

# **OIL-INJECTED ROTARY SCREW COMPRESSORS**



GA 30+90/GA 37-90 VSD (30-90 kW/40-125 hp)







## ***THE ULTIMATE SMART SOLUTION, DRIVEN BY EFFICIENCY***

Atlas Copco's GA 30-90 compressors bring you outstanding sustainability, reliability and performance, while minimizing the total cost of ownership. A choice of three premium compressor types (GA VSD, GA<sup>+</sup> and GA) provides you with the compressed air solution that perfectly matches your requirements with clear value propositions. Built to perform even in the harshest environments, these compressors keep your production running efficiently.

### **GA PREMIUM COMPRESSOR**

- High performance Free Air Delivery.
- Premium quality at the lowest initial investment.
- Integrated refrigerant dryer.
- Standard Elektronikon® controller (optional graphic controller).

### **GA<sup>+</sup> INDUSTRY-LEADING PERFORMANCE**

- Industry-leading Free Air Delivery.
- Lowest energy consumption for applications with a stable air demand.
- Low noise emission suitable for workplace installation.
- Integrated refrigerant dryer.
- Smart Elektronikon® graphic compressor controller.

### **GA VSD ULTIMATE ENERGY SAVER**

- On average up to 35% energy savings.
- Industry-leading operating turndown range.
- Wide pressure selection: 4-13 bar.
- Start under system pressure, no blow off.
- Integrated refrigerant dryer.
- In-house designed NEOS inverter.
- Smart Elektronikon® graphic compressor controller.



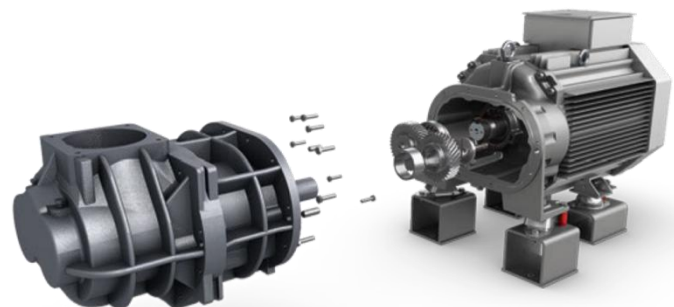
# HIGH RELIABILITY AND SMART ENERGY

## GA 37+/45+/55+/75+ & GA 55/75/90

1

### Maintenance-free drive system

- 100% maintenance-free; totally enclosed and protected against dirt and dust.
- Suitable for harsh environments.
- High-efficiency drive arrangement; no coupling or slippage losses.
- Standard up to 46°C/115°F and for high ambient version 55°C/131°F.



2

### IE3 / NEMA Premium Efficiency electrical motors

- IP55, insulation Class F, B rise.
- Non-drive side bearing greased for life.
- Designed for continuous operation in harsh environments.

3

### Robust spin-on oil filter

- High-efficiency, removing 300% smaller particles than a conventional filter.
- Integrated bypass valve with the oil filter.

4

### SIL Smart inlet lock system for GA VSD compressors

- Superior designed vacuum and air pressure controlled valve with minimal pressure drop and no springs.
- Smart stop/start which eliminates back-pressure oil vapor.



5

### Separate oversized oil cooler and aftercooler

- Low element outlet temperatures, ensuring long oil lifetime.
- Removal of nearly 100% condensate by integrated mechanical separator.
- No consumables.
- Eliminates possibility of thermal shocks in coolers.



11

### Integrated highly efficient R410A dryer

- Excellence in air quality.
- 50% reduction in energy consumption compared to traditional dryers.
- Zero ozone depletion.
- Incorporates optional UD+ filter according to Class 1.4.2.



10

### NEOS drive

- Atlas Copco's in-house designed inverter for GA VSD compressors.
- IP5X protection degree.
- A robust, aluminum enclosure for trouble-free operation in the harshest conditions.
- Fewer components: compact, simple and user-friendly.



9

### Cubicle cooling booster

- Cubicle in overpressure minimizes ingress of conductive dust.
- Electrical components remain cool, enhancing lifetime of components.



8

### Elektronikon® for remote monitoring

- Integrated smart algorithms reduce system pressure and energy consumption.
- Monitoring features include warning indications, maintenance scheduling and online visualization of machine's condition.

7

### Heavy-duty air intake filter

- Protects the compressor components by removing 99.9% of dirt particles down to 3 microns.
- Differential inlet pressure for proactive maintenance while minimizing pressure drop.

6

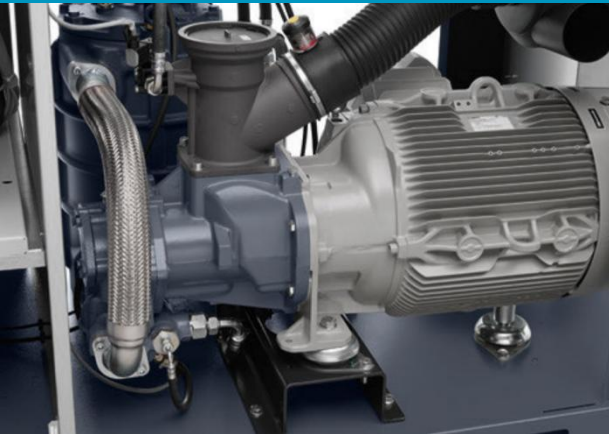
### Electronic no-loss water drain

- Ensures constant removal of condensate.
- Manual integrated bypass for effective condensate removal in case of power failure.
- Integrated with compressor's Elektronikon® with warning/alarm features.



