

HITACHI



LS SERIES

90-450 kW

7.5/8.5/10.5/13.0 bar(g)

Stationary Oil-Flooded Rotary Screw Air Compressor



Hitachi Global Air Power

Sullair and Hitachi

Since 1965, Sullair air compressors have been known for their Reliability, Durability and Performance. The legacy continues now as Hitachi Global Air Power - featuring the legendary Sullair product line, Together, two titans in the industry bring experience, engineering and expertise for every compressed air need.

RELIABILITY.
DURABILITY.
PERFORMANCE.

These are the pillars that drive the quality of Sullair compressors.

It's a promise every Sullair machine makes.

RELIABILITY

Customers who work with Sullair compressors have found intangibles make all the difference — things like trust, confidence and peace of mind. They go to work every day having full faith in their equipment, as well as the knowledge they have access to true compressor experts ready to support them every step of the way.

DURABILITY

Hitachi Global Air Power represents the collective strength of more than 150 years of compressor experience and the legendary durability of Sullair products. In shops and factories all around the world, our products have withstood the test of time, running consistently today as they did on day one.

PERFORMANCE

Our vision for success is two-fold: produce clean, quality air for the job at hand, and provide cost-effective solutions for now and the long term. With high standards of efficiency for our compressors, we are committed to customer performance — especially in applications where air purity is critical.

The Hitachi Global Air Power network of engineering and quality experts continues to build next-generation, environment-forward compressed air solutions to meet the demands of today's hard-working customers.

Now, Sullair has brought you its brand new LS series air end of Oil Flooded screw air compressor, while maintaining Sullair's product feature of long-lasting durability and high reliability, it also brings you excellent performance experience.



FEATURES AND BENEFITS

- **World Class Efficiency**
 - Less energy to power your compressor
- **New Generation Sullair AirEnd**
- **Sullair Electronic Spiral Valve Technology***
 - *90-110 kW: mechanical spiral valve
- **Ease of Use**
- **Legendary Sullair Durability**
- **5 Years Warranty provided as standard features**
- **Optional for 10 years Diamond Warranty**

THE HEART OF SULLAIR'S AIR COMPRESSOR: SULLAIR SCREW AIR END

Sullair has more than 50 years of screw compressor technology and we have been committed to realizing continuous optimization.

Sullair's new generation of screw air end uses its more than 50 years' experience of screw air end design and manufacturing, and the screw is its most important part. Based on the latest research and technology, the new generation of Sullair's air end uses asymmetrical screw type, bringing you the ultimate performance experience.

- Simpler design, longer operating lifetime. When developing the new generation of screw air end, Sullair engineers adopt the latest casting technology to integrate various oil circuits and passages to reduce the risk of leakage.
- Enlarged rotor diameter increases the volumetric efficiency and further optimizes the overall energy efficiency level.

Not sacrificing the high durability and reliability that Sullair always adheres to and that recognized by various customers.

**YOU CAN CHOOSE
SULLAIR'S EXCLUSIVE
10 YEARS DIAMOND WARRANTY
FOR THE AIR END**



*10 years warranty provided for Sullair's screw air end.
(optional)*

KEY PRODUCT FEATURES AND INDICATORS THAT BRING YOU BETTER PERFORMANCE



Sullair Optimized Air Filter

- Ultra-efficient air intake filtration, 99.9% filtration accuracy (based on ISO5011), effectively extend the life of various precision parts.
- Heavy-duty designed, providing 5 times higher capacity than traditional air filters, longer maintenance intervals and lower overall maintenance costs.

Screw Air End

The high durability and reliability of Sullair screw air end, the heart of air compressors, are consistently recognized throughout the world. The new generation of Sullair screw compressors includes:

- The latest casting technology is adopted to integrate various oil circuits and passages to reduce leakage points.
- Using the world's leading asymmetrical screw type.
- The long-tested bearing life of the compressor effectively prolongs the service life of the screw compressor and reduces the overall maintenance cost of your screw compressor.
- 5 years warranty will be provided for the original parts of the screw air end, which is much better than other brands in the market.
- You can choose the exclusive screw air end of Sullair which provides with 10 Years Diamond Warranty.

