AIRPOL SR SCROLL COMPRESSORS WITH POWER FROM 11 TO 15 kW

OIL-FREE AIR FOR DEMANDING APPLICATIONS

NATIONAL INSTITUTE OF PUBLIC HEALTH NIH
NATIONAL RESEARCH INSTITUTE

01 PRODUCT WITH NIH CERTIFICATION

Airpol SR scroll compressors have a Hygienic Certificate from the National Institute of Public Health (NIH) confirming their suitability for use in potable water treatment and distribution systems, as well as in installations where completely oil-free compressed air is required. This guarantees the highest quality and safety in the most demanding applications.

02 NO COMPROMISES ON QUALITY – 100% OIL-FREE AIR

Airpol SR scroll compressors are a synonym for purity and reliability.
They deliver compressed air completely free from any oil traces, making them suitable for use in the most demanding industries – from medicine and pharmaceuticals, through to the food and chemical industries, and even potable water treatment technologies.

Where air quality matters – choose Airpol.

03 CLEAR AIR POWERED BY ADVANCED SCROLL TECHNOLOGY

The modern scroll compression technology in Airpol SR compressors guarantees the production of 100% oil-free compressed air. The unique design of the scroll air end, where the metal surfaces of the compressing scrolls do not come into contact, completely eliminates the need for lubrication in the compression chamber.

The result? High-purity air, ideal for applications where the key criterion for selecting equipment is the quality of compressed air that is completely free of oil particles.

WIDE RANGE OF APPLICATIONS

- Chemical industry
- Food industry
- Water treatment stations
- Laboratories
- Pharmaceutical industry
- Medicine
- Electronics industry

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SCROLL COMPRESSOR

OIL-FREE AIR FOR DEMANDING APPLICATIONS

04 SCROLL TECHNOLOGY - MAXIMUM EFFICIENCY

In the innovative Airpol SR line of scroll compressors, the compression process is achieved through the precise interaction of two scroll elements.

One scroll remains stationary while the other moves in a circular orbit, completing 2.5 rotations. As a result of this motion, compression chambers are formed, which gradually decrease in volume, pushing the air from the suction port to the discharge port.

During the operation of the compressor, air is drawn in and then trapped in one of the scroll chambers, where it is smoothly and evenly compressed toward the center of the scroll — the outlet location with a check valve. This mode of operation guarantees a continuous airflow without pulsations, ensuring a high level of operational smoothness for the device.

Importantly, during compression, there is no contact between the metal surfaces of the scrolls, which eliminates the need for oil lubrication in the compression chamber.
The result is completely oil-free air — ideal for the most demanding applications.

Scroll technology is synonymous with innovation and purity, raising the quality of compressed air to a higher level.

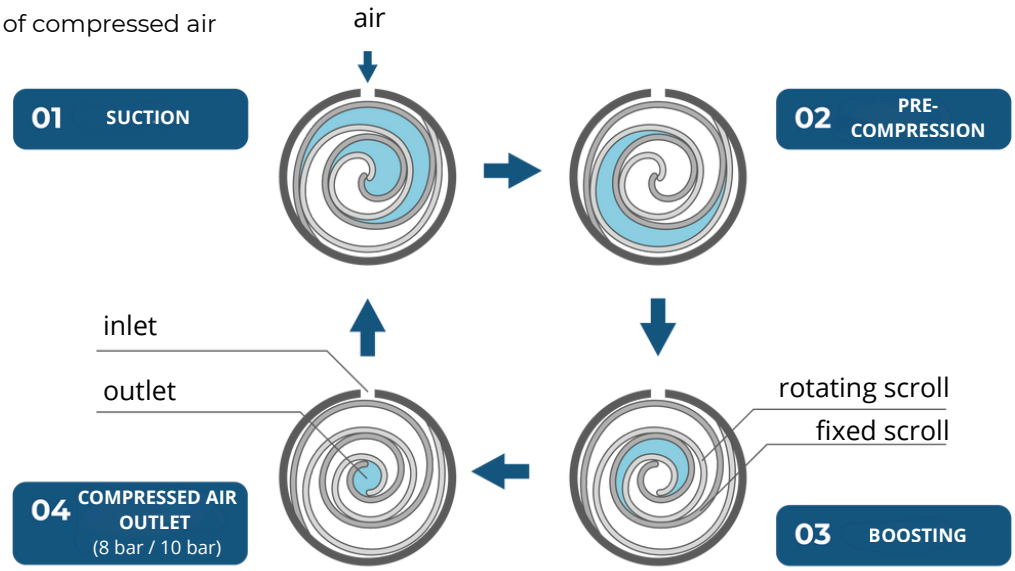
05 MODERN DESIGN - RELIABILITY FOR YEARS

The modern design of the spiral air ends used in Airpol SR compressors ensures extended service life, reduced vibration levels, and minimal compressed air pulsation.

