

Product Name: X1000 Series Industrial Air Compressor

Model: X1000-SL

Category: Heavy-Duty Industrial Equipment

1. General Description The X1000-SL is a high-performance, heavy-duty air compressor designed for large-scale industrial applications, providing a reliable, continuous supply of compressed air in demanding environments. Built with durable materials and cutting-edge technology, the X1000-SL delivers outstanding efficiency, minimizing energy consumption while ensuring high output performance.



2. Technical Specifications

Power Supply: 400V, 50/60Hz, 3-phase

Motor Power: 75 kW (100 HP)

Air Flow Rate: 12.5 m³/min (440 CFM) at 7 bar pressure

Max. Pressure: 10 bar (145 PSI)

Operating Temperature Range: -10°C to 50°C

Noise Level: 78 dB(A) at 1 meter

Cooling System: Air-cooled with integrated aftercooler

Lubrication Type: Oil-lubricated, rotary screw

Oil Capacity: 20 liters

Drive System: Direct drive, 1:1 gear ratio

Weight: 1600 kg

Dimensions: 2800 mm (L) x 1200 mm (W) x 1900 mm (H)



3. Construction Materials

Compressor Body: High-strength cast iron

Housing: Powder-coated steel frame with corrosion-resistant finish

Cooling Fins: Anodized aluminum

Seals and Gaskets: High-grade silicone for durability under extreme temperatures

Motor Insulation: Class F, thermal protection up to 155°C

4. Key Features

Advanced Control System: The compressor is equipped with a digital controller for real-time monitoring of pressure, temperature, and flow rate. Includes built-in safety alarms and automatic shutdown features in case of overload or overheating.

Variable Speed Drive (VSD): Optimizes energy usage by adjusting motor speed to match air demand, reducing energy costs by up to 30%.

Low Maintenance Design: The X1000-SL includes an automatic oil filtration system and a long-life air filter, reducing maintenance intervals and downtime.

Built-In Moisture Separator: Effectively removes condensation from compressed air, ensuring dry output for sensitive industrial processes.

Vibration Dampening System: Rubber mountings minimize noise and mechanical vibrations, increasing operational stability and prolonging equipment life.

5. Safety Features

Overload Protection: Integrated thermal protection for the motor and electrical system to prevent overheating.

Pressure Relief Valve: Automatically releases excess pressure to prevent system failure.

Automatic Restart: After a power failure, the system is programmed for a safe, controlled restart.

controlled restart.

6. Compliance and Certifications

The X1000-SL meets or exceeds the following standards:

ISO 8573-1:2010 (Compressed Air Quality)

CE Marking (Conformity with European Union safety, health, and environmental protection requirements)

IEC 60034 (Rotating Electrical Machines)

RoHS Directive (Restriction of Hazardous Substances)

7. Applications The X1000-SL is suited for a wide range of industrial applications, including:

Manufacturing facilities (automotive, aerospace, electronics)

Petrochemical and refining plants

Food and beverage processing

Mining and heavy machinery operations

Pharmaceutical and healthcare industries

8. Installation Requirements

Foundation: The compressor must be installed on a level, vibration-resistant base capable of supporting the unit's weight.

Ventilation: Adequate airflow and cooling must be maintained in the compressor room to prevent overheating. A minimum clearance of 1 meter is recommended around the unit for maintenance access.

Power Connection: The electrical supply should meet the specified voltage and phase requirements, and a dedicated circuit breaker should be installed.

Air Intake: Ensure that the air intake is free from dust and contaminants to maintain optimal performance.

9. Maintenance Schedule

Oil Change: Every 2000 operating hours or annually, whichever comes first.

Air Filter Replacement: Every 1000 operating hours.

Coolant Inspection: Every 3000 operating hours.

Belt Inspection and Tensioning: Every 500 hours or quarterly.

10. Warranty

The X1000-SL comes with a 3-year limited warranty covering all parts and labor for manufacturing defects under normal operating conditions. Extended warranties are available upon request.