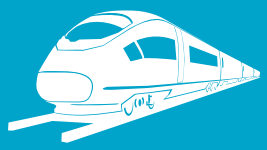
ATLAS COPCO RAILWAY AIR SYSTEMS



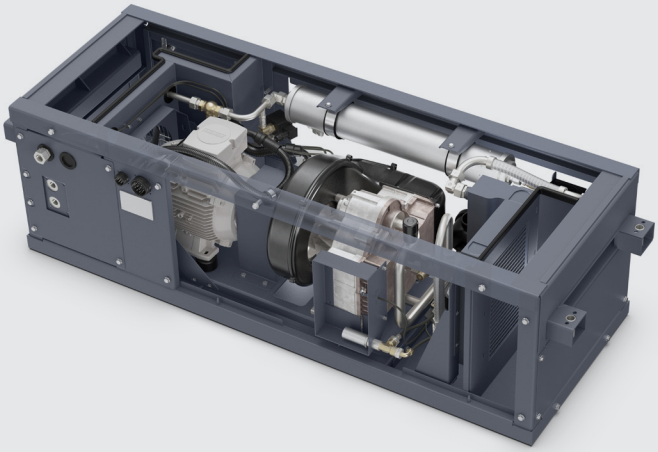
Oil-free Scroll Compressor
SFR 2-12

Sustainable Productivity

Atlas Copco

Less is more: low noise, low vibrations, low life cycle costs

The SFR orbiting scroll compressor is an oil-free, low maintenance air solution validated for railway applications. It is reliable, rated for a 100% duty cycle, and suited for the harshest conditions. The SFR offers performance and flexibility with low noise levels, vibrations and life cycle costs. It can be installed on top of, inside or underneath the vehicle. It is available from 200 to 500 l/min free air delivery; 600 to 1700 l/min free air delivery for the 2-stage scroll version.



FEATURES AND BENEFITS

Space-saving design
- Single side access for maintenance and installation.
- Optional air dryer, filters and control cubicle can be completely integrated.

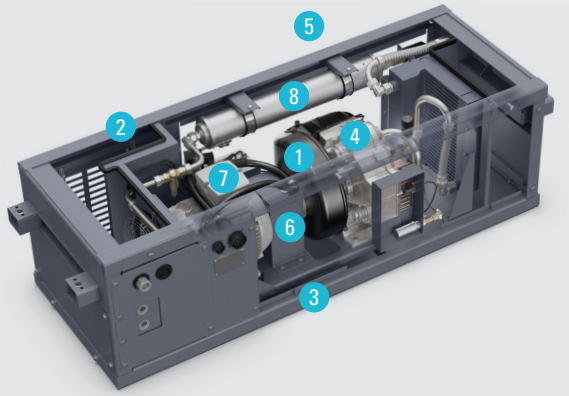
Enduring performance
- Performs in extreme climatic conditions, high humidity and vibrations.
- Built in accordance with international railway standards.

Oil-free compressor
- Environmentally-friendly oil-free scroll technology.
- Less maintenance.

Reliability & durability
- Minimum amount of moving parts.
- Corrosive resistant materials.
- Long service interval.
- Direct drive concept.

Easy installation
- Plug and play system.
- Easy to access main connections.
- Power and Control Quick Connectors for fail-proof quick connection of power and control lines.

Low noise without pulsations
- Very low noise level without noise canopy.
- No pulsations from reciprocating masses, neither into your piping system or to the car body.



1. Optimized cooling fan to obtain a fully balanced compressor for smooth running with start and operating capabilities between -40 °C (-40 °F) and +50 °C (122 °F).
2. Shock and vibration-resistant, FEM-calculated, multilayer-coated steel frame, welded according to EN 15085-CL 1 for direct mounting and installation on the vehicle roof, inside or under the floor.
3. Integrated vibration dampers for minimum transfer of vibrations to and from the compressor.
4. Top quality oil-free scroll elements with patented superflow for high performance and extended lifetime, even in the worst ambient conditions, in a one-stage and intercooled two-stage version.
5. Heavy duty air intake filter for efficient operation in dusty environments.
6. Direct drive concept for lean dimensions, low weight, short service time, high reliability and low life cycle costs.
7. High efficiency, totally enclosed fan-cooled (TEFC), IP 55, class F electric railway-approved electric motor for continuous trouble-free operation with greased-for-life bearings.
8. The Full Feature version includes an integrated filter and membrane dryer which removes condensate water and vapor from the compressed air to protect your piping network and brake system from freezing, corrosion and staining.

OPTIONS

- **Manifold** For easy installation of all required safety and measuring devices on a single manifold.
- **Full Feature version** One packaged unit contains an aftercooler, filter and membrane dryer to achieve an outlet air quality up to 1.2.0 according ISO 8573-1.
- **Control cubicle** To be able to control the compressor as a stand-alone unit without expensive system integration.
- **Different drives** Alternative drives like pulley or DC are available upon request.
- **Control voltage connector** To easily connect control voltage lines.
- **Motor voltage connector** To easily connect power voltage lines.
- **Different approvals** CE, ASME, SQL.
- **Control pressure switch** To regulate the compressor according to air demand by measuring the pressure in the system.
- **dP-switch inlet filter** For remote signaling in case the inlet filter is clogged.
- **Customized frame** To easily integrate the complete package into the available space in, under or on top of the railway vehicle.

TECHNICAL SPECIFICATIONS

Compressor type	Capacity			Shaft power		Maximum Pressure		Sound pressure level
	l/s	l/min	cfm	kW	hp	bar(e)	psig	dB(A)
50 Hz version								
SFR 2-50	3.4	205	7.2	2.2	3.0	10	145	57
SFR 4-50	5.5	330	11.7	3.7	5.0	10	145	58
SFR 5-50	7.9	475	16.7	5.5	7.5	10	145	62
SFR 7-50	10.5	630	22.2	6.5	8.8	10	145	66
SFR 12-50	25.0	1500	53.0	12.0	16.3	10	145	69
60 Hz version								
SFR 2-60	3.4	205	7.2	2.2	3.0	10	145	57
SFR 4-60	5.5	330	11.7	3.7	5.0	10	145	58
SFR 7-60	13.6	815	28.8	7.5	10.0	10	145	67

Reference conditions:
Absolute inlet pressure: 1 bar (14.5 psi)
Intake air temperature: 20 °C (68 °F)
Mean noise level measured according to ISO 2151/Pneurop/Cagi PN8NTC2 at 4.6 meter free field
Unit performance measured at a standard unit (before dryer) according to ISO 1217, Annex C, latest edition

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