

Atlas Copco

Oil-free Scroll Compressors




SF 1-15

1.5-15 kW/2-20 hp



Atlas Copco



Total capability, total responsibility

Right at the heart of your business, Atlas Copco delivers quality compressed air for superior operational capacity. From compressed air generation to point of use, you can choose from our wide range of products to create a complete compressed air system tailored to your specific needs. All Atlas Copco products are engineered to integrate seamlessly, ensuring the highest level of reliability and energy efficiency. As a result, Atlas Copco can take full responsibility for your compressed air infrastructure with a guarantee of best-in-class quality. With a global presence in over 150 countries, we can provide an unrivalled service to maintain and continually improve your compressed air system performance.

Backed by 100 years at the forefront of compressed air, Atlas Copco products offer the finest quality and efficiency. Our goal is to be First in Mind—First in Choice®. That is why Atlas Copco's pursuit of innovation never ceases, driven by the dedication to meet and exceed your demands. Always working with you, we are committed to providing the customized air solution that is the driving force behind your business.

***We are committed to your superior productivity
through interaction and innovation.***

Cost-efficient high quality air

With its range of state-of-the-art oil-free compressor technologies such as screw, tooth, centrifugal, reciprocating and scroll, Atlas Copco provides the right solutions to meet your specific needs. As high quality oil-free compressed air is a prerequisite for the continuity and quality of your manufacturing processes, we ensure consistent oil-free air by preventing oil from entering

your compressed air system. The SF range of oil-free scroll air compressors unites Atlas Copco's vast experience and knowledge in a class-leading package. Reliable and compact, they answer your demands through innovative technologies and supreme energy efficiency without compromising on quality.



PURE OIL-FREE AIR

As there is no metal to metal contact between the compression scrolls, there is no need for oil lubrication in the compression chamber. Therefore, the scroll compression principle 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 every way.



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 any working environment.



ENERGY EFFICIENCY

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



DURABILITY AND RELIABILITY

The SF scroll compressors stand for simplicity and reliability. 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



SF-SKID

SF-Skid models are designed with simplicity in mind, making them suitable for installation at the point of use or for integration into an existing air network. Skid variants are self contained units equipped with a single scroll element, drive motor, aftercooler and integrated starter, all contained in a modern silenced acoustic canopy.



SF-SKID RECEIVER MOUNTED

This model consists of an SF-Skid module mounted on a fully approved 270 liter (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 liter (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, depending on the air demand.

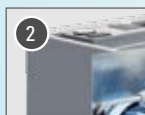


HIGH EFFICIENCY



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

EASY ACCESSIBILITY



Protective hinged silencing hood for easy access.

OUTSTANDING RELIABILITY



Air-cooled scroll compressor element.



Totally enclosed air-cooled IP55 class F motor.



Compressed air after-cooler.



Simple drive belt tension system.



Internally coated air receiver.

SF 1-4: Super silent



SF 1-4

The SF 1-4 is a complete scroll compressor package. The SF 1-4 unites the compression element, drive motor, aftercooler and starter 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 into the quietest work environments.

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 into 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

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

HIGH EFFICIENCY



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



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

OUTSTANDING RELIABILITY



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



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

HIGH QUALITY AIR



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



SIMPLE INSTALLATION



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

EXTREMELY LOW NOISE LEVEL



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

SF 6-15: Flexible



TOTAL FLEXIBILITY

The SF 6-15 extends the 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.



HIGH EFFICIENCY



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

OUTSTANDING RELIABILITY

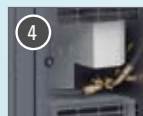


Totally enclosed air-cooled IP55 class F motor greased for life.



Fan-cooled scroll compressor element.

HIGH QUALITY AIR



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

TOTAL SUPERVISION AND MONITORING



Elektronikon® monitoring and control system.

