

SC31 Series Centrifugal Pumps

Design Features

- Variable Capacities to 15 GPM
- Heads to 250 Feet
- Temperatures from -60° to 190°F
- Leak free Sealless Canned Design
- High efficiency motor (94%)
reduces heat input to fluid
- Stainless Steel Construction
- Compact Size
- End Suction and Side Discharge
- 2,000 - 10,000 RPM Variable Speed
- 115/230VAC or 12/24/48/100VDC Motor
- Integrated Variable Speed Controller
- Closed loop 0-10V, 4-20ma, PWM, or manual control inputs



SC31 Patent Pending

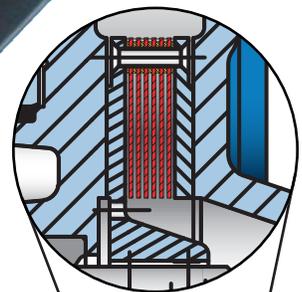
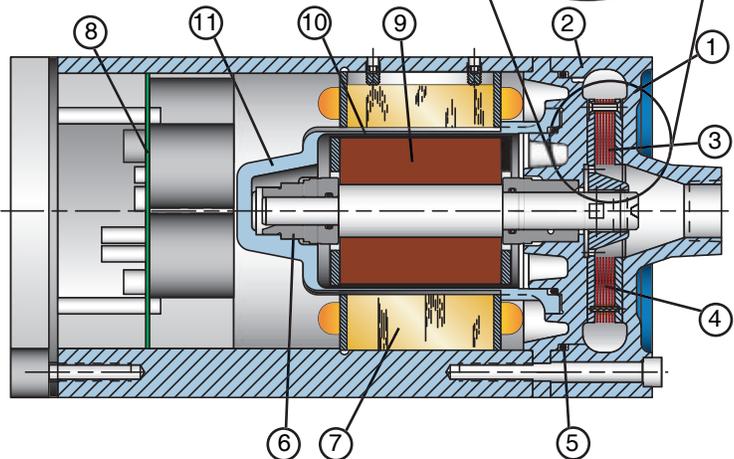


Diagram & Specs

- (1) Stainless Steel Cover
- (2) Stainless Steel Motor Bracket
- (3) Stainless Steel Impeller
- (4) Self-centering Balanced Impeller
- (5) High-Temp "O" Rings
- (6) Long lasting Carbon Graphite/Ceramic Bearings
- (7) Compact 115/230 VAC 12/24/48/100VDC Stator
- (8) Integrated Variable Speed Controller
- (9) Permanent Magnet Rotor
- (10) Stainless Steel Rotor Retaining Sleeve
- (11) High Strength Thermoplastic Liner



Limitations

| | |
|-------------------------|-------------|
| Casing Pressure (Max.)* | 300 PSI |
| Suction Pressure (Min.) | 26" Hg Vac. |
| Speed (Max.) | 10,000 RPM |
| Speed (Min.) | 2,000 RPM |

Temperature**

| | |
|---------|---------|
| Minimum | -60° F |
| Maximum | +190° F |

Horsepower

| | |
|----------------------|-------|
| 115/230VAC (1 Phase) | .75HP |
| 100VDC | .50HP |
| 48VDC | .33HP |
| 24VDC | .33HP |
| 12VDC | .17HP |

*Suction Pressure Plus pump Differential Pressure
**Consult factory for extended temperature ranges

Construction Materials

| PART | MATERIAL | OPTIONS |
|--------------------------------|--------------------------------|-------------------|
| Motor Bracket and Cover/Casing | 316 Stainless Steel (AISI 316) | --- |
| Impeller | 316 Stainless Steel | --- |
| Elastomers | Viton A | Buna/EPR/Neoprene |
| Bearings | Carbon - Ceramic | Si Carbide |
| Shaft | Stainless Steel | --- |
| Stator Liner | Thermoplastic | --- |
| Rotor Sleeve | 316 Stainless Steel | --- |

