

NOTHING TO CARRY OVER.

Oil-free compressors — scroll, single-stage screw, two-stage screw and two-stage variable speed. 7.5 to 355 kW, 0.32 to 53.3 m³/min, 4 to 10 bar g.

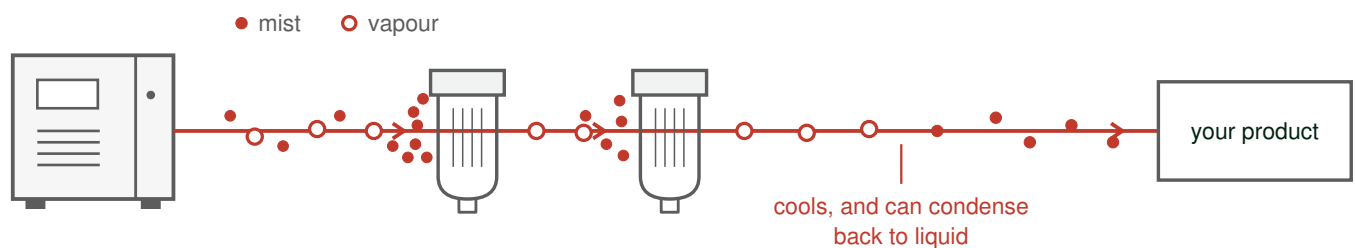
**GREEN AIR
COMPRESSOR**



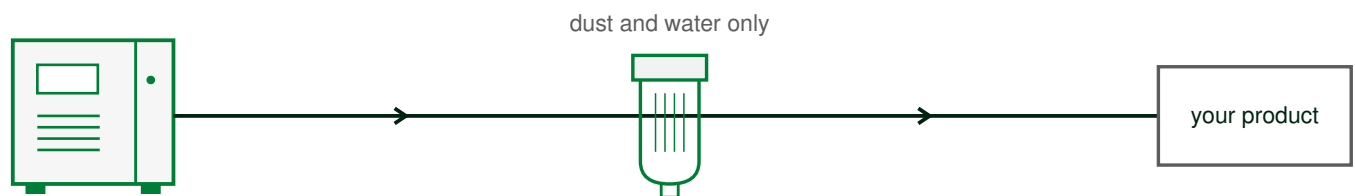
WHY A FILTER IS NOT THE ANSWER

Almost everyone who needs oil-free air is first offered a lubricated machine with filters after it, and on paper the arithmetic looks convincing. It fails for a reason that has nothing to do with the quality of the filter: a lubricated compressor puts oil into the air as a vapour as well as a mist, and a coalescing filter is built to catch mist. The vapour passes through, cools somewhere downstream, and condenses back into liquid oil on the other side of the thing that was supposed to stop it.

Lubricated machine and coalescing filters



Oil-free machine



no oil is added in the compression chamber.

This is why food, pharmaceutical, electronics and textile plants specify the machine rather than the filtration. The risk is not that the filter is poor. It is that the thing being filtered changes state after the filter.



The failure is invisible

Oil carry-over does not announce itself. It shows up as a rejected batch, a contaminated coating or a product recall, weeks after the event that caused it.



No oil, no oil disposal

A lubricated machine's condensate is oily water that cannot go down a drain in any market we sell in. An oil-free machine's condensate is water.



No separator, no oil changes

The consumable that costs the most on a lubricated machine does not exist on this one. Service is filters, bearings and the cooler.

FOUR WAYS TO GET THERE

They all deliver air with no lubricant in the path. What separates them is flow, pressure and what happens to the heat.

	Scroll	Single-stage screw	Two-stage screw	Two-stage variable speed
In this brochure	GA-SC	GAC-F, GAC-FV	GAC-F2, GAC-F2V	GAC-U
Motor	7.5 to 37 kW	15 to 37 kW	37 to 355 kW	55 to 132 kW
Quietest	55 dB(A)	61 dB(A)	65 dB(A)	63 dB(A)
Pressure	8 bar g	8 bar g fixed, 5 to 10 variable	7 to 10 bar g	4 to 10 bar g
Capacity	0.80 to 4 m³/min	0.32 to 6.87 m³/min	5.10 to 53.30 m³/min	4.40 to 22.20 m³/min
Output	Fixed	Both — GAC-FV follows demand	Both — GAC-F2V follows demand	Follows demand
Suits	A laboratory, a clean room, a small food line	A steady mid-sized duty	The plant where oil-free is the whole requirement	A large duty that changes through the shift
Where it stops	Flow	Flow	Nothing below it is cheaper to run	Needs a changing load to pay

Scroll is the quiet one, and it stops early.

