

# OIL-INJECTED ROTARY SCREW COMPRESSORS

GA 160+ -315 (VSD) (160-315 kW/200-350 hp)



*Atlas Copco*





## **HIGHEST RELIABILITY, LOWEST OPERATING COSTS**

The shortest route to maximize your profitability is to minimize your operational cost. As energy consumption is the major factor (up to 70%) of a compressor's lifecycle cost, the Atlas Copco GA 160+315 (VSD) compressors are designed to help you achieve significant savings. The compressors provide high-quality compressed air to meet your requirements even in the most demanding applications.

### **Mining industry**

- Years of experience with thousands of compressors running around the world.
- High product reliability with maximum uptime even in harsh conditions.
- Strong global support network to provide 24/7 assistance even in remote locations.

### **Energy industry**

- Protect downstream equipment and increase component lifetime.
- Integrated water separator with electronic drain as standard.
- GA Full Feature decreases energy and installation costs.

### **Metal industry**

- Easy and quick installation, with flexible ducting possibilities.
- A complete, ready-to-use solution including all components and options.
- Low service cost thanks to high accessibility of components and long service intervals.

### **General industry**

- GA compressors are designed for ultimate efficiency in all your industrial applications.
- Ideal for machinery operation, plant maintenance, cleaning, pneumatic tools and controls, sand- and shot-blasting.





## **Reducing your operating costs**

The GA 160<sup>+</sup>-315 (VSD) provide maximum output at the lowest energy consumption. They will reduce your energy bill and your CO<sub>2</sub> emissions. The right core technologies with our experience in design and manufacture combine to produce a solution to match your needs. Generous cooling capacity, low pressure drop and a highly efficient drive train ensure optimum operation over a long lifetime.

## **Ensuring your peace of mind**

The GA 160<sup>+</sup>-315 (VSD) optimize uptime by keeping your production running, 24/7. The highly advanced controller ensures optimum operation by controlling all compressor inputs and outputs.

## **Easy installation and service**

Easy to install, the 'all-in-one' package includes all necessary equipment. There are no hidden costs, nor any extra devices to install. Ducting is easy for increased flexibility. Service cost is reduced to a minimum: all parts are easily accessible via large opening doors, consumables are long-lasting, and service operations are easy and safe to perform.

## **Protecting your production**

With its integrated dryer, the GA FF (Full Feature) provides dry compressed air (pressure dewpoint of +3°C/37°F), while ensuring the lowest pressure drop and minimal installation costs. This compact package offers fully integrated functionalities such as saver cycle control that regulates the dryer at optimum capacity. Moreover, each compressor has an integrated Water Separator Drain as standard to remove 100% of condensate.

## **Maximizing your profitability**

As there is no "one size fits all" concept, we have developed a range of features and options to help you optimize the use of your compressor: from running the machine at high temperatures, to extra safety devices. Our highly skilled engineering team can help you develop a customized compressor based on your specific needs.

# THE GA 160<sup>+</sup>-315 SETS A NEW STANDARD IN THE INDUSTRY



## 1 High-efficiency motor

- TEFC IP55 motor (Class F insulation B rise) protects against dust and chemicals.
- Continuous operation in ambient temperatures up to 55°C/131°F (standard up to 46°C/115°F).

## 2 State-of-the-art screw element

- Patented asymmetric rotor profile and meticulous selection of bearings.
- Low wear and tear leads to increased reliability.
- Proven reliability with thousands of installations throughout the world.

## 3 Cooling module

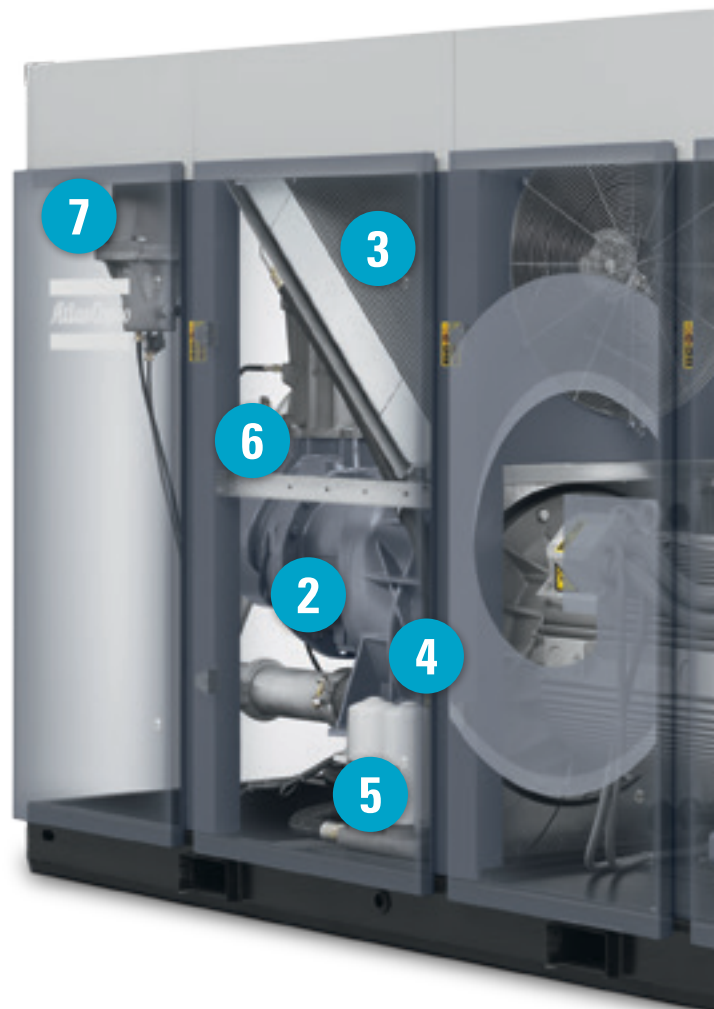
- Separated oil and aftercoolers for highest efficiency.
- Axial cooling fans driven by separate TEFC electric motors (IP55 protection).
- Low noise level.