Sullair Fluid/Air Separator

- Designed for low pressure drop to reduce power loss.
- Up to 8,000 hours of maintenance cycle, much longer than other brands in the market, reducing your overall maintenance costs.
(Note: adjusted based on actual operating conditions)
- Ultra-efficient filtration accuracy, exhaust oil content is less than 3 ppm, reducing fluid loss and reducing overall maintenance costs.

Cooling system

- With heavy-duty cooling system design and plus large cooler and fan design, ensuring continuous use at a temperature of 46°C.
- Optional with 55°C (Please contact with Sullair).

Motor

- TEFC enclosed high-efficiency motor, energy efficiency center certified IE3 motor.
- Heavy-duty designed low-speed motors, which have longer bearing lifetime than high-speed motors.
- Grade F insulation class, and grade B temperature rise, the temperature rise is lower than other ordinary Grade F insulation class, and the lifetime of winding is at least doubled.
- Optional with IE4/IE5 motor.

Multiple Control Methods

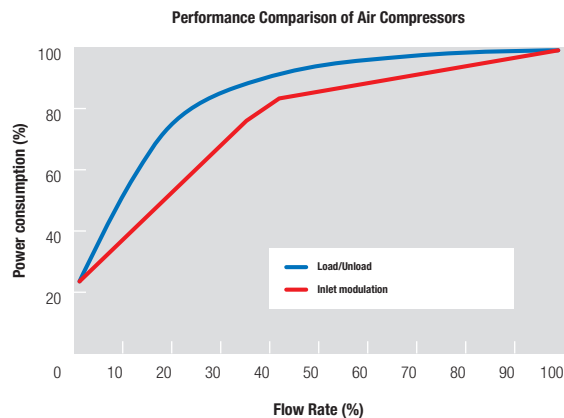
- Optional Electronically Controlled Spiral Valve: The market-proven technology of spiral valve now adopts more precisely electronically control motors to meet the changes in your air system (132-355 kW only).
- VSD Control: Sullair provides the most optimized VSD control system. It can adjust the speed of the air end by a wide range of regulation (the air volume adjustment range is up to 75%) to meet the changes in your air consumption.

High-quality Fluid

- Standard configuration equipped with Sullube[®] fluid, with up to 8,000-hour maintenance cycle, which effectively avoids excessive maintenance and reduces your overall maintenance costs.
- The kinematic viscosity of the fluid is specially formulated for Sullair, ensuring normal flow even at low temperatures and long life at high temperatures.
(Note: For other types of fluid (food grade), please contact Sullair)

INLET MODULATION TECHNOLOGY

The main cost to operate an air compressor - is energy costs. The saving of the energy cost can recover from the initial air compressor investment. Effectively matching compressor production capacity with inlet modulation valves to facilitate your needs and also the best way to save both energy and money.



Sullair's Inlet Modulation

- Comparing with traditional on/off controlled inlet valve, the inlet modulation valve to optimize the air demand by adjusting the valve's opening aperture with its energy saving benefit.
- Avoid frequent load and unload conditions, extend the parts lifetime.
- Provide about 10% energy saving benefit when some operation conditions.

SPIRAL VALVE TECHNOLOGY

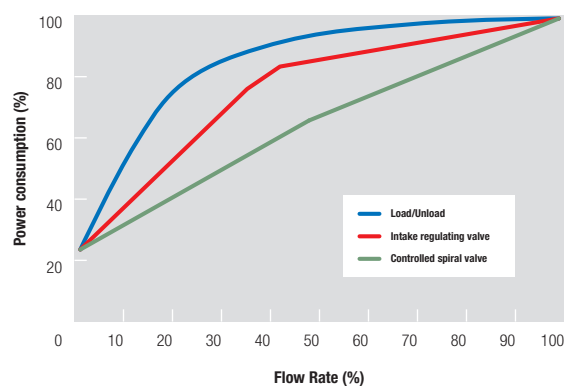
[OPTIONAL]



