OIL-INJECTED ROTARY SCREW COMPRESSORS

GA 90+/GA 110-160 (90-160 kW/125-200 hp)

Atlas Copco

OUTSTANDING PERFORMANCE, MAXIMUM BENEFITS

GA 90+/GA 110-160 compressors provide high-quality compressed air in the harshest environmental conditions. Incorporating the patented Atlas Copco's oil-injected screw element, they provide a long and trouble-free life at the lowest possible operating cost.

Metal industry

Metal plants use compressed air for instrumentation, plant air and pneumatic conveying for raw materials or ash and are in need of an efficient solution to reduce their operating costs. Thanks to their innovative features, Atlas Copco's GA air compressors meet this demand.

Mining industry

Compressed air is vital for the mining industry: applications include dust bag filtration, service air, ventilation air and pneumatic tools. The reliability and robustness of GA air compressors will accomplish the job even in the harshest conditions.

Power plants

Power plants run round-the-clock to supply vital energy. A continuous supply of compressed air is absolutely critical for trouble-free operation. GA compressors provide a reliable source of compressed air for applications such as silt blowing and fly ash handling.

General industry

Many industrial companies use compressed air in their daily operations. Applications include pneumatic tools for cutting, drilling, hammering and grinding; pneumatic actuators and valves; ventilation systems; packing and palleting machinery and conveyor systems. Atlas Copco's GA compressors are designed for ultimate performance and reliability.

Keeping your production up and running

Atlas Copco's GA compressors ensure long and trouble-free lifetime at the lowest operating cost. At their heart are state-of-the-art compression elements based on innovative asymmetric rotor profiles and powered by a high efficiency electric motor. Combined with a built-to-last drive system and heavy duty air inlet filters, this results in maximum reliability to operate in the toughest conditions and at ambient temperatures up to 55°C/131°F.

Reducing your production costs

The innovative design of GA compressors reduces your energy bill and overall compressor lifecycle costs. GA compressors are pre-assembled packages: installation is fault-free, commissioning time is low and no external instrumentation air is required.

Protecting your process

The Full Feature concept includes compressed air and air treatment equipment integrated in the compressor canopy. This limits installation costs and space requirements. The integrated water separator immediately removes 100% of the condensate, resulting in higher air quality.

Maximizing your savings

As there is no "one size fits all" concept, we have developed a comprehensive range of features, options and solutions to help you optimize the use of your compressor: from running the machine at high temperatures, to extra safety devices.

SETTING A NEW STANDARD IN THE INDUSTRY

Atlas Copco's GA compressors bring you outstanding sustainability, reliability and performance, while minimizing the total cost of ownership. Built to perform even in the harshest environments, these compressors keep your production running efficiently.

1

Superior air quality

- Standard integrated water separator to remove 100% of the condensate with electronic drain.
- 3-step efficient oil separation process for low residual oil content in the compressed air (less than 3 ppm).

2

State of the art screw element

- Patented asymmetric rotor profile and meticulous bearings selection.
- Low wear and tear leads to increase reliability.

3

Service friendly

- Selection of long lifetime consumable.
- Easy and safe access to all service parts.

4

Optimized loading/unloading valve

- Assures constant optimized pressure in the system resulting in high energy savings.
- Smart design with few moving parts for highest reliability.
- Accurate control through solenoid valve.

5

Triple benefits with the gear driven transmission

- Built to last, totally enclosed and protected against dirt and dust.
- High-efficiency drive arrangement; no coupling or slippage losses.
- Coupling to absorb the trust load and increase the reliability.