# HIGH RELIABILITY AND SMART ENERGY

## GA 30+ & GA 37/45



1

### Maintenance-free drive system

- 100% maintenance-free; totally enclosed and protected against dirt and dust.
- Suitable for harsh environments.
- High-efficiency drive arrangement; no coupling or slippage losses.
- Standard up to 46°C/115°F and for high ambient version 55°C/131°F.

2

### IE3 / NEMA Premium Efficiency electrical motors

- IP55, insulation Class F, B rise.
- Non-drive side bearing greased for life.
- Oil lubricated drive side bearings.

3

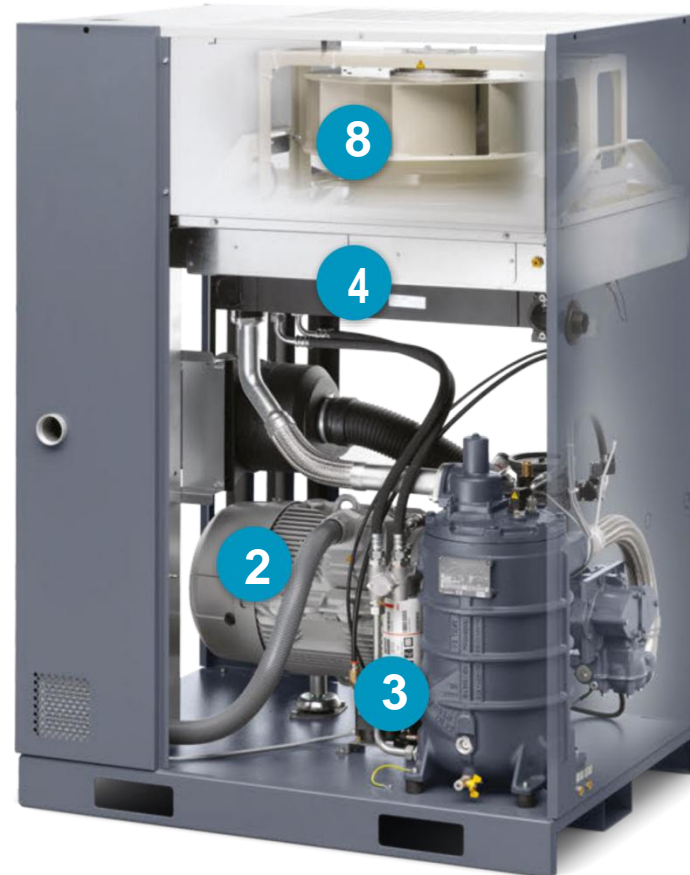
### Robust spin-on oil filter

- High-efficiency, removing 300% smaller particles than a conventional filter.
- Integrated bypass valve with the oil filter.

4

### Separate oversized oil cooler and aftercooler

- Low element outlet temperatures, ensuring long oil lifetime:
  - Removal of nearly 100% condensate by mechanical separator.
  - No consumables.
  - Eliminates possibility of thermal shocks in coolers.



8

### Radial fan

- Low noise level.
- High flows.
- Compact design.

5

### Advanced control & monitoring via Elektronikon®

- Integrated smart algorithms reduce system pressure and energy consumption.
- Monitoring features include warning indications, maintenance scheduling and online visualization of machine's condition.

6

### Heavy-duty air intake filter

- Protects the compressor components by removing 99.9% of dirt particles down to 3 microns.
- Differential inlet pressure for proactive maintenance while minimizing pressure drop.

7

### Electronic no-loss water drain (for + versions)

- Ensures constant removal of condensate.
- Manual integrated bypass for effective condensate removal in case of power failure.
- Integrated with compressor's Elektronikon® with warning/alarm features.



# A STEP AHEAD IN MONITORING AND CONTROLS

The next-generation Elektronikon® operating system offers a wide variety of control and monitoring features that allow you to increase your compressor's efficiency and reliability. To maximize energy efficiency, the Elektronikon® controls the main drive motor and regulates system pressure within a predefined and narrow pressure band.



### User-friendly

- 3.5-inch high-definition color display.
- Extra 4th LED indicator for service.
- Graphical display of key parameters (day, week, month) and 32 language settings.
- Graphical indication Serviceplan, remote control and connectivity functions.

### Optional integrated compressor controller

Install, with a simple license, the optional integrated compressor controller and get simple, central control to reduce system pressure and energy consumption in installations of up to 4 (ES4i) or 6 (ES6i) compressors.



### SMARTLINK\* Data Monitoring Program

- A remote monitoring system that helps you optimize your compressed air system and save you energy and cost.
- It offers you a complete insight in your compressed air network and anticipates on potential problems by warning you up-front.