At 55 dB(A) the smallest machine here can stand in the room it serves, which is why laboratories and small food lines buy it. It does not scale: its largest machine makes 4 m³/min, and above that the answer is a screw.

Two stages are not a luxury at this size.

Compressing in two steps with cooling in between does the same work for less power, and on a machine that runs continuously that difference is the whole operating cost. It is why the range above 37 kW is two-stage and the range below it is not.

Variable speed needs a reason.

A machine that follows a changing demand saves nothing against a flat one. The question is the load profile, and we would rather measure it than assume it.

Quiet enough to stand beside

At 55 dB(A) the smallest scroll machine is quieter than the conversation happening next to it. It does not need a plant room, which on a laboratory or a small production floor is often the deciding factor.



OIL-FREE SCROLL

What it is. Two spiral elements, one fixed and one orbiting, compressing air without a lubricant and without a rubbing seal. 7.5 to 37 kW, 8 bar g, 0.80 to 4 m³/min, and from 55 dB(A).

Who buys it. Laboratories, dental and medical rooms, small food and beverage lines, electronics assembly — anywhere the machine has to live near the people and the product.

Model	Motor		Pressure		Capacity		Noise	Weight		Dimensions
	kW	hp	bar g	psi g	m³/min	cfm	dB(A)	kg	lb	L × W × H mm
GA-SC-08A	7.5	10	8	116	0.80	28	55	300	661	965 × 750 × 1150
GA-SC-11A	11	15	8	116	1.20	42	57	460	1014	965 × 750 × 1600
GA-SC-15A	15	20	8	116	1.60	57	59	540	1190	965 × 750 × 1970
GA-SC-18A	18.5	25	8	116	2	71	61	750	1653	965 × 1350 × 1600
GA-SC-22A	22	30	8	116	2.40	85	62	840	1852	965 × 1350 × 1600
GA-SC-30A	30	40	8	116	3.20	113	64	—	—	965 × 1350 × 1700
GA-SC-37A	37	50	8	116	4	141	—	—	—	—

Where a cell shows an em dash the figure is not yet confirmed and is being checked with the factory; ask us before you plan a lifting or a foundation around it. Imperial figures are converted from the metric values and rounded.

SINGLE-STAGE OIL-FREE SCREW

What it is. A screw element running dry, with the rotors timed by gears so they never touch each other and never need a film of oil between them. 15 to 37 kW, 0.32 to 6.87 m³/min.

Fixed or variable. GAC-F runs at one speed and makes 8 bar g. GAC-FV follows the demand and is offered from 5 to 10 bar g, which is why its capacity is shown as a range.

Air cooled or water cooled. Both are listed for the fixed-speed machines. Air cooled is simpler and needs ventilation; water cooled is lighter, quieter and needs a water circuit. The building decides, not the machine.

Model	Cooling	Motor		Pressure		Capacity		Noise	Weight		Dimensions
		kW	hp	bar g	psi g	m³/min	cfm	dB(A)	kg	lb	L × W × H mm
GAC-F 15	Air	15	20	8	116	2.30	81	68	672	1481	1309 × 848 × 1612
GAC-F 22	Air	22	30	8	116	3.50	124	68	691	1523	1309 × 848 × 1612
GAC-F 37	Air	37	50	8	116	5.86	207	71	960	2116	1686 × 886 × 1657
GAC-F 15	Water	15	20	8	116	2.30	81	65	624	1376	1309 × 848 × 1612
GAC-F 22	Water	22	30	8	116	3.50	124	65	643	1418	1309 × 848 × 1612
GAC-F 37	Water	37	50	8	116	5.86	207	61	860	1896	1686 × 886 × 1657
GAC-FV 15	—	15	20	5 – 10	73 – 145	0.32 – 2.34	11 – 83	67	687	1515	1309 × 848 × 1612
GAC-FV 22	—	22	30	5 – 10	73 – 145	0.68 – 3.45	24 – 122	67	687	1515	1309 × 848 × 1612
GAC-FV 37	—	37	50	5 – 10	73 – 145	1.09 – 6.87	38 – 243	71	995	2194	1722 × 920 × 1659

Each fixed-speed code appears twice, once air cooled and once water cooled: the flow is the same, the weight and the noise are not. The cooling of the GAC-FV machines is not stated and we are confirming it with the factory. Imperial figures are converted from the metric values and rounded.

