

Atlas Copco Stationary air compressors

GA 5-11C WorkPlace Air System™

5.5-11 kW / 7.5-15 hp oil injected rotary screw compressors



WORKPLACE AIR SYSTEM™

Atlas Copco

GA 5-11C series, small in footprint... big in performance.

*Atlas Copco's unique WorkPlace Air System™
delivers unrivalled user value.*

*The WorkPlace Air System™ allows the
compressor to be moved out of the compressor
room and installed directly at the point of use.*

*The low noise level eliminates the need for a
separate compressor room and the integration of
all air system accessories reduces the required
installation area.*



Low installation cost

The GA 5-11C WorkPlace Air System™ is delivered to site fully equipped and ready for efficient operation. The cost of installation is minimized as the GA 5-11C can be equipped with:

- built-in air dryer
- pre-mounted compressed air filters
- pre-mounted condensate treatment
- air receiver

Integration of these components completely eliminates the need for interconnecting piping and drastically reduces the footprint of the compressed air installation.

Low running cost

The piping of the WorkPlace Air System™ has been designed for maximum efficiency and minimum pressure drop. In addition to creating pressure drop, pipe networks are susceptible to leakage. Leakages of up to 10 % of the total compressor capacity are not unusual.

The WorkPlace Air System™ eliminates this unnecessary power consumption and saves money.

The GA 5-11C series is available in different variants

WorkPlace Full Feature (FF)

Complete packaged compressed air system with:

- integrated refrigeration dryer
- low noise package
- Atlas Copco's Elektronikon® monitoring and control system.

WorkPlace

Offers all the benefits of the Full Feature, but excludes the refrigeration dryer.

High Ambient (HAV)

Specially developed to operate in temperatures up to 50 °C.

Tank mounted

All variants are available tank mounted.

WorkPlace Air System™:

The benefits of advanced technology.

✓ **Complete integration of Quality Air products**

Air dryer, compressed air filter, condensate treatment equipment and air receiver can all be integrated in the compressor package. This reduces the installation cost and drastically reduces the required floor space.

✓ **Low noise level**

The placement of high efficiency cooling fans at each point of use and the application of modern vibro-acoustic optimization has dramatically reduced the noise level making it possible to install the compressor in any location.

✓ **Absolute reliability**

Designed and manufactured in accordance with ISO 9001 and ISO 14001 certification, the GA5-11 C range meets the industry's expectations of the highest quality standards. All units conform with the ISO 1217, ed,3, Annex C – 1996 test code.

✓ **High efficiency**

Atlas Copco's high efficiency screw element and V-belt drive, combined with an intelligent control system, provide superior performance.

✓ **Low maintenance costs**

The compressor has been designed to be service friendly with direct and easy access to all components. Wear and the need for spare parts are reduced to an absolute minimum.

✓ **Elektronikon® control**

This advanced control and monitoring system maximizes overall compressor efficiency and reliability and minimizes maintenance cost. The regulator's Human to Machine Interface (HMI) utilizes internationally recognized symbols to communicate status, so language is universal.

✓ **Global sales and service organization**

From concept to installation, from advice to preventive maintenance and service activities, Atlas Copco is your compressed air partner helping to maintain your production process.



ISO 9001

From design to production and delivery, Atlas Copco compressors adhere to the ISO 9001 Management Systems Requirements.



ISO 14001

Atlas Copco's Environmental Management System forms an integral part of each business process.

GA 5-11C WorkPlace Air System™: reliability, efficiency and full integration.



1, Fan

Cooling air flow is optimized by placing dedicated cooling fans at each point of use. This insures that the right amount of cooling air is delivered where it is needed in the most efficient manner.

2, Coolers

Optimally sized aluminum block and fin style coolers insure ideal running temperatures under all conditions. The coolers are horizontally mounted and easily accessible to facilitate cooler cleaning.

3, Oil-separator

Multi-stage oil separator yields a 2 ppm oil-carry over for minimum contamination and maintenance.

4, Elektronikon

Automatic electronic control and monitoring of the compressor optimizes the operation for efficiency and reliability.

