

OIL-INJECTED ROTARY SCREW COMPRESSORS

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



Atlas Copco



THE GA 160⁺-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

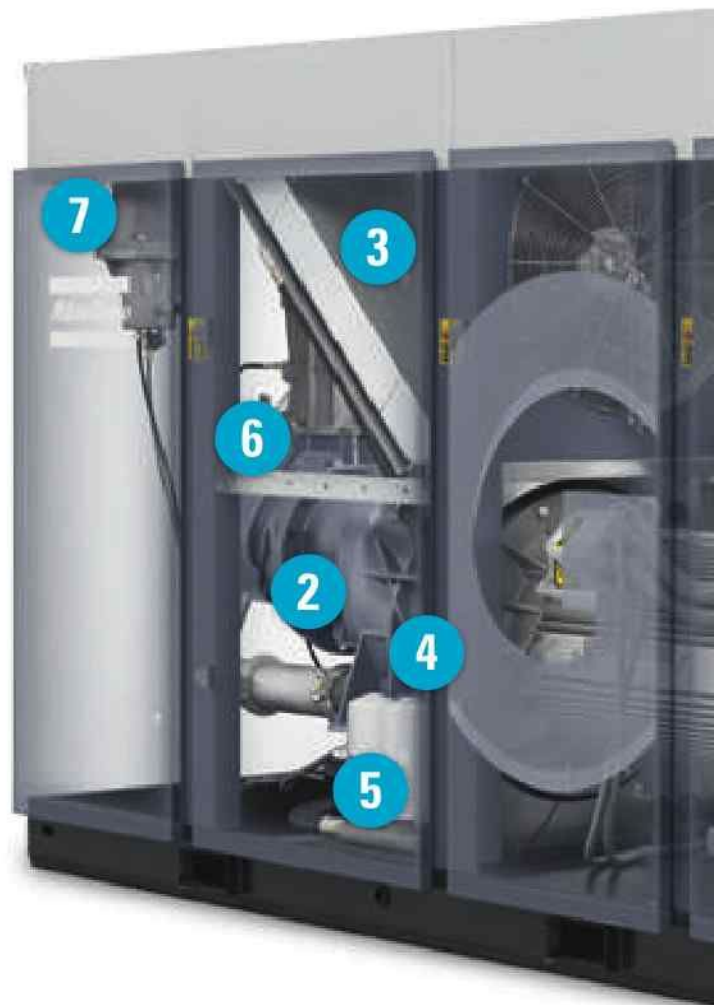
- Asymmetric rotor profile and meticulous selection of bearings.
- Low wear and tear leads to increased reliability.
- Proven reliability with thousands of installations throughout the world.

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.

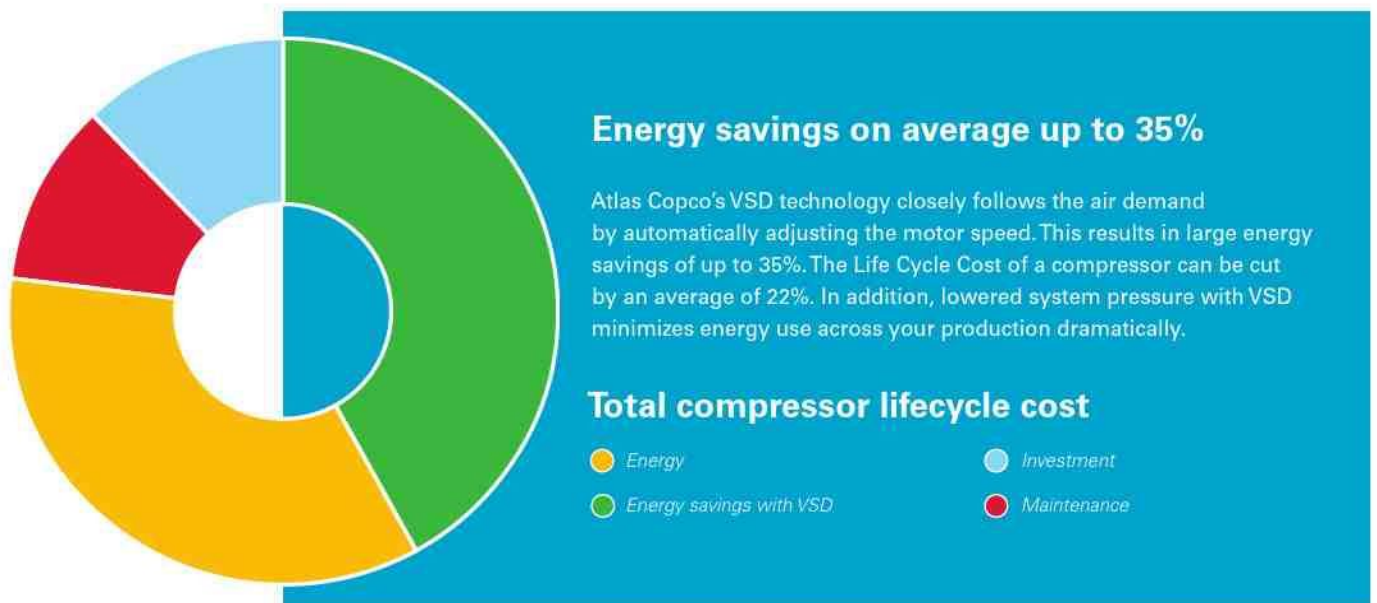


VSD: DRIVING DOWN YOUR ENERGY COSTS

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.