6

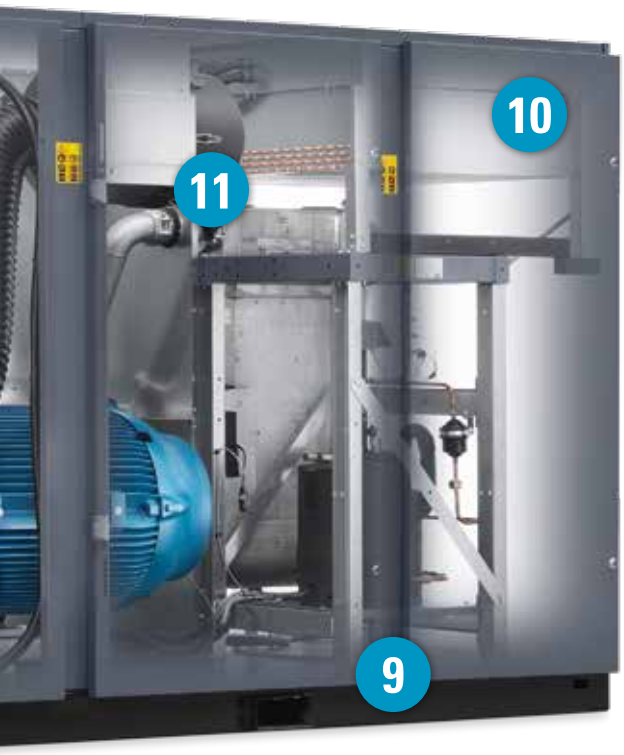
High efficient motor

- TEFC IP55 motor (Class F insulation B rise) protects against dust and chemicals.
- Continuous operation under severe ambient temperature conditions.

7

Durable design

- Solid metal pipe for durable operation and reduced service costs.
- Rigid straight connections eliminate risk of leaks and improve package efficiency.



8

Cooling module

- Separated oil and after coolers for highest efficiency.
- Standard design up to 46°C/115°F and HAT (55°C/131°F) variant available.
- Cooling fans located in the middle for fresh air in the system and no heat build up.
- Fans with low noise level.

9

Easy to install

- All-in-one inclusive package with flexible ducting possibilities.
- All user connections located at the same side of the compressor.
- Phase sequence relay as standard to protect the compressor against reverse rotation.

10

Integrated refridgerant dryer

- Highly efficient dryer to increase the savings.
- Reduced floor space requirements.
- Optimized control with the Elektronikon®.

11

Heavy duty air intake filter

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

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 DD/PD 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 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

A STEP AHEAD IN MONITORING AND CONTROLS

The 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.

Built-in intelligence

- Improved user-friendliness: 5.7" color display with clear pictograms for easy readout.
- Monitoring of running conditions and graphical indication of the service plan.
- Regulates system pressure within a predefined narrow pressure band.
- Integrated energy savings functions like dual pressure set point, 4 different programmable week schedules.
- Comprehensive icon indications and intuitive navigation.
- 31 different languages including character-based languages.
- Durable keyboard to resist tough treatment in demanding environments.
- Internet-based compressor visualization using a simple Ethernet connection.
- Remote control and advanced connectivity functions.

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. 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.

ES – Fully optimized system

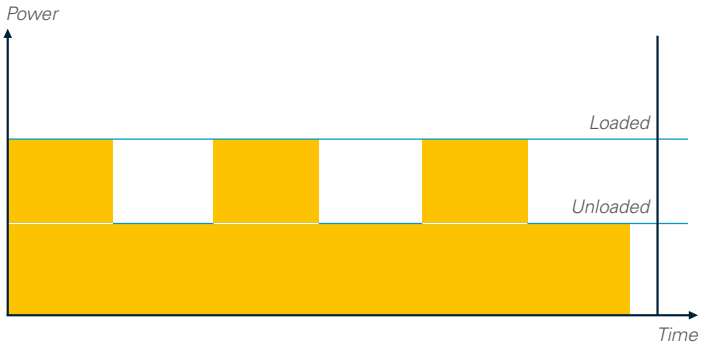
A properly managed compressed air network will save energy, reduce maintenance, decrease downtime, increase production and improve product quality. Atlas Copco's ES central controllers are the most efficient way to monitor and control multiple compressors simultaneously as well as dryers and filters. An ES controller offers one central point of control for your whole compressed air network, ensuring all compressors provide optimum performance for your process. The result is a completely dependable and energy efficient network, giving you peace of mind and keeping your costs to a minimum.

