

# SCR Variable Speed Series

Rotary Screw Compressor

# WESTAIR AIR COMPRESSORS



## WESTAIR COMPANY PROFILE

Westair was founded in 1982 as a family business and has expanded to become one of the most reputable brands in the compressed air market in Australia. The company split into two forming Westair Pneumatic Systems Pty Ltd in 2014 to provide better customer service through a more focused approach to the large compressor market. Westair Pneumatic Systems are the sole distributors of SCR Rotary Screw Compressors and products in Australia. With dealers nation-wide, we have supplied products into some of the toughest industrial, commercial and mining environments all over Australia making Westair Air Compressors a well-rounded product.

SCR compressors, established in 1989 in a joint venture enterprise with a renowned German manufacturer, has grown to become a leader in the industry with many hi-tech patents involving compressor design.

Their state of the art manufacturing facilities and team of professional engineers guarantee they will stay at the fore front of the industry.

SCR's product range includes variable speed, direct drive, permanent magnetic, oil free and diesel/petrol driven screw compressors. SCR have ISO 9001 – 9002 quality certifications and were awarded the Certificate of Excellence by the International Trademark Association.

## SCR VARIABLE SPEED ROTARY SCREW AIR COMPRESSOR RANGE

As the sole distributor of SCR Compressors in Australia, Westair are pleased to introduce their latest range of Variable Speed Rotary Screw Compressors.

The SCR Variable Speed Rotary Screw Compressor works by ramping up and down to coincide with your air demands and providing only the volume of air that is required. Unlike fixed speed units, the aim of the variable speed is for the compressor to constantly stay on load and avoid running time off load. In the right application, the variable speed can result in significant savings on energy use and your power bill. The SCR Variable Speed has a large variable range, with low speed, oversized airends and uncomplicated 1:1 ratio drive. The robust design results in a stronger, reliable, long life machine.

### FEATURES INCLUDE

- 7.5 kW to 280 kW units available
- Pressure ranging from 7 bar to 12.5 bar
- High quality Inovance Inverter
- Large variable range
- Intelligent Micro Controller for more energy efficient control
- Major components of European design and manufacture
- Long term warranty on complete packages
- Maintenance friendly with large removable and lockable panels



**Stainless Steel  
Option Available**

## MINING FEATURES

- Weather proof
- Stainless steel door, frame and base option available for erosive environments
- Heavy duty air filtration
- Electrical cabinet upgrades to suit mine site specifications
- Industrial external filter mats

## VARIABLE SPEED ADVANTAGES



### ADVANTAGES

- Energy savings of up to 40%
- Low power consumption
- Soft start (avoids high amp draw on start up)
- +0.1 bar constant line pressure
- No over pressure running
- Low speed oversized airend
- No loss power transmission
- Low noise

## INTELLIGENT MICRO CONTROLLER

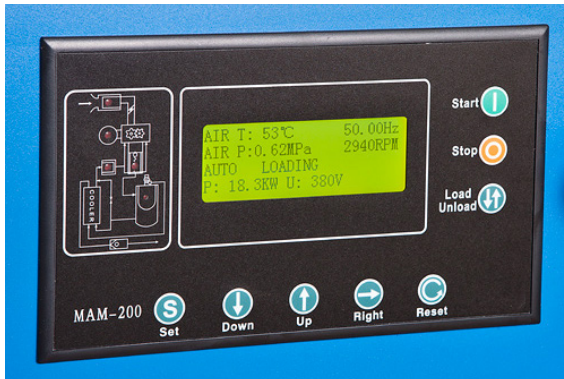


Image 1: Controller shows on load running

The intelligent patented micro plc controller is user friendly. It has signals for pressure, temperature and current, which monitor the running of the compressor. With a secured code, setting up or changing parameters in the system can be achieved easily using the buttons on the display.

#### THE DISPLAY HAS READINGS FOR:

- Running amps - Volts/ Hz/ RPM
- Service intervals
- Pressure
- Temperature
- Current
- Running hours
- Date and time
- Fault history
- Plus up to 13 different monitoring alarms

#### CONTROLLER OPTIONS:

- Remote Stop/Start
- Power outage start up
- Master slave operation
- RS485 Connection
- SCR Air Management System



## INOVANCE INVERTER TECHNOLOGY

Inovance is a world renowned leader in the automotive industrial sector and uses the latest Vector Technology, which guarantees complete torque of the motor. This provides stable running and keeps the motor at its lowest possible temperature. With over 700,000 inverter sales worldwide you can be assured of their quality and reliability.