\* Please contact your local sales representative for more information.

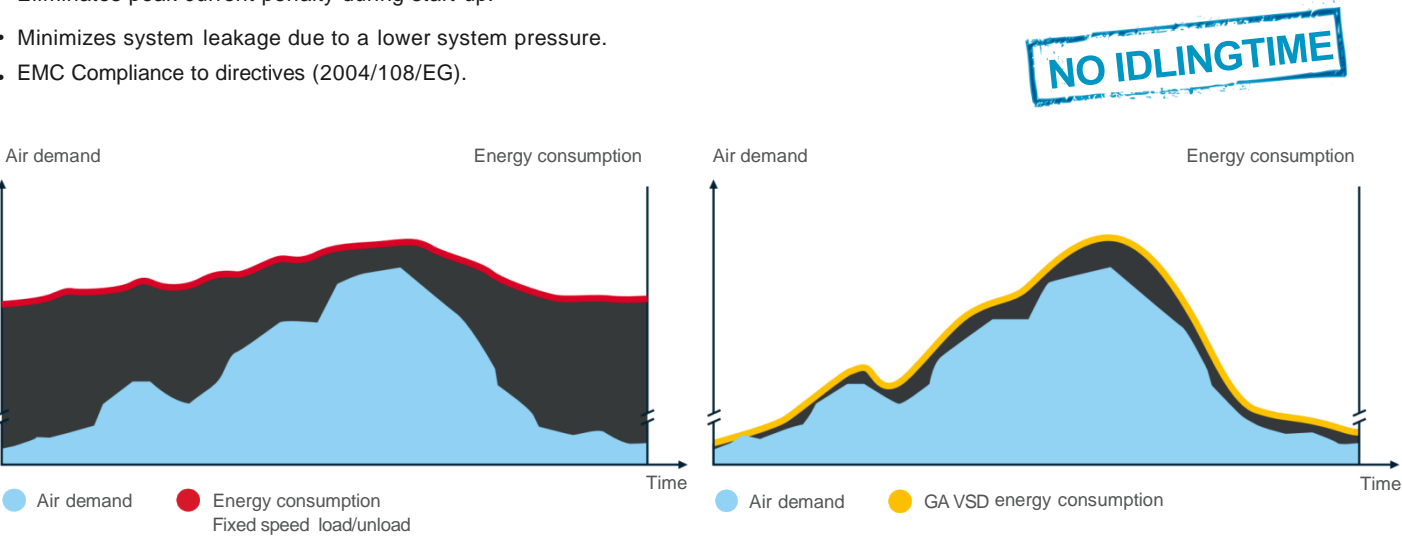


# VSD: DRIVING DOWN YOUR ENERGY COSTS

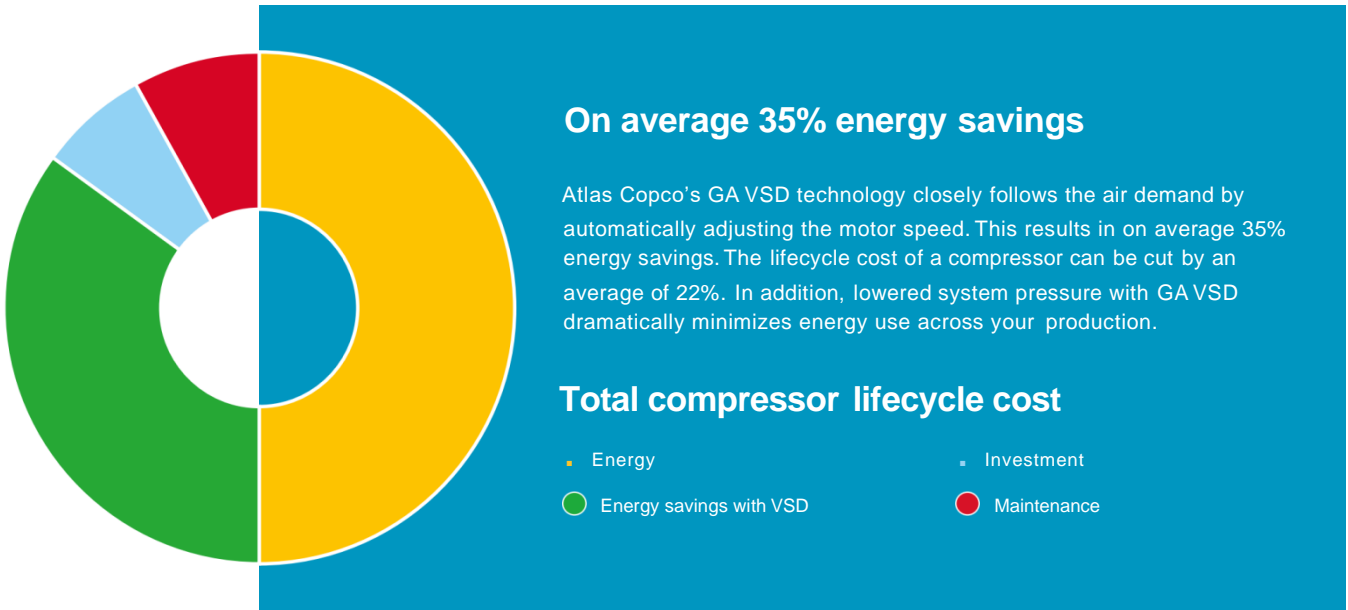
Over 80% of a compressor's lifecycle cost is taken up by the energy it consumes. Moreover, the generation of compressed air can account for more than 40% of a plant's total electricity bill. To cut your energy costs, Atlas Copco pioneered Variable Speed Drive (VSD) technology in the compressed air industry. VSD leads to major energy savings, while protecting the environment for future generations. Thanks to continual investments in this technology, Atlas Copco offers the widest range of integrated VSD compressors on the market.

