

Atlas Copco Air Compressors

SF 1-15

1.5 - 15 kW / 2 - 20 hp 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

Atlas Copco has a 100 year history of meeting customer requirements and over 40 years of experience with oil-free Compressor technology. Atlas Copco is able to offer you an unrivalled range of oil-free Compressor technologies: Screw, Tooth, Centrifugal, Reciprocating and Scroll. This range of technologies insures that Atlas Copco can always meet your specific requirement.

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 of providing high quality, cost effective solution to our customer's 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 meet 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 eliminating the need for a gearbox. As a result, the SF compressor is oil-free in everyway.

Energy efficiency

The SF Scroll compressors are highly energy efficient. Unloaded power consumption is eliminated by using simple start/stop control. The SF 6-15 uses Variable Flow Technology to match the compressed air output to the air demand.

Extremely low noise level

The slow speed of the scroll compression elements insures that the SF scroll compressors are extremely quiet. SF Units are *WorkPlace Air System* compressors making them suitable for installation in all working environments.

Durability and reliability

With the SF scroll compressor, simplicity and reliability are built in. The scroll design has a minimal number of moving parts, insuring a long operating life with a minimum number of service interventions

SF 1-4 Skid

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, drive motor, after-cooler and integrated starter, all contained in a modern silenced acoustic canopy.



SF-Skid receiver mounted

Consists of an SF-Skid module mounted on a fully approved 270 litre (80 gallon) air receiver.

All SF air receivers are internally coated to prevent corrosion.



SF-Twin receiver mounted

A tandem installation of SF-Skid modules on a fully approved 500 litre (120 gallon) 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 μ m.

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

Internally coated air receiver

SF 1-4

The super silent answer to high quality air



SF 1-4

The SF 1-4 is a complete scroll compressor package. The SF 1-4 includes the compression element, drive motor, after cooler and starter all integrated in a super silent acoustic enclosure.

The SF 1-4 is a true WorkPlace Air System. With noise levels as low as 54 dB(A), the SF 1-4 can be installed directly in the quietest work environment.

SF 1-4 FF (Full Feature)

The SF 1-4 is available as a Full Feature unit. Atlas Copco Full Feature compressors include a refrigerant air dryer integrated in the compressor enclosure. The dryers are prewired to the compressor power supply so only a single power connection is required.

SF 1-4 Receiver Mounted

There are two receiver mounting options available with the SF 1-4. The SF 1-4 can be delivered with an extended canopy that includes two integrated 16 litre galvanized air receivers or it can be delivered mounted on an internally coated 270 litre (120 gallon) horizontal receiver.



Interchangeable top and back canopy panels allow a change in cooling air flow 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.



SF 6-15

Total Flexibility with Variable Flow Technology



Total flexibility.

The SF 6-15 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. SF 6-15 units are available as silenced Pack and Full Feature variants with integrated refrigerant dryer.

Efficiency in operation.

SF 6-15 scroll compressors are equipped with Atlas Copco's Elektronikon® - Multi Scroll Compressor Controller (MSCC). The Elektronikon® continuously monitors the status of each element and starts and stops the compression elements, thereby insuring that the compressed air output matches the air demand.

Elektronikon® monitoring and control system.

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

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



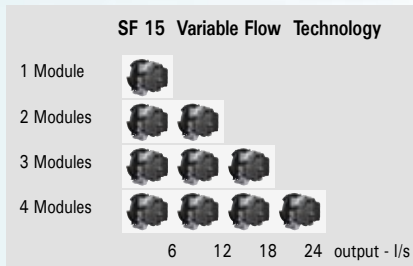
Fan cooled scroll compressor element.