EASY ACCESSIBILITY



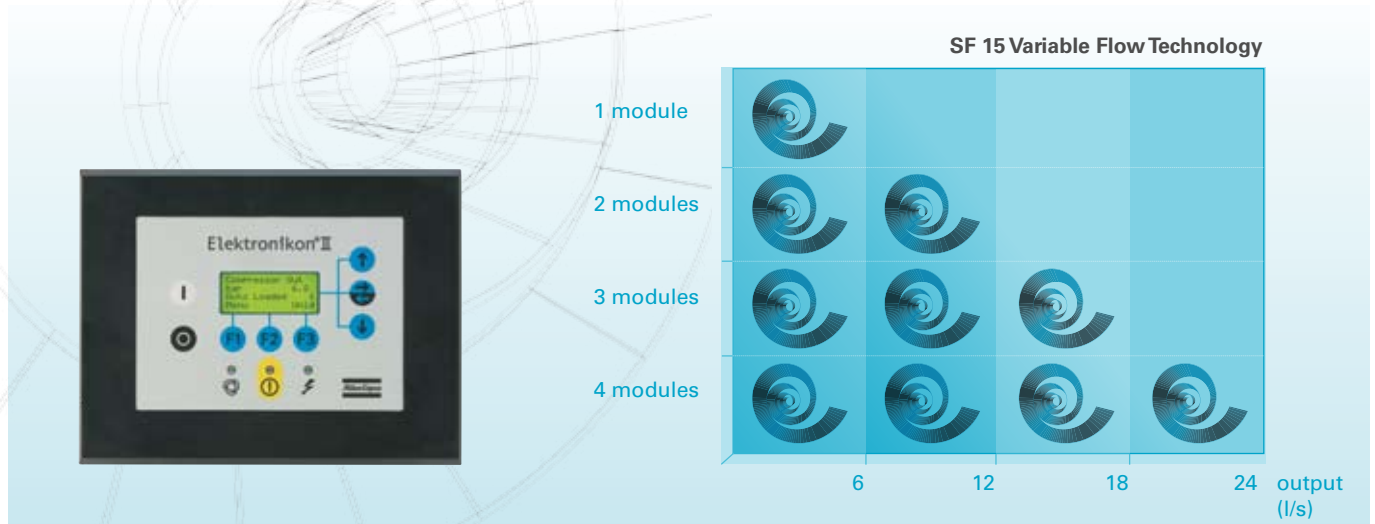
Scroll modules are mounted on a sliding platform for easy servicing.

Superior monitoring and control

VARIABLE FLOWTECHNOLOGY (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

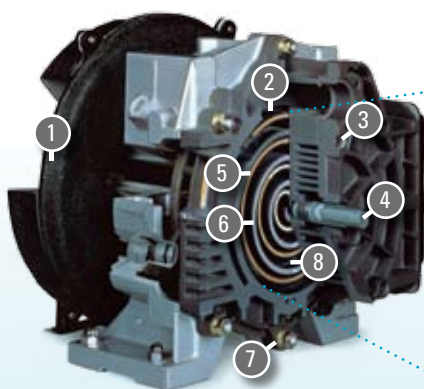
ensures that the system pressure is kept within a very narrow pressure band. This optimizes the efficiency of the compressor and guarantees a very stable system pressure. The Elektronikon also gives an instant read out of all operational data and continuously scans and monitors the operation of the SF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



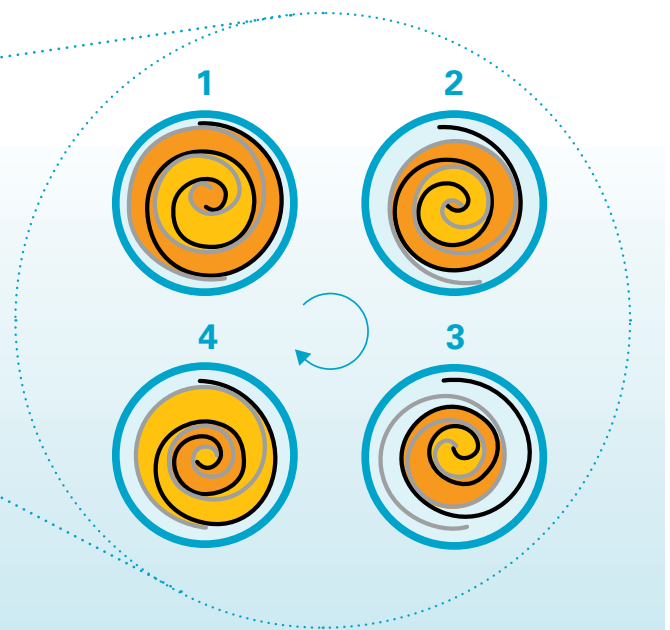
INNOVATION IN ACTION

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.



- | | |
|--------------------|--|
| 1 Cooling fan | 5 Fixed scroll |
| 2 Suction chamber | 6 Orbiting scroll |
| 3 Suction opening | 7 Fail-safe temperature sensor for unit protection |
| 4 Delivery opening | 8 Compression chamber |



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. To help you save energy and costs, they are designed to give the most efficient source of compressed air within a production environment.