### Why Atlas Copco Variable Speed Drive technology?

- On average 35% energy savings during fluctuations in production demand with an extensive turndown range.
- Integrated Elektronikon Graphic controller controls the motor speed and high efficiency frequency inverter.
- No wasted idling times or blow-off losses in normal operation.
- Compressor can start/stop under full system pressure without the need to unload with special VSD motor.
- Eliminates peak current penalty during start-up.
- Minimizes system leakage due to a lower system pressure.
- EMC Compliance to directives (2004/108/EG).



In almost every production environment, air demand fluctuates depending on different factors such as the time of the day, week or even month. Extensive measurements and studies of compressed air demand profiles show that many compressors have substantial variations in air demand. Only 8% of all installations have a more stable air demand.





# WHY DRY YOUR COMPRESSED AIR?

Untreated compressed air contains moisture, aerosols and dirt particles that can damage your air system and contaminate your end product, resulting in risk of corrosion and compressed air system leaks. Maintenance costs can far exceed air treatment costs. An air dryer is therefore essential to protect your systems and processes. The GA, GA+ and GA VSD compressors have an integrated dryer option to secure your peace of mind.

## Integrated dry air

- Optimized sizing for the compressor, avoiding excessive energy consumption.
- Fit for your application.
- Controlled and monitored by the Elektronikon®.
- Space-saving all-in-one solution with low installation costs.



## Lowest lifecycle costs and peace of mind

- No extra installation costs.
- Saving floor space.
- Use of energy-efficient, environmentally friendly refrigerant R410A reduces operating costs and stands for zero ozone depletion.
- Heat exchanger cross-flow technology with low pressure drop, saving energy and costs.
- Zero waste of compressed air thanks to no-loss condensate drain.
- Advanced control functions ensure dry air under all circumstances and prevent freezing at low load.
- Pressure dew point of 3°C (100% relative humidity at 20°C).

## Integrated purity

The optional UD+ filter and integrated refrigerant air dryer (IFD) efficiently remove moisture, aerosols and dirt particles to protect your investment. The UD+ filter has a 40% lower pressure drop

than the conventional DD+/PD+ filter combination. It saves space and reduces energy costs. Using only 1 single filter it is possible to reach quality class 1.4.2 according to ISO 8573-1:2010.

	ISO quality class*	Dirt particle size	Water pressure dew point**	Oil concentration
Pack compressor	3..4	5 microns	-	3 ppm
Integrated refrigerant dryer	3.4.4	5 microns	+3°C/37°F	3 ppm
DD+	2.4.2	1 micron	+3°C/37°F	0.1 ppm
UD+	1.4.2	0.5 micron	+3°C/37°F	0.1 ppm

\*The table values reflect the maximum limits according to the ISO quality air standard (ISO 8573-1:2010).  
\*\* Water pressure dew point based on 100% RH at 20°C/68°F.



# WORKPLACE: COMPRESSED AIR AT THE POINT OF USE

With the industry-leading low noise operation and integration of air and condensate treatment equipment, the GA+ offers complete versatility for your production. The compressor's integrated design allows it to be placed on the production floor, creating substantial energy savings for your business.



## Low installation costs

- The GA+ can operate close to the point of use – eliminating the need for a dedicated compressor room.
- The GA+ is delivered ready for use – minimizing production downtime and reducing installation costs.
- Filtration equipment is integrated – reducing the need for costly external piping and minimizing pressure drops.
- Low noise enables the above to be a reality.

## Reduced energy and maintenance costs

- With less external piping, the GA+ minimizes pressure drop across the system which can reduce energy costs.
- The filtration system produces clean air to prevent network corrosion – minimizing energy, repair and maintenance costs.
- The GA+ operates at the lowest possible system pressure to reduce energy costs thanks to the Elektronikon® advanced monitoring system.

# OPTIMIZE YOUR SYSTEM

Some applications may need or may benefit from additional options and more refined control/air treatment systems. To meet these needs, Atlas Copco has developed options and easily integrated compatible equipment.