## 4 Gear-driven transmission

- Maintenance-free; totally enclosed and protected against dirt and dust.
- Optimal working range of the screw element.
- Bowex coupling to absorb the trust load and increase the reliability.

## 5 Service-friendly

- Selection of long lifetime consumables.
- Easy and safe access to all service parts.
- Unique sliding system to access the oil coolers.





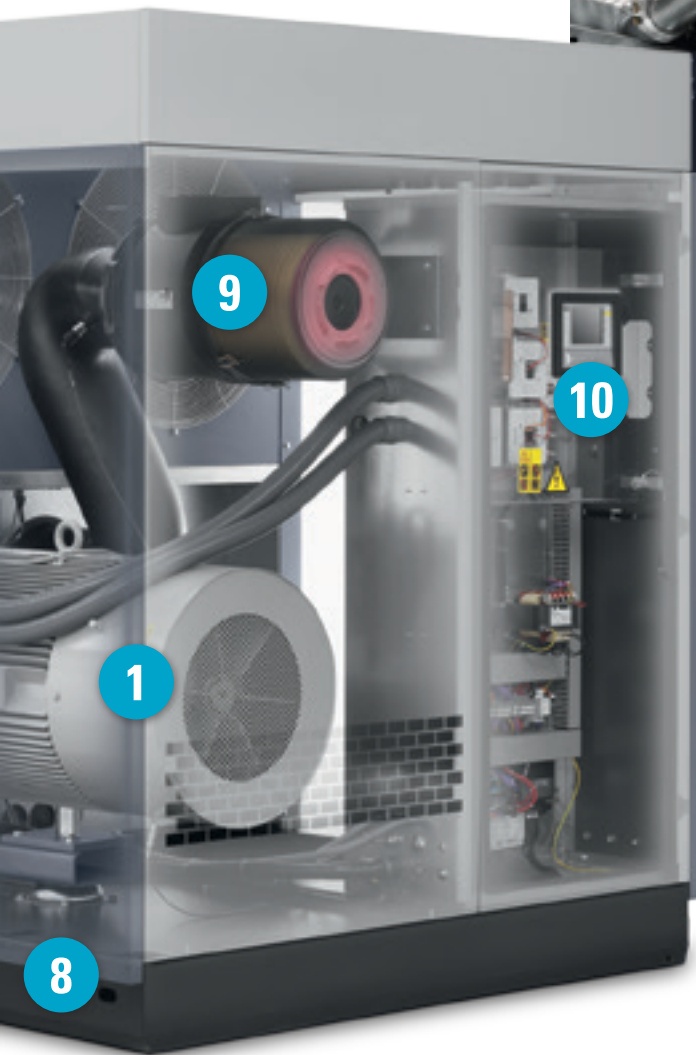
## 6 Optimized loading/unloading valve

- Ensures constant optimized pressure in the system, resulting in significant energy savings.
- Simple, maintenance-free set-up with few moving parts for highest reliability.
- Accurate control through solenoid valve.



## 7 Superior air quality

- Integrated water separator with electronic drain removes 100% of condensate.
- Full Feature with integrated dryer (up to 315 kW).



## 8 Easy to install

- Oil-containing frame as standard.
- All-in-one package, no hidden costs.
- Flexible ducting possibilities.

## 9 Superior air intake filter

- Protects the compressor components by removing 99.9% of dirt particles > 3 µm.
- Reduces the dust load in the fine filter, doubling the filter element lifetime without reducing filter efficiency.

