

# OIL-INJECTED ROTARY SCREW COMPRESSORS

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

*Atlas Copco*





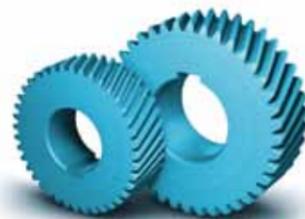
## THE ULTIMATE SMART SOLUTION, DRIVEN BY EFFICIENCY

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+ 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.



### NEW HEIGHTS IN SUSTAINABILITY

The GA 30\*-90 family enables you to realize sustainable productivity through lower lifecycle costs and maximum uptime. Premium Efficiency motors in combination with the highly efficient element minimize operating cost. The integrated dryer R410A reduces ozone depletion and protects the environment. Maximum uptime is achieved by maintenance from one side and complete drive train accessibility.



### NEW MILESTONES IN RELIABILITY

The reliability of the GA 30\*-90 range starts with the cool canopy and low element outlet temperatures, an oversized separate oil cooler and an aftercooler with patented integrated mechanical separator. The three-stage air/oil separation ensures low oil consumption. All electrical cubicles are in overpressure, preventing electrically conductive dust, thus increasing the lifetime of electrical components.



### BENCHMARKING PERFORMANCE

Outstanding performance is ensured by design, with Premium Efficiency motors in combination with Atlas Copco's highly efficient element and an oversized cooling arrangement resulting in significant energy savings. Internal pressure drops from inlet to discharge are optimized. Efficient smart compressor controls and Atlas Copco algorithms minimize the working pressure band, saving energy.



### GA VSD: ULTIMATE ENERGY SAVER

- Unique integrated Variable Speed Drive (VSD) technology for on average 35% energy savings.
- Industry-leading operating turndown range and flexible pressure selection: 4-13 bar.
- Start under system pressure due to special VSD motor, no idling time.
- Integrated Dryer Saver Cycle saves up to 60% of the dryer's electrical consumption.
- Smart Elektronikon® graphic compressor controller with high-definition color display working to a set point minimizes pressure drops.

### GA+: INDUSTRY-LEADING PERFORMANCE

- Industry-leading Free Air Delivery and low energy consumption.
- Premium Efficiency motor combined with highly efficient element.
- Low noise emission suitable for workplace installation.
- Environmentally-friendly R410A integrated dryer reduces footprint and pressure drops.
- Smart Elektronikon® graphic compressor controller with high-definition color display.

### GA: PREMIUM COMPRESSOR

- High performance Free Air Delivery.
- Premium Efficiency motor in combination with highly efficient element.
- Premium quality at the lowest initial investment.
- Efficient environmentally-friendly R410A integrated dryer reduces footprint and pressure drops.
- Ensured efficiency of Elektronikon® controller with connectivity.

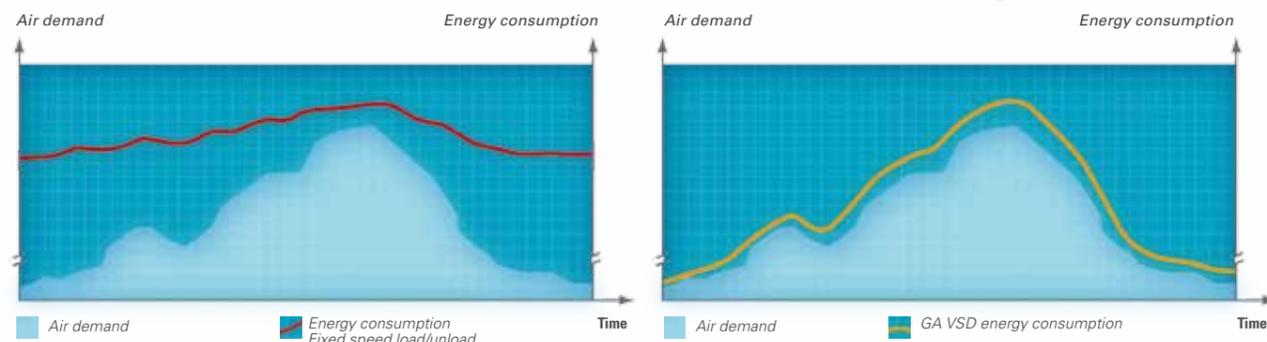


# VSD: DRIVING DOWN YOUR ENERGY COSTS

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).