5, Air inlet filter

Generously dimensioned air intake filter for efficient operation even in dirty conditions.

6, Integrated refrigerant dryer

The Full Feature variant includes, as standard, an integrated refrigerant dryer removing water vapour from the compressed air to protect your compressed air piping network, production process and end products.

7, Motor

High efficiency, totally enclosed fan-cooled (TEFC), IP55, class F electric motor for continuous trouble-free operation. Bearings greased for life.

8, Element

Atlas Copco's patented screw element for optimal energy efficiency and outstanding reliability.

9, Drive arrangement

Simple V-belt drive system. The pulleys and belts selected insure maximum life with minimum slip and wear. The V-belts utilize an optimized belt notch profile that makes the belts run quiet, cool and smoothly for the highest efficiency and maximum life. Belt tensioning is maintained through the use of a high quality slide base that is easy to adjust.

Elektronikon® : A superior electronic control, monitoring and communication system.

Atlas Copco's patented Elektronikon® is an advanced, microprocessor based, real time operating system with an ergonomic user interface.



Reliability

- Protects the compressor pro-actively by means of service and warning indications
- Shuts down the compressor in the event of a fault

Energy efficiency

- Precise pressure control for optimal efficiency
- The DSS control mode minimizes unloaded power consumption, resulting in energy savings up to 10 %

User friendliness

- Utilizes internationally recognized symbols to communicate status
- Allows settings of operating parameters
 - Working pressure
 - Warning levels
 - Service levels
- Operating status and actual data read-out via the easy-to-read display
 - Working pressure, operating temperatures , number of motor starts, operating hours and service information

Service friendliness

- Automatic indication when service is required, minimizing downtime and simplifying maintenance planning

Digital remote control and monitoring

- Possibility to start/stop the compressor from a remote area
- Remote indication of general shutdown

Communication

- Remote communication via computer is possible with an optional upgrade of Elektronikon regulator
 - CAN connection
 - ModBUS/ProfiBUS interface
 - Air monitor interface to world wide web

Compressor room control and monitoring

Multiple compressor installations can benefit from a centralised control system, which coordinates the operation of the individual compressors and ancillaries. From simple sequencing to complete compressor room monitoring. Atlas Copco can offer it all - using the latest state of the art communication technology.

Optional equipment: The best value proposal.

Options

Class 1 filter kit (only Full Feature version)

Class 2 filter kit (only Full Feature version)

