

VARIABLE SPEED SCREW COMPRESSORS

GA-V range · 7.5 – 132 kW · 8, 10 and 13 bar g

**GREEN AIR
COMPRESSOR**





THE MOTOR FOLLOWS THE DEMAND

A fixed speed compressor has two states: making air you need, or running unloaded and making none while still drawing about a quarter of its full power. In most factories the demand is nothing like constant, so a good deal of the electricity bill is spent on the second state.

A variable speed machine turns the motor at whatever speed matches the demand. Below its minimum it stops rather than idles. Where demand genuinely swings, that is typically twenty to thirty five per cent off the compressed air bill, and it is the easiest large saving available in most plants.



Follows the demand

Turndown to about 25 per cent of full flow, so the machine makes what is being used instead of making and dumping.



Pressure held to ± 0.1 bar

A steady line pressure lets you run the whole system one bar lower, which is another seven per cent on its own.



Soft start every time

No inrush current, no contactor wear, and no limit on starts per hour. The machine can stop when the plant is quiet.



Worth measuring first

On a genuinely constant load a VSD may never pay back. We log your demand for a week before recommending one.

WHEN IT PAYS AND WHEN IT DOES NOT

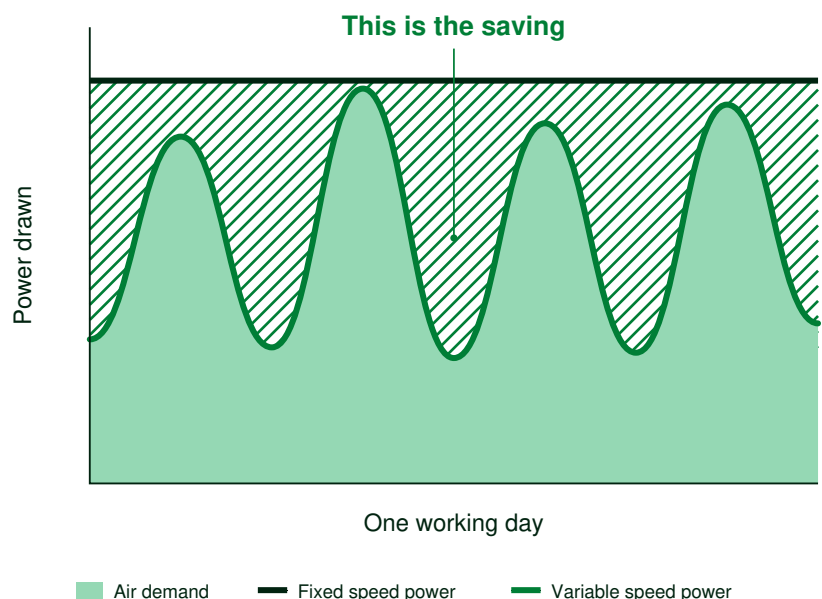
Variable speed pays where demand varies. That sounds obvious and is routinely ignored — a great many VSD machines have been sold onto constant process loads where they will never recover the price premium and where the drive is simply one more thing to fail.

The test is straightforward. If your existing machine spends more than about a quarter of its running hours unloaded, a VSD will pay. If it sits loaded all day, it will not, and a good fixed speed machine is the better purchase.

We log flow, pressure and power on your existing system for a week before quoting. It costs nothing and it has talked us out of as many VSD sales as it has won.

- Pays where load swings through the day
- Rarely pays on a flat process load
- A week of logging settles it
- Turndown to about 25 per cent
- Pressure held within 0.1 bar load
- Unlimited starts, so it can stop overnight

Where the saving comes from



Illustrative. The shape of your own demand is what decides the saving, which is why we measure it.

THE PRESSURE SAVING NOBODY COUNTS

A fixed speed machine works between a cut-in and a cut-out pressure, so the system runs about a bar above what it actually needs just to keep the bottom of that band high enough.

A variable speed machine holds one pressure. Once it does, the whole system can be set a bar lower, and every bar removed is about seven per cent off the energy for the same work.

That saving is usually larger than the one people buy the machine for, and it is the part that gets left out of the payback calculation.

7%

off the energy bill for every bar
you take out of the system



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serviced by our own engineers**

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INSIDE THE MACHINE

Twelve parts, and every one of them is reachable from the front. Nothing is buried behind something else, because the machine is going to be serviced for twenty years and the cost of that is decided here.