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.



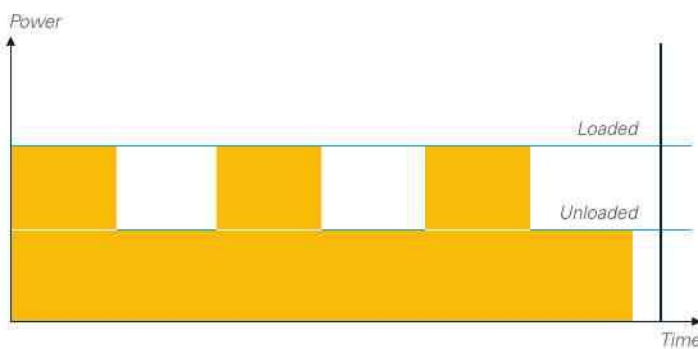
Full optimization - ES system controller

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.

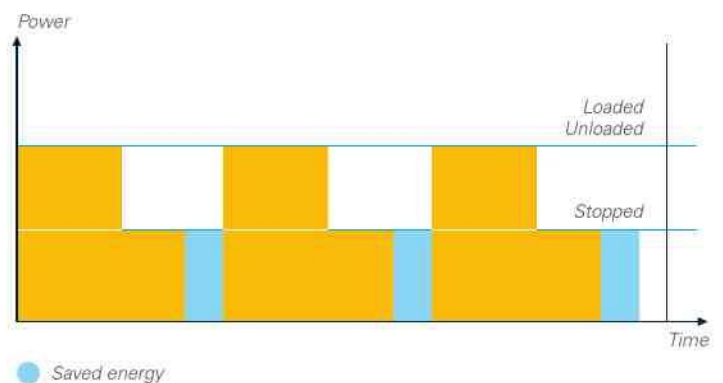
Dual pressure set-point and Delayed Second Stop

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.*

TECHNICAL SPECIFICATIONS

GA 160⁺-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 ³ /min	cfm			kg	lb	kg	lb
GA 160 ⁺ - 5.5 bar	5.5	80	5.3	77	621	32.2	1316	160	77	3624	7990	4061	8997
GA 160 ⁺ - 7.5 bar	7.5	109	7.3	106	538	32.2	1140			3624	7990	4061	8997
GA 160 ⁺ - 8.5 bar	8.5	123	8.3	120	498	29.8	1065			3197	7049	3654	8057
GA 160 ⁺ - 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	1330	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	1795	315	78	5144	11341	5737	12648
GA 250 - 8.5 bar	8.5	123	8.3	120	773	46.3	1638			5144	11341	5601	12346
GA 250 - 10 bar	10	145	9.8	142	709	42.5	1503			4717	10400	5178	11408
GA 250 - 14 bar	14	203	13.8	200	575	34.5	1219	315	78	4717	10400	5178	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

TECHNICAL SPECIFICATIONS

GA 160⁺-315 (VSD) (60 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 ³ /min	cfm			kg	lb	kg	lb
GA 160 ⁺ - 75 psi	5.5	80	5.3	77	580	34.8	1229	200	77	4712	10388	5169	11396
GA 160 ⁺ - 100 psi	7.4	107	7.2	104	511	30.6	1083			4712	10388	5169	11396
GA 160 ⁺ - 125 psi	9.1	132	8.9	129	446	26.7	945			4285	9448	4782	10455
GA 160 ⁺ - 150 psi	10.9	158	10.7	155	397	23.8	841	250	75	4285	9448	4782	10455
GA 200 - 75 psi	5.5	80	5.3	77	711	42.6	1507			4712	10388	5305	11696
GA 200 - 100 psi	7.4	107	7.2	104	633	37.9	1341			4892	10786	5348	11783
GA 200 - 125 psi	9.1	132	8.9	129	576	34.5	1221	300	77	4465	9845	4922	10882
GA 200 - 150 psi	10.9	158	10.7	155	505	30.3	1070			4465	9845	4922	10882
GA 200 - 200 psi	14	203	13.8	200	405	24.3	858			4465	9845	4922	10882
GA 250 - 100 psi	7.4	107	7.2	104	759	45.5	1808	350	78	5014	11054	5607	12361
GA 250 - 125 psi	9.1	132	8.9	129	694	41.6	1471			5014	11054	5471	12062
GA 250 - 150 psi	10.9	158	10.7	155	627	37.6	1329			4587	10114	5044	11121
GA 250 - 200 psi	14	203	13.8	200	526	31.5	1115	350	78	4587	10114	5044	11121
GA 315 - 100 psi	7.4	107	7.2	104	925	55.4	1980			5654	12465	6247	13772
GA 315 - 125 psi	9.1	132	8.9	129	855	51.2	1812			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			5227	11525	5684	12532

(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_p 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 ⁺ -315 A/W	3400	2000	2300
GA 160 ⁺ -315 A - FF	4300	2000	2300
GA 160 ⁺ -315 W - FF	3400	2000	2300
GA 160 ⁺ -315 A/W (MV)	3700	2000	2300
GA 160 ⁺ -315 A - FF (MV)	4600	2000	2300
GA 160 ⁺ -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.

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.



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