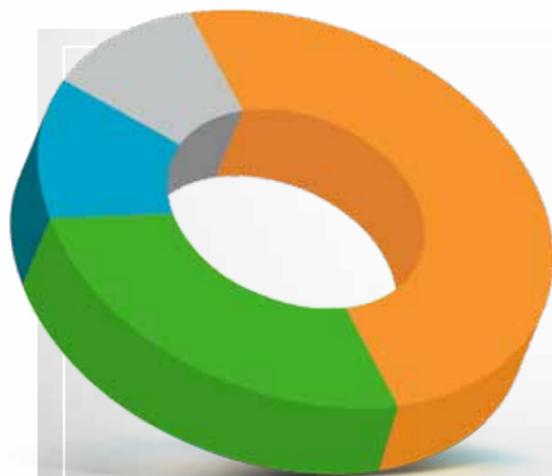
In almost every production environment, air demand fluctuates depending on different factors such as the time of the day, week or even month. Extensive measurements and studies of compressed air demand profiles show that many compressors have substantial variations in air demand.

## ON AVERAGE 35% ENERGY SAVINGS

Atlas Copco's GA VSD technology closely follows the air demand by automatically adjusting the motor speed. This results in on average 35% energy savings. The lifecycle cost of a compressor can be cut by an average of 22%. In addition, lowered system pressure with GA VSD dramatically minimizes energy use across your production.

