



Airpol

COMPRESSORS Ltd.

OIL FREE
SCREW
COMPRESSORS

OIL FREE COMPRESSED AIR SOLUTION

Airpol BS1 (single stage)

Airpol BS (two stage)

Screw compressors designed for 24/7 under heavy load operation

Oil free air end of GHH production with special rotor profiles Ultracoat for excellent efficiency and reliability.

Siemens microprocessor controller with smart touch screen design and multi language, high resolution LCD provides outstanding performance.

High-quality electric motor with IE3 energy efficiency class. Energy-saving direct drive without loss of power transmission



Effective cooling system provided by a highly efficient radial fan and aftercooler.

Low noise level due to the effective sound insulation and optimally designed ventilation system.

Frequency converter (option) provides smooth speed control in the range from 50% to 100%. Compressor capacity is adjusted to the actual compressed air demand. Network pressure value is kept on the constant level. Compressor energy saving results in investment return within several months.

Stainless steel pipes of high and low temperature resistance.

Reduction of energy costs – due to optimal heat recovery options (ventilating ducts, or water cooling system).



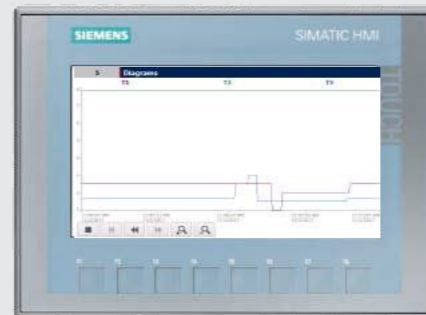
over
60 years
of experience
in compressor
industry

HIGH QUALITY SINGLE STAGE AND DOUBLE STAGE AIRENDS

The heart of Airpol oil-free screw compressors are of the highest quality GHH Rand single stage or double stage airends.

Application of Airpol BS and Airpol BS1 series oil free screw compressors

- food and beverage processing,
- the pharmaceutical industry (manufacturing and packaging),
- waste water treatment,
- chemical and petrochemical processing,
- semiconductor and electronics manufacturing,
- the medical sector,
- automotive paint spraying,
- textile manufacturing and many more.



Siemens microprocessor controller in Airpol oil free screw compressors

Moving between different screens you can:

- select one of 4 operating modes and language display version,
- read present values of the compressor parameters,
- watch changes of the compressor parameters on the diagrams,
- modify different types of the settings,
- view the lists of events,
- get the present readings from the running hours counter, energy counter, time to next service counters, etc.

Supervision and safety compressor operation

- supply power control-voltage asymmetry, phase sequence, and phase loss monitoring,
- motor overload protection,
- control of air pressure and air temperature,
- control of oil pressure and oil temperature (oil is used to lubricate screw airends bearings, without any contact to compressed air chamber).
- and many others protections to provide long life compressor operation.



The key of their reliability, long life, and excellent efficiency is special coating (Ultracoat) which is used for coating rotor profiles, sealing journals, housing bores, and end covers.

This coating fulfills two essential requirements:

- One is for improving the efficiency which also reduces discharge temperature of the air end, increases volume flow, and decreases power consumption.
- In addition, this coating offers highly efficient corrosion protection even under extreme conditions at 270°C.

Web server – The oil free screw compressor controller has been equipped with the ability to remotely monitor the status through the implemented web server function. This means that the user can view the status of the controller from the level of the web browser when it is connected to the local network.