		GA 30-/37/45	GA 37-/45-/55-/75-/55/75/90	GA 37-90 VSD
Air treatment	Integrated filter kit class 1*	•	•	•
	Integrated filter kit class 2*	•	•	•
	Dryer bypass*	-	•	•
Condensate	OSCi	•	•	•
	Oil retaining frame	-	•	•
	Motor space heater	-	-	•
	Motor space heater + thermistors	-	•	-
	Water shut-off valve**	-	•	•
	Phase sequence relay (GA 55-90)	-	•	-
	Tropical thermostat	•	•	-
	Freeze protection	-	•	•
	NEMA 4 cubicle	-	•	-
	NEMA 4X cubicle	-	•	-
	Pre-filter	•	•	•
	Advanced monitoring	-	•	•
	ANSI flange outlet	•	•	•
	DIN flange outlet	•	•	•
Protection				
Public works	Rain protection	•	•	-
	Main power isolatorswitch	-	•	•
	Lifting device	•	•	•
	Oversized motor (except GA 45- & GA 90)	-	•	-
Communication	ES 100 relays***	-	•	•
	Elektronikon® Graphic upgrade (only for GA 37 to GA 75)	-	•	-
	ES4/ES6i (for Elektronikon® Graphic)	•	•	•
	Digital I/O expansion module	•	•	•
Oils	Food grade oil	•	•	•
	Roto - Xtend duty oil (8000 hours)	•	•	•
General options	Witness performance test	•	•	•
	Energy recovery	•	•	•
	Power duct fan	•	•	•
	Modulating control	-	•	-
	High-ambient temperature version (HAV 55°C, 131°F)****	•	•	•
	IT/TT ancillaries	-	-	•

\*FF units only.

\*\* Water-cooled units.

\*\*\* Includes potential-free contacts: motor running, compressor load/unload.

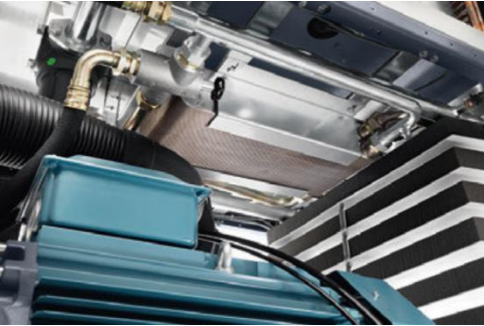
\*\*\*\* FF units max 50°C, 122°F.

• : Optional    - : Not available

## Integrated Energy Recovery

As much as 90% of the electrical energy used by a compressed air solution is converted into heat. Using Atlas Copco's integrated energy recovery systems, it is feasible to recover up to 75% of that power input as hot air or hot water without any influence

on the compressor's performance. Through efficient usage of the recovered energy, you bring about important energy cost savings and obtain a high return on investment.

