

Atlas Copco Industrial air compressors

SF 1-15

oil-free scroll compressors



OIL-FREE
TROUBLE-FREE

Atlas Copco

Atlas Copco scroll compressors, providing you with economical and constantly high quality oil-free compressed air.

Resulting from over 100 years of attention to individual customers requirements and over 40 years experience with oil free compressor technology, Atlas Copco are able to offer you an unrivalled range of Screw, Tooth, Scroll, centrifugal and reciprocating air compression technologies best suited to your specific application requirements.

The oil free SF Scroll range of air compressors gives you all of this experience and knowledge in a class leading package, something that you would expect from a company that has such history in providing high quality, cost effective solution to our individual customer requirements.

High quality oil free compressed air is a prerequisite for the continuity and quality of many manufacturing processes. It is our belief that the only way to ensure consistent oil free air is to prevent oil from entering the compression process in the first place, anything else is a compromise.


SF compressors meeting your demands through unrivalled knowledge and experience of your application.





Scroll technology...

innovation in compressed air techniques.



Pure oil-free air

Since there is no metal to metal contact between the compression scrolls, there is no need for oil lubrication in the compression chamber.

The scroll compression principle therefore guarantees high quality oil-free air.

The scroll element is belt-driven reducing the need for a gearbox, as a result, the SF compressor is oil-free in everyway.

Energy efficiency

The SF scroll range of compressors are highly energy efficient. Unload operation is removed by the load/stop operation of the units.

With the SF Multicore range, the **Variable Flow Technology** is employed to match compressed air output with demand.

Extremely low noise level

SF compressors are extremely quiet in operation, due to the slow operating speeds and the lack of scroll contact in the compression element.

SF units are *WorkPlace Air System*[™] compressors making them suitable for installation directly in the working environment.

Durability and reliability

The overall simplicity of the scroll concept has proven to be inherently reliable.

The design incorporates the use of a minimal number of rotating parts, extending operational life and reducing the need for significant service interventions.

Modular structure meets the needs of varying applications.



SF-Skid

SF-Skid models are designed with simplicity in mind, making them suitable for installation at point of use or integrated into an existing air network.

Skid variants are self contained units equipped with a single scroll element and drive motor, after-cooler and integrated starter, all contained in a modern silenced acoustic canopy.

SF-Skid receiver mounted

Consists of SF-Skid module mounted on a fully approved 270 litre air receiver.

SF-Twin receiver mounted

A tandem installation of SF-Skid modules on a 500 litre fully approved air receiver.

Each module has its own self contained starter providing the highest level of flexibility when compressed air demands vary.

Both compressors are equipped with a separate pressure switch, allowing each module to operate independently or together as the air demand requires.

High efficiency paper cartridge air inlet filter eliminating dust and particles down to 1 μm .

Protective hinged silencing hood for easy access.

Totally enclosed air cooled IP55 class F motor



Air cooled scroll compressor element.

Compressed air after-cooler

Simple drive belt tension system

Fully approved air receiver.

The super silent answer to high quality air



SF-Mono

A fully self contained scroll compressor package, complete with single scroll element, drive motor, after-cooler and starter, integrated in a highly effective acoustic canopy.

With noise levels as low as 54 dB(A), the SF mono is a *WorkPlace Air System™* compressor suitable for installation directly in the working environment.

SF-Mono Full Feature.

The SF Mono compressor with an integrated refrigerant air dryer ensures a constant supply of pure oil-free dry compressed air.

SF-Mono and Mono Full Feature.

These compressors are available mounted directly on a 270 litre air receiver for ease of installation.

Interchangeable top and back canopy panels allow a change in cooling airflow direction, extending the possibilities for installation and integration.

Totally enclosed air cooled IP 55 class F motor for heavy duty operation.

High efficiency paper cartridge air inlet filter eliminating dust and particles down to 1 μm .



A compact, integrated refrigerant dryer, ensures the delivery of dry quality air.

A sound insulated canopy reduces noise level as low as 54 dB(A).

Air cooled scroll compressor element offering proven durability and reliability in operation.

Automatic start/stop when the required working pressure is reached, thus avoiding unnecessary energy costs.

Flexibility with Scroll Multicore Variable Flow Technology



Total flexibility.

The Scroll Multicore extends oil-free Scroll technology up to 15 kW. Between two and four compressor modules are integrated into one canopy, incorporating all the benefits and flexibility of a modular system. Scroll Multicore units are available as silenced Pack and Full Feature variants with integrated refrigerant dryer.

Efficiency in operation.

Multicore units are equipped with Atlas Copco's Elektronikon®, Multi Scroll Compressor Controller (MSCC) - continuously monitoring the status of each scroll element, ensuring total flexibility, sequential operation and gradual capacity control resulting in energy savings.

Elektronikon® monitoring and control system.



Fan cooled scroll compressor element.

Integrated refrigerant dryer ensuring the delivery of dry high quality air.