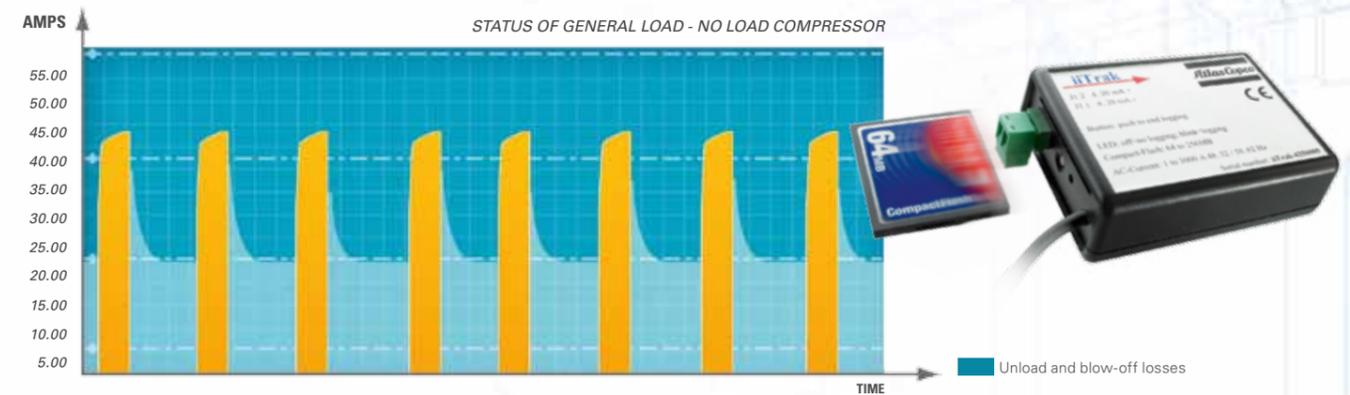
## TOTAL COMPRESSOR LIFECYCLE COST

- Energy
- Investment
- Energy savings with VSD
- Maintenance



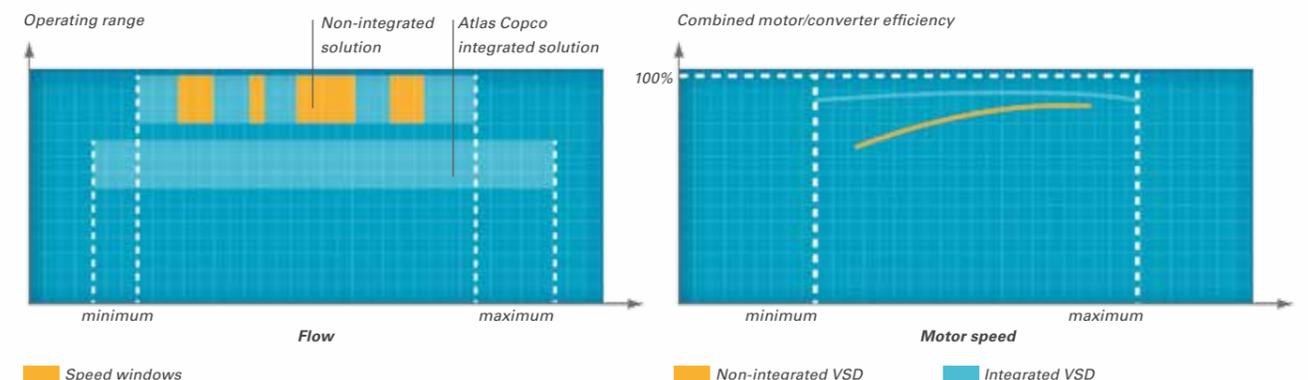
## HOW GA VSD TECHNOLOGY SAVES ENERGY

Contact your local Atlas Copco representative for an audit of your compressed air system. A real-time measurement simulation and audit report can be provided with recommendations for additional savings and sizing to meet your compressed air needs.



## WHAT IS UNIQUE ABOUT THE INTEGRATED ATLAS COPCO GA VSD?

- 1 The Elektronikon® controls both the compressor and the integrated converter, ensuring maximum machine safety within parameters.
- 2 Flexible pressure selection from 4 to 13 bar with electronic gearing reduces electricity costs.
- 3 Special electric motor specifically designed for VSD operation (inverter duty motor). Bearings are protected against induced bearing currents. Both motor and converter are perfectly tuned for highest efficiency across the entire speed range.
- 4 Electric motor specifically designed for low operating speeds with clear attention to motor cooling and compressor cooling requirements.
- 5 All Atlas Copco GA VSD compressors are EMC tested and certified. External sources do not influence compressor operation, nor does the compressor affect the operation of other instruments via emissions or via the power supply line.
- 6 Mechanical enhancements ensure that all components operate below critical vibration levels throughout the entire compressor speed range.
- 7 A highly efficient frequency converter in a cool overpressure cubicle ensures stable operation in high ambient temperatures up to 50°C/122°F\*. \* Standard up to 46°C/114.8°F.
- 8 No 'speed windows' that can jeopardize the energy savings and the stable net pressure. Turndown capability of the compressor is maximized to 80-85%.
- 9 The cubicle cooling booster increases the lifetime of electrical components due to a cool cubicle in overpressure and reduced dust ingress.
- 10 Net pressure band is maintained within 0.10 bar, 1.5 psi.



# HIGH RELIABILITY AND SMART ENERGY

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.



2

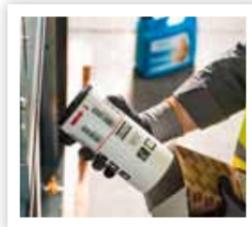
## Premium Efficiency electrical motors

- 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.
- Roto-extend duty oil - 8000 hours\*
- High quality glass fiber filter with extra long change interval of 8000 hours\* as standard scope of supply.



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 mechanical separator.
- No consumables.
- Eliminates possibility of thermal shocks in coolers.



10

## Integrated highly efficient R410A dryer

- Excellence in air quality.
- 50% reduction in energy consumption compared to traditional dryers.
- Zero ozone depletion.
- Incorporates optional DD and PD filters according to Class 1.4.1.

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

## Pre-Filter

- Pre-filter comes as standard scope of supply.
- It filters the dust and cleans the compressor.
- Enhances the life of components.