Dryer bypass

Oil/water separator

Electronic water drain

Oil containing frame

Modulating control

Synthetic PAO oil

Food grade oil

Lifting device

Rain protection

Freeze protection

Heavy duty inlet filter

Motor thermistor and anti condensate heater

Phase sequence relay

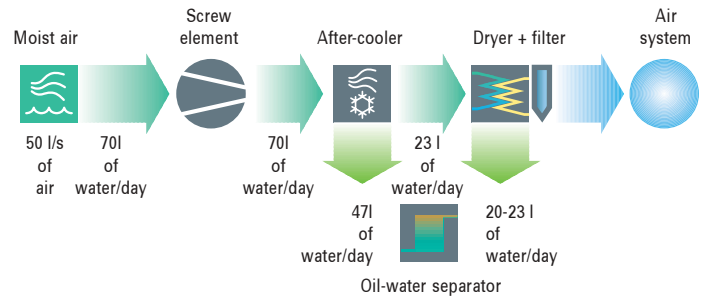
Main power isolator switch

Special colours

Elektronikon® II

Marine Air System

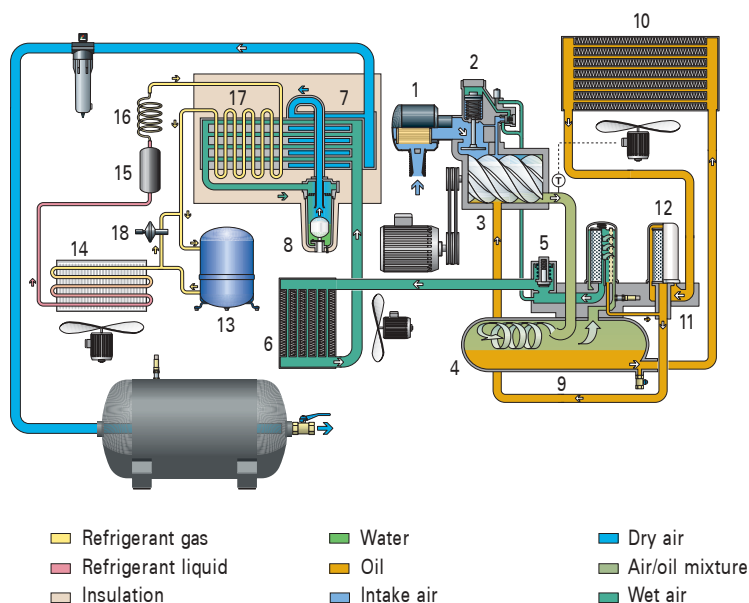
High ambient variant (HAV, 50 °C)



Moisture, dirt particles and aerosols in plant air can damage pneumatic equipment and contaminate products. Dry and clean compressed air keeps production operations running smoothly. The GA 5-11C Pack Full Feature units incorporate an integrated dryer using an environmental friendly refrigerant R134a. When adding the optional filter kits (DD) these units will deliver clean and dry compressed air according to ISO 8573-1 class 1.4.1.

Condensate quality must meet legal requirements. The optional OSD oil-water separator raises condensate quality to surpass legal requirements, so there is no need to worry about discharging oil contaminated condensate.

Flow diagram



Air flow

1. Air intake filter
2. Air intake valve
3. Compression element
4. Oil separator element
5. Minimum pressure valve
6. After cooler
7. Air-air heat exchanger
8. Water separator with drain

Oil flow

9. Oil reservoir
10. Oil cooler
11. Oil filter housing
12. Oil filter

Refrigeration flow

13. Refrigerant compressor
14. Condenser
15. Liquid refrigerant dryer/filter
16. Capillary tube
17. Evaporator
18. Hot gas bypass valve

- Refrigerant gas
- Water
- Dry air
- Refrigerant liquid
- Oil
- Air/oil mixture
- Intake air
- Insulation
- Wet air

Technical specifications and dimensions.