## 10 Elektronikon® for advanced monitoring

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

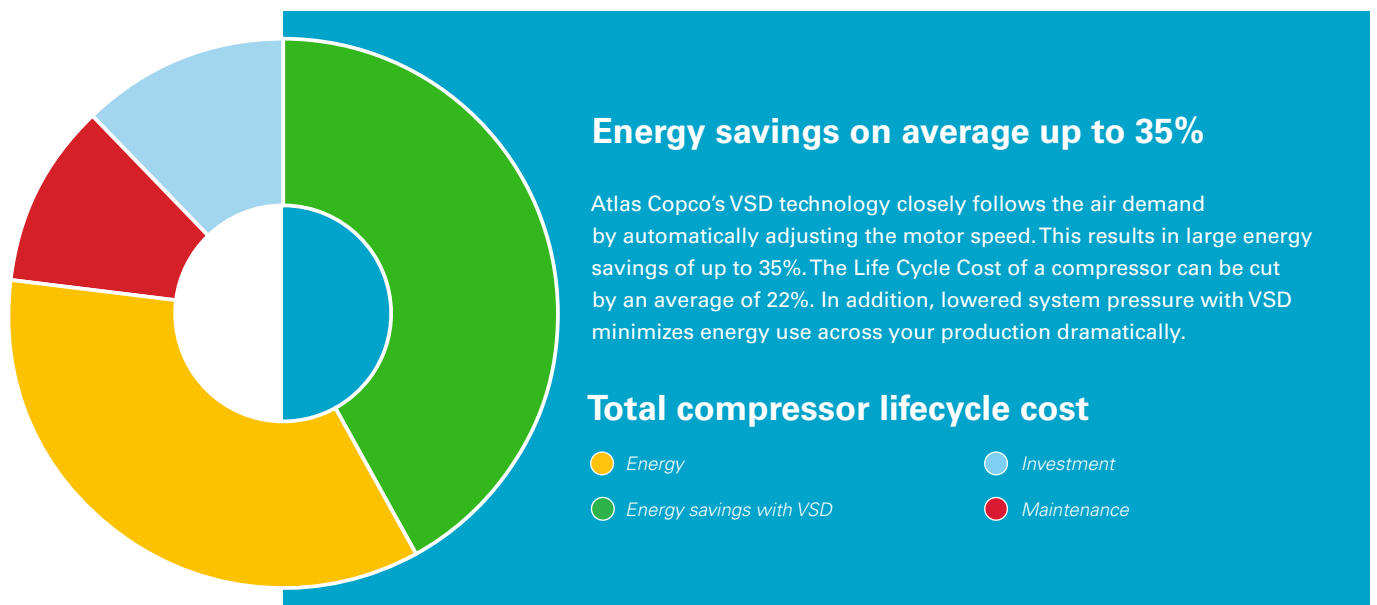
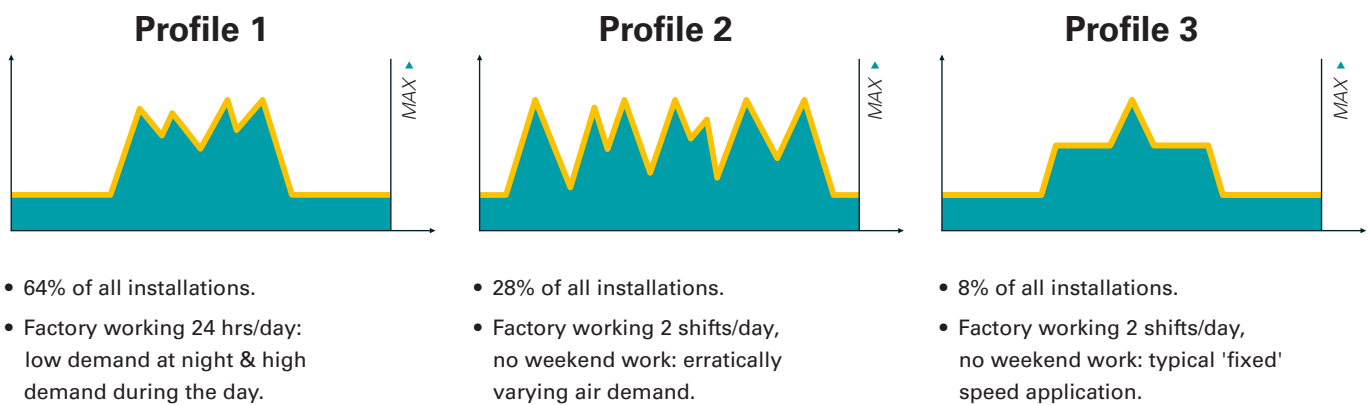


# VSD: DRIVING DOWN YOUR ENERGY COSTS

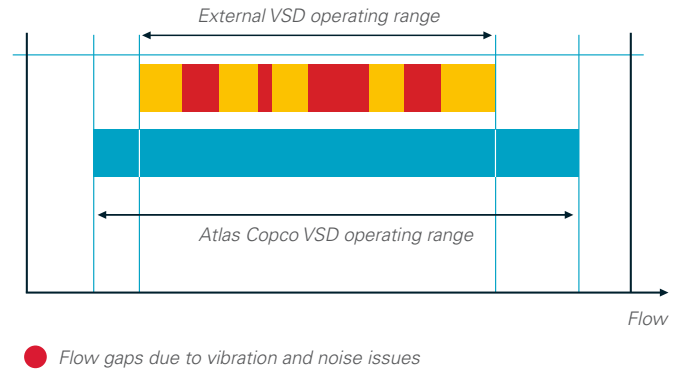
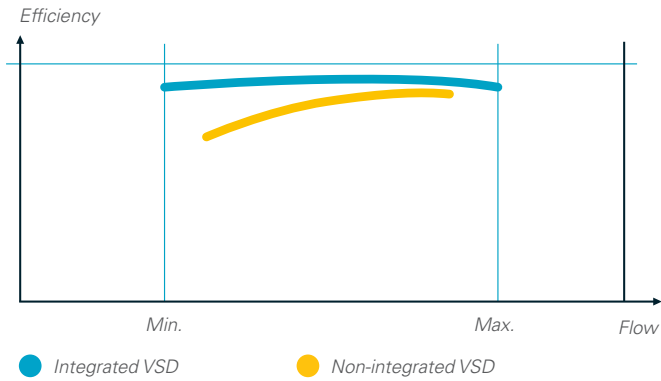
Over 70% of a compressor's lifecycle cost is taken up by the energy it consumes. Moreover, the generation of compressed air can account for more than 40% of a plant's total electricity bill. To cut your energy costs, Atlas Copco has pioneered Variable Speed Drive (VSD) technology for several decades. VSD leads to major energy savings, reducing the consumption of energy producing fuels and 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.

## What is VSD technology?

In almost every production environment, air demand fluctuates depending on different factors (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. Tests prove that, even in this case, VSD compressors save energy.

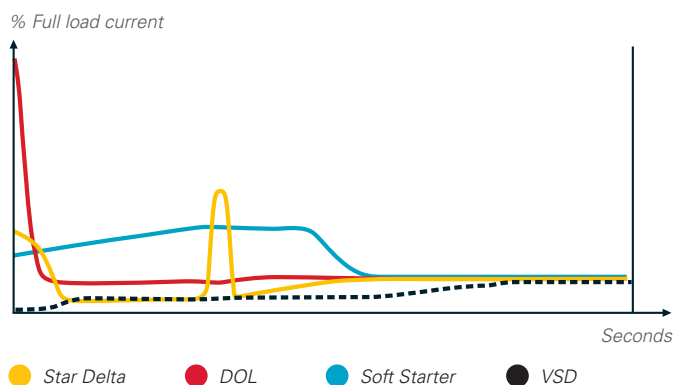


# WHAT IS UNIQUE ABOUT THE INTEGRATED ATLAS COPCO GA VSD?



- 1 The Elektronikon® unit controller manages 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 Specific converter and motor design (with protected bearings) for the **highest efficiency across the 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**. Compressor operation does not influence external sources and vice versa.
- 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 It is important to ensure that when using a Variable Speed Drive vibration and noise issues do not occur. Atlas Copco compressors are designed and tested to guarantee they **operate across the entire frequency range of operation**. When an external VSD drive is used it may become necessary to limit the operating range of the compressor, leading to reduced energy saving and jeopardizing stable air network pressure.
- 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.