# SMARTLINK



## Data Monitoring Program

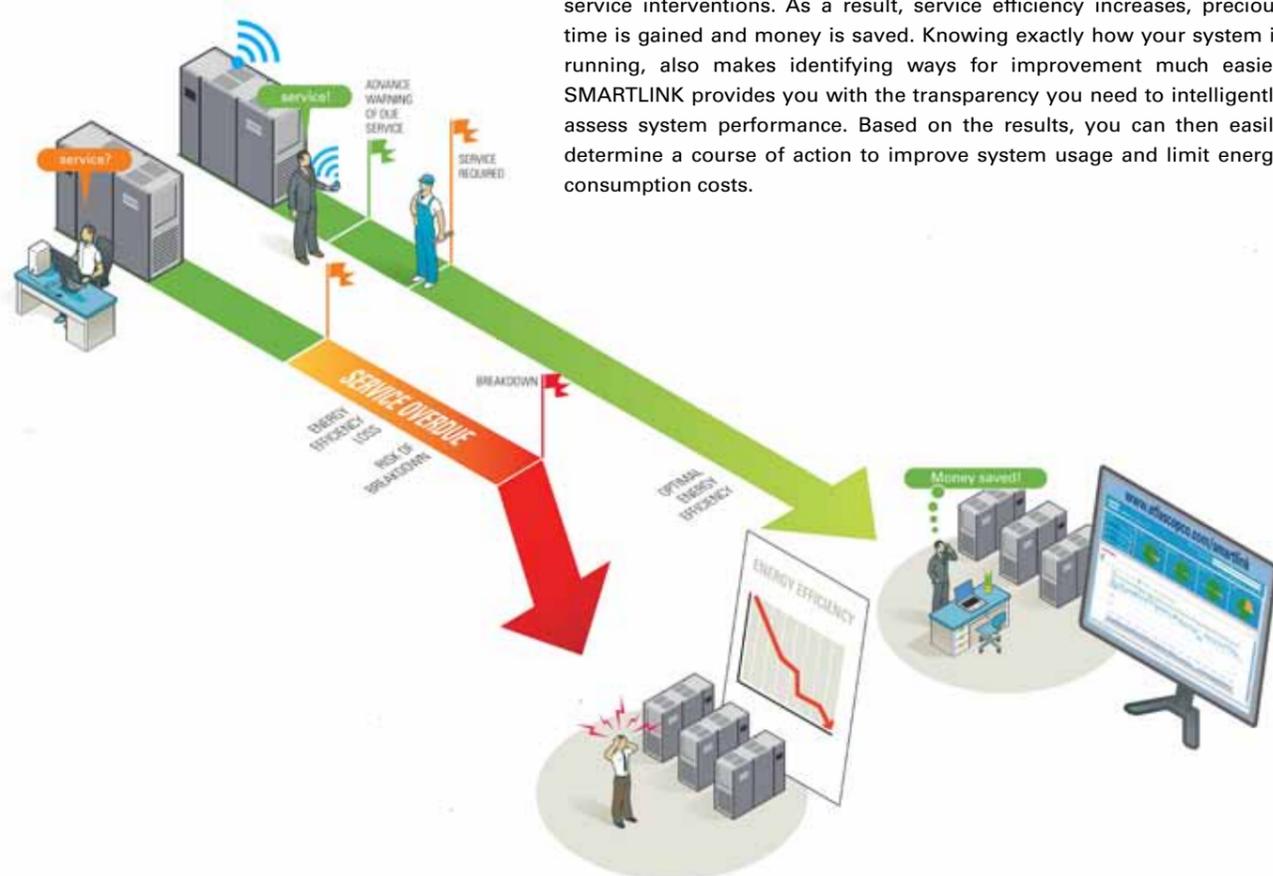
Imagine what it would mean to your business to always be one step ahead; to do away with all your production uncertainties; to actually learn from your activities. Not only would you save precious time in being pro-active, you would certainly impact your bottom line too, not having to react when something happens... because nothing does. That's exactly what Atlas Copco's SMARTLINK is all about: an easy-to-install, efficient-to-monitor, easily tailored compressor monitoring program. It offers your company a complete insight of your compressed air production. It helps to predict potential problems – and thus anticipate them; it shows how and where the production can be optimized and energy can be saved.

## The Risks of Reactivity

Service of compressors and compressor rooms were until now mainly reactive: an unforeseen event requiring an immediate intervention from a service technician. As you don't exactly know when a compressor is due for maintenance, you're continuously taking a risk: when compressors are not maintained properly in time, their energy consumption is not as efficient as it could be. Worst case scenario: a compressor that is not serviced carefully risks to break down. With SMARTLINK installed this is no longer the case: from now on, you can monitor your productivity 24/7.

## More than just a watchful eye

SMARTLINK gathers, compares and analyzes data on the fly. When needed, it sends out warnings in time, allowing you to carefully plan and prepare service interventions. As a result, service efficiency increases, precious time is gained and money is saved. Knowing exactly how your system is running, also makes identifying ways for improvement much easier. SMARTLINK provides you with the transparency you need to intelligently assess system performance. Based on the results, you can then easily determine a course of action to improve system usage and limit energy consumption costs.