| Compressor type | Max. working pressure | | | | Capacity FAD* | | | Motor power | | Noise level** | Weight*** | | |
|----------------------|-----------------------|------|------------------------|------|---------------|-------|------|-------------|-----|---------------|-----------|-----------|------------------------|
| | WorkPlace | | WorkPlace Full Feature | | l/s | m³/h | cfm | kW | hp | | dB(A) | WorkPlace | WorkPlace Full Feature |
| | bar(e) | psig | bar(e) | psig | | | | | | | | | |
| 50 Hz version | | | | | | | | | | | | | |
| GA 5 - 7.5 | 7.5 | 109 | 7.3 | 105 | 14.9 | 53.6 | 31.6 | 5.5 | 7.5 | 60 | 215 | 245 | |
| - 8.5 | 8.5 | 123 | 8.3 | 120 | 13.4 | 48.2 | 28.4 | | | | | | |
| - 10 | 10 | 145 | 9.8 | 141 | 11.5 | 41.4 | 24.4 | | | | | | |
| - 13 | 13 | 189 | 12.8 | 185 | 8.7 | 31.3 | 18.4 | | | | | | |
| GA 7 - 7.5 | 7.5 | 109 | 7.3 | 105 | 21.0 | 75.6 | 44.5 | 7.5 | 10 | 61 | 224 | 254 | |
| - 8.5 | 8.5 | 123 | 8.3 | 120 | 19.5 | 70.2 | 41.3 | | | | | | |
| - 10 | 10 | 145 | 9.8 | 141 | 17.0 | 61.2 | 36.0 | | | | | | |
| - 13 | 13 | 189 | 12.8 | 185 | 13.5 | 48.6 | 28.6 | | | | | | |
| GA 11C - 7.5 | 7.5 | 109 | 7.3 | 105 | 28.5 | 102.6 | 60.4 | 11 | 15 | 62 | 237 | 272 | |
| - 8.5 | 8.5 | 123 | 8.3 | 120 | 26.5 | 95.4 | 56.2 | | | | | | |
| - 10 | 10 | 145 | 9.8 | 141 | 24.7 | 88.9 | 52.3 | | | | | | |
| - 13 | 13 | 189 | 12.8 | 185 | 20.4 | 73.4 | 43.2 | | | | | | |
| 60 Hz version | | | | | | | | | | | | | |
| GA 5 - 100 | 7.4 | 107 | 7.2 | 104 | 15.0 | 54.0 | 31.8 | 5.5 | 7.5 | 60 | 215 | 245 | |
| - 125 | 9.1 | 132 | 8.9 | 128 | 12.6 | 45.4 | 26.7 | | | | | | |
| - 150 | 10.8 | 157 | 10.3 | 149 | 10.7 | 38.5 | 22.7 | | | | | | |
| - 175 | 12.5 | 181 | 12.3 | 178 | 9.0 | 32.4 | 19.1 | | | | | | |
| GA 7 - 100 | 7.4 | 107 | 7.2 | 104 | 20.7 | 74.5 | 43.9 | 7.5 | 10 | 61 | 224 | 254 | |
| - 125 | 9.1 | 132 | 8.9 | 128 | 18.2 | 65.5 | 38.6 | | | | | | |
| - 150 | 10.8 | 157 | 10.3 | 149 | 15.6 | 56.2 | 33.1 | | | | | | |
| - 175 | 12.5 | 181 | 12.3 | 178 | 13.6 | 49.0 | 28.8 | | | | | | |
| GA 11C - 100 | 7.4 | 107 | 7.2 | 104 | 28.9 | 104.0 | 61.2 | 11 | 15 | 62 | 237 | 272 | |
| - 125 | 9.1 | 132 | 8.9 | 128 | 26.1 | 94.0 | 55.3 | | | | | | |
| - 150 | 10.8 | 157 | 10.3 | 149 | 23.8 | 85.7 | 50.4 | | | | | | |
| - 175 | 12.5 | 181 | 12.3 | 178 | 21.2 | 76.3 | 44.9 | | | | | | |

* Unit performance measured according to ISO 1217, Ed, 3, Annex C-1996.

** Mean sound level measured at a distance of 1m according to Pneurop/Cagi PN8NTC2 test code. Tolerance 2 dB(A).

Reference conditions:

- absolute inlet pressure 14.5 psi (1 bar)
- intake air temperature 68°F (20°C)

Pressure dew point of integrated refrigerant dryer at reference conditions: + 3°C.

FAD is measured at the following working pressures:

- 7.5 bar variants at 7 bar(e)
- 8 bar variants at 8 bar (e) (7,7.5 bar(e) for FF)
- 10 bar variants at 9.5 bar(e)
- 13 bar variants at 12.5 bar(e)

*** Floor mounted unit weight indicated. Tank mounted units weight an additional 85 kg.





What sets Atlas Copco apart as a company is our conviction that we can only excel in what we do if we provide the best possible know-how and technology to really help our customers produce, grow and succeed.

There is a unique way of achieving that - we simply call it the Atlas Copco way. It builds on **interaction**, on long-term relationships and involvement in the customers' process, needs and objectives. It means having the flexibility to adapt to the diverse demands of the people we cater for.

It's the **commitment** to our customers' business that drives our effort towards increasing their productivity through better solutions. It starts with fully supporting existing products and continuously doing things better, but it goes much further, creating advances in technology through **innovation**. Not for the sake of technology, but for the sake of our customer's bottom line and peace-of-mind.

That is how Atlas Copco will strive to remain the first choice, to succeed in attracting new business and to maintain our position as the industry leader.

Never use compressed air as breathing air without prior purification in accordance with local legislation and standards.

Atlas Copco

www.atlascopco.com