# Atlas Copco

# Railway Air Systems Oil-injected Screw Compressor GAR 5-14







- 1 The Full Feature variant includes integrated filters and a membrane dryer which removes oil and water vapor from the compressed air in order to protect your air piping network and braking system from freezing and corrosion
- 2 Optimally sized, high-efficiency aluminum cooler provides ideal compressor running temperature under all conditions
- 3 Multi-Stage, highly corrosion resistant oil separator, with a low, 3 ppm oil carry-over, reduces contamination and maintenance requirements
- 4 Heavy duty air intake filter for efficient operation in dusty environments

- 5 Atlas Copco's patented screw compression element for optimal energy efficiency and outstanding reliability
- 6 High precision gears manufactured according to DIN 3961/ class 6. Gears are oil lubricated and temperature controlled by the compressor oil
- 1 Integrated cooling fan to optimize the airflow, which ensures that the right amount of cooling air is delivered efficiently to where it is needed with minimal noise
- 8 High efficiency, totally enclosed fan-cooled (TEFC), IP 55, class F electric railway motor for continuous trouble-free operation with greased for life bearings

# Features and Benefits

# Compact, Space-Saving Design

- Minimized required footprint with a single access side for maintenance and installation
- Optional air dryer, filters and control cubicle can all be integrated in a very compact compressor package
- Integrated fan concept to avoid extra external fans

### **Enduring Performance**

- The compressor is designed, built and tested to meet the toughest conditions in railway applications (extreme climatic conditions, high humidity and shock & vibrations)
- Built in accordance with all relevant international norms & standards for railway applications

# Reliability & Durability

- Minimum amount of moving parts
- Use of corrosive resistant materials like stainless steel and aluminum
- Long service intervals
- Gear driven

## Flexible & Easy Installation

- Plug and play system
- Easy to adapt cooling flow directions
- Mainly used under or on top of a railway vehicle



# **Options**

#### **Different Drives**

The compressor can be equipped with different drives, like an AC motor, DC motor, hydraulic drive

#### **Control Voltage Connector**

To easily connect the control voltage lines

#### **Motor Voltage Connector**

To easily connect the power voltage lines

#### **Condensate Treatment**

To treat the condensate from the filtration line

#### **Different Approvals**

CE, ASME, SQL

#### Load/Unload Valve

To be able to control the compressor in different applications

#### **Control Pressure Switch**

To regulate the compressor according to air demand by measuring the pressure in the system

#### **Alarm Pressure Switch**

To signalize the compressor is still under pressure and prevent the compressor from restarting too soon against a too high back-pressure in case of power supply interruption

#### **Anti Rotation Switch**

To signalize the compressor is running and to prevent the compressor from running in the opposite direction due to a fase switch of the electro motor

#### dP-switch Inlet Filter

For remote signaling in case the inlet filter is clogged

#### **Heating Kit**

To be able to run the compressor in ambient temperatures between -40°C and -25°C

#### **Motor Starter**

Y/D or DOL

#### **Customized Frame**

To easily integrate the complete package into the available space envelop in, under or on top of the railway vehicle

#### Noise Hood

An engineered noise hood adapted to the available cooling flow directions to protect the compressor from external parts and to reduce the noise emission of the complete package

# **Technical Specifications**

Compressor type	Capacity*			Installed motor power		Pressure**		Sound pressure level	Weight	
	I/s	l/min	cfm	kW	hp	bar(e)	psig	dB(A)	kg	lbs
50 Hz version										
GAR 5	9.0	540	19.0	5.5	7.5	10	145	56	154	339
GAR 7	13.2	792	28.0	7.5	11	10	145	57	163	359
GAR 10	16.5	990	35.0	11	15	10	145	58	188	414
GAR 14	26.2	1572	55.5	15	20	10	145	64	193	425
60 Hz version										
GAR 5	8.5	510	18.0	5.5	7.5	10	145	56	154	339
GAR 7	12.9	774	27.3	7.5	11	10	145	57	163	359
GAR 10	16.6	996	35.2	11	15	10	145	58	188	414
GAR 14	22.3	1338	47.3	15	20	10	145	64	193	425

Unit performance measured at a standard unit (before dryer) according to ISO 1217, Annex C, latest edition

#### Reference conditions:

Absolute inlet pressure: 1 bar (14.5 psi) Intake air temperature: 20°C (68°F) Effective working pressure: 9.5 bar (138 psi)

Mean noise level measured according to ISO 2151/Pneurop/Cagi PN8NTC2 at 4.6 meter free field







<sup>\*\*</sup> Outlet pressures possible between 6 and 13 bar