Thanks to the well-thought-out design of the spiral compression air end, the number of moving parts has been reduced to the absolute minimum, while the symmetrical components ensure excellent balance and quiet operation of the entire system.

The compression process runs smoothly and continuously, resulting in an exceptionally stable airflow without sudden pulsations.
The use of oversized rolling bearings further enhances the durability of the design and ensures reliable compressor operation for many years.

The spiral air end design combines engineering precision, exceptional durability, and user comfort — engineered to deliver reliable performance even in conditions requiring superior air quality.



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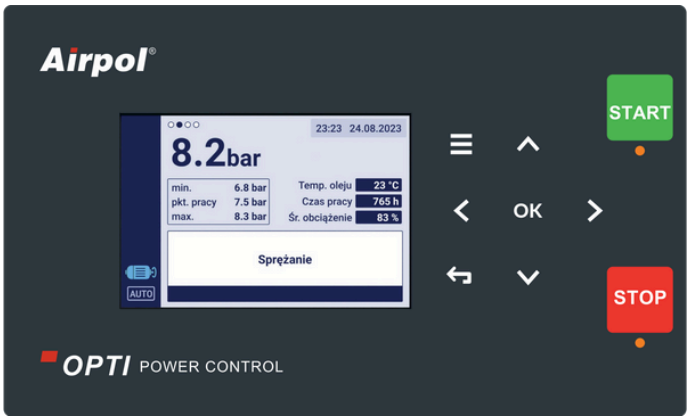
OPTI Airpol Power Control

COMPLIANT WITH CYBERSECURITY STANDARDS



07 SECURE REMOTE MONITORING

The controller complies with cybersecurity standards that eliminate the use of external servers, which could otherwise become potential targets for attacks on critical production infrastructure.

- Web server hosted directly on the controller (without the cloud), independent of internet access.
- No need to send data outside the LAN structure.
- Reduction of exposure to espionage and cyberattacks.

06 EASY OPERATION

The **OPTI AIRPOL POWER CONTROL** microprocessor controller has been designed with data security and system integrity in mind.

It ensures efficient operation and safety of the entire system, as well as continuous monitoring of the compressor's operating parameters.

THE USER CAN:

- select the operating mode (including network operation),
- control of the entire system's parameters,
- schedule operation with both recurring and one-time events (according to the calendar),
- select one of four language options,
- update the software via the USB port,
- modify the basic operating parameters of the compressors.

INTUITIVE INTERFACE

CONTROL OF SYSTEM OPERATING PARAMETERS

NETWORK OPERATION WITH SUPPORT FOR UP TO 4 COMPRESSORS

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TECHNICAL DATA

SCROLL COMPRESSOR

Scroll compressor		
Type		**Airpol SR 11**
Overpressure (design options)	MPa	0.8 / 1.0
Capacity [0.8 MPa]	m^3/h	72
Capacity [1.0 MPa]	m^3/h	52.8
Overall dimensions (L x W x H)	mm	1250x620x1218
Compressed air connection		G ½
Weight	kg	370
Ambient temperature	°C	from +5 to +40
Cooling air demand	m^3/h	1800
Compressed air temperature	°C	15 degrees above ambient temperature
Sound level	dB(A)	61
Power transmission system		belt drive
Nominal motor power	kW	2x5.5
Motor energy efficiency class		IE3
Motor IP code		IP55
Power supply	V/Ph/Hz	400/3/50
Recommended power feed cable	mm^2	4x4
Protection fuse	A	32
Microprocessor controller		OPTI Airpol Power Control

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TECHNICAL DATA

SCROLL COMPRESSOR

Scroll compressor		
Type		**Airpol SR 15**
Overpressure (design options)	MPa	0.8 / 1.0
Capacity [0.8 MPa]	m^3/h	102
Capacity [1.0 MPa]	m^3/h	82.4
Overall dimensions (L x W x H)	mm	1250x620x1218
Compressed air connection		G ¾
Weight	kg	410
Ambient temperature	°C	from +5 to +40
Cooling air demand	m^3/h	3000
Compressed air temperature	°C	15 degrees above ambient temperature
Sound level	dB(A)	61
Power transmission system		belt drive
Nominal motor power	kW	2x7.5
Motor energy efficiency class		IE3
Motor IP code		IP55
Power supply	V/Ph/Hz	400/3/50
Recommended power feed cable	mm^2	4x6
Protection fuse	A	40
Microprocessor controller		OPTI Airpol Power Control

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