# OIL-INJECTED ROTARY SCREW COMPRESSORS

GA 5-11 (5,5-11 kW/7,5-15 hp)







### THE ULTIMATE SMART SOLUTION THAT FITS

Atlas Copco's GA compressors bring outstanding performance, flexible operation and high productivity, while minimizing the total cost of ownership. With this premium compressor series you will certainly find the compressed air solution that perfectly matches your specific requirements. Through products that are built to perform in even the harshest environments, Atlas Copco commits to keeping your production running in the most efficient way.

#### **Highest reliability**

The GA series is designed, manufactured and tested in accordance with ISO 9001, ISO 14001 and ISO 1217, Ed. 4, Annex C/E. Ensuring a long and trouble-free life at the lowest operating cost, the GA contains the latest generation of Atlas Copco's innovative oil-injected screw element.

#### Minimized energy costs

Energy can represent over 80% of a compressor's life cycle costs (LCC). The generation of compressed air can even account for more than 40% of a plant's total electricity bill. Through the use of Atlas Copco's highly efficient element and state-of-the-art packaging, GA compressors can minimize energy costs and the overall compressor life cycle costs.

#### Air system integration

The GA WorkPlace Air System can be installed close to the point of use thanks to its low noise operation. In addition, as air treatment equipment is integrated and the tank is mounted under the compressor, the need for a separate compressor room is eliminated. Moreover, all compressors are delivered ready for use, reducing installation costs to a minimum.

# **GA 5-11: THE PREMIUM SOLUTION**

Able to tackle extreme duties as daily challenges, Atlas Copco's high-performance tank mounted GA compressors beat any workshop solution. Ready to supply high-quality air, they keep the air network clean and your production up and running.



### **Optimized drive train**

1

Unequaled reliability during the system's lifetime thanks to the belt-driven drive train developed in accordance with the highest industry standards.

### 2 **Time proven** element

- The GA 5-11's compression element is combined with an IE3 efficiency motor, improved bearings and seal arrangement resulting in minimized energy costs.
- Fit for environments with ambient temperatures up to 46°C due to superior component design.
- The Free Air Delivery is increased up to 8% and power consumption is reduced by 7% thanks to optimized packaging and the state-of-the-art compressor element.





## 6

#### Easy installation & servicing

- A true plug-and-play solution ready to be installed close to the point of use.
- Optionally, the system can be expanded with an integrated dryer, air filters and a factory mounted 270L receiver (optional 500L).
- Effortless transportation by forklift.
- Standard equipped with a 3 meter power supply cable.
- Minimized service costs thanks to high-quality and easily replaceable consumables with a long lifetime and easy servicing.

### 3

#### Integrated quality air solutions

- Protection of downstream air equipment in all working conditions: the integrated dryer avoids condensation and corrosion in the network.
- Additional energy savings with the dryer's no-loss electronic drain.
- Optional filters can be added to obtain air quality up to class 1 level (<0.01 ppm).
- Water separator included as standard.

### 5 High tech oil vessel

• Protection from oil contamination: extremely low oil carry-over thanks to the vertical design of the oil vessel.

• Extremely low losses of compressed air during load/unload cycle thanks to minimized oil vessel size.





#### Elektronikon<sup>®</sup> controller

- Web based online compressor status viewer on new Elektronikon<sup>®</sup> for remote monitoring using a standard Ethernet connection.
- The Elektronikon<sup>®</sup>'s monitoring features include new service and warning indications, error detection and compressor shut-down. The optional Elektronikon® graphic controller provides further enhanced visual service indications and warnings.



## A STEP AHEAD IN MONITORING **AND CONTROLS**

The next-generation Elektronikon<sup>®</sup> operating system offers a great variety of control and monitoring features to increase efficiency and reliability. The Elektronikon<sup>®</sup> controls the main drive motor and regulates system pressure within a predefined and narrow pressure band.

#### Optional integrated compressor controller

To reduce system pressure and energy consumption in installations of up to 4 (ES4i) or 6 (ES6i) compressors, the optional integrated compressor controller can be installed with a simple license.



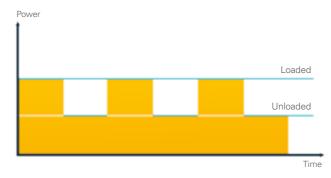




#### Dual pressure set point & delayed second stop

The production process creates fluctuating levels of demand which can cause energy losses in low use periods. The Elektronikon® 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.

#### Without DSS



#### Saver cycle

Saver cycle technology reduces energy consumption. The Elektronikon<sup>®</sup> is linked to both saver cycles: fan and dryer. Monitoring the oil temperature, the fan saver cycle regulates the fan and minimizes energy use. Using an ambient sensor

#### Elektronikon<sup>®</sup> controller

- Improved ease of use: intuitive navigation system with clear pictograms and extra 4th LED indicator for service.
- Free online compressor status visualization through a web browser using a standard Ethernet connection.
- Easy to upgrade.
- Maximum reliability: more durable keyboard.