Two-stage, variable speed oil free screw compressor		Airpol BS PR55		Airpol BS PR75		Airpol BS PR90		Airpol BS PR110		Airpol BS PR132		Airpol BS PR160		Airpol BS PR200		Airpol BS PR250		Airpol BS PR315	
Overpressure	bar	8	10	8	10	8	10	8	10	8	10	8	10	8	10	8	10	8	10
Max capacity	m ³ /h	475	397	719	587	769	769	1079	943	1273	1143	1542	1350	2056	1714	2447	2195	2920	2663
Min capacity	m ³ /h	225	180	320	180	320	317	576	570	748	744	695	854	695	690	1383	1377	1383	1377
Dimensions (L x W x H)	mm	2500x1400x2000		2800x1600x2000		2800x1600x2000		3300x2200x2000		3400x2100x2400		3400x2100x2400		4000x2000x2600		4000x2000x2600		4000x2000x2600	
Compressed air connection		G 1 1/2		G 2		G2		G2		G3		G3		DN100		DN100		DN100	
Weight	kg	3000		3200		3300		4000		4600		4900		5100		5300		5500	
Sound level	dB(A)	85		85		85		85		85		85		85		85		85	
Nominal motor power	kW	55		75		90		110		132		160		200		250		315	
Fan nominal motor power	kW	4		4		4		4		7,5		11		15		15		22	
Electrical supply data	V/ph/Hz	400/3/50		400/3/50		400/3/50		400/3/50		400/3/50		400/3/50		400/3/50		400/3/50		400/3/50	

Single-stage, variable speed oil free screw compressor		Airpol BS1 PR55			Airpol BS1 PR75			Airpol BS1 PR90			Airpol BS1 PR110			Airpol BS1 PR132			Airpol BS1 PR160			Airpol BS1 PR200			Airpol BS1 PR250			Airpol BS1 PR315		
Overpressure	bar	1,5	2	3	1,5	2	3	1,5	2	3	1,5	2	3	1,5	2	3	1,5	2	3	1,5	2	3	1,5	2	3	1,5	2	3
Max capacity	m ³ /h	1270	1048	818	1590	1400	1020	1926	1657	1288	2484	2097	1552	2842	2460	1853	3567	2819	2252	4424	3826	2772	5743	4759	3757	7189	6390	4693
Min capacity	m ³ /h	793	628	599	793	799	749	793	628	599	1600	1575	749	1600	1575	1523	2713	1575	1523	2710	2672	1523	4227	2672	2597	4781	4718	2597
Dimensions (L x W x H)	mm	2200x1200x2000			2200x1200x2000			2400x1600x2000			2400x1600x2000			3800x1800x2000			3800x1800x2000			4600x2600x2400			4600x2600x2400			4600x2600x2400		
Compressed air connection		DN80			DN100			DN125			DN125			DN150			DN150			DN200			DN200			DN200		
Weight	kg	1900			2000			2500			3300			4200			4400			4700			5100			5500		
Sound level	dB(A)	85			85			85			85			85			85			85			85			85		
Nominal motor power	kW	55			75			90			110			132			160			200			250			315		
Fan nominal motor power	kW	4			4			5,5			5,5			5,5			11			15			15			22		
Electrical supply data	V/ph/Hz	400/3/50			400/3/50			400/3/50			400/3/50			400/3/50			400/3/50			400/3/50			400/3/50			400/3/50		

Frequency converter in variable speed Airpol BSPR and Airpol BS1 PR series compressors

Infinite rotation adjustment and constant pressure in the compressed air network

Energy-saving oil free screw compressors of the Airpol BSPR, Airpol BS1 PR series have a smooth speed control in the range of 50% to 100%, (for individual compressors this range varies depending on the engine power and pressure for which the device is made).

The operation control system with the frequency inverter tries to maintain the compressor motor rotations at the level that ensures constant pressure in the compressed air system i.e. at the set level. When the network pressure decreases, the inverter increases the motor rotational speed, which results in the compressor capacity increase, and when pressure increases, the motor rotational speed decreases.

Longer life and higher reliability

Smoothly controlled acceleration and deceleration reduces load of mechanical and electrical elements. The moving structural elements operate at lower rotations.

Operation safety

The frequency inverter is located in the separate and effectively cooled switchgear, which ensures good ventilation and protection against an influence of heat emitted by the compression module operation.