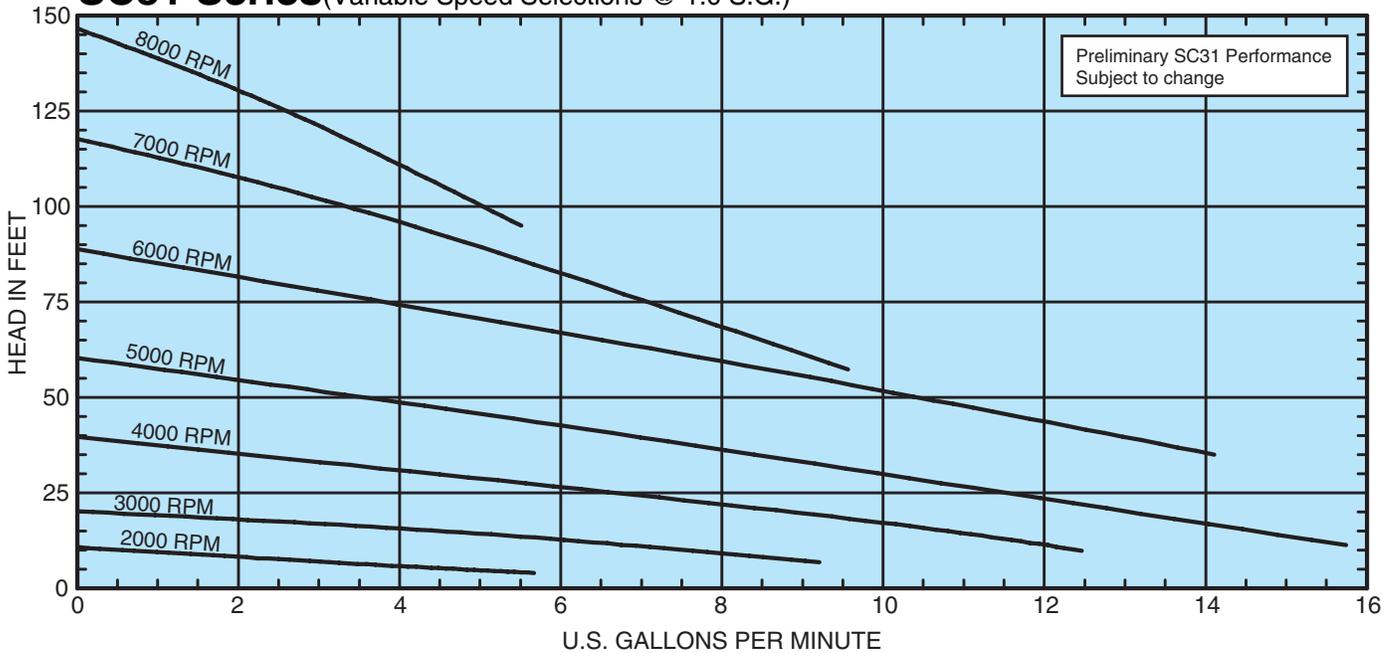
Optional Features

Controllers available for 12/24/48/100 VDC or 115/230 VAC power. Controller options for manual speed control, external control via PWM, or closed-loop 0-10V or 4-20ma transducer speed control.

Pressure transducers and optional bearing and elastomer materials available upon request. ST21 regenerative turbine pump is available for high pressure and low flow applications.

SC31 Series Performance Curves

SC31 Series (Variable Speed Selections @ 1.0 S.G.)



Design Features

300 PSI Case Working Pressure
Rigid structure is designed for maximum casing strength.

High Motor Efficiency
94% efficient permanent magnet motor minimizes heat input to fluid in heat sensitive applications like chillers and refrigerant handling.

Low NPSH
Viscous friction disk impeller gently accelerates fluid to exit velocity pro-

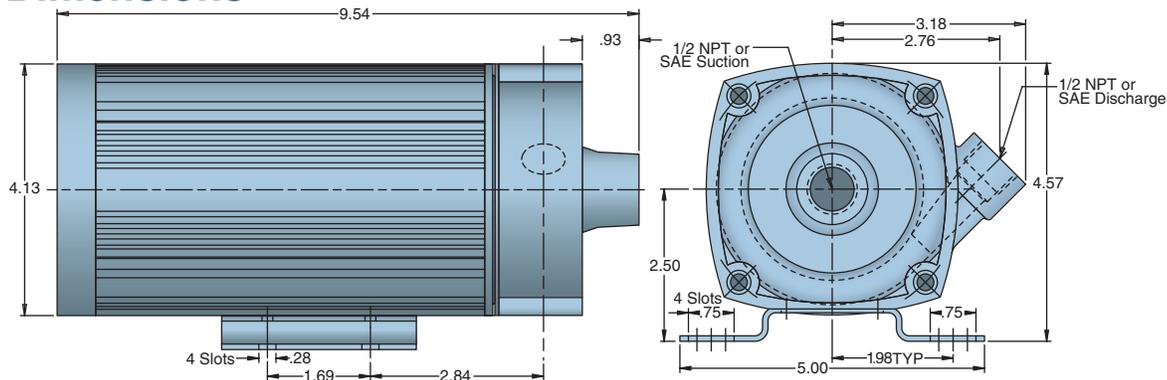
viding superior fluid handling at very low head inlet conditions.

100% Tested
Every pump is fully tested to verify performance prior to shipment.

Leak Free Sealless Design
Canned Sealless motor eliminates downtime, risk, and damage associated with mechanical seal failures. More compact and reliable than mag-drive solutions.

Versatile Controller
Controller accepts AC and DC power inputs and features variable speed output that can be controlled via closed loop feedback from 4-20ma, 0-10VDC, or PWM transducers or other control circuitry.

Dimensions



Notes:
A 50 mesh nominal strainer should be installed ahead of the pump suction to prevent foreign materials from damaging the pump impeller and bearings.
Rated for continuous duty operation at all ratings shown.



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