2600 × 1750 × 2000
GA-LP-100PML	75	101	3.5	51	5.8~22.5	205~795	3000	6614	2600 × 1750 × 2000
GA-LP-100PML	75	101	4.5	65	4.9~19.5	173~689	2600	5732	2300 × 1600 × 1850
GA-LP-120PML	90	121	2	29	8.6~36.5	304~1289	4000	8818	3150 × 1900 × 2100
GA-LP-120PML	90	121	3.5	51	7.5~29.0	265~1024	4000	8818	3150 × 1900 × 2100
GA-LP-120PML	90	121	4.5	65	5.6~22.5	198~795	3100	6834	2600 × 1750 × 2000
GA-LP-150PML	110	148	2	29	11.6~47.2	410~1667	5700	12566	3550 × 2200 × 2250
GA-LP-150PML	110	148	3.5	51	8.6~34.8	304~1229	4100	9039	3150 × 1900 × 2100
GA-LP-150PML	110	148	4.5	65	7.2~28.6	254~1010	4100	9039	3150 × 1900 × 2100
GA-LP-175PML	132	177	2	29	13.2~51.8	466~1829	5800	12787	3550 × 2200 × 2350
GA-LP-175PML	132	177	3.5	51	9.8~40.2	346~1420	4200	9259	3150 × 1900 × 2100
GA-LP-175PML	132	177	4.5	65	8.6~34.3	304~1211	4200	9259	3150 × 1900 × 2100
GA-LP-200PML	150	201	2	29	14.0~56.5	494~1995	6000	13228	3500 × 2200 × 2350
GA-LP-200PML	150	201	3.5	51	11.8~47.5	417~1677	6000	13228	3500 × 2200 × 2350
GA-LP-200PML	150	201	4.5	65	9.6~38.2	339~1349	4500	9921	3150 × 1900 × 2100

LOW PRESSURE (CONTINUED)

Low pressure — GA-LS fixed speed

Model	Motor		Pressure		Capacity		Weight		Dimensions
	kW	hp	bar g	psi g	m ³ /min	cfm	kg	lb	L × W × H mm
GA-LS-45A-4	45	60	4	58	9.8	346	1450	3197	2000 × 1200 × 1585
GA-LS-55A-4	55	74	4	58	12.6	445	1850	4079	2200 × 1500 × 1785
GA-LS-75A-4	75	101	4	58	19.2	678	2300	5071	2486 × 1700 × 1918
GA-LS-90A-4	90	121	4	58	22.6	798	2400	5291	2486 × 1700 × 1918
GA-LS-110A-4	110	148	4	58	27.0	953	3000	6614	2556 × 1750 × 1918
GA-LS-132A-4	132	177	4	58	31.2	1102	3200	7055	2556 × 1750 × 1918
GA-LS-160A-4	160	215	4	58	40.0	1413	6500	14330	3260 × 2050 × 2030

The GA-LP machines are variable speed, so capacity is given as the range between minimum and maximum output. The GA-LS machines are fixed speed and give one figure. Imperial figures are converted from the metric values and rounded.



MEDIUM AND HIGH PRESSURE

Medium, 20 to 30 bar. PET preform work, pressure and leak testing, gas boosting feed and process air that would otherwise need a compressor and a separate booster. One machine, one control system, one service visit.

High, 20 to 35 bar. Bottle blowing, mining and rock drilling, high rating pressure testing, and offshore or marine service air. Above 35 bar a reciprocating booster is the right tool and we will say so rather than push a screw machine past where it belongs.

Medium pressure — GA-MS

Model	Motor		Pressure		Capacity		Weight		Dimensions L × W × H mm
	kW	hp	bar g	psi g	m ³ /min	cfm	kg	lb	
GA-MS-90W-20	90	121	20	290	9.2	325	2750	6063	2466 × 1900 × 1918
GA-MS-90W-25	90	121	25	363	8.5	300	2750	6063	2466 × 1900 × 1918
GA-MS-110W-20	110	148	20	290	11.6	410	2900	6393	2466 × 1900 × 1918
GA-MS-110W-25	110	148	25	363	9.7	343	2900	6393	2466 × 1900 × 1918
GA-MS-132W-20	132	177	20	290	13.0	459	3200	7055	2466 × 1900 × 1918
GA-MS-132W-25	132	177	25	363	11.8	417	3200	7055	2466 × 1900 × 1918
GA-MS-132W-30	132	177	30	435	10.5	371	3200	7055	2466 × 1900 × 1918
GA-MS-160W-25	160	215	25	363	15.5	547	3850	8488	2850 × 1950 × 1950
GA-MS-200A(W)-20	200	268	20	290	21.0	742	4200	9259	2980 × 2100 × 1950
GA-MS-200A(W)-25	200	268	25	363	18.8	664	4200	9259	2980 × 2100 × 1950
GA-MS-250A(W)-20	250	335	20	290	25.0	883	4500	9921	3250 × 2250 × 2050
GA-MS-250A(W)-25	250	335	25	363	22.0	777	4500	9921	3250 × 2250 × 2050



HIGH PRESSURE (CONTINUED)