1 Inlet filter

Takes the dust out before it reaches the element. The first thing to check when delivery falls off.

2 Inlet valve

Opens as the machine loads and closes when it stops, so the element never starts against pressure.

7 Separator element

The last of the oil, down to a few parts per million. One of the two service items that matter.

6 Oil separator vessel

Air and oil arrive together; the oil drops out here and goes back round, the air carries on.

3 Screw element

Two rotors, no valves, no wearing contact. This is the part that makes the air.

4 Drive motor

Coupled directly to the element. No belts, so no tension to set and no drive losses to pay for.

12 Controller

Pressure, temperature, hours and service intervals, with the fault history kept so a breakdown can be diagnosed rather than guessed.

5 Variable speed drive

Turns the motor at whatever speed the demand needs and stops it below the minimum instead of idling.

11 Aftercooler

Cools the air on its way out, which drops most of the water out of it before it ever reaches your pipework.

8 Oil filter

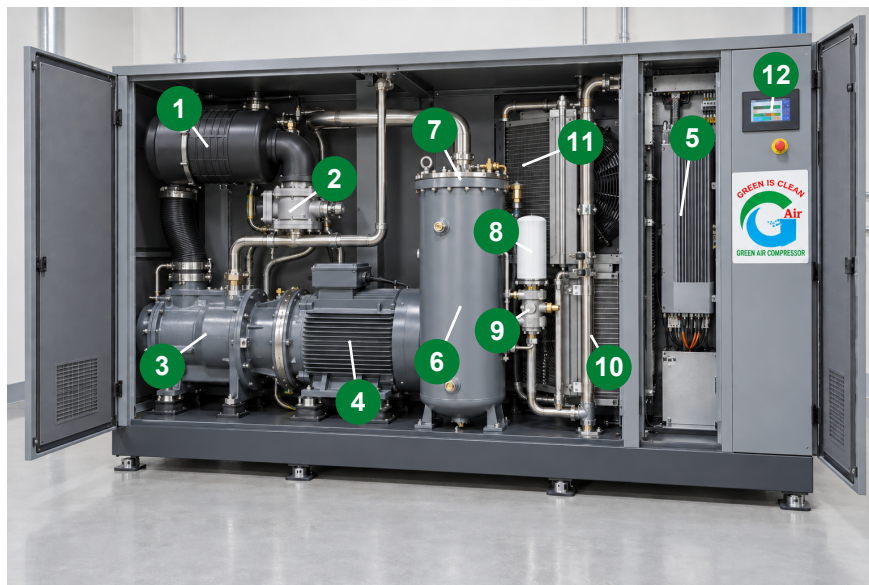
Spin-on, changed with the oil. Reachable without moving anything else.