# QUALITY EUROPEAN COMPONENTS



## MOTOR



All our SCR Variable Speed compressors are fitted with high quality durable industrial motors. The SKF front and back bearings have greasing nipples to ensure a long service life.

## AIREND



SCR airends are fitted with patented German made rotors, SKF bearings and European made Teflon oil seals. These high quality components ensure high efficiency, long running and low noise/vibration of the airend. Other airends used in our Direct Drive range include Gardener Denver of Finland and Aerzen of Germany.

## ELECTRICAL COMPONENTS



Siemens is the main core of the electrical components within the starter. This ensures the long term stable operation of the compressor.

## TRANSMISSION



KTR German made coupling connects the motor to the airend with a 1:1 ratio. WVIF High efficiency shocks pads are used on the motor and airend to lower the torque impact and vibration.

## OIL SEPARATOR



Our oversized oil separator filters ensure a longer life and a sustained clean air delivery of less than 3ppm oil content, resulting in a differential low pressure loss of less than 0.02Mpa.

## SUCTION VALVE



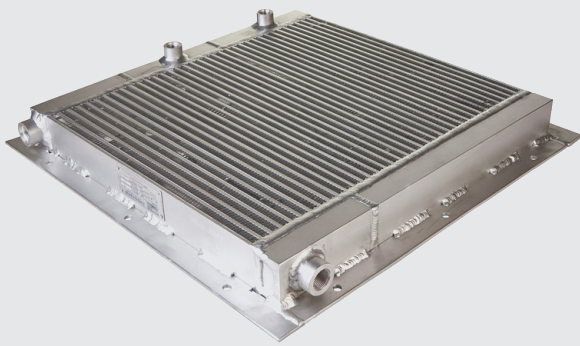
The SCR suction valve is a high quality key component which brings the compressor on and off load and has an expected service life of over 2 million cycles. The longevity and reliability of this valve is due to no gap needing to be completely sealed, therefore eliminating problems such as deteriorating cup seals and diaphragms.

## THERMAL VALVE



Renowned Hoerbiger thermal valves are used in our units. The thermal valve opens and shuts many times during operation, to help the compressor maintain its optimum temperature.


## COOLER



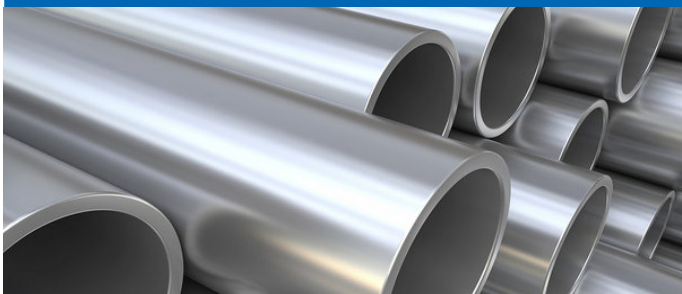
Our large oversized coolers have been designed to withstand Australia's harsh weather conditions.

## SOLENOID AND PRESSURE CONTROL



European solenoid valves and sensors are used as the main pneumatic and sensor control components.  **Huba Control**

## SEAMLESS STEEL PIPES



Made from seamless steel, the oil pipes are connected together with high quality compression fittings. This pipe system eliminates ageing and oil leaks.

## AIR INTAKE FILTRATION



The global Donaldson brand is just one of the high efficiency, low loss imported air filtration used on all our SCR compressors. Intake air quality is a key to compressor reliability. If the machine can breathe clean air it will reduce running costs and extend the life of the machine.

# TECHNICAL INFORMATION

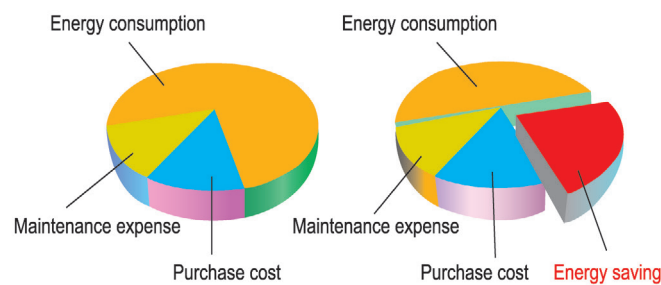
Variable Speed Air Compressors change speed automatically to suit compressed air consumption. This is achieved with a pressure transducer and an integral inverter that ramps the frequency and motor speed up and down to exactly match the air demand.