High pressure — GA-HP

Model	Motor		Pressure		Capacity		Weight		Dimensions
	kW	hp	bar g	psi g	m³/min	cfm	kg	lb	L × W × H mm
GA-HP-45A II	45	60	20	290	3.1~4.5	109~159	2300	5071	2300 × 1670 × 1690
GA-HP-45A II	45	60	25	363	2.8~4.0	99~141	2300	5071	2300 × 1670 × 1690
GA-HP-55A II	55	74	20	290	3.9~5.6	138~198	2400	5291	2300 × 1670 × 1690
GA-HP-55A II	55	74	30	435	3.3~4.7	117~166	2400	5291	2300 × 1670 × 1690
GA-HP-55A II	55	74	35	508	2.8~4.0	99~141	2400	5291	2300 × 1670 × 1690
GA-HP-75A II	75	101	20	290	5.5~7.8	194~275	2500	5512	2300 × 1670 × 1690
GA-HP-75A II	75	101	30	435	4.6~6.5	162~230	2500	5512	2300 × 1670 × 1690
GA-HP-75A II	75	101	35	508	4.2~6.0	148~212	2500	5512	2300 × 1670 × 1690
GA-HP-90A II	90	121	20	290	8.0~11.4	283~403	3100	6834	2750 × 1780 × 1950
GA-HP-90A II	90	121	30	435	5.2~7.4	184~261	3100	6834	2300 × 1670 × 1690
GA-HP-90A II	90	121	35	508	4.8~6.9	170~244	3100	6834	2300 × 1670 × 1690
GA-HP-110A II	110	148	20	290	9.2~13.1	325~463	3300	7275	2750 × 1780 × 1950
GA-HP-110A II	110	148	30	435	7.0~10.0	247~353	3300	7275	2750 × 1780 × 1950
GA-HP-110A II	110	148	35	508	6.7~9.5	237~335	3300	7275	2750 × 1780 × 1950
GA-HP-120A II	120	161	20	290	10.0~14.3	353~505	3500	7716	2750 × 1780 × 1950
GA-HP-120A II	120	161	25	363	8.8~12.5	311~441	3500	7716	2750 × 1780 × 1950
GA-HP-132A II	132	177	20	290	12.0~17.1	424~604	3700	8157	2750 × 1780 × 1950
GA-HP-132A II	132	177	30	435	8.5~12.2	300~431	3700	8157	2750 × 1780 × 1950
GA-HP-132A II	132	177	35	508	8.3~11.8	293~417	3700	8157	2750 × 1780 × 1950
GA-HP-150A II	150	201	20	290	12.8~18.2	452~643	4400	9700	2900 × 1940 × 1950
GA-HP-150A II	150	201	25	363	11.2~16.0	396~565	4400	9700	2900 × 1940 × 1950

HIGH PRESSURE (CONTINUED)

High pressure — GA-HP

Model	Motor		Pressure		Capacity		Weight		Dimensions
	kW	hp	bar g	psi g	m³/min	cfm	kg	lb	L × W × H mm
GA-HP-160A II	160	215	20	290	14.4~20.5	509~724	4700	10362	2900 × 1940 × 1950
GA-HP-160A II	160	215	30	435	10.5~15.0	371~530	4700	10362	2930 × 1900 × 2060
GA-HP-160A II	160	215	35	508	10.2~14.5	360~512	4700	10362	2930 × 1900 × 2060
GA-HP-185A II	185	248	20	290	16.0~22.8	565~805	5000	11023	2900 × 1940 × 1950
GA-HP-185A II	185	248	25	363	14.0~20.0	494~706	5000	11023	2900 × 1940 × 1950
GA-HP-200A II	200	268	20	290	18.5~26.5	653~936	5300	11684	2900 × 1940 × 1950
GA-HP-200A II	200	268	25	363	16.1~23.0	569~812	5300	11684	2900 × 1940 × 1950
GA-HP-220A II	220	295	20	290	20.1~28.8	710~1017	5600	12346	2900 × 1940 × 1950
GA-HP-220A II	220	295	30	435	16.3~23.2	576~819	5600	12346	2930 × 1900 × 2060
GA-HP-220A II	220	295	35	508	16.1~23.0	569~812	5600	12346	2930 × 1900 × 2060
GA-HP-250A II	250	335	20	290	22.5~32.2	795~1137	7100	15653	3250 × 1950 × 2150
GA-HP-250A II	250	335	30	435	19.3~27.5	682~971	7100	15653	3500 × 2250 × 2300
GA-HP-250A II	250	335	35	508	18.1~25.8	639~911	7100	15653	3500 × 2250 × 2300
GA-HP-280A II	280	375	20	290	24.2~34.5	855~1218	7400	16314	3250 × 1950 × 2150
GA-HP-280A II	280	375	25	363	21.0~30.0	742~1059	7400	16314	3250 × 1950 × 2150
GA-HP-300A II	300	402	20	290	27.4~39.1	968~1381	7900	17416	3500 × 2250 × 2300
GA-HP-300A II	300	402	30	435	21.0~30.0	742~1059	7900	17416	3500 × 2250 × 2300
GA-HP-300A II	300	402	35	508	20.7~29.5	731~1042	7900	17416	3500 × 2250 × 2300
GA-HP-330A II	330	443	20	290	30.6~43.7	1081~1543	8200	18078	3500 × 2250 × 2300
GA-HP-330A II	330	443	30	435	23.6~33.7	833~1190	8200	18078	3800 × 2300 × 2400
GA-HP-330A II	330	443	35	508	23.1~33.0	816~1165	8200	18078	3800 × 2300 × 2400

Capacity is given as the range between minimum and maximum output on the variable speed machines. Codes carrying (W) are available air or water cooled; at these pressures water cooling is the usual specification. Imperial figures are converted and rounded.



GREEN AIR COMPRESSOR

TELL US THE PRESSURE AT THE MACHINE, NOT AT THE COMPRESSOR

The first number we need is not the size of the compressor you have. It is the pressure the process actually needs, measured at the machine that needs it, and how many hours a year it needs it for. From those two we can tell you whether a dedicated low pressure machine pays for itself, whether a medium pressure machine removes a booster you are already servicing, and what the difference is worth over ten years. We fit loggers for a week and give you the measured figures in writing. It costs nothing and carries no obligation.

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