## No current peaks



# INCREASE YOUR SAVINGS WITH ENERGY RECOVERY

The Kyoto directives and the continuing depletion of traditional energy sources mean that businesses throughout the world are making commitments to significantly reduce overall energy consumption. Through innovative products and solutions, Atlas Copco helps you achieve your goals in this area. When it comes to compressed air production – where energy costs can constitute 70% of total lifecycle costs – saving energy can also lead to substantial cost savings.

## Integrated heat exchanger

Air compression creates heat that is normally wasted in the coolers. Energy recovery systems designed by Atlas Copco enable the recovery of most of this heat. Recovery of energy from the shaft input of the compressor can be up to 94% of the compressor shaft power. The heat is directly usable as a source of energy in the form of hot water (85-90°C/185- 194°F). The main module of the recovery system is built into the compressor. The investment needed to link the hot oil circuit from the compressor to the existing water circuit is relatively modest and the time needed before seeing payback from your investment is generally very short.



## Warm air heat recovery

The ducting on your GA compressors also constitutes a simple and smart solution to generate space heating. Ducting simply directs the warmed cooling air to where it is needed – such as workshops, storage warehouses or other facilities. To cope with seasonal changes, louver flaps can be used to vent the warm air to the outside. An installation with motorized and thermostatically controlled louvers is the ideal solution to accurately monitor the temperature with a full control of the flow of heating air.

### Applications:

- Heating of facilities, warehouses or workshops.
- Drying air for painting and washing applications.



# PROTECT YOUR PRODUCTION WITH THE GA FF

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.

## All-in-one quality air production

The GA FF (Full Feature) is a ready-to-use, compact package that guarantees a pressure dewpoint of 3°C/37°F (100% relative humidity at 20°C/68°F). All the wires and pipes are assembled in the factory, so there is no need for additional installation work. The dryers can perform at ambient conditions up to 46°C/115°F.



## Save money and the environment

The unique and patented Saver Cycle Control stops the dryer when the compressor is stopped or in unload mode, drastically reducing power consumption. The dewpoint is continuously monitored and the dryer is re-started when the dewpoint begins to increase.

## Optimized air purity

The optional external filters and integrated refrigerant air dryer efficiently remove moisture, aerosols and dirt particles to protect your investment. This air quality prolongs the life of downstream equipment, increasing efficiency, reducing maintenance requirements and ensuring quality of your final product.

Configure your GA for the air quality you need	ISO Quality Class	Dirt Particle Size	Water Pressure Dew Point	Oil Concentration
GA	3.-4	3 microns	-	3 ppm
GA FF with ID	3.4.4	3 microns	+3°C, 37°F	3 ppm
GA FF with ID & general purpose coalescing filter	2.4.2	1 micron	+3°C, 37°F	0.1 ppm

# MONITORING AND CONTROL: HOW TO GET THE MOST FROM THE LEAST

The Elektronikon® unit controller is specially designed to maximize the performance of your compressors and air treatment equipment under a variety of conditions. Our solutions provide you with key benefits such as increased energy efficiency, lower energy consumption, reduced maintenance times and less stress... less stress for both you and your entire air system.



## Intelligence is part of the package

- High resolution color display gives you an easy to understand readout of the equipment's running conditions.
- Clear icons and intuitive navigation provides you fast access to all of the important settings and data.
- Monitoring of the equipment running conditions and maintenance status; bringing this information to your attention when needed.
- Operation of the equipment to deliver specifically and reliably to your compressed air needs.
- Built in remote control and notifications functions provided as standard, including simple to use Ethernet based communication.
- Support for 31 different languages, including character based languages.



## Online & mobile monitoring

Monitor your compressors over the Ethernet with the Elektronikon® unit controller. Monitoring features include warning indications, compressor shut-down and maintenance scheduling. An 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.



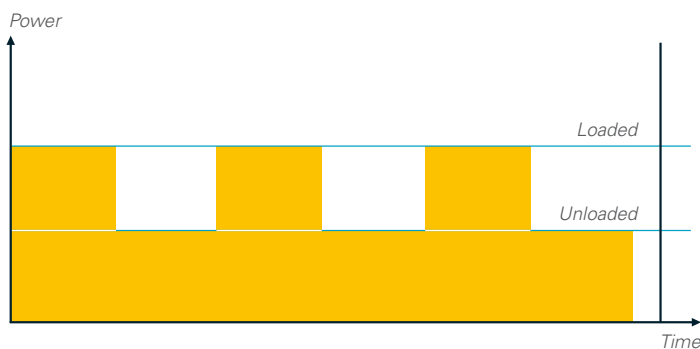
## Full optimization - ES system controller

Improve product quality every minute that your facility is in operation. Atlas Copco's ES system controllers offer a convenient way to achieve optimized performance from your low pressure equipment through a single centralized point of monitoring and control. With the ES system controller watching over your compressors and compressed air network, you will have a highly dependable and energy efficient solution working with your facility to manage operating costs.