Depending on the air demand pattern, this will eliminate costly and needless off load running and provide a constant line pressure of +0.1bar.

An additional benefit is the soft start of the variable speed that avoids the severe current peak of a star/delta starter and the higher mechanical stress that this causes.

If there is a variable air demand of 20%+ of the compressor output then there is a strong economic benefit to consider using a variable speed compressor. Operating longer operations of 16 to 24 hours a day can further increase the energy cost savings.

## COST BREAKDOWN - NORMAL SCREW COMPRESSOR      COST BREAKDOWN - VARIABLE SCREW COMPRESSOR



## POWER CONSUMPTION

A Fixed Speed Compressor consumes approximately 20% of total input power "off load".

A reduction of 1 bar system pressure saves approximately 5% of the input power and reduces leakage volume. Variable Speed Compressors provide a fixed pressure (say 7 bar) compared to fixed speed machines which requires a differential pressure of at least 1 bar resulting in this example of a system pressure of up to 8 bar.

To ensure the correct type and size of a compressor to suit your specific requirements, ask for a full air survey and delivery report from Westair or one of our distributors.



## TANK MOUNTED VARIABLE SPEED

Our Tank Mounted Direct Drive range offers excellent value for money. The compressor unit fitted on top of the air receiver results in a more compact design. The smaller footprint means lower installation costs and less space required.

Westair offer two different sized Tank Mount Direct Drive units;  
 SCR10DV-8-T complete with 180L air tank  
 SCR20DV-8-T complete with 366L air tank

## TECHNICAL SPECIFICATIONS

MODEL	KW	HP	M <sup>3</sup> /MIN	CFM	BAR	AIR OUTLET SIZE	TANK SIZE	DIMENSIONS*	WEIGHT
SCR10DV-8-T	7.5	10	1.0	35	8	½"	180 L	1072 x 680 x 1612	350 KG
SCR20DV-8-T	15	20	2.3	81	8	1"	366 L	1328 x 1085 x 1716	720 KG

\*LxWxH mm

## SCR VARIABLE SPEED ALL IN ONE UNIT

The new SCR Variable Speed all in one unit is a compact design that consists of the compressor, air receiver, refrigeration air dryer, pre & post air filters, stainless steel bypass system and condensate manifold.

### STAINLESS STEEL BYPASS

The airline installation design which includes a stainless steel bypass and condensate manifold system, which saves you money on installation costs.

### COMPACT FOOT PRINT

Small compact foot print which helps increase the usage of your valuable floor space.

### PRE & POST FILTRATION

Pre and post filters are fitted with the refrigeration dryer to give an air quality of 0.01 micron which is classed as instrument quality air.

### AIR DRYER EASY TO REMOVE

The refrigeration air dryer is NOT integrated with the compressor and is fitted with a bypass, so if any issues arise with the dryer it is easily removed without interrupting your air supply.

### WASTE CONDENSATE

Waste condensate is neatly piped into to a manifold which comes out of one exit point to be fitted to either an oil water separator or waste oil container.



\*Tank has been reversed to show filters, bypass and condensate manifold.

## TECHNICAL SPECIFICATIONS

MODEL	KW	HP	M <sup>3</sup> /MIN	CFM	BAR	AIR OUTLET SIZE	TANK SIZE	DIMENSIONS*	WEIGHT
SCR10DV-8-TD	7.5	10	1.0	35	8	1/2"	320 L	1600 x 800 x 1576	410 KG
SCR20DV-8-TD	15	20	2.3	81	8	3/4"	500 L	1940 x 1050 x 1798	790 KG
SCR30DV-8-TD	22	30	3.5	124	8	1"	500 L	2060 x 1080 x 1850	840 KG

\*LxWxH mm

## SERVICE & SPARE PARTS



Westair and our national network of distributors offer full technical support and service options, with fully stocked service vehicles and factory trained service technicians.

Westair supply, install and service the following industries.