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



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

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

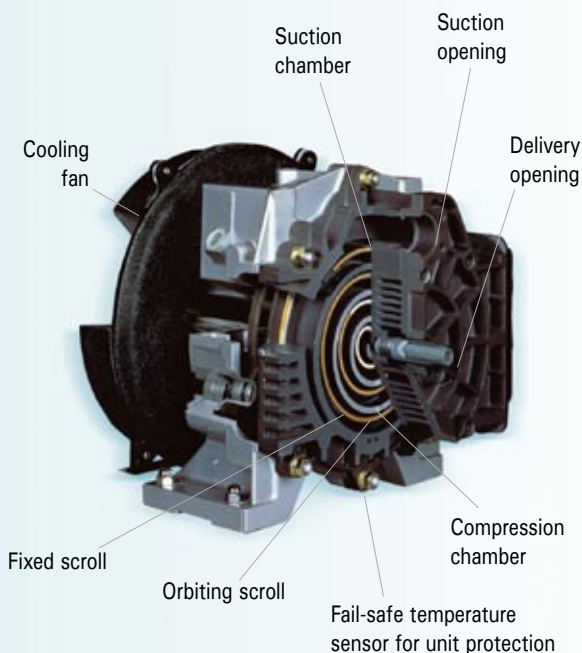


Variable Flow Technology - VFT

All SF 6-15 units are equipped with the unique VFT control system, which provides maximum flexibility of air delivery. The VFT system, included in the Elektronikon controller, automatically starts and stops the scroll elements to exactly match the demands of your compressed air system.

The Elektronikon control algorithm ensures that the system pressure is kept within a very narrow pressure band. This optimizes the efficiency of the compressor and insures a very stable system pressure. The Elektronikon also gives an instant read out of all operational data and continuously scans and monitors the operation of the SF compressor.

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 1-15

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, minimizing the size of the air distribution system and 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.

***WorkPlace
Air System***[™]



Technical data and dimensions.

Compressor type 50 Hz / 60 Hz	Max. working pressure		Capacity FAD ^(*)			Installed motor power		Noise level ^(**) dB(A)	Dimensions L x W x H mm	Weight kg
	bar(e)	psig	l/s	m ³ /min	cfm	kW	hp			
SF 1	8	116	2.7	0.16	5.7	1.5	2	65	800 x 600 x 540 (Receiver mounted) 1267 x 600 x 1169	105
	10	145	2.1	0.13	4.4	1.5	2	65		105
SF 2	8	116	4.0	0.24	8.5	2.2	3	67		110
	10	145	3.4	0.20	7.2	2.2	3	67		110
SF 4	8	116	6.6	0.4	14.0	3.7	5	68		120
	10	145	5.6	0.3	11.9	3.7	5	68		120
SF 6T	8	116	10.6	0.64	22.5	5.9	8	72	2043 x 600 x 1169	365
	10	145	9.0	0.54	19.1	5.9	8	72		365
SF 8T	8	116	13.2	0.80	28.0	7.4	10	73		375
	10	145	11.2	0.67	23.7	7.4	10	73		375
SF 1	8	116	2.7	0.16	5.7	1.5	2	53	590 x 600 x 1040 1450 x 750 x 1040	97
	10	145	2.1	0.13	4.4	1.5	2	53		97
SF 2	8	116	4.0	0.24	8.5	2.2	3	55		97
	10	145	3.4	0.20	7.2	2.2	3	55		97
SF 4	8	116	6.6	0.40	14.0	3.7	5	57		102
	10	145	5.6	0.34	11.9	3.7	5	57		102
SF 6	8	116	10.4	0.62	22.0	5.9	8	63		340
	10	145	8.8	0.53	18.6	5.9	8	63		340
SF 8	8	116	13.4	0.80	28.4	7.4	10	63	345	
	10	145	11.3	0.68	23.9	7.4	10	63	345	
SF 11	8	116	20.2	1.21	42.8	11	15	63	480	
	10	145	17.0	1.00	36.0	11	15	63	480	
SF 15	8	116	26.4	1.58	55.0	15	20	63	560	
	10	145	22.8	1.37	48.3	15	20	63	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 Pneuop/Cagi PN8NTC2 test code.

Available options

	Integrated refrigerant dryer	Integrated 2 x 16 litre receivers	270 litre (80 gallon) air receiver	Timed air receiver drain	EWD zero loss drain	-40 °C PDP CD Air dryer ⁽¹⁾
SF 1-4 Skid	-	-	●	●	-	●
SF 6-8T Skid Tank mounted	-	-	-	●	-	●
SF 1-4	●	●	●	●	-	●
SF 6-15	●	-	-	-	●	-

(1) CD desiccant air dryers are only available with receiver mounted units.



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 profitability 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.



Service competence

Atlas Copco is committed to provide the levels of after-sales care that you require. Our highly trained engineers offer the best possible support and assistance in operating your equipment with the most modern diagnostic tools available.

Global capability

Global capability with local presence means that we can respond rapidly to any situation anywhere in the world. Our world class logistics ensures timely delivery of our range of guaranteed quality spare parts.



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.



www.atlascopco.com