Benefits from the use of a frequency converter in screw compressors:

- reduction of compressor pressure hysteresis, thus reducing pressure variations in the pneumatic network,
- adjustment of the compressor's capacity to the actual demand for compressed air,
- start-up current limitation,
- reduction of the number of starts,
- reduction of idle run time,
- energy saving,
- minimization of mechanical wear and extending of the components working life,
- possibility of using an air receiver with a smaller capacity.

Two-stage, fixed speed oil free screw compressor		Airpol BS 55		Airpol BS 75		Airpol BS 90		Airpol BS 110		Airpol BS 132		Airpol BS 160		Airpol BS 200		Airpol BS 250		Airpol BS 315	
Overpressure	bar	8	10	8	10	8	10	8	10	8	10	8	10	8	10	8	10	8	10
Capacity	m ³ /h	475	397	720	587	769	769	1080	943	1273	1143	1542	1350	2056	1714	2447	2195	2920	2663
Dimensions (L x W x H)	mm	2500x1400x2000		2800x1600x2000		2800x1600x2000		3300x2200x2000		3400x2100x2400		3400x2100x2400		4000x2000x2600		4000x2000x2600		4000x2000x2600	
Compressed air connection		G 1 1/2		G 2		G2		G2		G3		G3		DN100		DN100		DN100	
Weight	kg	3000		3200		3300		4000		4600		4900		5100		5300		5500	
Sound level	dB(A)	85		85		85		85		85		85		85		85		85	
Nominal motor power	kW	55		75		90		110		132		160		200		250		315	
Fan nominal motor power	kW	4		4		4		4		7,5		11		15		15		22	
Electrical supply data	V/ph/Hz	400/3/50		400/3/50		400/3/50		400/3/50		400/3/50		400/3/50		400/3/50		400/3/50		400/3/50	

Single-stage, fixed free oil free screw compressor		Airpol BS1 55			Airpol BS1 75			Airpol BS1 90			Airpol BS1 110			Airpol BS1 132			Airpol BS1 160			Airpol BS1 200			Airpol BS1 250			Airpol BS1 315		
Overpressure	bar	1,5	2	3	1,5	2	3	1,5	2	3	1,5	2	3	1,5	2	3	1,5	2	3	1,5	2	3	1,5	2	3	1,5	2	3
Capacity	m ³ /h	1270	1048	818	1591	1400	1020	1926	1657	1288	2484	2097	1552	2842	2460	1853	3567	2819	2252	4424	3826	2772	5743	4759	3757	7189	6390	4693
Dimensions (L x W x H)	mm	2200x1200x2000			2200x1200x2000			2400x1600x2000			2400x1600x2000			3800x1800x2000			3800x1800x2000			4600x2600x2400			4600x2600x2400			4600x2600x2400		
Compressed air connection		DN80			DN100			DN125			DN125			DN150			DN150			DN200			DN200			DN200		
Weight	kg	1900			2000			2500			3300			4200			4400			4700			5100			5500		
Sound level	dB(A)	85			85			85			85			85			85			85			85			85		
Nominal motor power	kW	55			75			90			110			132			160			200			250			315		
Fan nominal motor power	kW	4			4			5,5			5,5			5,5			11			15			15			22		
Electrical supply data	V/ph/Hz	400/3/50			400/3/50			400/3/50			400/3/50			400/3/50			400/3/50			400/3/50			400/3/50			400/3/50		



WE OFFER

- oil-free and oil-injected screw compressors
- oil lubricated and oil-free reciprocating compressors for air and other gases
- scroll compressors
- screw air ends
- blowers
- air receivers
- adsorption dryers
- refrigeration dryers
- nitrogen generators
- container compressor stations
- compressed air treatment systems (filters, dryers, water separators, oil water separators)
- compressed air installations
- service support (factory service and developed network of authorised service centres)



ISO 9001

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