TWO-STAGE, 37 TO 75 KW

Two elements in series with a cooler between them. The air is compressed part of the way, cooled, and compressed the rest — which takes less power than doing it in one step, and keeps the discharge temperature down. On a machine that runs all day that difference is the operating cost.

Model	Cooling	Motor		Pressure		Capacity		Noise	Weight		Dimensions
		kW	hp	bar g	psi g	m³/min	cfm	dB(A)	kg	lb	L × W × H mm
GAC-F2 37	Air	37	50	7	102	6	212	76	2387	5262	2248 × 1372 × 1917
GAC-F2 37	Air	37	50	8.5	123	5.10	180	76	2387	5262	2248 × 1372 × 1917
GAC-F2 45	Air	45	60	7	102	7.70	272	76	2497	5505	2248 × 1372 × 1917
GAC-F2 45	Air	45	60	8.5	123	6.50	230	76	2497	5505	2248 × 1372 × 1917
GAC-F2 55	Air	55	74	7	102	9.60	339	76	2577	5681	2248 × 1372 × 1917
GAC-F2 55	Air	55	74	8.5	123	8.80	311	76	2577	5681	2248 × 1372 × 1917
GAC-F2 55	Air	55	74	10	145	7.70	272	76	2577	5681	2248 × 1372 × 1917
GAC-F2 75	Air	75	101	7	102	12.70	448	76	2682	5913	2248 × 1372 × 1917
GAC-F2 75	Air	75	101	8.5	123	11.60	410	76	2682	5913	2248 × 1372 × 1917
GAC-F2 75	Air	75	101	10	145	10.70	378	76	2682	5913	2248 × 1372 × 1917
GAC-F2V 37	—	37	50	8.5	123	5.10	180	65	1579	3481	2080 × 1115 × 2070
GAC-F2V 45	—	45	60	8.5	123	6.30	222	65	1579	3481	2080 × 1115 × 2070
GAC-F2V 55	—	55	74	10	145	7.80	275	76	2042	4502	2078 × 1321 × 1947

A fixed-speed code appears once for each pressure it is offered at, which is why the same code repeats with a lower capacity as the pressure rises. Where the cooling column is blank the data does not state it and we are confirming it with the factory. Imperial figures are converted and rounded.

TWO-STAGE, 200 TO 355 KW

The same principle at the size where it matters most. These machines are chosen against a plant's whole air demand rather than against one process, and the heat they reject has to go somewhere other than the room — which is why the cooling arrangement is part of the specification rather than an option.

Model	Cooling	Motor		Pressure		Capacity		Noise	Weight		Dimensions
		kW	hp	bar g	psi g	m³/min	cfm	dB(A)	kg	lb	L × W × H mm
GAC-F2 200	Water	200	268	7	102	38.10	1345	76	5734	12641	3457 × 2152 × 2446
GAC-F2 250	Air	250	335	7	102	45.20	1596	80	6446	14211	3457 × 2152 × 2446
GAC-F2 250	Water	250	335	7	102	45.60	1610	76	5754	12685	3457 × 2152 × 2446
GAC-F2 315	Air	315	422	7	102	52.90	1868	80	6446	14211	3457 × 2152 × 2446
GAC-F2 315	Water	315	422	7	102	53.30	1882	76	5754	12685	3457 × 2152 × 2446
GAC-F2 355	Water	355	476	10	145	53.30	1882	76	5754	12685	3457 × 2152 × 2446
GAC-F2V 200	—	200	268	10	145	11.60 – 34.70	410 – 1225	80	6556	14453	—
GAC-F2V 200	—	200	268	10	145	12.10 – 35.50	427 – 1254	76	5864	12928	—

Where the cooling column is blank the data does not state it and we are confirming it with the factory, as are the dimensions of the GAC-F2V machine. Imperial figures are converted and rounded.