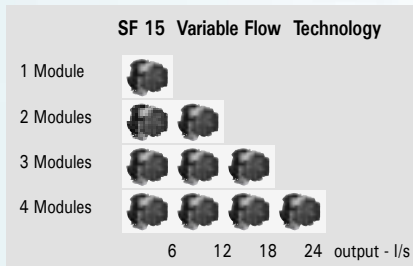
Totally enclosed air cooled IP55 class F motor greased for life.

Scroll modules are mounted on a sliding platform for easy servicing.



High efficiency paper cartridge air inlet filter eliminating dust and particles down to 1 µm.

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



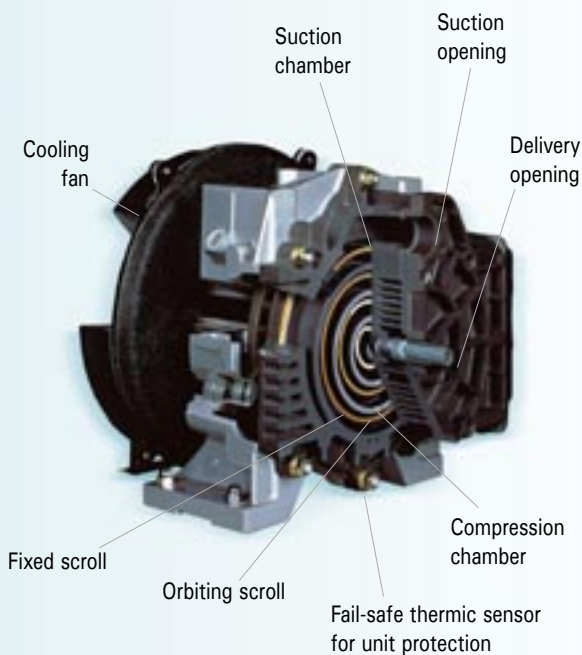
Elektronikon® intelligence - Variable Flow Technology

All Multicore units are equipped with the unique VFT system, which provides maximum flexibility when it comes to air delivery. The VFT system, steered via the Elektronikon® controller, allows the start-up of each module within tiny intervals, eliminating starting peaks and matching compressed air output with demand from zero to full capacity in a matter of seconds.

The Elektronikon® control algorithm ensures that the system pressure remains within a very narrow band, optimising efficiency of both the compressor and the process.

The alphanumeric display - programmable in different languages - gives instant read outs of the operational data and status of the core units. Vital functions are continuously scanned, thereby controlling the overall compressor operation.

Innovation in action at the heart of the SF compressors



Air compression is achieved by the interaction of a fixed and an orbiting scroll. Air at inlet pressure enters the compression chamber at the exterior side of the scroll element. Once air is drawn in, the orbiting scroll seals off the inlet port. As the scroll continues to orbit, the air is progressively compressed into an increasingly smaller "pocket".

A continuous flow of compressed air leaves the scroll element through a discharge port in the centre of the fixed scroll. This process is continuously repeated, resulting in the delivery of pulse-free compressed air.

SF Mono and Multicore *WorkPlace Air System*[™] compressors The sound of silence

Atlas Copco *WorkPlace Air System*[™] compressors are much more than low noise air compressors with integrated air treatment equipment. They are designed to give the most efficient source of compressed air within a production environment.

Compact and space efficient with low noise levels

A low noise level enables the compressor to be installed close to the compressed air application, minimising the size of the air distribution system reducing pressure loss and the potential for leakage.

Complete integration of air treatment

Substantially reduces the installation cost, making multiple compressor installations practical and financially viable.

Correct air quality selection

Because of the broad range of Atlas Copco air treatment technology, it is possible to select the most efficient system to meet individual compressed air requirements.

Efficient regulating systems

To ensure maximum energy efficiency, Atlas Copco offers both traditional on/off regulating systems where the air demand is constant.

Where fluctuating air demand is required, then the unique **VFT** control concept efficiently matches compressed air output air demand.



Technical data and dimensions.