- Mining
- Manufacturing
- Automotive
- Pharmaceutical
- Agricultural
- Food & Beverage
- Heavy Industry
- Light Industry



As the sole distributor of SCR in Australia, it is our duty to stock a full range of spare parts for all our SCR compressors. In the unlikely event of any issues we will have the parts on the shelf ready to go.

At Westair we endeavour to keep our prices on all service kits and spare parts to a minimum. Low ongoing running maintenance costs are a prime feature on the SCR Variable Speed range.

MODEL	KW	HP	M <sup>3</sup> /MIN	CFM	BAR	AIR OUT-LET SIZE	DIMENSIONS (mm)	WEIGHT (KG)	Noise Level *dBA
SCR10DV-8	7.5	10	1.0	35	8	1/2"	1053 x 690 x 928	250	66
SCR20DV-8	15	20	2.3	81	8	3/4"	1300 x 900 x 1100	530	66
SCR20DV-10	15	20	2.0	71	10	3/4"	1300 x 900 x 1100	530	66
SCR30DV-8	22	30	3.5	124	8	1"	1380 x 850 x 1160	580	71
SCR30DV-10	22	30	3.2	113	10	1"	1380 x 850 x 1160	580	71
SCR40DV-8	30	40	4.8	170	8	1 1/2"	1600 x 1000 x 1360	800	72
SCR50DV-8	37	50	6.1	215	8	1 1/2"	1600 x 1000 x 1360	860	75
SCR50DV-10	37	50	5.3	187	10	1 1/2"	1600 x 1000 x 1360	860	75
SCR60DV-8	45	60	7.15	252	8	1 1/2"	1850 x 1000 x 1360	950	75
SCR60DV-10	45	60	7.0	247	10	1 1/2"	1850 x 1000 x 1360	950	75
SCR75DV-8	55	75	9.9	350	8	2"	2200 x 1360 x 1755	1720	78
SCR75DV-10	55	75	8.3	293	10	2"	2200 x 1360 x 1755	1720	78
SCR100DV-8	75	100	13.0	459	8	2"	2200 x 1360 x 1755	1800	78
SCR100DV-10	75	100	11.6	410	10	2"	2200 x 1360 x 1755	1800	78
SCR125V-8	90	125	15.9	562	8	DN65	2900 x 1620 x 1690	2500	79
SCR125V-10	90	125	14.5	512	10	DN65	2900 x 1620 x 1690	2500	79
SCR150V-8	110	150	19.0	671	8	DN65	2900 x 1620 x 1690	2800	79
SCR150V-10	110	150	17.0	600	10	DN65	2900 x 1620 x 1690	2800	79
SCR180V-8	132	180	24.0	848	8	DN65	3000 x 1850 x 1853	3100	77
SCR180V-10	132	180	21.5	759	10	DN65	3000 x 1850 x 1853	3100	77
SCR220V-8	160	220	27.5	971	8	DN65	3000 x 1850 x 1853	3200	78
SCR220V-10	160	220	24.2	855	10	DN65	3000 x 1850 x 1853	3200	78
SCR250V-8	185	250	31.0	1095	8	DN80	2900 x 1850 x 1853	3600	84
SCR250V-10	185	250	27.8	982	10	DN80	2900 x 1850 x 1853	3600	84
SCR270V-8	200	270	33.5	1183	8	DN80	2900 x 1850 x 1853	4000	84
SCR270V-10	200	270	29.5	1042	10	DN80	2900 x 1850 x 1853	4000	84
SCR300V-8	220	300	38.3	1353	8	DN100	3000 x 2050 x 2097	5000	84
SCR300V-10	220	300	33.1	1169	10	DN100	3000 x 2050 x 2097	5000	84
SCR340V-8	250	340	43.8	1547	8	DN100	3000 x 2050 x 2097	5500	84
SCR340V-10	250	340	38.2	1349	10	DN100	3200 x 2050 x 2200	5500	84
SCR375V-8	280	375	50	1776	8	DN100	3200 x 2050 x 2200	5700	84
SCR375V-10	280	375	43.2	1526	10	DN100	3200 x 2050 x 2200	5700	84

Models available in 8 to 12.5 bar pressure

KEY	KW	HP	M <sup>3</sup> /MIN	CFM	BAR	DN	*DBA
	Kilowatt	Horse power	Cubic meter per minute	Cubic feet per minute	Pressure system	Diameter nominal	At 1 metre