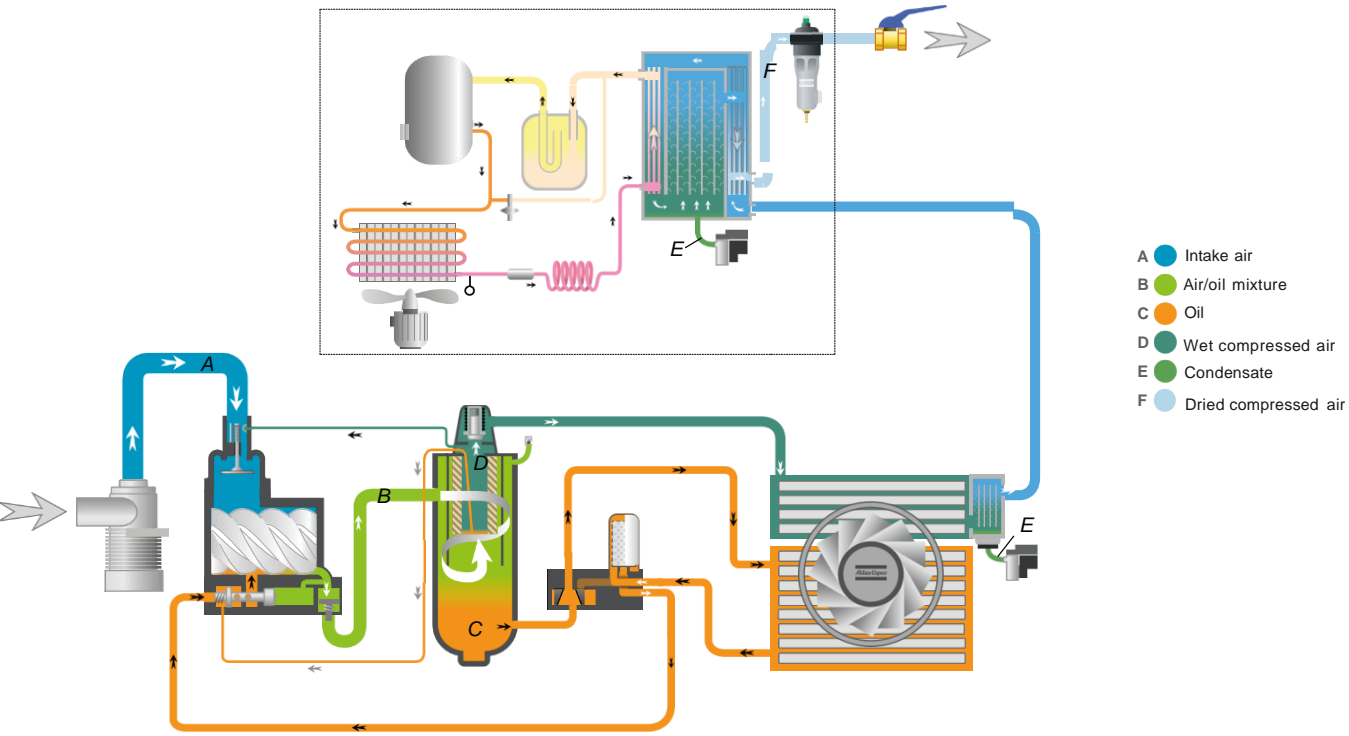


### Energy Recovery applications

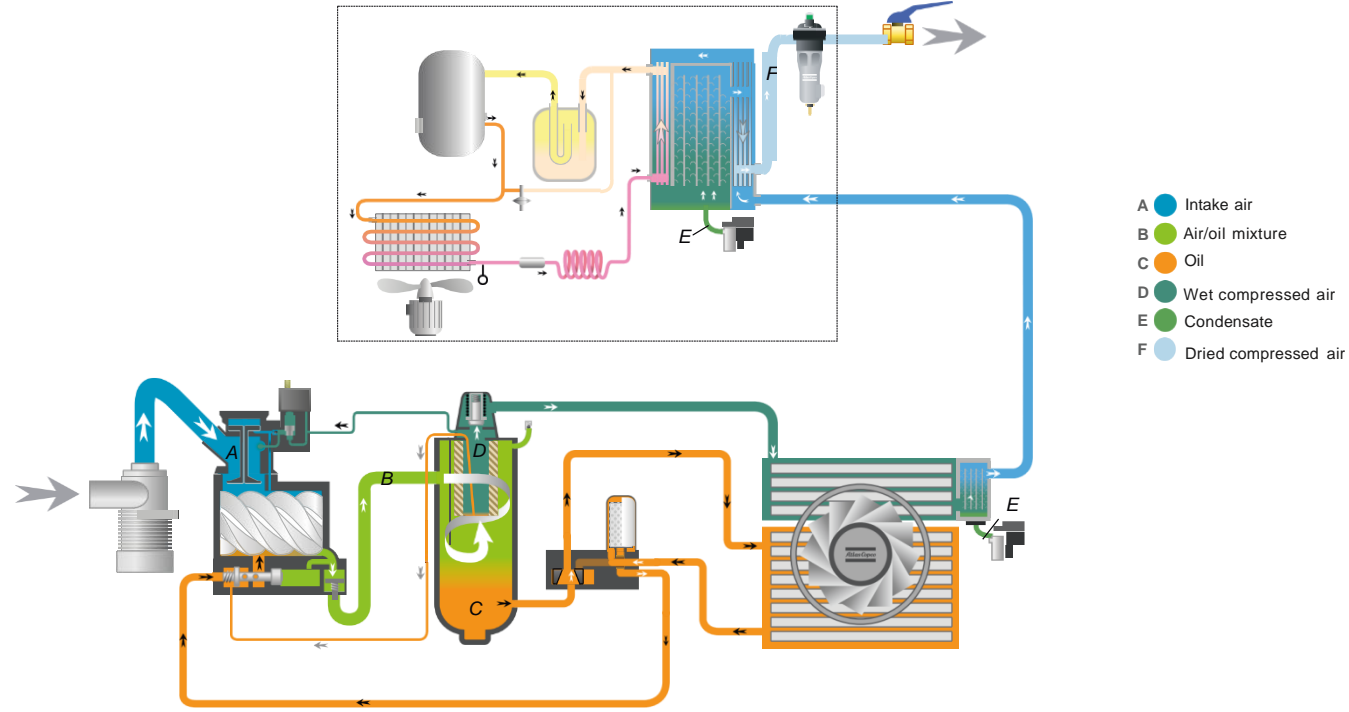
- Auxiliary or main heating of warehouses, workshops etc.
  - Industrial process heating.
  - Water heating for laundries, industrial cleaning and sanitary facilities.
- Canteens and large kitchens.
  - Food industry.
  - Chemical and pharmaceutical industries.
  - Drying processes.

# FLOWCHARTS

## Variable Speed Drive: GA VSD



## Fixed speed: GA+ & GA





TECHNICAL SPECIFICATIONS  
GA 30+ -90 (50 HZ VERSIONS)