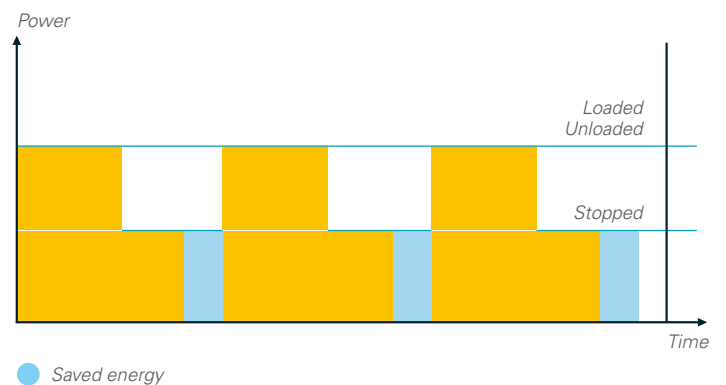
## Dual pressure set-point and Delayed Second Stop

Most production processes create fluctuating levels of demand which, in turn, can create energy waste in low use periods. Using the graphic Elektronikon® unit 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 to a minimum.

### Without DSS



### With DSS



## 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.

# OPTIMIZE YOUR SYSTEM

## Scope of supply

Air circuit	Superior air inlet filters and flexibles
	Air intake valve (not on VSD units)
	Full load/no load regulation system (not for VSD)
Oil circuit	Heavy-duty oil filters
	Complete oil circuit
	Air/oil separation system
Cooling circuit	Compressed air aftercooler and oil cooler
	Stainless steel tube and Shell coolers for water-cooled versions
	Axial cooling fans for air-cooled versions.
	Integrated water separator
	Electronic water drains with no loss of compressed air
	Complete air, oil, water circuit
Electrical components	TEFC IP55 Class F IE3 electric motor
	Starters* (Star-Delta)
	Pre-mounted electrical VSD cubicles (only for VSD units)
	Elektronikon® unit controller
Framework	Flexible vibration dampers
	Silenced canopy
	Structural skid with no need for foundations
	Suppression of emissions/harmonic distortions

\* Only for low voltage motors.

## Additional features & options

		GA 160+ -315	GA 200-315 VSD
Air treatment	Full Feature: integrated ID refrigerant dryer	•	•
	Winterization protection	•	-
Weather protection	High ambient version*	•	•
	Rain protection kit	•	-
Electrical protection	Phase sequence relay	•	-
	PT1000 thermal protection (windings and bearings)	•	✓
	Anti-condensation heater in the main motor	•	✓
	VSD cabinet heavy-duty filtration (applicable for VSDs)	-	•
	SPM vibration monitoring system	•	•
	TT or TN network system	✓	✓
	IT network system	•	•
	High short circuit current rating (HSCCR)	•	•
General options	Roto-Xtend duty fluid 8000h	✓	✓
	NPT or ANSI connections	•	•
	Anchor pads	•	•
	Performance test certificate	•	•
	Witnessed performance test	•	•
	Material certificates	•	•
	Seaworthy packaging	•	•
	Heavy-duty filter	•	•
	Integrated Energy Recovery system	•	•
	Separate air intake	•	•
General options	Modulation control	•	-
	Automatic water shut-off valve for water-cooled units	•	•
	Thermostatic valve for water-cooled units	-	•
	Medium voltage motor	•	-

