LS Series
Multistage Turbo Blower

Power: 20 to 3,500 HP / 15 to 2,500 kW
Flow: 300 to 45,000 SCFM / 500 to 75,000 nm³/h
Delta Pressure: 2 to 25 PSI / 0.1 to 1.7 bar

Air, Gas, Pressure, Vacuum

Your ONE Solution for Blower Systems
LS Series
Multistage Turbo Blower

The Lone Star LS Series is the most advanced of its kind – the first multi-stage designed specifically for variable speed operation.

Designed and built by 20-year industry veterans in the USA, the LS series offers superior performance range and efficiencies compared to traditional designs. These blowers are adaptable for air or process gas in pressure or vacuum applications.

**Product Features**

- 30% Higher Pressure Range
- 5-7% Better Efficiency
- 100,000-hour Bearing Life
- Quiet Operation < 85 dBA
- Direct Coupled Motor

- Oil Free Compression
- High Reliability
- Low Maintenance
- Pulsation Free
- Adapted for all Environments
The Lone Star LS Series are the first multistage blowers designed to run with variable speed. A steeper rise to surge provides the LS a wider flow range when adjusting speed over the traditional designs that were based on constant speed operation.

The large diameter impellers produce high tip speed to maintain pressure and backward curved impellers allow a high rise to surge.

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<tr>
<th>LS DESIGN</th>
<th>STANDARD DESIGN</th>
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<tr>
<td>DESIGN PRESSURE</td>
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- O-Ring sealing between cast iron sections offer a no-leak design for gas tight applications
- Pressure to 35 psig / 1.4 bar
- High velocity cooling fan
- Constant level oiler – closed loop to eliminate misting
- Deep well aluminum oil reservoir – optional cooler and heater can be connected
- Oil splash lubrication – zero contamination
- Balance drum and return line to reduce thrust and increase bearing life
- All stainless fittings
The LS Series is the most advanced multistage turbo design available today

LS Packaged System

- Blow Off Valve & Silencer
- Discharge Valve
- Filter/Silencer
- Check Valve
- Inlet Valve
- Motor
- Expansion Joint
- Blower
- Coupling & Coupling Guard
- sLOC™ Controller/Motor Starter
Each model can be built from 1 to as many as 10 stages. Impeller designs can be mixed to maximize efficiency.

- **Cast Inlet Guide Vanes**: Improve flow path to first stage impeller
- **Intermediate Section**: Wide turning channels to improve efficiency and O-Ring seals
- **Bearings L10 minimum life**: Maximum reliability and easy maintenance
- **Casing: Class 30 Cast Iron, Ductile, or Aluminum**: Keeps vibration low and sound levels below 85 dBA without sound enclosure
- **Impellers: Aluminum, Anodized, Stainless, or Steel Options**: Many vane configurations available to maximize efficiency
- **Balance Drum and Return Line**: Counters axial thrust load for longer bearing life
- **Seals: Gas or Air**: Designed to fit the application and environment
- **Discharge Cooling Fan**: Rotates with the shaft and keeps the bearings cool for improved reliability
- **Cradle Pedestal**: Allows inlet and outlet flange positions to rotate 90 degrees
- **Casing Drains**: Allows removal of liquid in the casing
- **Turning Vanes: Stainless or Cast Aluminum**: Improves efficiency
- **Shaft: Carbon or Stainless**: Slow speed for maximum reliability
- **Lubrication—Self Lubricating with Oil mist connections**: Easy maintenance access and reliability

### Applications

- **Water and Waste Water**
- **Petro-chemical**
- **Utility Power**
- **Food and Beverage**
- **Industrial**
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