COMPRESSOR TYPE	Pressure variant	Max. working pressure WorkPlace		Capacity FAD*			Installed motor power		Noise level**	Weight WorkPlace		Weight WorkPlace Full Feature	
		bar(e)	psig	l/s	m³/hr	cfm	kW	hp		kg	lbs	kg	lbs
GA 30+	7.5	7.5	109	99	356	210	30	50	66	626	1380	796	1755
	8.5	8.5	123	90	324	191	30	50	66	626	1380	796	1755
	10	10	145	83	299	176	30	50	66	626	1380	796	1755
	13	13	189	71	256	150	30	50	66	626	1380	796	1755
GA 37	7.5	7.5	109	116	418	246	37	60	67	683	1506	853	1881
	8.5	8.5	123	108	389	229	37	60	67	683	1506	853	1881
	10	10	145	100	360	212	37	60	67	683	1506	853	1881
	13	13	189	88	317	186	37	60	67	683	1506	853	1881
GA 37+	7.5	7.5	109	121	436	256	37	50	65	902	1989	987	2176
	8.5	8.5	123	114	410	242	37	50	65	902	1989	987	2176
	10	10	145	101	364	214	37	50	65	902	1989	987	2176
	13	13	189	85	306	180	37	50	65	902	1989	987	2176
GA 45	7.5	7.5	109	138	497	292	45	75	68	692	1526	900	1984
	8.5	8.5	123	128	461	271	45	75	68	692	1526	900	1984
	10	10	145	120	432	254	45	75	68	692	1526	900	1984
	13	13	189	105	378	222	45	75	68	692	1526	900	1984
GA 45+	7.5	7.5	109	148	533	314	45	60	66	970	2138	1060	2337
	8.5	8.5	123	140	504	297	45	60	66	970	2138	1060	2337
	10	10	145	127	457	269	45	60	66	970	2138	1060	2337
	13	13	189	104	374	220	45	60	66	970	2138	1060	2337
GA 55	7.5	7.5	109	173	623	367	55	75	69	1229	2709	1329	2930
	8.5	8.5	123	162	583	343	55	75	69	1229	2709	1329	2930
	10	10	145	149	536	316	55	75	69	1229	2709	1329	2930
	13	13	189	129	464	273	55	75	69	1229	2709	1329	2930
GA 55+	7.5	7.5	109	184	662	390	55	75	66	1358	2994	1458	3214
	8.5	8.5	123	174	626	369	55	75	66	1358	2994	1458	3214
	10	10	145	156	562	331	55	75	66	1358	2994	1458	3214
	13	13	189	129	464	273	55	75	66	1358	2994	1458	3214
GA 75	7.5	7.5	109	224	806	475	75	100	73	1259	2776	1379	3040
	8.5	8.5	123	212	763	449	75	100	73	1259	2776	1379	3040
	10	10	145	191	688	405	75	100	73	1259	2776	1379	3040
	13	13	189	170	612	360	75	100	73	1259	2776	1379	3040
GA 75+	7.5	7.5	109	249	896	528	75	100	68	1413	3115	1533	3380
	8.5	8.5	123	236	850	500	75	100	68	1413	3115	1533	3380
	10	10	145	210	756	445	75	100	68	1413	3115	1533	3380
	13	13	189	179	644	379	75	100	68	1413	3115	1533	3380
GA 90	7.5	7.5	109	281	1012	595	90	125	73	1425	3142	1545	3406
	8.5	8.5	123	275	990	583	90	125	73	1425	3142	1545	3406
	10	10	145	249	896	528	90	125	73	1425	3142	1545	3406
	13	13	189	217	781	460	90	125	73	1425	3142	1545	3406

\* Unit performance measured according to ISO 1217, Annex C, Edition 4:2009.

Reference conditions:

- Absolute inlet pressure 1 bar (14.5 psi)
- Intake air temperature 20°C, 68°F

FAD is measured at the following working pressures:

- 7.5 bar versions at 7 bar
- 8.5 bar versions at 8 bar
- 10 bar versions at 9.5 bar
- 13 bar versions at 12.5 bar

\*\*A-weighted emission sound pressure level at the workstation, Lp WSA (re 20 µPa) dB (with uncertainty 3 dB).  
Values determined according to noise level test code ISO 2151 and noise measurement standard ISO 9614.  
Pressure dew point of integrated refrigerant dryer at reference conditions: 2°C to 3°C, 36°F to 37°F.

TECHNICAL SPECIFICATIONS  
GA 30+ -90 (60 HZ VERSIONS)