# 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.



## IMPROVED USER-FRIENDLINESS

- 3.5-inch high-definition color display with clear pictograms and extra 4th LED indicator for service.
- Graphical display of key parameters (day, week, month) and 32 language settings.
- Internet-based compressor visualization using a simple Ethernet connection.
- On-screen Delayed Second Stop function and VSD savings indication.
- Graphical indication Serviceplan, remote control and connectivity functions.
- Software upgrade available to control up to 6 compressors by installing the optional integrated compressor controller.

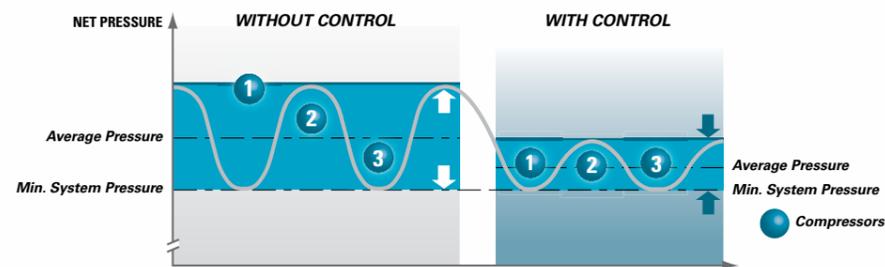


## ONLINE & MOBILE MONITORING

Monitor your compressors over the Ethernet with the new Elektronikon® controller. Monitoring features include warning indications, compressor shut-down and maintenance scheduling. The Atlas Copco App is available for iPhone/Android phones as well as iPad and Android tablets. It allows fingertip monitoring of your compressed air system through your own secured network.

## 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.

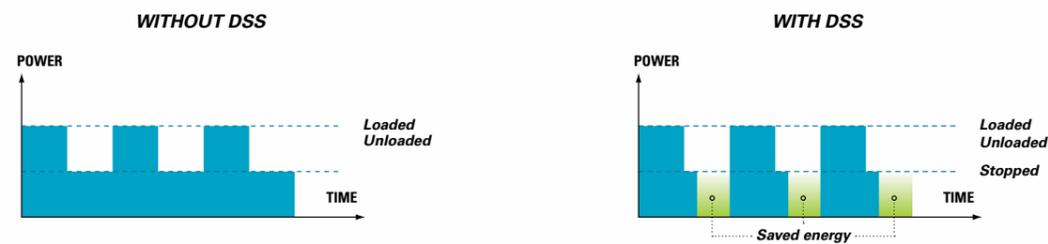


The Elektronikon® continuously monitors critical parameters. Monitoring features include service and warning indications, error detection, compressor shut-down and maintenance scheduling.

## DUAL PRESSURE SET POINT & DELAYED SECOND STOP

Most production processes create fluctuating levels of demand which, in turn, can create energy waste in low use periods. Using either the standard or graphic Elektronikon® controller, you can manually or automatically create two different system pressure bands to optimize energy use and reduce costs at low

use times. In addition, the sophisticated Delayed Second Stop (DSS) runs the drive motor only when needed. As the desired system pressure is maintained while the drive motor's run time is minimized, energy consumption is kept at a minimum.



## INTEGRATED DRYER SAVER CYCLE

Saver Cycle technology reduces the energy consumption of the integrated refrigerant dryers with the fan in light load applications. Using an ambient sensor to monitor the required

dew point suppression, the Elektronikon® starts and stops the dryer and the fan, minimizing energy use and protecting the air system from corrosion.

## EXCELLENCE IN INTEGRATED AIR QUALITY

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. Our compressors provide the clean, dry air that improves your system's reliability, avoids costly downtime and production delays, and safeguards the quality of your products.

## SAVE MONEY AND THE ENVIRONMENT

Avoid risk of corrosion and system leaks, and ensure the effective safe disposal of untreated condensate – all within ISO 14001 standards.