Dual pressure set-point and Delayed Second Stop

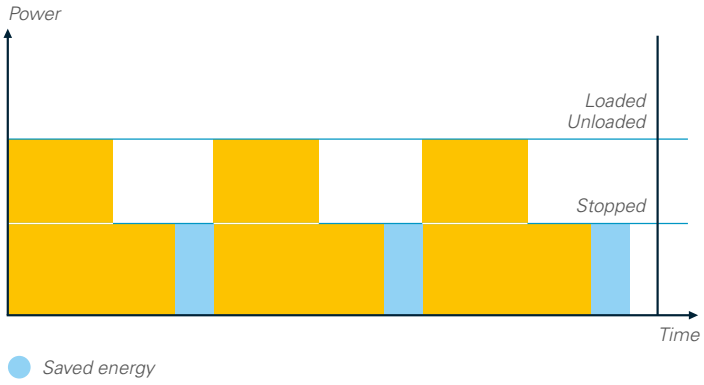
Most production processes create fluctuating levels of demand which, in turn, can create energy waste in low use periods. Using either the standard or graphic Elektronikon® controller, you can manually or automatically create two different system pressure bands to optimize energy use and reduce costs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

Air circuit	Efficient air inlet filters and flexibles
	Air intake valve
	Full load/no load regulation system
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
	Roto Xtend duty synthetic lubricant
Electrical components	TEFC IP55 Class F electric motor
	Starters (Star-Delta)
	Elektronikon® control system
	Phase sequence relay
Framework	Flexible vibration dampers
	Silenced canopy
	Structural skid with no need for foundations
	Suppression of emissions/harmonic distortions

ADDITIONAL FEATURES & OPTIONS

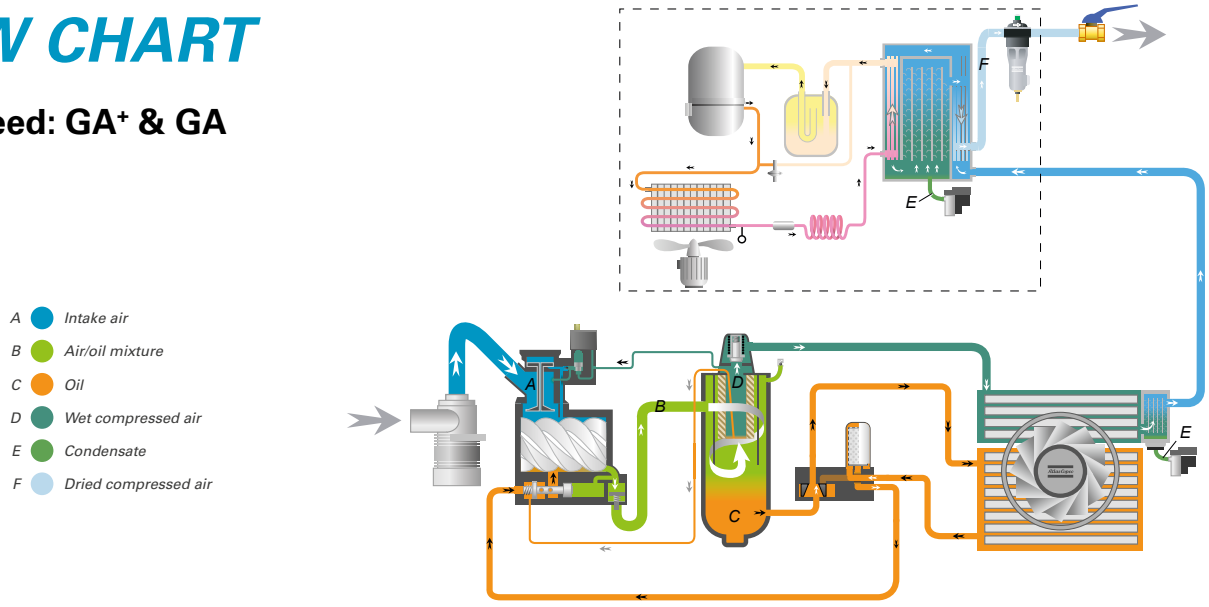
	GA 90+-160
Full Feature: integrated ID refrigerant dryer	•
High ambient version (up to 55°C/131°F)*	•
Integrated Energy Recovery system	•
Modulation control	•
Full option motor (PT1000 thermal protection and Anti-condensation heaters)	•
SPM vibration monitoring system	•
Anchor pads	•
NPT or ANSI connections	•
Performance test certificate	•
Witnessed performance test	•
Material certificates	•
Seaworthy packaging	•