TWO-STAGE VARIABLE SPEED

What it is. Two-stage oil-free compression with a drive that changes the motor's speed to match the air being drawn. 55 to 132 kW, 4 to 10 bar g, 4.40 to 22.20 m³/min, from 63 dB(A).

What the capacity range means. Each machine runs anywhere between the two figures shown. The lower one is its minimum, the upper its full output, and it sits wherever the plant is actually drawing rather than switching between full and nothing.

Model	Cooling	Motor		Pressure		Capacity		Noise	Weight		Dimensions
		kW	hp	bar g	psi g	m³/min	cfm	dB(A)	kg	lb	L × W × H mm
GAC-U 55	Water	55	74	5 – 10	73 – 145	4.40 – 10.40	155 – 367	64	1750	3858	1831 × 1081 × 1998
GAC-U 75	Air	75	101	4 – 10	58 – 145	6.70 – 11.90	237 – 420	64	3360	7407	3244 × 1394 × 1992
GAC-U 75	Water	75	101	4 – 10	58 – 145	6.70 – 11.90	237 – 420	63	2750	6063	2044 × 1394 × 1992
GAC-U 90	Air	90	121	4 – 10	58 – 145	6.70 – 14.90	237 – 526	65	3360	7407	3244 × 1394 × 1992
GAC-U 90	Water	90	121	4 – 10	58 – 145	6.70 – 14.90	237 – 526	64	2750	6063	2044 × 1394 × 1992
GAC-U 110	Air	110	148	4 – 10	58 – 145	6.70 – 18.50	237 – 653	65	3360	7407	3244 × 1394 × 1992
GAC-U 110	Water	110	148	4 – 10	58 – 145	6.70 – 18.50	237 – 653	64	2750	6063	2044 × 1394 × 1992
GAC-U 132	Air	132	177	4 – 10	58 – 145	6.70 – 22.20	237 – 784	67	3360	7407	3244 × 1394 × 1992
GAC-U 132	Water	132	177	4 – 10	58 – 145	6.70 – 22.20	237 – 784	66	2750	6063	2044 × 1394 × 1992

The capacity column is the machine's turndown: minimum to full output. Each code appears twice, once air cooled and once water cooled. Imperial figures are converted and rounded.

WHAT WE NEED TO QUOTE ONE

An oil-free machine is specified against the requirement, not against a catalogue. These are the six things that decide which of the 46 machines in this document is yours.



What the air touches

The product, the packaging, the process vessel, or nothing at all. This one answer usually settles scroll against screw on its own.



Does the demand change

A flat load and a swinging load want different machines. This is the only question that decides between a fixed and a variable speed machine.



How much, at the same moment

Not the total of every tool's rating. The air actually drawn at once, which is what a week of logging tells you and an estimate does not.



Where the heat goes

Air cooled needs ventilation sized against the rejected heat and your summer peak. Water cooled needs a circuit. One of the two is easier in your building.



The pressure at the far end

What the process needs where it is used, not what the machine makes. The difference is the pipe run, and it is usually larger than people expect.



Can it stop

If the plant cannot lose air for a service, the answer is two machines and a sequencer, and it is cheaper to plan that now than to retrofit it.

The requirement comes first

Tell us what the air touches and we will tell you which of these four technologies you are choosing between. It is a shorter conversation than comparing specifications, and it starts in the right place.





GREEN AIR COMPRESSOR

IF IT TOUCHES THE PRODUCT, SPECIFY THE MACHINE

Filtration is a good answer to dust and to water. It is not an answer to oil that leaves the compressor as a vapour, because the filter sees a gas and the pipework downstream sees a liquid. Where the air touches the product, the packaging or the process, the oil has to be absent from the machine rather than removed after it. Send us what the air touches, what you draw and when, and what the room will allow, and you get back a written recommendation naming the machine, the cooling arrangement, the treatment that still belongs after it and what the installation needs. It costs nothing and carries no obligation.

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