#### **Key features**

- Automatic restart after voltage failure.
- Dual pressure set point.
- Delayed Second Stop function.
- Option to upgrade to the advanced Elektronikon<sup>®</sup> graphic controller.

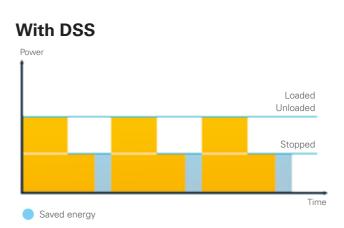


#### Free online visualization

Monitor your compressors over the Ethernet with the new Elektronikon® controllers. Monitoring features include warning indications, compressor shut-down and maintenance scheduling, all possible with the free online compressor status visualization. SMS service, trending and remote history events are optional through the connectivity program.







to monitor the required dew point suppression, the dryer saver cycle starts and stops the dryer when the compressor has stopped, minimizing energy use and protecting the air system from corrosion.

## **EXCELLENCE IN QUALITY AIR**

Untreated compressed air contains moisture, aerosols and dirt particles that can damage your air system and contaminate your end product. The resulting maintenance costs can far exceed air treatment costs. Our compressors provide the clean, dry air that improves your system's reliability, avoiding costly downtime and production delays, and safeguarding the quality of your products. Clean, treated air also reduces the risk of corrosion and leaks in your compressed air system, leading to substantial cost savings. Furthermore, with leaks and energy waste minimized and the unsafe disposal of untreated condensate eliminated, you can protect the environment and conform to stringent international regulations.

#### Integrated filter kit clas Integrated filter kit clas Dryer by-pass Integrated oil/water se Electronic water drain ( 500 liter air receiver Electronic water drain Integrated oil/water se Phase sequence relay Tropical thermostat Freeze protection Heavy duty inlet filter Rain protection Main power isolator sv Upgrade Elektronikon® Relays for ES 100 sequ Roto-Xtend duty oil Central Control license Modulating control High ambient temper Food-grade oil Dryer Saver Cycle Compressor inlet Pre-fi Motor space heater + t

#### **Savings features**

On average 30% energy savings with new range of integrated dryers

- Global warming potential has been reduced significantly by an average of 50% by reducing the amount of refrigerant in the new dryer.
- Use of energy-efficient refrigerant R134a reduces operating costs.
- Environmentally friendly characteristics.
- Unique Saver Cycle Control, with ambient temperature sensor and based on dryer load and relative humidity of compressed air, saves energy at partial load.
- Low pressure drop heat exchanger with integrated water separator.
- Zero waste of compressed air thanks to no-loss condensate drain.
- Pressure dew point of 3°C (100% relative humidity at 20°C).

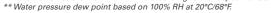
ISO quality class*	Dirt particle size	Water pressure dew point**	Oil concentration
34	3 microns	-	2 ppm
3.4.4	3 microns	+3°C, 37°F	2 ppm
2.4.2	1 micron	+3°C, 37°F	0.1 ppm

+3°C, 37°F

0.01 ppm

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

0.01 microns



1.4.1



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Saver Cycle Control

Heat exchanger no-loss

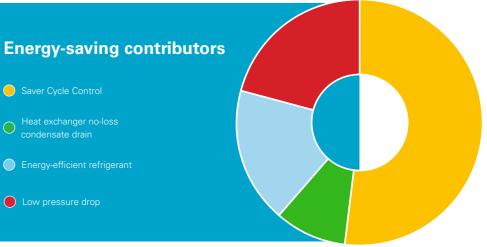
Energy-efficient refrigerant

Low pressure drop

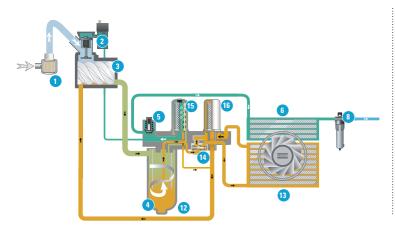
# TAILORED TO YOUR NEEDS

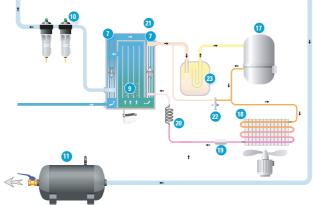
Some applications may need or benefit from additional options, more refined control and air treatment systems. To meet these needs, Atlas Copco has developed options and easily integrated compatible equipment providing the lowest cost compressed air.