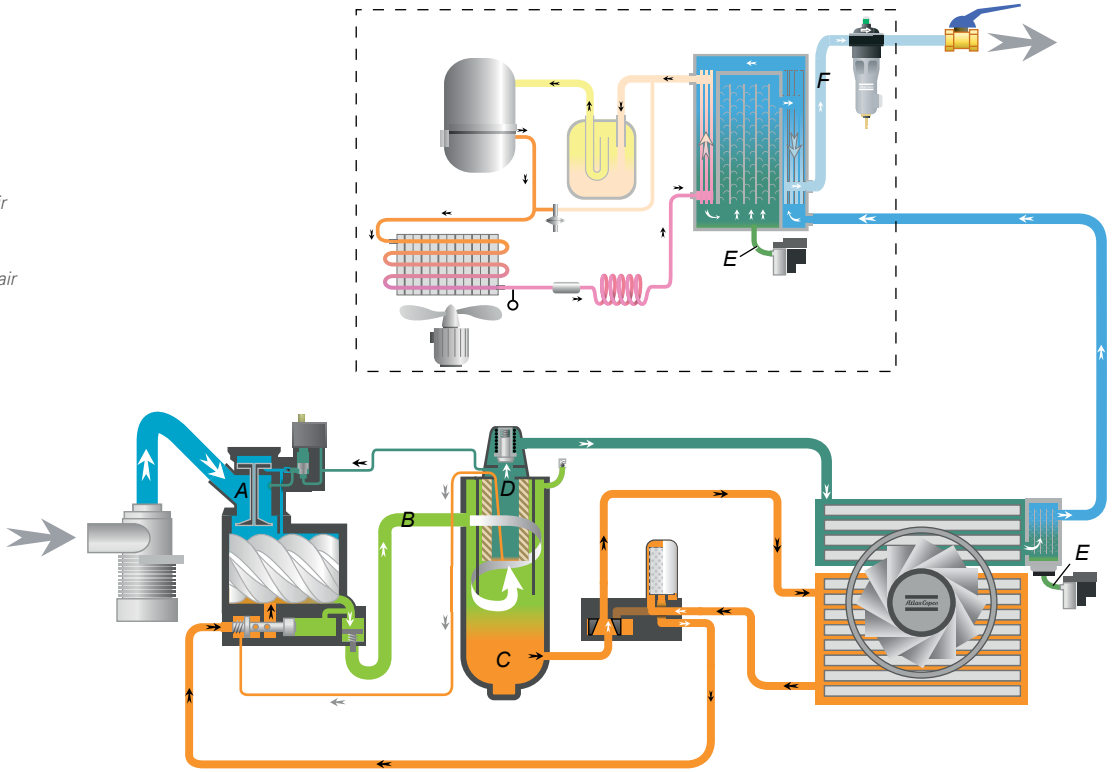
\* GA VSD 50°C/122°F

✓ : Standard • : Optional - : Not available

# FLOW CHARTS

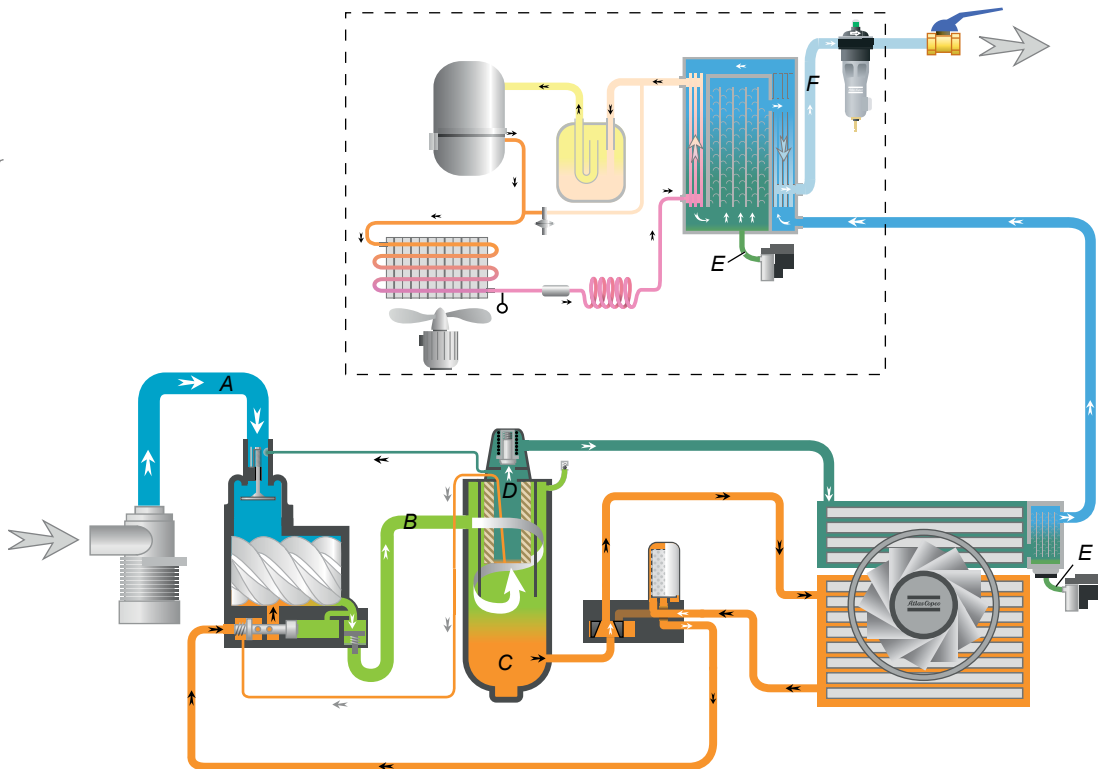
## Fixed speed: GA+ & GA

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



## Variable Speed Drive: GA VSD

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



# TECHNICAL SPECIFICATIONS

## GA 160<sup>+</sup>-315 (VSD) (50 Hz)

TYPE	Working pressure				Capacity FAD (1)			Installed motor power	Noise level (2)	Weight			
	Standard		Full Feature (3)		Standard / Full Feature					Standard		Full Feature	
	bar(e)	psig	bar(e)	psig	l/s	m <sup>3</sup> /min	cfm	kW	dB(A)	kg	lb	kg	lb
GA 160 <sup>+</sup> - 5.5 bar	5.5	80	5.3	77	621	37.2	1316	160	77	3624	7990	4081	8997
GA 160 <sup>+</sup> - 7.5 bar	7.5	109	7.3	106	538	32.2	1140			3624	7990	4081	8997
GA 160 <sup>+</sup> - 8.5 bar	8.5	123	8.3	120	498	29.8	1055			3197	7049	3654	8057
GA 160 <sup>+</sup> - 10 bar	10	145	9.8	142	448	26.9	949	200	78	3197	7049	3654	8057
GA 200 - 5.5 bar	5.5	80	5.3	77	748	44.8	1585			3624	7990	4217	9297
GA 200 - 7.5 bar	7.5	109	7.3	106	674	40.4	1428			4927	10862	5384	11870
GA 200 - 8.5 bar	8.5	123	8.3	120	632	37.9	1339	250	78	4927	10862	5384	11870
GA 200 - 10 bar	10	145	9.8	142	572	34.3	1212			4500	9922	4957	10929
GA 200 - 14 bar	14	203	13.8	200	440	26.4	932			4500	9922	4957	10929
GA 250 - 7.5 bar	7.5	109	7.3	106	833	49.9	1765	315	78	5144	11341	5737	12648
GA 250 - 8.5 bar	8.5	123	8.3	120	773	46.3	1638			5144	11341	5601	12348
GA 250 - 10 bar	10	145	9.8	142	709	42.5	1503			4717	10400	5174	11408
GA 250 - 14 bar	14	203	13.8	200	575	34.5	1219	315	78	4717	10400	5174	11408
GA 315 - 7.5 bar	7.5	109	7.3	106	1000	59.9	2119			5559	12256	6152	13563
GA 315 - 8.5 bar	8.5	123	8.3	120	955	57.2	2024			5559	12256	6152	13563
GA 315 - 10 bar	10	145	9.8	142	891	53.4	1888	315	78	5132	11315	5725	12622
GA 315 - 14 bar	14	203	13.8	200	745	44.7	1579			5132	11315	5589	12323