9 Thermostatic valve

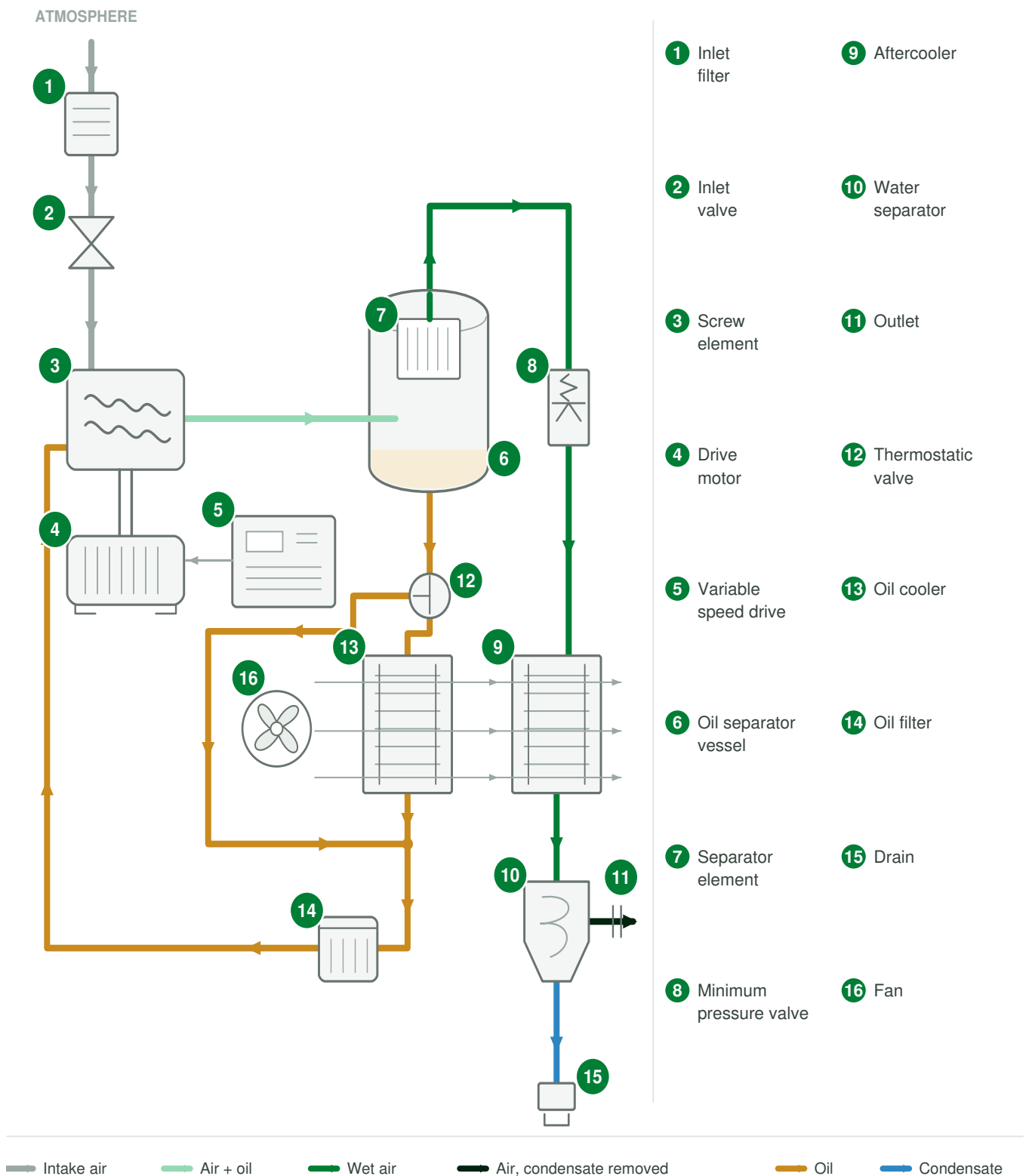
Sends the oil past the cooler until the machine is warm, so it reaches working temperature quickly and stays above dewpoint.

10 Oil cooler

Takes the heat of compression out of the oil before it goes back to the element.



HOW IT WORKS



The oil never leaves the machine. It cools the air as it is compressed, seals the rotors, and goes round again — which is why the separator element and the oil are the two things that decide how long the machine lasts.