COMPRESSOR TYPE	Pressure variant	Max. working pressure WorkPlace		Capacity FAD*			Installed motor power		Noise level**	Weight WorkPlace		Weight WorkPlace Full Feature	
		bar(e)	psig	l/s	m³/hr	cfm	kW	hp		kg	lbs	kg	lbs
GA 30+	100	7.4	107	101	364	214	30	40	66	643	1418	813	1792
	125	9.1	132	92	331	195	30	40	66	643	1418	813	1792
	150	10.8	157	83	299	176	30	40	66	643	1418	813	1792
	175	12.5	181	75	270	159	30	40	66	643	1418	813	1792
GA 37	100	7.4	107	117	421	248	37	50	67	698	1539	868	1914
	125	9.1	132	107	385	227	37	50	67	698	1539	868	1914
	150	10.8	157	98	353	208	37	50	67	698	1539	868	1914
	175	12.5	181	93	335	197	37	50	67	698	1539	868	1914
GA 37+	100	7.4	107	120	432	254	37	50	65	902	1989	987	2176
	125	9.1	132	110	396	233	37	50	65	902	1989	987	2176
	150	10.8	157	100	360	212	37	50	65	902	1989	987	2176
	175	12.5	181	87	313	184	37	50	65	902	1989	987	2176
GA 45	100	7.4	107	139	500	295	45	60	68	745	1642	915	2017
	125	9.1	132	130	468	275	45	60	68	745	1642	915	2017
	150	10.8	157	118	425	250	45	60	68	745	1642	915	2017
	175	12.5	181	108	389	229	45	60	68	745	1642	915	2017
GA 45+	100	7.4	107	147	529	311	45	60	66	970	2138	1060	2337
	125	9.1	132	134	482	284	45	60	66	970	2138	1060	2337
	150	10.8	157	126	454	267	45	60	66	970	2138	1060	2337
	175	12.5	181	110	396	233	45	60	66	970	2138	1060	2337
GA 55	100	7.4	107	175	630	371	55	75	69	1229	2709	1329	2930
	125	9.1	132	157	565	333	55	75	69	1229	2709	1329	2930
	150	10.8	157	143	515	303	55	75	69	1229	2709	1329	2930
	175	12.5	181	131	472	278	55	75	69	1229	2709	1329	2930
GA 55+	100	7.4	107	185	666	392	55	75	67	1358	2994	1458	3214
	125	9.1	132	167	601	354	55	75	67	1358	2994	1458	3214
	150	10.8	157	141	508	299	55	75	67	1358	2994	1458	3214
	175	12.5	181	127	454	267	55	75	67	1358	2994	1458	3214
GA 75	100	7.4	107	227	817	481	75	100	73	1259	2776	1379	3040
	125	9.1	132	202	727	428	75	100	73	1259	2776	1379	3040
	150	10.8	157	194	698	411	75	100	73	1259	2776	1379	3040
	175	12.5	181	175	630	371	75	100	73	1259	2776	1379	3040
GA 75+	100	7.4	107	250	900	530	75	100	69	1413	3115	1533	3380
	125	9.1	132	227	817	481	75	100	69	1413	3115	1533	3380
	150	10.8	157	205	738	434	75	100	69	1413	3115	1533	3380
	175	12.5	181	182	655	386	75	100	69	1413	3115	1533	3380
GA 90	100	7.4	107	291	1048	617	90	125	74	1425	3142	1545	3406
	125	9.1	132	267	961	566	90	125	74	1425	3142	1545	3406
	150	10.8	157	250	900	530	90	125	74	1425	3142	1545	3406
	175	12.5	181	228	821	483	90	125	74	1425	3142	1545	3406

Please refer to the footnotes, reference conditions and FAD details of the 50 Hz versions.

TECHNICAL SPECIFICATIONS  
GA 37-90 VSD (50/60 HZ VERSIONS)

COMPRESSOR TYPE	Working pressure		Capacity FAD*						Installed motor power		Noise level**	Weight WorkPlace		Weight WorkPlace Full Feature	
			l/s		m³/hr		cfm								
	bar(e)	psig	min	max	min	max	min	max	kW	hp		dB(A)	kg	lbs	kg
GA 37 VSD	4	58	26.0	124	94	446	55	263	37	50	66/67	1042	2297	1127	2485
	7	102	26.0	123	94	443	55	261	37	50	66/67	1042	2297	1127	2485
	10	145	25.8	107	93	385	55	227	37	50	66/67	1042	2297	1127	2485
	13	189	40.3	87	145	313	85	184	37	50	66/67	1042	2297	1127	2485
GA 45 VSD	4	58	26.0	146	94	526	55	309	45	60	69/72	1100	2425	1190	2624
	7	102	26.0	145	94	522	55	307	45	60	69/72	1100	2425	1190	2624
	10	145	25.8	128	93	461	55	271	45	60	69/72	1100	2425	1190	2624
	13	189	40.3	107	145	385	85	227	45	60	69/72	1100	2425	1190	2624
GA 55 VSD	4	58	26.0	177	94	637	55	375	55	75	69/72	1380	3042	1480	3263
	7	102	26.0	175	94	630	55	371	55	75	69/72	1380	3042	1480	3263
	10	145	25.4	155	91	558	54	328	55	75	69/72	1380	3042	1480	3263
	13	189	37.0	129	133	464	78	273	55	75	69/72	1380	3042	1480	3263
GA 75 VSD	4	58	39.2	253	141	911	83	536	75	100	69/70	1534	3382	1654	3646
	7	102	37.5	251	135	904	79	532	75	100	69/70	1534	3382	1654	3646
	10	145	48.1	219	173	788	102	464	75	100	69/70	1534	3382	1654	3646
	13	189	58.3	182	210	655	124	386	75	100	69/70	1534	3382	1654	3646
GA 90 VSD	4	58	41.2	295	148	1062	87	625	90	125	73/74	1534	3382	1654	3646
	7	102	39.4	293	142	1055	83	621	90	125	73/74	1534	3382	1654	3646
	10	145	48.3	257	174	925	102	545	90	125	73/74	1534	3382	1654	3646
	13	189	59.4	214	214	770	126	453	90	125	73/74	1534	3382	1654	3646