**ZERO OZONE DEPLETION**



## ON AVERAGE 50% ENERGY SAVINGS WITH R410A INTEGRATED DRYERS

- Use of energy-efficient refrigerant R410A reduces operating costs.
- R410A refrigerant reduces global warming potential by an average of 50%.
- Environmentally-friendly characteristics; zero ozone depletion.
- Unique Saver Cycle Control, with ambient temperature sensor and based on dryer load and relative humidity of compressed air, saves energy at partial load.
- Heat exchanger cross-flow technology with low pressure drop.
- Zero waste of compressed air thanks to no-loss condensate drain.
- Pressure dew point of 3°C (100% relative humidity at 20°C).

## INTEGRATED PURITY

The optional DD/PD filters and integrated refrigerant air dryer (IFD) efficiently remove moisture, aerosols and dirt particles to protect your investment. This air quality prolongs the life of

downstream equipment, increasing efficiency and ensuring quality of your final product.

ISO quality class*	Dirt particle size	Water pressure dew point**	Oil concentration
3.-4	3 microns	-	3 ppm
3.4.4	3 microns	+3°C, 37°F	3 ppm
2.4.2	1 micron	+3°C, 37°F	0.1 ppm
1.4.1	0.01 microns	+3°C, 37°F	0.01 ppm

\*The table values reflect the maximum limits according to the temperature ISO gravity class.  
\*\* Water pressure dew point based on 100% RH at 20°C/68°F



## 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*-90	GA 37-90 VSD
Air treatment	Integrated filter kit class 1*	✓	✓
	Dryer bypass*	✓	✓
Protection	Advanced monitoring	✓	✓
	AIRconnect	✓	✓
Communication	Elektronikon® Graphic upgrade (for GA 37 to 75)	✓	✓
	ES4/ES6i (for Elektronikon® Graphic)	✓	✓
	Digital I/O expansion module	✓	✓
General options	Energy recovery	✓	✓

\*FF units only.

## 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.



## 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

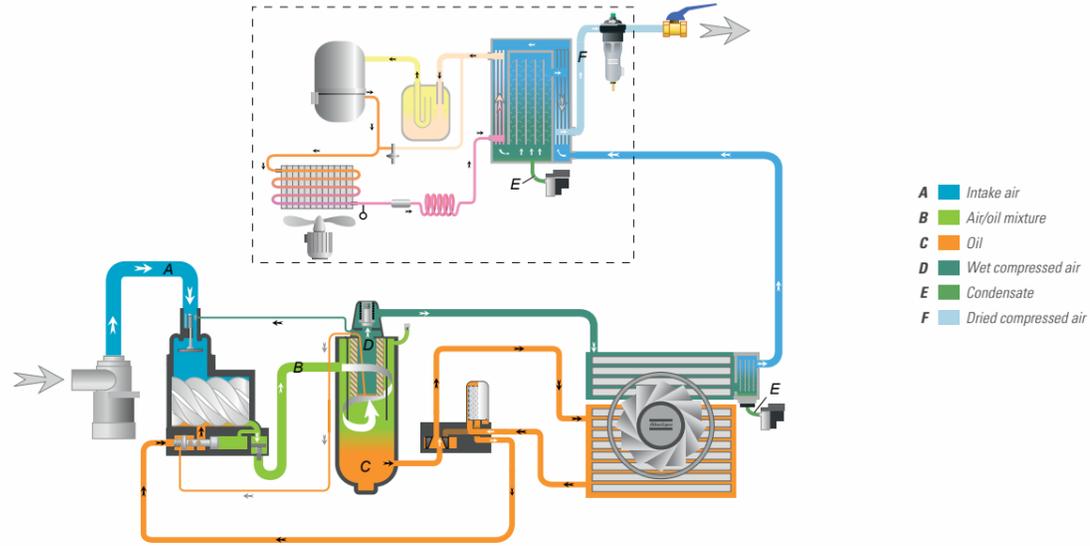
- With less external piping, the GA+ minimizes pressure drop across the system which can reduce energy costs.
- The filtration system produces clean air to prevent network corrosion – minimizing energy, repair and maintenance costs.
- The GA+ operates at the lowest possible system pressure to reduce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