Compressor type 50 Hz / 60 Hz	Max. working pressure				(*)Capacity FAD			Motor power		Noise level dB(A)	Dimensions L x W xH mm	Weight kg	Air tank l
	Pack		Full Feature		l/s	m³/min	cfm	kW	hp				
	bar(e)	psig	bar(e)	psig									
Skid versions													
SF1-8 / SF1-100	8	116	7.75	116	2.7	0.2	5.7	1.5	2	65	800 x 600 x 540	105	-
SF1-10 / SF1-145	10	116	9.75	116	2.1	0.1	4.4	1.5	2	65	800 x 600 x 540	105	-
SF2-8 / SF2-100	8	116	7.75	116	4.0	0.2	8.5	2.2	3	67	800 x 600 x 540	110	-
SF2-10 / SF2-145	10	145	9.75	145	3.4	0.2	7.2	2.2	3	67	800 x 600 x 540	110	-
SF4-8 / SF4-100	8	116	7.75	116	6.6	0.4	14.0	3.7	5	68	800 x 600 x 540	120	-
SF4-10 / SF4-145	10	145	9.75	145	5.6	0.3	11.9	3.7	5	68	800 x 600 x 540	120	-
Receiver mounted													
SF1-8 / SF1-100	8	116	7.75	116	2.7	0.2	5.7	1.5	2	65	1267 x 600 x 1169	180	270
SF1-10 / SF1-145	10	116	9.75	116	2.1	0.1	4.4	1.5	2	65	1267 x 600 x 1169	180	270
SF2-8 / SF2-100	8	116	7.75	116	4.0	0.2	8.5	2.2	3	67	1267 x 600 x 1169	185	270
SF2-10 / SF2-145	10	145	9.75	145	3.4	0.2	7.2	2.2	3	67	1267 x 600 x 1169	185	270
SF4-8 / SF4-100	8	116	7.75	116	6.6	0.4	14.0	3.7	5	68	1267 x 600 x 1169	195	270
SF4-10 / SF4-145	10	145	9.75	145	5.6	0.3	11.9	3.7	5	68	1267 x 600 x 1169	195	270
SF6T-8 / SF56T-100	8	116	7.75	116	10.6	0.6	22.5	5.9	8	72	2043 x 600 x 1169	365	500
SF6T-10 / SF6T-145	10	145	9.75	145	9.0	0.5	19.1	5.9	8	72	2043 x 600 x 1169	365	500
SF8T-8 / SF8T-100	8	116	7.75	116	13.2	0.8	28.0	7.4	10	73	2043 x 600 x 1169	375	500
SF8T-10 / SF8T-145	10	145	9.75	145	11.2	0.7	23.7	7.4	10	73	2043 x 600 x 1169	375	500
Mono versions													
SF1-8 / SF1-100	8	116	7.75	116	2.7	0.2	5.7	1.5	2	54	590 x 600 x 1040	97	Optional
SF2-8 / SF2-100	8	116	7.75	116	4	0.2	8.5	2.2	3	54	590 x 600 x 1040	97	Optional
- / SF2-125	9.1	125	8.85	125	3.1	0.2	6.6	2.2	3	54	590 x 600 x 1040	97	Optional
SF2-10 / SF2-145	10	145	9.75	145	2.8	0.2	5.8	2.2	3	54	590 x 600 x 1040	97	Optional
SF4-8 / SF4-100	8	116	7.75	116	6.7	0.4	14.2	3.7	5	54	590 x 600 x 1040	102	Optional
- / SF4-125	9.1	125	8.85	125	4.8	0.3	10.2	3.7	5	54	590 x 600 x 1040	102	Optional
SF4-10 / SF4-145	10	145	9.75	145	4.2	0.2	8.8	3.7	5	54	590 x 600 x 1040	102	Optional
Multicore versions													
SF6-8 / SF6-100	8	116	7.75	116	10.4	0.6	22.0	5.9	8	63	1450 x 750 x 1040	340	-
- / SF6-125	9.1	125	8.85	125	8.9	0.5	18.9	5.9	8	63	1450 x 750 x 1040	340	-
SF6-10 / SF6-145	10	145	9.75	145	8.8	0.5	18.6	5.9	8	63	1450 x 750 x 1040	340	-
SF8-8 / SF8-100	8	116	7.75	116	12.7	0.8	26.9	7.4	10	63	1450 x 750 x 1040	345	-
- / SF8-125	9.1	125	8.85	125	12.3	0.7	26.1	7.4	10	63	1450 x 750 x 1040	345	-
SF8-10 / SF8-145	10	145	9.75	145	11.3	0.7	23.9	7.4	10	63	1450 x 750 x 1040	345	-
SF11-8 / SF11-100	8	116	7.75	116	18.9	1.1	40.0	11	15	60	1450 x 750 x 1844	480	-
- / SF11-125	9.1	125	8.85	125	18.5	1.1	39.2	11	15	60	1450 x 750 x 1844	480	-
SF11-10 / SF11-145	10	145	9.75	145	17.0	1.0	36.0	11	15	60	1450 x 750 x 1844	480	-
SF15-8 / SF15-100	8	116	7.75	116	24.7	1.5	52.3	15	20	63	1450 x 750 x 1844	560	-
- / SF15-125	9.1	125	8.85	125	24.5	1.5	51.9	15	20	63	1450 x 750 x 1844	560	-
SF15-10 / SF15-145	10	145	9.75	145	22.8	1.4	48.3	15	20	63	1450 x 750 x 1844	560	-

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

Reference conditions:

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

Noise level measured at a distance of 1 m according to Pneurop/Cagi PN8NTC2 test code.



The face of innovation

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.



ISO 9001

From design to production and delivery, Atlas Copco compressors adhere to the ISO 9001 quality standard.



ISO 14001

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