Sullair Spiral Valve Benefits

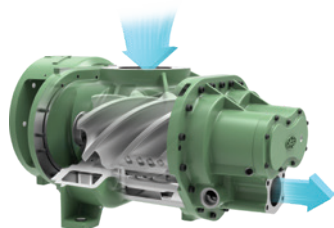
- Compressor with spiral valve feature a variable displacement Air End. Compression volume is varied to suit air demand by progressively opening or closing internal bypass ports on the Air End. And compression chamber closed bypass ports utilize the entire length of the rotor.
- The new electronic spiral valve can achieve 1psi accuracy for flow adjustment.
- Capacity is matched to system demand - prevent the wastage of air.
- Up to 55% turndown capability with spiral valve.
- As compared to other compressors using suction throttling, or load/no load control, power saving up to 10% at part load conditions.

Performance Comparison of Air Compressor

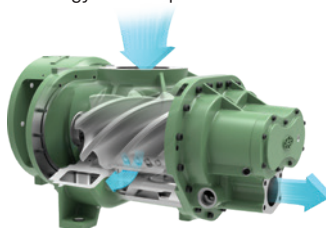


- LS132-355 with electronic spiral valve;
LS90-110 with mechanical spiral valve.

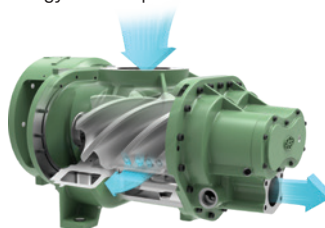
The spiral valve is closed and the air volume is compressed by 100%



The spiral valve is partially opened, the effective compression length of the rotor is reduced, and only a part of the intake air volume is compressed - the energy consumption is reduced



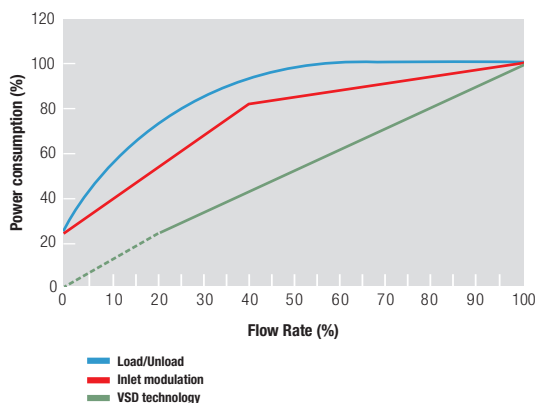
The spiral valve is fully opened, further reducing the effective compression length of the rotor, and the minimum amount of intake air is compressed - the energy consumption is further reduced



VSD TECHNOLOGY

(OPTIONAL)

Optimize your air demand with VSD technology to reduce the power consumption.



Control the motor and air end speed by VSD to optimize your air demand and reduce the power consumption



Sullair's High Efficiency VSD Motor*

- Sullair designed VSD motor provides reliability and durability with optimized efficiency.
- Special designed VSD motor ensure the insulation when VSD application.
- Special designed cooling system to guarantee the motor temperature when low running speed.

* Some VSD motors are permanent magnet motors



- Heavy duty VSD selection.
- Comparing with fixed speed models, VSD technology helps you to save about 35% power consumption.
- About 70% flow turndown to optimize your air demand.
- Soft starting by VSD which reduce the starting current for your power system.
- Less load and unload conditions by using VSD technology to get a stable discharge pressure.
- Wild flow range by VSD to meet your potential air demand.
- Build in design for less footprint.
- Easy service and friendly use.
- EMC certification for VSD.

SMART CONTROLLER



NEW GENERATION SMART CONTROLLER*

- Latest development by Sullair, reliable performance.
- Touch color screen.
- Displays temperature/pressure/operating time/loading-unloading time.
- Operating logic diagram display, more intuitive and easy to understand.
- Maintenance due reminder.
- Sequential control units: up to 14 units.
- Communication interface client reserved: Modbus RS485.
- Fault alarm/shutdown protection.
- Historical fault display.
- Power-off restart protection.
- USB interface for program upgrades.
- Sullair's proprietary IoT.
- Supports I/O expansion boards.
- Communication protocols supported: Profibus, Ethernet, etc.