TYPE		Working pressure				Capacity FAD (1)			Installed motor power	Noise level (2)	Weight			
		Standard		Full Feature (3)		Standard / Full Feature					Standard		Full Feature	
		bar(e)	psig	bar(e)	psig	l/s	m <sup>3</sup> /min	cfm	kW	dB(A)	kg	lb	kg	lb
GA 200 VSD - 8.5 bar	Minimum	5	72	5	72	211 - 806	12.7 - 48.4	447 - 1708	200	77	5682	12527	6221	13715
	Nominal	7	101	7	101	206 - 716	12.4 - 43.0	436 - 1517						
	Maximum	8.5	123	8.3	120	202 - 656	12.1 - 39.4	428 - 1390						
GA 200 VSD - 10 bar	Minimum	6	87	6	87	100 - 611	6.0 - 36.7	212 - 1295	200	80	4352	9594	4891	10783
	Nominal	9.5	138	9.5	138	97 - 600	5.8 - 36.0	206 - 1271						
	Maximum	10	145	9.8	142	96 - 584	5.8 - 35.0	203 - 1237						
GA 200 VSD - 14 bar	Minimum	9	131	9	131	98 - 608	5.9 - 36.5	208 - 1288	200	80	4352	9594	4891	10783
	Nominal	13.5	196	12.5	181	86 - 504	5.2 - 30.2	182 - 1068						
	Maximum	14	203	12.8	185	84 - 495	5.0 - 29.7	178 - 1049						
GA 250 VSD - 8.5 bar	Minimum	5	72	5	72	211 - 900	12.7 - 54.0	447 - 1907	250	80	5682	12527	6301	13891
	Nominal	7	101	7	101	206 - 876	12.4 - 52.6	436 - 1856						
	Maximum	8.5	123	8.3	120	202 - 808	12.1 - 48.5	428 - 1712						
GA 250 VSD - 10 bar	Minimum	6	87	6	87	208 - 899	12.5 - 53.9	441 - 1905	250	77	5255	11585	5874	12950
	Nominal	9.5	138	9.5	138	200 - 767	12.0 - 46.0	424 - 1625						
	Maximum	10	145	9.8	142	198 - 748	11.9 - 44.9	420 - 1585						
GA 315 VSD - 8.5 bar	Minimum	5	72	5	72	211 - 1051	12.7 - 63.1	447 - 2237	315	79	5792	12769	6411	14134
	Nominal	7	101	7	101	206 - 1049	12.4 - 62.9	436 - 2223						
	Maximum	8.5	123	8.3	120	202 - 992	12.1 - 59.5	428 - 2102						
GA 315 VSD - 10 bar	Minimum	6	87	6	87	208 - 1050	12.5 - 63.0	441 - 2225	315	80	5365	11828	5984	13192
	Nominal	9.5	138	9.5	138	200 - 947	12.0 - 56.8	424 - 2007						
	Maximum	10	145	9.8	142	198 - 925	11.9 - 55.5	420 - 1960						

(1) Unit performance measured according to ISO 1217, Annex C and E, Edition 4 (2009).  
 Reference conditions:  
 - Absolute inlet pressure 1 bar (14.5 psi).  
 - Intake air temperature 20°C (68°F).

(2) A-weighted emission sound pressure level at the work station, L<sub>p</sub> 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).

(3) Integrated dryer: compressed air pressure dewpoint at dryer reference conditions 3°C (37°F).

FAD (1) is measured at the following working pressures:

	Standard	FF
5.5 bar version at	5 bar	5 bar
7.5 bar version at	7 bar	7 bar
8.5 bar version at	8 bar	8 bar
10 bar version at	9.5 bar	9.5 bar
14 bar version at	13.5 bar	12.5 bar

## DIMENSIONS

	L	W	H
	mm		
GA 160 <sup>+</sup> -315 A/W	3400	2000	2300
GA 160 <sup>+</sup> -315 A - FF	4300	2000	2300
GA 160 <sup>+</sup> -315 W - FF	3400	2000	2300
GA 160 <sup>+</sup> -315 A/W (MV)	3700	2000	2300
GA 160 <sup>+</sup> -315 A - FF (MV)	4600	2000	2300
GA 160 <sup>+</sup> -315 W - FF (MV)	3700	2000	2300
GA 200-315 VSD A	3700	2000	2300
GA 200-315 VSD A - FF	4600	2000	2300
GA 200-315 VSD W	3700	2000	2300
GA 200-315 VSD W - FF	3700	2000	2300

A = air-cooled.  
 W = water-cooled.  
 FF = Full Feature.