## 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.

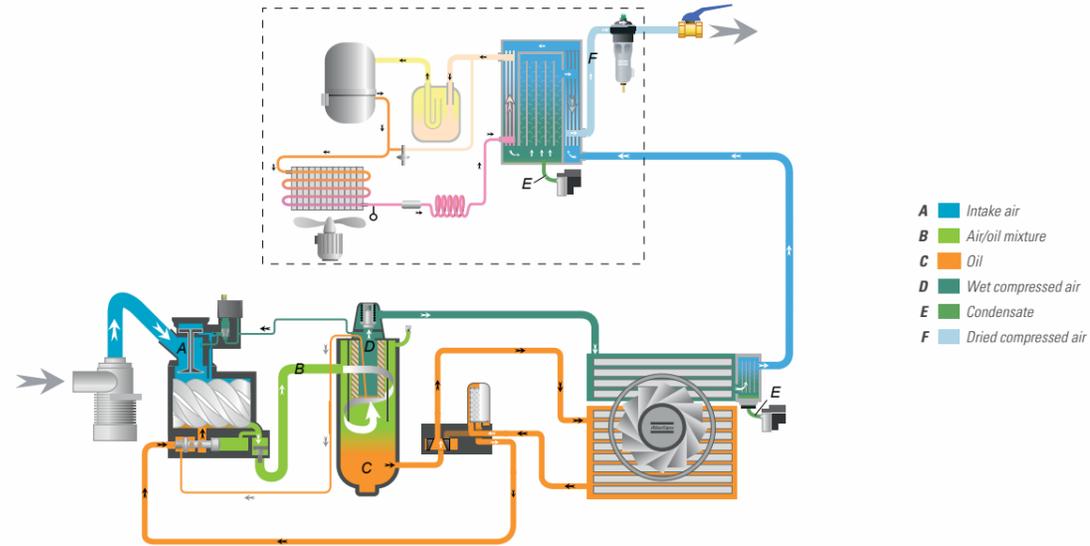
# FLOW CHARTS

## VARIABLE SPEED DRIVE: GA VSD



- A Intake air
- B Air/oil mixture
- C Oil
- D Wet compressed air
- E Condensate
- F Dried compressed air

## FIXED SPEED: GA+ & GA



- A Intake air
- B Air/oil mixture
- C Oil
- D Wet compressed air
- E Condensate
- F Dried compressed air

	Length	Width	Height
GA 55, 75, 90 VSD GA 55+, 75+, 90 FF GA 55, 75 FF, GA 90 PACK	2250 mm	1080 mm	2104 mm
GA 55+, 75+ PACK GA 55, 75 PACK	1740 mm	1080 mm	2104 mm
GA 37, 45 VSD GA 30+, 37, 45 FF GA 37+, 45+ FF	1765 mm	970 mm	1800 mm
GA 30+, 37, 45 PACK GA 37+, 45+ PACK	1335 mm	970 mm	1800 mm

## 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/min	cfm	kW	hp		kg	lbs	kg	lbs
GA 30+	7.5	7.5	109	99	5.9	209	30	40	65	836	1843	967	2132
	8.5	8.5	123	90	5.4	191	30	40	65	836	1843	967	2132
	10	10	145	82	4.9	175	30	40	65	836	1843	967	2132
	13	13	189	71	4.3	151	30	40	65	836	1843	967	2132
GA 37	7.5	7.5	109	115	6.9	243	37	50	73	823	1814	887	1955
	8.5	8.5	123	106	6.4	225	37	50	73	823	1814	887	1955
	10	10	145	100	6.0	213	37	50	73	823	1814	887	1955
GA 37+	7.5	7.5	109	122	7.3	258	37	50	65	914	2015	1049	2313
	8.5	8.5	123	118	7.1	250	37	50	65	914	2015	1049	2313
	10	10	145	102	6.1	216	37	50	65	914	2015	1049	2313
GA 45	7.5	7.5	109	137	8.2	291	45	60	75	958	2112	1022	2253
	8.5	8.5	123	127	7.6	268	45	60	75	958	2112	1022	2253
	10	10	145	117	7.0	248	45	60	75	958	2112	1022	2253
GA 45+	7.5	7.5	109	149	8.9	315	45	60	66	962	2121	1102	2429
	8.5	8.5	123	139	8.3	295	45	60	66	962	2121	1102	2429
	10	10	145	128	7.7	270	45	60	66	962	2121	1102	2429
GA 55	7.5	7.5	109	169	10.2	359	55	75	75	1250	2756	1350	2976
	8.5	8.5	123	159	9.5	336	55	75	75	1250	2756	1350	2976
	10	10	145	148	8.9	313	55	75	75	1250	2756	1350	2976
GA 55+	7.5	7.5	109	180	10.8	381	55	75	66	1400	3086	1558	3435
	8.5	8.5	123	172	10.3	364	55	75	66	1400	3086	1558	3435
	10	10	145	153	9.2	324	55	75	66	1400	3086	1558	3435
GA 75	7.5	7.5	109	226	13.5	478	75	100	75	1370	3020	1491	3287
	8.5	8.5	123	209	12.6	444	75	100	75	1370	3020	1491	3287
	10	10	145	190	11.4	401	75	100	75	1370	3020	1491	3287
GA 75+	7.5	7.5	109	247	14.8	523	75	100	68	1510	3329	1645	3627
	8.5	8.5	123	232	13.9	492	75	100	68	1510	3329	1645	3627
	10	10	145	207	12.4	439	75	100	68	1510	3329	1645	3627
GA 90	7.5	7.5	109	281	16.9	596	90	125	76	1525	3362	1645	3627
	8.5	8.5	123	275	16.5	582	90	125	76	1525	3362	1645	3627
	10	10	145	250	15.0	529	90	125	76	1525	3362	1645	3627
	13	13	189	216	13.0	458	90	125	76	1525	3362	1645	3627