TECHNICAL SPECIFICATIONS

Model	Motor power		Working pressure		Free air delivery		Noise level	Weight	
	kW	hp	bar g	psig	m³/min	cfm	dB(A)	kg	lb
GA-V-7A-8	7.5	10	8	116	0.3 – 1.15	11 – 41	63	220	485
GA-V-7A-10	7.5	10	10	145	0.3 – 1.0	11 – 35	63	220	485
GA-V-7A-13	7.5	10	13	189	0.3 – 0.8	11 – 28	63	220	485
GA-V-11A-8	11	15	8	116	0.5 – 1.8	18 – 64	65	260	573
GA-V-11A-10	11	15	10	145	0.4 – 1.5	14 – 53	65	260	573
GA-V-11A-13	11	15	13	189	0.3 – 1.2	11 – 42	65	260	573
GA-V-15A-8	15	20	8	116	0.5 – 2.3	18 – 81	68	430	948
GA-V-15A-10	15	20	10	145	0.4 – 2.0	14 – 71	68	430	948
GA-V-15A-13	15	20	13	189	0.3 – 1.6	11 – 57	68	430	948
GA-V-18A-8	18.5	25	8	116	0.6 – 3.0	21 – 106	68	490	1,080
GA-V-18A-10	18.5	25	10	145	0.5 – 2.6	18 – 92	68	490	1,080
GA-V-18A-13	18.5	25	13	189	0.4 – 2.2	14 – 78	68	490	1,080
GA-V-22A-8/D	22	30	8	116	0.7 – 3.6	25 – 127	67	670	1,477
GA-V-22A-10/D	22	30	10	145	0.5 – 3.2	18 – 113	67	670	1,477
GA-V-22A-13/D	22	30	13	189	0.4 – 2.8	14 – 99	67	670	1,477
GA-V-30A-8/D	30	40	8	116	1.3 – 5.0	46 – 177	70	730	1,609
GA-V-30A-10/D	30	40	10	145	1.0 – 4.5	35 – 159	70	730	1,609
GA-V-30A-13/D	30	40	13	189	0.7 – 3.7	25 – 131	70	730	1,609
GA-V-37A-8/D	37	50	8	116	1.6 – 6.6	57 – 233	70	920	2,028
GA-V-37A-10/D	37	50	10	145	1.3 – 5.8	46 – 205	70	920	2,028
GA-V-37A-13/D	37	50	13	189	1.0 – 4.8	35 – 170	70	920	2,028
GA-V-45A-8/D	45	60	8	116	1.7 – 7.6	60 – 268	71	1,020	2,249
GA-V-45A-10/D	45	60	10	145	1.5 – 7.0	53 – 247	71	1,020	2,249
GA-V-45A-13/D	45	60	13	189	1.2 – 5.8	42 – 205	71	1,020	2,249
GA-V-55A-8/D	55	75	8	116	2.4 – 10.0	85 – 353	73	1,570	3,461
GA-V-55A-10/D	55	75	10	145	2.0 – 9.0	71 – 318	73	1,570	3,461
GA-V-55A-13/D	55	75	13	189	1.5 – 7.8	53 – 275	73	1,570	3,461
GA-V-75A-8/D	75	100	8	116	3.0 – 13.0	106 – 459	75	1,960	4,321
GA-V-75A-10/D	75	100	10	145	2.6 – 11.8	92 – 417	75	1,960	4,321
GA-V-75A-13/D	75	100	13	189	2.2 – 9.8	78 – 346	75	1,960	4,321
GA-V-90A-8/D	90	125	8	116	3.9 – 15.0	138 – 530	76	2,100	4,630
GA-V-90A-10/D	90	125	10	145	3.5 – 13.0	124 – 459	76	2,100	4,630
GA-V-90A-13/D	90	125	13	189	2.8 – 11.0	99 – 388	76	2,100	4,630
GA-V-110A-8	110	150	8	116	4.2 – 20.0	148 – 706	75	2,520	5,556
GA-V-110A-10	110	150	10	145	3.8 – 17.0	134 – 600	75	2,520	5,556
GA-V-110A-13	110	150	13	189	3.3 – 13.6	117 – 480	75	2,520	5,556
GA-V-132A-8	132	175	8	116	6.0 – 23.5	212 – 830	75	2,720	5,997
GA-V-132A-10	132	175	10	145	5.8 – 20.2	205 – 713	75	2,720	5,997
GA-V-132A-13	132	175	13	189	4.0 – 16.0	141 – 565	75	2,720	5,997

Dimensions

Frame	Motor ratings	L × W × H (mm)	L × W × H (in)
7.5–11 kW	7.5, 11 kW	1080 × 620 × 810	42.5 × 24.4 × 31.9
15–18.5 kW	15, 18.5 kW	775 × 1350 × 1050	30.5 × 53.1 × 41.3
22–30 kW	22, 30 kW	1450 × 860 × 1340	57.1 × 33.9 × 52.8
37–45 kW	37, 45 kW	1580 × 950 × 1470	62.2 × 37.4 × 57.9
55 kW	55 kW	2000 × 1100 × 1585	78.7 × 43.3 × 62.4
75 kW	75 kW	2000 × 1200 × 1585	78.7 × 47.2 × 62.4
90 kW	90 kW	2000 × 1300 × 1635	78.7 × 51.2 × 64.4
110–132 kW	110, 132 kW	2166 × 1700 × 1918	85.3 × 66.9 × 75.5

Free air delivery measured to ISO 1217, annex C, at the stated working pressure. Noise measured to ISO 2151 at 1 m, free field, tolerance ±3 dB(A). Reference conditions: inlet 1 bar absolute, 20 °C. Imperial figures are converted from the metric values and rounded. Dimensions and weights are for the standard build; dryer and tank options change both. Larger ratings to 280 kW are available — ask for the water-cooled schedule.



GREEN AIR COMPRESSOR

TALK TO AN ENGINEER, NOT A CALL CENTRE

Tell us what the machine has to do — the air you use, the pressure you run at and the hours you run — and you get a written recommendation back that names the machine, gives its figures at your working pressure, and states delivery, installation and what the warranty covers. 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.

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