

The Atlas Copco logo is positioned in the top right corner of the page. It consists of the company name "Atlas Copco" in a white, italicized serif font, centered between two horizontal white bars. The background of the entire page is a long-exposure photograph of a city at night, featuring a prominent cable-stayed bridge with multiple towers and a complex multi-level highway interchange. Light trails from cars on the bridge and highway create vibrant streaks of white, red, and yellow. The city skyline in the background is illuminated with various lights, and the water of a river or bay reflects the lights. A large, semi-transparent blue triangle is overlaid on the bottom left portion of the image, containing technical drawings of a scroll compressor and the main text of the advertisement.A technical drawing of a scroll compressor is overlaid on a large blue triangle in the bottom left corner of the page. The drawing shows various components and dimensions of the compressor, including a circular scroll element and associated housing parts. Dimensions are labeled with numbers and symbols like Φ and mm .

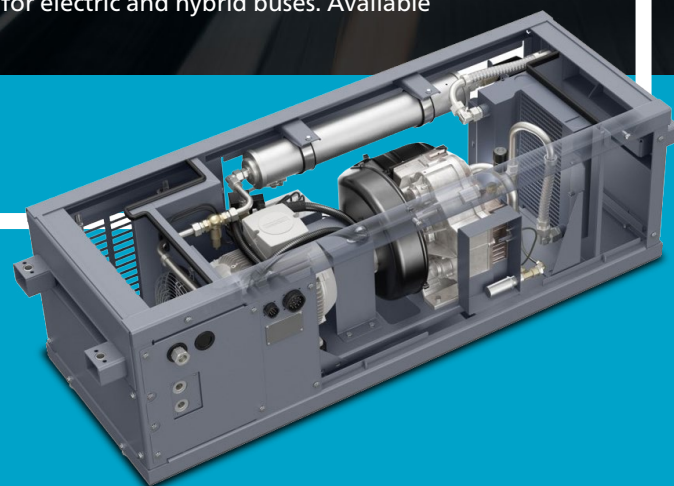
Atlas Copco mobility air systems

Oil-free Scroll Compressor SFR 2-12



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

The SFR orbiting scroll compressor is an oil-free, low maintenance compressed air solution validated for all mobility applications. 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. To be installed on top of, inside or underneath the vehicle; special light-weight models for electric and hybrid buses. Available from 200 to 1550 l/min (7 to 55 cfm) free air delivery.



Features and benefits



Space-saving design

- Single side access for easy maintenance.
- Optional air dryer, filters and control cubicle, designed to be completely integrated.
- Integrated radial fan concept to avoid extra external fans.



Enduring performance

- Performs in extreme climatic conditions, high humidity and under high vibration level.
- Built in accordance with international railway standards.



Oil-free compressor

- Environmentally friendly oil-free scroll technology.
- Less maintenance than other compressor systems.
- Special light-weight models for electric and hybrid buses.



Reliability and durability

- Minimum amount of moving parts.
- Corrosive resistant materials.
- Long service intervals.
- 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 cables.



Low noise without pulsations

- Very low noise level already without noise canopy.
- No pulsations from reciprocating masses, neither into your piping system, nor to the car body.
- Extreme silent in electric and hybrid buses.

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 for direct mounting and installation on the vehicle roof, inside or under floor.

3

Integrated vibration dampers for minimum transfer of vibrations to and from the compressor.

4

Top quality oil-free scroll element with patented super flow for high performance and extended lifetime, even in the worst ambient conditions, in one-stage and intercooled two-stage version.

5

Heavy duty air inlet filter for efficient operation in dusty environments.

6

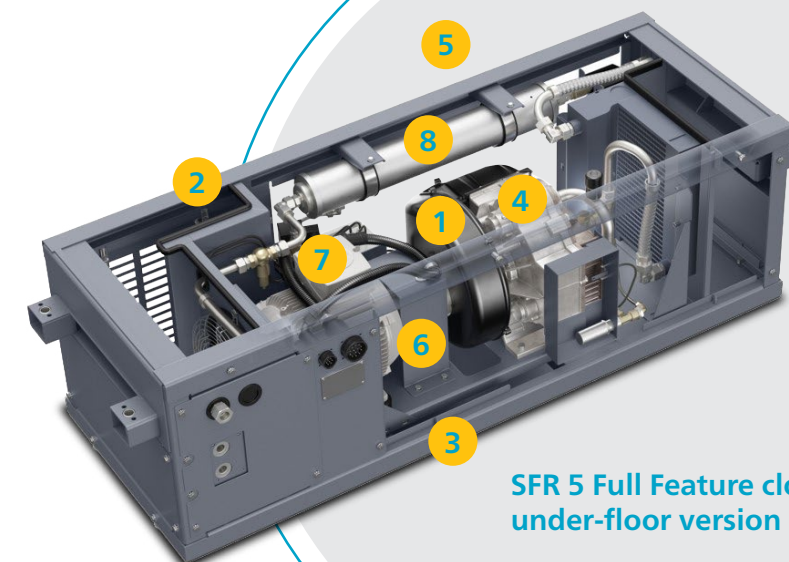
Direct drive concept for lean dimensions, low weight, short service time, high reliability and low life cycle costs.

7

High efficiency, totally enclosed fan-cooled (TEFC), IP 55, class F railway-approved electric motor for continuous trouble-free operation with greased-for-life bearings.

8

The Full Feature version includes integrated filters and a membrane dryer to remove particles, condensate water and vapor from the compressed air to protect your piping network and brake system from freezing, corrosion and staining.



SFR 5 Full Feature closed under-floor version

Options

Manifold

For easy installation of all required safety and measuring devices on a single manifold.

Full Feature version

One packaged unit contains water separator, 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.

Control voltage connector

To easily connect control voltage cables.

Motor voltage connector

To easily connect power voltage cables.

Different approvals CE, ASME, etc.

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

Inlet filter switch

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 2-stage	9.5	570	22.1	6.5	8.8	10	145	66
SFR 12-50 2-stage	23.0	1380	48.7	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 2-stage	12.5	750	26.5	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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