# TECHNICAL SPECIFICATIONS

## GA 160<sup>+</sup>-315 (VSD) (60 Hz)

TYPE	Working pressure				Capacity FAD (1)			Installed motor power hp	Noise level (2) dB(A)	Weight			
	Standard		Full Feature (3)		Standard / Full Feature					Standard		Full Feature	
	bar(e)	psig	bar(e)	psig	l/s	m <sup>3</sup> /min	cfm			kg	lb	kg	lb
GA 160 <sup>+</sup> - 75 psi	5.5	80	5.3	77	580	34.8	1229	200	77	4712	10388	5169	11396
GA 160 <sup>+</sup> - 100 psi	7.4	107	7.2	104	511	30.6	1083		77	4712	10388	5169	11396
GA 160 <sup>+</sup> - 125 psi	9.1	132	8.9	129	446	26.7	945		77	4285	9448	4742	10455
GA 160 <sup>+</sup> - 150 psi	10.9	158	10.7	155	397	23.8	841	250	75	4285	9448	4742	10455
GA 200 - 75 psi	5.5	80	5.3	77	711	42.6	1507		77	4712	10388	5305	11696
GA 200 - 100 psi	7.4	107	7.2	104	633	37.9	1341		77	4892	10785	5349	11793
GA 200 - 125 psi	9.1	132	8.9	129	576	34.5	1221	300	77	4465	9845	4922	10852
GA 200 - 150 psi	10.9	158	10.7	155	505	30.3	1070		77	4465	9845	4922	10852
GA 200 - 200 psi	14	203	13.8	200	405	24.3	858		75	4465	9845	4922	10852
GA 250 - 100 psi	7.4	107	7.2	104	759	45.5	1608	350	78	5014	11054	5607	12361
GA 250 - 125 psi	9.1	132	8.9	129	694	41.6	1471		77	5014	11054	5471	12062
GA 250 - 150 psi	10.9	158	10.7	155	627	37.6	1329		77	4587	10114	5044	11121
GA 250 - 200 psi	14	203	13.8	200	526	31.5	1115	350	77	4587	10114	5044	11121
GA 315 - 100 psi	7.4	107	7.2	104	925	55.4	1960		78	5654	12465	6247	13772
GA 315 - 125 psi	9.1	132	8.9	129	855	51.2	1812		78	5654	12465	6247	13772
GA 315 - 150 psi	10.9	158	10.7	155	784	47.0	1661	350	78	5227	11525	5820	12832
GA 315 - 200 psi	14	203	13.8	200	667	40.0	1414		77	5227	11525	5684	12532

TYPE		Working pressure				Capacity FAD (1)			Installed motor power hp	Noise level (2) dB(A)	Weight			
		Standard		Full Feature (3)		Standard / Full Feature					Standard		Full Feature	
		bar(e)	psig	bar(e)	psig	l/s	m <sup>3</sup> /min	cfm			kg	lb	kg	lb
GA 200 VSD - 8.6 bar (125 psi)	Minimum	5	72	5	72	211 - 806	12.7 - 48.4	447 - 1708	268	77	5682	12527	6221	13715
	Nominal	6.9	100	6.9	100	206 - 721	12.4 - 43.3	436 - 1528						
	Maximum	9.1	132	8.9	129	201 - 638	12.1 - 38.3	426 - 1352						
GA 200 VSD - 10.4 bar (150 psi)	Minimum	6	87	6	87	100 - 611	6.0 - 36.7	212 - 1295	268	80	4352	9594	4891	10783
	Nominal	10.4	151	10.4	151	95 - 574	5.7 - 34.4	201 - 1216						
	Maximum	10.9	158	10.7	155	94 - 562	5.6 - 33.7	199 - 1191						
GA 200 VSD - 13.8 bar (200 psi)	Minimum	9	131	9	131	98 - 608	5.9 - 36.5	208 - 1288	268	80	4352	9594	4891	10783
	Nominal	13.5	196	12.5	181	86 - 505	5.2 - 30.3	182 - 1070						
	Maximum	14	203	12.8	185	84 - 495	5.0 - 29.7	178 - 1049						
GA 250 VSD - 8.6 bar (125 psi)	Minimum	5	72	5	72	211 - 900	12.7 - 54.0	447 - 1907	335	80	5682	12527	6301	13891
	Nominal	6.9	100	6.9	100	206 - 881	12.4 - 52.9	436 - 1867						
	Maximum	9.1	132	8.9	129	201 - 787	12.1 - 47.2	426 - 1668						
GA 250 VSD - 10.4 bar (150 psi)	Minimum	6	87	6	87	208 - 899	12.5 - 53.9	441 - 1905	335	77	5255	11585	5874	12950
	Nominal	10.4	151	10.4	151	197 - 733	11.8 - 44.0	417 - 1553						
	Maximum	10.9	158	10.7	155	196 - 714	11.8 - 42.8	415 - 1513						
GA 315 VSD - 8.6 bar (125 psi)	Minimum	5	72	5	72	211 - 1051	12.7 - 63.1	447 - 2227	422	79	5792	12769	6411	14134
	Nominal	6.9	100	6.9	100	206 - 1049	12.4 - 62.9	436 - 2223						
	Maximum	9.1	132	8.9	129	201 - 968	12.1 - 58.1	426 - 2051						
GA 315 VSD - 10.4 bar (150 psi)	Minimum	6	87	6	87	208 - 1050	12.5 - 63.0	441 - 2225	422	80	5365	11828	5984	13192
	Nominal	10.4	151	10.4	151	197 - 908	11.8 - 54.5	417 - 1924						
	Maximum	10.9	158	10.7	155	196 - 886	11.8 - 53.2	415 - 1877						

(1) Unit performance measured according to ISO 1217, Annex C and E, Edition 4 (2009).  
Reference conditions:  
- Absolute inlet pressure 1 bar (14.5 psi).  
- Intake air temperature 20°C (68°F).

(2) 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).

(3) Integrated dryer: compressed air pressure dewpoint at dryer reference conditions 3°C (37°F).

FAD (1) is measured at the following working pressures:

	Standard	FF
75 psi version at	73 psi	73 psi
100 psi version at	100 psi	100 psi
125 psi version at	125 psi	125 psi
150 psi version at	150 psi	150 psi
200 psi version at	196 psi	181 psi

## DIMENSIONS

	L	W	H
	inch		
GA 160 <sup>+</sup> -315 A/W	134	79	91
GA 160 <sup>+</sup> -315 A - FF	169	79	91
GA 160 <sup>+</sup> -315 W - FF	134	79	91
GA 160 <sup>+</sup> -315 A/W (MV)	146	79	91
GA 160 <sup>+</sup> -315 A - FF (MV)	181	79	91
GA 160 <sup>+</sup> -315 W - FF (MV)	146	79	91
GA 200-315 VSD A	146	79	91
GA 200-315 VSD A - FF	181	79	91
GA 200-315 VSD W	146	79	91
GA 200-315 VSD W - FF	146	79	91

A = air-cooled.  
W = water-cooled.  
FF = Full Feature.

## ***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.