*Available in some models/configurations

SULLAIR GENUINE PARTS AND LUBRICANTS

AIR TREATMENT AND OTHER VALUE ADDED SERVICE

SULLAIR WILL ASSIST IN OPTIMIZING YOUR OPERATION

With Sullair what you get is more than a Air Compressor. You are also getting the world's leading rotary screw technology and global service. We provide you with quality after sales products and top service.
If you have any needs, please contact the distributors supporting your region or Sullair after market support team.

GENUINE PARTS AND LUBRICANTS



Genuine parts and lubricants

AIR TREATMENT



Condensate separator



Air receiver



Refrigerated dryer

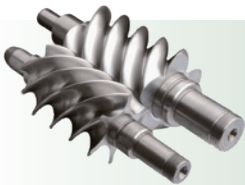


Desiccant dryer



Downstream filters

VALUE ADDED SERVICE



Airend rebuilt



VSD starter



Energy recovery
system(ERS)



ICC controller
(intelligent central controller)



IFC controller
(pressure optimal controller)

PRODUCT INFORMATION AND TECHNICAL PARAMETERS

For more information, please contact Sullair distributors in your area.

Technical parameters

Compressor model	Maximum pressure bar	Air discharge m ³ /min	Rated voltage / frequency V/Hz	Unit size L*W*H mm	Air discharge size	Water inlet / outlet size	Weight kg(±50)	
							Air-cooled	Water-cooled
LS90P(S)	7.5	17.9	380 V/50 Hz	2,500×1,500×2,017 (AC&WC)	Rp2	Rc1-1/2	2,540	2,510
	8.5	16.7						
	10.5	14.8						
	13.0	12.6						
LS90PV	7.5	5.5 - 17.9	380 V/50 Hz (VSD)	2,500×1,500×2,100 (AC&WC)	Rp2	Rc1-1/2	2,640	2,610
	8.5	5.4 - 16.7						
	10.5	5.2 - 14.8						
	13.0	5.0 - 12.6						
LS110P(S)	7.5	20.3	380 V/50 Hz	2,500×1,500×2,017 (AC&WC)	Rp2	Rc1-1/2	2,640	2,610
	8.5	20.0						
	10.5	17.4						
	13.0	16.0						
LS110PV	7.5	6.5 - 20.3	380 V/50 Hz (VSD)	2,500×1,500×2,100 (AC&WC)	Rp2	Rc1-1/2	2,740	2,710
	8.5	6.3 - 20.0						
	10.5	6.2 - 17.4						
	13.0	6.1 - 16.0						
LS132(S)	7.5	24.3	380 V/50 Hz	3,150×2,000×1,880 (AC&WC)	NPT3	NPT1-1/2	3,150	3,200
	8.5	23.2						
	10.5	21.1						
	13.0	19.4						
LS132V	7.5	4.89 - 24.3	380 V/50 Hz (VSD)	3,150×2,000×1,880 (AC&WC)	NPT3	NPT1-1/2	3,270	3,320
	8.5	4.89 - 23.2						
	10.5	4.89 - 21.1						
	13.0	4.89 - 19.4						
LS160(S)	7.5	28.8	380 V/50 Hz	3,150×2,000×1,880 (AC&WC)	NPT3	NPT1-1/2	3,400	3,450
	8.5	28.6						
	10.5	27.0						
	13.0	21.7						
LS160V	7.5	6.52 - 28.8	380 V/50 Hz (VSD)	3,150×2,000×1,880 (AC&WC)	NPT3	NPT1-1/2	3,520	3,570
	8.5	6.52 - 28.6						
	10.5	5.67 - 27.0						
	13.0	5.67 - 21.7						
LS180(S)	7.5	37.5	380 V/50 Hz	3,300×2,500×2,320 (AC) 3,300×2,200×2,150 (WC)	DN100	Rc2	5,080	4,500
	8.5	35.4						
	10.5	31.3						
	13.0	24.1						
LS180V	7.5	9.7 - 37.5	380 V/50 Hz (VSD)	3,300×2,500×2,320 (AC) 3,300×2,200×2,300 (WC)	DN100	Rc2	5,680	5,100
	8.5	9.7 - 35.4						
	10.5	9.7 - 31.3						
	13.0	6.2 - 24.1						
LS200(S)	7.5	41.0	380 V/50 Hz	3,300×2,500×2,320 (AC) 3,300×2,200×2,150 (WC)	DN100	Rc2	5,100	4,520
	8.5	40.0						
	10.5	36.0						
	13.0	29.3						
LS200V	7.5	10.5 - 41.0	380 V/50 Hz (VSD)	3,300×2,500×2,320 (AC) 3,300×2,200×2,300 (WC)	DN100	Rc2	5,780	5,200
	8.5	10.5 - 40.0						
	10.5	10.5 - 36.0						
	13.0	7.5 - 29.3						

