



**Highland
Equipment Inc.**

Stainless Steel Equipment

Positive Displacement Pumps



SRU Series

For sanitary applications requiring CIP capabilities, the advanced Hyclean seal technology of the SRU Series combines versatility with easy maintenance.



SX Series

The SX is the choice for applications requiring the highest level of cleanability and corrosion resistance, such as pharmaceutical, biotechnology and fine chemical industries.

Some of the benefits of the SRU and SX rotary lobe pumps are:

- Universal mounting for vertical and horizontal port orientation
 - Ideal for CIP
- Conformity to EHEDG, 3A and FDA requirements
 - Low pulsation and low shear operation
 - 316L Stainless steel wetted components
 - Full bore-through ports
 - Heavy duty construction
 - Total application flexibility
- Precise and cost-effective pump selection
 - Modular construction
- Reliable operation and low maintenance
- High efficiency, low power consumption



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Ultra Hygienic Positive Displacement Pump **55 SERIES**



- **Ultimate Hygienic Standards**

Tested and approved to the EHEDG (European Hygienic Equipment Design Group), CIP, SIP and Bacterial Tightness protocols. Full conformance to 3A Sanitary Standards 18-03 and 02-10 and utilizing materials which meet the requirements of the FDA title 21, section 177.1550.

- **Cleaner by Design**

External rotor retention together with gasket type joints in place of O-rings reduce the number of potential product entrapment areas. Furthermore, the shaft seals are pulled forward fully in the product zone, all of which adds up to the ultimate in cleanability.

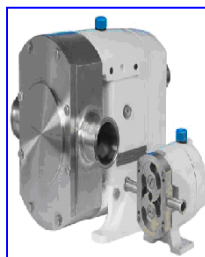
- **Low Product Shearing**

The bi-wing and 5 lobe rotor designs ensure high volumetric efficiency on low viscosity products resulting in low shear rates and low product damage.

- **Rugged Design**

This pump design utilizes extremely large shaft diameters mounted in high specification taper roller bearings. These give maximum shaft stiffness to ensure no galling thus maintaining the pump's CIP and SIP capabilities.

Super Hygienic Positive Displacement Pump **Hy~Line**



- **Most Rigorous Hygienic Standards**

Flush rotor fixing screws are sealed to prevent product ingress. Contoured rotor case internals for full drainage during SIP and shaft seals set up front where the pumping action is. Fully conforming to 3A 02-10 Hygienic Standards and utilizing materials which meet FDA requirements. Versions are available that have been tested and approved to the EHEDG (European Hygienic Equipment Design Group), CIP and SIP protocols, USDA and 3A.



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- **Low Maintenance Costs**

Front loaded single shaft seals are fully accessible from the front of the pump without disturbing the process pipe-work. Simple bearing assemblies easily pre-set using automotive technology. Bi-wing rotors require no timing adjustments. The pump casing is removable, a feature not normally associated with other bi-wing rotor pumps.

- **High Volumetric Efficiency**

The bi-wing rotors incorporate the low viscosity efficiency associated with circumferential piston pumps with the viscous product handling capability of tri-, quad and bi-lobe rotor pumps.

- **Rugged Design**

Hy-Line design utilizes extremely large shaft diameters mounted in high specification taper roller bearings, fitted into an extremely rigid central pillar made from a high grade alloy. This is all enclosed in an oil filled housing made from the same alloy. These, together with wide tipped rotor wings, which adds another dimension to security, avoid premature pump failure due to overpressure or other abuse.

Hygienic Positive Displacement Pump **24 SERIES**



- **Adaptability**

This is the key design concept. The pump utilizes 'bolt on' features which allow quick and easy interchange of parts to enable exact specification of the pump to suit any application.

- **Rugged Design**

The bearing frame design utilizes large shaft diameters mounted in high specification taper roller bearings, fitted into rigid pillars which form an integral part of the high grade alloy housing. These ensure maximum shaft stiffness in order to avoid premature pump failure due to overpressure or other abuse.

- **Low Maintenance**

The shaft, bearing and gear assemblies are fully immersed in an oil bath to give maximum life even at extremes of operating conditions. The timing gears are easily accessible at the rear of the pump in the unlikely event that re-timing should become necessary. Rotors are all fully interchangeable avoiding the need to re-time which is a problem associated with so many other rotary lobe and circumferential piston pumps.

- **Improved Hygienic Technology**

Fully swept pump chamber together with sealed rotor spline, accessible seals, and approved sealing components ensure that the pump meets the rigorous requirements of major international customers.

- **Certified to US 3A and USDA Standards**



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