The Peerless Pump ELS vertical turbine pump provides a wide range of hydraulic and mechanical coverage. Peerless Pump offers many different material and design configurations; these numerous configuration options allow for custom-engineered construction tailored to suit your requirements. Maximum value, high efficiency and economical long-term pump performance are assured in each application.

Applications
ELS pumps can be lubricated either with oil or a clean water flush. Corrosion-resistant materials are available for many industrial uses. Applications vary from small, single pump commercial applications to large, multi-pump municipal water supply systems. ELS pumps are appropriate for both raw water transfer and finished water projects. They are also widely used in mining and agriculture. In addition, Peerless ELS vertical lineshaft pumps are the best choice for deep-set wells (up to 1500 feet).

Features
Peerless Pump’s standard cast iron discharge head can handle pressures up to 400 psi. Discharge heads are standardized to accommodate the maximum number of NEMA motor sizes, and a variety of options such as fabricated steel construction or underground discharge are available.

Enclosed-type bronze impellers are standard. Peerless impellers cover a wide range of flow and head conditions. Each impeller is balanced for smooth operation.

Peerless standard ELS bowls are cast with integral vanes to guide the flow to the next stage with minimum losses and maximum efficiency. Bypass ports cast in the top bowl equalize the internal tube pressure and prevent the pumped liquid from entering the lubrication line and bearings. In addition, all bowls are porcelain-lined for protection and efficiency.

Peerless Pump pioneered and patented the “double seal” feature in bowls. The two sealing surfaces prevent efficiency-robbing recirculation within the bowl. Minimal radial clearances between the impeller skirt and the bowl create a dynamic sealing surface. The static sealing surface is the lateral ring, installed into the bowl below the impeller skirt. This lateral ring is constructed of a rigid metallic core surrounded by heavy-duty resilient rubber. Lateral rings protect bowl surfaces, provide protection for the impellers in case of catastrophic failures, and enable prolonged pumping efficiency.

Threaded column is available for pumps up to 16 inches in diameter. Straight-threaded column is an economical yet durable choice, particularly in the municipal market.

Quality Engineering
Peerless Pump designs tough, versatile products to meet your pumping needs. Peerless vertical turbine pumps deliver variety, durability, standardized options and configurations unequalled in the industry. Please contact your local Peerless Pump sales office to find out more about vertical turbine pump options and prices.

Specifications
Capacities: Up to 100,000 gpm (2,273 m³/hr)
Head: Up to 2,300 feet (760 meters)
Pressure: Fit to the application
Horsepower: Up to 5,000 hp (3,730 kW)
Temperature: Up to 180 °F (82 °C)
Drives: Vertical electric motors, engines with right angle gears, combination gear drives, or vertical motors with variable speed drives
Liquids: Water or abrasive liquids
Materials: Cast iron/bronze-fitted standard; alternate materials available to suit the application.
ELS Vertical Turbine Range Chart - 1180 RPM

- **HEAD (Feet)**
- **FLOW (GPM)**
- **HEAD (Meters)**
- **FLOW (M³/HR)**

ELS Vertical Turbine Range Chart - 1750 RPM

- **HEAD (Feet)**
- **FLOW (GPM)**
- **HEAD (Meters)**
- **FLOW (M³/HR)**

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**Top Drive Coupling**
- NRR is Standard

**Tube Nut Assembly**
- Provides a simple, tamper-proof method of placing a proper tension on the lubrication line. It also prevents entry of the pumped liquid into the enclosing tube with an optional water or oil flush connection.

**Shaft Support**
- Oil lubricated sleeve-type bronze bearing provides additional shaft support.

**Stabilizing “Spiders”**
- Installed at intervals along the enclosing tube, serving to stabilize the tube within the column pipe.

**Lineshaft**
- Water lubricated, 416 SS as standard. Optional lineshaft materials also available.

**Top Bowl**
- Designed with extra long bronze bearings to provide optimal support.

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**Shaft Couplings**
- Machined from heavy-duty alloys. “Weep” hole in the center of each coupling permits air and excess thread compound to escape, so the shaft sections butt together smoothly.

**Enclosing Tube**
- Heavy-duty steel, provides rigid and vibration-free support for the shaft. Each tube is precision made for correct alignment and impermeable sealing.

**Impellers**
- Enclosed-type, cast bronze as standard. All vanes and guide passages are hand-finished.

**Taper-Lock Bushing**
- Securely fastens impellers to the shaft; some pump sizes use a standard.

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**Adjusting Nut**
- Quickly and easily adjusts shaft to correctly position impellers for maximum sustained efficiency.

**Lateral Seal Wear Rings**
- Constructed of rubber-coated steel, provide additional sealing and protection.

**Suction Manifold**
- "Bell" design available in a threaded design for use with suction pipe or a cone strainer for well application; a "threaded" design is also available.

**Suction Manifold Bearing**
- Grease-lubricated for long trouble-free life.

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