Compressor model	Maximum pressure bar	Air discharge m ³ /min	Rated voltage / frequency V/Hz	Unit size L*W*H mm	Air discharge size	Water inlet / outlet size	Weight kg(±50)	
							Air-cooled	Water-cooled
LS250(S)	7.5	46.0	380 V/50 Hz	3,300×2,500×2,320 (AC) 3,300×2,200×2,150 (WC)	DN100	Rc2	5,160	4,580
	8.5	45.0						
	10.5	40.8						
	13.0	33.8						
LS250V	7.5	12.3 - 46.0	380 V/50 Hz (VSD)	3,300×2,500×2,320 (AC) 3,300×2,200×2,300 (WC)	DN100	Rc2	5,730	5,150
	8.5	12.3 - 45.0						
	10.5	12.3 - 40.8						
	13.0	8.9 - 33.8						
LS280(S)	7.5	60.5	380 V/50 Hz	4,500×2,200×2,500 (AC&WC)	DN125	Rc2-1/2	6,950	6,800
	8.5	55.6						
	10.5	50.0						
	13.0	44.0						
LS280V	7.5	14.0 - 60.5	380 V/50 Hz (VSD)	4,500×2,200×2,500 (AC&WC)	DN125	Rc2-1/2	6,900	6,750
	8.5	14.0 - 55.6						
	10.5	15.0 - 50.0						
	13.0	13.5 - 44.0						
LS315(S)	7.5	65.7	380 V/50 Hz	4,500×2,200×2,500 (AC&WC)	DN125	Rc2-1/2	7,100	6,950
	8.5	60.5						
	10.5	55.2						
	13.0	48.7						
LS315V	7.5	16.0 - 65.7	380 V/50 Hz (VSD)	4,500×2,200×2,500 (AC&WC)	DN125	Rc2-1/2	7,050	6,900
	8.5	16.0 - 60.5						
	10.5	16.6 - 55.2						
	13.0	14.5 - 48.7						
LS355(S)	7.5	71.7	380 V/50 Hz	4,500×2,200×2,500 (AC&WC)	DN125	Rc2-1/2	7,250	7,100
	8.5	67.4						
	10.5	60.0						
	13.0	55.0						
LS355V	7.5	17.5 - 71.7	380 V/50 Hz (VSD)	4,500×2,200×2,500 (AC&WC)	DN125	Rc2-1/2	7,200	7,050
	8.5	17.5 - 67.4						
	10.5	18.0 - 60.0						
	13.0	16.5 - 55.0						
LS400	7.5	75.0	380 V/50 Hz	4,500×2,200×2,190 (WC ONLY)	Rp5	G2-1/2	N/A	10,200
	8.5	70.8						
	10.5	62.5						
	13.0	53.6						
LS450	7.5	N/A	380 V/50 Hz	4,500×2,200×2,190 (WC ONLY)	Rp5	G2-1/2	N/A	10,200
	8.5	80.1						
	10.5	66.0						
	13.0	N/A						

- Unit performance parameters and acceptance criteria shall be subject to Appendix C, ISO 1217.
- Reference conditions: absolute intake pressure: 1 bar(A); air intake temperature: 20 °C; relative humidity: 0%.
- The air discharge measured at the following working pressures is: 7 bar for the 7.5bar model; 8 bar for the 8.5bar model; 10 bar for the 10.5bar model; and 12.5 bar for the 13.0bar model.
- For 60Hz application and other special requirements, please contact Sullair.

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