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

COMPRESSOR TYPE	Working pressure		Capacity FAD*						Installed motor power		Noise level**	Weight WorkPlace		Weight WorkPlace Full Feature	
			l/s		m³/min		cfm								
	bar(e)	psig	min	max	min	max	min	max	kW	hp	dB(A)	kg	lbs	kg	lbs
GA 37 VSD	4	58	26.0	124	1.6	7.4	55	263	37	50	67	1112	2452	1197	2639
	7	102	26.0	123	1.6	7.4	55	260	37	50	67	1112	2452	1197	2639
	10	145	25.8	107	1.5	6.4	55	226	37	50	67	1112	2452	1197	2639
GA 45 VSD	4	58	26.0	146	1.6	8.8	55	310	45	60	69	1126	2482	1211	2670
	7	102	26.0	145	1.6	8.7	55	307	45	60	69	1126	2482	1211	2670
	10	145	25.8	128	1.5	7.7	55	271	45	60	69	1126	2482	1211	2670
GA 55 VSD	4	58	32.4	197	1.9	11.8	69	418	55	75	69	1480	3263	1580	3483
	7	102	26.0	175	1.6	10.5	55	371	55	75	69	1480	3263	1580	3483
	10	145	25.4	155	1.5	9.3	54	328	55	75	69	1480	3263	1580	3483
GA 75 VSD	4	58	37.8	250	2.2	15.0	80	529	75	100	69	1632	3598	1752	3862
	7	102	37.4	250	2.2	15.0	79	530	75	100	69	1632	3598	1752	3862
	10	145	48.1	219	2.9	13.2	102	465	75	100	69	1632	3598	1752	3862
GA 90 VSD	4	58	37.0	293	2.2	17.6	78	621	90	125	73	1700	3748	1850	4079
	7	102	39.4	292	2.4	17.5	84	619	90	125	73	1700	3748	1850	4079
	10	145	48.3	257	2.9	15.4	102	545	90	125	73	1700	3748	1850	4079
	13	189	59.4	214	3.6	12.9	126	454	90	125	73	1700	3748	1850	4079

\* Unit performance measured according to ISO 1217, Annex C, Edition 3

Maximum working pressure for VSD machines: 13 bar(e) (188 psig)

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 work station, 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



## ***COMMITTED TO SUSTAINABLE PRODUCTIVITY***

We stand by our responsibilities towards our customers,  
towards the environment and the people around us.  
We make performance stand the test of time.  
This is what we call – Sustainable Productivity.

### **Atlas Copco Compressor Technique**

Sveanagar, Dapodi, Pune 411 012. Maharashtra, India.  
Phone: +91 20 3985 2100. Sales: [info.compressor@in.atlascopco.com](mailto:info.compressor@in.atlascopco.com)  
Service: [ct.service@in.atlascopco.com](mailto:ct.service@in.atlascopco.com) Website: [www.atlascopco.com](http://www.atlascopco.com)  
Reach us @ 1800 200 0030

***Atlas Copco***