QUIET AND COMPACT

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.



A SOLUTION THAT FITS

Thanks to the broad range of Atlas Copco air treatment technology, you can select the most efficient system to meet your specific compressed air requirements.



COST-SAVING

As the air treatment is completely integrated, the installation costs are substantially reduced, making multiple compressor installations practical and financially viable.



SUPREME ENERGY EFFICIENCY

To ensure maximum energy efficiency, Atlas Copco offers both traditional on/off regulating systems where the air demand is constant. Wherever a fluctuating air demand is required, the unique VFT control concept efficiently matches the compressed air output to the air demand.



PEACE OF MIND

With the SF, Atlas Copco does not just offer the most reliable and efficient compressors. From filter kits to a complete piping installation, Atlas Copco can take responsibility of your entire compressed air system to provide you with best-in-class air.

Choose from a wide range of Atlas Copco after sales products and services that will have your SF performing at its best for years to come. Qualified Atlas Copco support is available in over 150 countries.

Specifications

COMPRESSOR TYPE 50 HZ / 60 HZ	Max. working pressure		Capacity FAD*			Installed motor power		Noise level**	Dimensions L x W x H		Weight	
	bar(e)	psig	l/s	m³/min	cfm	kW	hp	dB(A)	mm	inch	kg	lbs
SKID VERSIONS												
SF 1	8	116	2.7	0.16	5.7	1.5	2	65	800 x 600 x 540	31.5" x 23.6" x 21.3"	105	232
	10	116	2.1	0.13	4.4	1.5	2	65			105	232
SF 2	8	116	4.0	0.24	8.5	2.2	3	67	(Receiver mounted) 1267 x 600 x 1154	(Receiver mounted) 1267 x 23.6 x 1154	110	243
	10	145	3.4	0.20	7.2	2.2	3	67			110	243
SF 4	8	116	6.6	0.4	14.0	3.7	5	68			120	265
	10	145	5.6	0.3	11.9	3.7	5	68			120	265
SKID VERSIONS – DUPLEX TANK MOUNTED												
SF 6T	8	116	10.6	0.64	22.5	5.9	8	72	2043 x 600 x 1154	80.4" x 23.6" x 45.4"	365	805
	10	145	9.0	0.54	19.1	5.9	8	72			365	805
SF 8T	8	116	13.2	0.80	28.0	7.4	10	73			375	827
	10	145	11.2	0.67	23.7	7.4	10	73			375	827
FULLY SILENCED – <i>WORKPLACE AIR SYSTEM™</i>												
SF 1	8	116	2.7	0.16	5.7	1.5	2	53	590 x 600 x 850	23.2" x 23.6" x 33.5"	97	214
	10	145	2.1	0.13	4.4	1.5	2	53			97	214
SF 2	8	116	4.0	0.24	8.5	2.2	3	55			97	214
	10	145	3.4	0.20	7.2	2.2	3	55			97	214
SF 4	8	116	6.6	0.40	14.0	3.7	5	57	1450 x 750 x 1040	57.1" x 29.5" x 40.9"	102	225
	10	145	5.6	0.34	11.9	3.7	5	57			102	225
SF 6	8	116	10.4	0.62	22.0	5.9	8	63			340	750
	10	145	8.8	0.53	18.6	5.9	8	63			340	750
SF 8	8	116	13.4	0.80	28.4	7.4	10	63	1450 x 750 x 1844	57.1" x 29.5" x 72.6"	345	761
	10	145	11.3	0.68	23.9	7.4	10	63			345	761
SF 11	8	116	20.2	1.21	42.8	11	15	63			480	1058
	10	145	17.0	1.00	36.0	11	15	63			480	1058
SF 15	8	116	26.4	1.58	55.0	15	20	63			560	1235
	10	145	22.8	1.37	48.3	15	20	63			560	1235

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

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

Reference conditions:

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

Available options

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

* CD desiccant air dryers are only available with receiver mounted units.



In order to be First in Mind—First in Choice® for all your compressed air needs, Atlas Copco delivers the products and services that help increase your business' efficiency and profitability.

Atlas Copco's pursuit of innovation never ceases, driven by your need for reliability and efficiency. Always working with you, we are committed to providing you the customized quality air solution that is the driving force behind your business.



Never use compressed air as breathing air without prior purification in accordance with local legislation and standards.