	GA 5-11
1	•
2	•
	•
arator (OSD)	•
WD) on pack unit (cooler)	•
	•
WD) on 500L vessel	•
arator OSD	•
	•
	•
	•
	•
	•
ch	•
graphic	•
nce selector	•
	•
(ES 4i) or 6 (ES 6i) machines on Elektronikon® graphic	•
	•
re versions	•
	•
	•
er	•
ermistors	•
✓: Standard •: C	Optional -: Not available



# **FLOW CHART**







**Oil flow** 

13. Oil cooler

16. Oil filter

15. Oil separator

14. Thermostatic bypass valve

12. Oil

### Air flow

- 1. Air intake filter
- 2. Air intake valve
- 3. Compression element
- 4. Air/oil separator vessel
- 5. Minimum pressure valve
- 6. After-cooler
- 7. Air-air heat exchanger
- 8. Water separator (pack only)
- 9. Water separator with drain
- 10. DD/PD filters

### **Refrigerant flow**

- 17. Refrigerant compressor
- 18. Condenser
  - 19. Liquid refrigerant dryer/filter
  - 20. Capilar
  - 21. Evaporator
  - 22. Hot gas bypass valve
  - 23. Air intake valve

## **TECHNICAL SPECIFICATIONS** GA 5-7-11

COMPRESSOR TYPE		Working p	pressure	Capacity FAD*			Installed		Noise	Weight (kg)			
		WorkPlace		min-max			motor power		level**	WorkPlace		WorkPlace Full Feature	
		bar(e)	psig	l/s	m³/h	cfm	kW	kW hp		Floor-mounted	Tank-mounted	Floor-mounted	Tank-mounted
50 Hz VERS	SION												
GA 5	7.5	7.5	109	15.0	54.0	31.7	5.5	7.5	60	257	317	300	360
	8.5	8.5	123	13.2	47.5	27.9	5.5	7.5	60	257	317	300	360
	10	10	145	11.7	42.1	24.7	5.5	7.5	60	257	317	300	360
	13	13	189	8.4	30.2	17.7	5.5	7.5	60	257	317	300	360
GA 7	7.5	7.5	109	21.0	78.5	46.0	7.5	10	61	270	330	315	375
	8.5	8.5	123	19.6	70.6	41.5	7.5	10	61	270	330	315	375
	10	10	145	17.2	61.9	36.3	7.5	10	61	270	330	315	375
	13	13	189	14.2	51.1	30.0	7.5	10	61	270	330	315	375
GA 11	7.5	7.5	109	30.7	110.5	64.8	11	15	62	293	353	343	403
	8.5	8.5	123	28.3	101.9	59.7	11	15	62	293	353	343	403
	10	10	145	26.0	93.6	54.9	11	15	62	293	353	343	403
	13	13	189	22.0	79.2	46.5	11	15	62	293	353	343	403

COMPRESSOR TYPE		Max. Wo	•	Capacity FAD*			Installed		Noise	Weight (kg)			
		pressure WorkPlace		min-max			motor power		level**	WorkPlace		WorkPlace Full Feature	
		bar(e)	psig	l/s	m³/h	cfm	kW	hp	dB(A)	Floor-mounted	Tank-mounted	Floor-mounted	Tank-mounted
60 Hz VERS	SION												
GA 5	100	7.4	107	15.0	54.0	31.7	5.5	7.5	60	257	317	300	360
	125	9.1	132	13.2	47.5	27.9	5.5	7.5	60	257	317	300	360
	150	10.8	157	11.7	42.1	24.7	5.5	7.5	60	257	317	300	360
	175	12.5	181	8.4	30.2	17.7	5.5	7.5	60	257	317	300	360
GA 7	100	7.4	107	21.0	76.6	44.3	7.5	10	61	270	330	315	375
	125	9.1	132	19.9	71.7	42.0	7.5	10	61	270	330	315	375
	150	10.8	157	17.2	61.9	36.3	7.5	10	61	270	330	315	375
	175	12.5	181	14.2	51.1	30.0	7.5	10	61	270	330	315	375
GA 11	100	7.4	107	30.4	109.4	64.1	11	15	62	293	353	343	403
	125	9.1	132	27.0	97.2	57.0	11	15	62	293	353	343	403
	150	10.8	157	24.9	89.6	52.5	11	15	62	293	353	343	403
	175	12.5	181	22.0	79.2	46.4	11	15	62	293	353	343	403

\* Unit performance measured according to ISO 1217, Ed. 4, Annex C-2009.
\*\* Mean noise level measured at a distance of 1 m according to ISO 2151; tolerance 3 dB(A).

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(e).
- 8.5 bar versions at 8 bar(e).

- 10 bar versions at 9.5 bar(e).
  13 bar versions at 12.5 bar(e).

GA 5-7-11 pack (floor-mounted)

GA 5-7-11 pack (tank-mounted)



L: 1142 mm Floor-mounted



H2: 1240 mm

### 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.



www.atlascopco.com