** GA fixed speed Pack up to 55°C/131°F. Not available on Full Feature.*

• : Optional - : Not available

FLOW CHART

Fixed speed: GA+ & GA



TECHNICAL SPECIFICATIONS

TYPE	Working pressure				Capacity FAD (1)			Installed motor power		Noise level (2)	Weight			
	Standard		Full Feature (3)								Standard		Full Feature	
	bar(e)	psig	bar(e)	psig	l/s	m^3/min	cfm	kW	hp	dB(A)	kg	lbs	kg	lbs
50 Hz version														
GA 90+	5.5	80	5.3	77	330	19.8	699	90	125	70	3000	6614	3393	7480
	7.5	109	7.3	106	292	17.5	619	90	125	70	3000	6614	3393	7480
	8.5	123	8.3	120	274	16.4	581	90	125	70	3000	6614	3393	7480
	10	145	9.8	142	244	14.6	517	90	125	70	3000	6614	3393	7480
GA 110	5.5	80	5.3	77	401	24.0	850	110	150	70	3100	6834	3493	7701
	7.5	109	7.3	106	356	21.3	754	110	150	70	3100	6834	3493	7701
	8.5	123	8.3	120	337	20.2	714	110	150	70	3100	6834	3493	7701
	10	145	9.8	142	306	18.3	648	110	150	70	3100	6834	3493	7701
	14	203	13.8	200	245	14.7	519	110	150	70	3100	6834	3493	7701
GA 132	5.5	80	5.3	77	471	28.2	998	132	175	71	3375	7441	3768	8307
	7.5	109	7.3	106	424	25.4	898	132	175	71	3375	7441	3768	8307
	8.5	123	8.3	120	401	24.0	850	132	175	71	3375	7441	3768	8307
	10	145	9.8	142	368	22.0	780	132	175	71	3375	7441	3768	8307
	14	203	13.8	200	295	17.7	625	132	175	71	3375	7441	3768	8307
GA 160	7.5	109	7.3	106	505	30.2	1070	160	215	71	3440	7584	3833	8451
	8.5	123	8.3	120	480	28.7	1017	160	215	71	3440	7584	3833	8451
	10	145	9.8	142	443	26.5	939	160	215	71	3440	7584	3833	8451
	14	203	13.8	200	369	22.1	782	160	215	71	3440	7584	3833	8451
60 Hz version														
GA 90+	5.5	80	5.3	77	343	20.5	727	90	125	70	3000	6614	3393	7480
	7.4	107	7.2	104	302	18.1	640	90	125	70	3000	6614	3393	7480
	9.1	132	8.9	129	274	16.4	581	90	125	70	3000	6614	3393	7480
	10.9	158	10.7	155	239	14.3	506	90	125	70	3000	6614	3393	7480
GA 110	5.5	80	5.3	77	406	24.3	860	110	150	70	3100	6834	3493	7701
	7.4	107	7.2	104	363	21.7	769	110	150	70	3100	6834	3493	7701
	9.1	132	8.9	129	331	19.8	701	110	150	70	3100	6834	3493	7701
	10.9	158	10.7	155	295	17.7	625	110	150	70	3100	6834	3493	7701
	14	203	13.5	196	248	14.9	525	110	150	70	3100	6834	3493	7701
GA 132	5.5	80	5.3	77	467	28.0	990	132	175	71	3375	7441	3768	8307
	7.4	107	7.2	104	421	25.2	892	132	175	71	3375	7441	3768	8307
	9.1	132	8.9	129	385	23.1	816	132	175	71	3375	7441	3768	8307
	10.9	158	10.7	155	346	20.7	733	132	175	71	3375	7441	3768	8307
	14	203	13.5	196	290	17.4	614	132	175	71	3375	7441	3768	8307
GA 160	7.4	107	7.2	104	475	28.4	1006	160	215	71	3440	7584	3833	8451
	9.1	132	8.9	129	437	26.2	926	160	215	71	3440	7584	3833	8451
	10.9	158	10.7	155	397	23.8	841	160	215	71	3440	7584	3833	8451
	14	203	13.5	196	337	20.2	714	160	215	71	3440	7584	3833	8451

(1) 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.
(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.
FAD is measured at the following working pressures:
5.5 bar versions at 5 bar
7.5 bar versions at 7 bar
8.5 bar versions at 8 bar
10 bar versions at 9.5 bar
14 bar versions at 13.5 bar

DIMENSIONS

TYPE	Pack						Full Feature					
	L	W	H	L	W	H	L	W	H	L	W	H
	mm			inch			mm			inch		
GA 90+/GA 110-160 air-cooled & water-cooled	2800	2000	2000	111	79	79	3700	2000	2000	146	79	79

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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