Lancaster Pump offers a broad selection of SURVIVOR 4” submersible well pumps. Horsepower from ½ to 5 HP, with the most popular size range ½ to 1½ HP, available in Corrosion-Resistant Thermoplastic or Super Strength Stainless Steel. Capacity ratings are 5, 7, 10, 15 and 22 gallons per minute with heads as high as 990 feet.

INSIDE A PUMP STAGE
- Diffuser with stainless steel seal/wear surfaces for upper impeller hub
- Impeller eye surrounding lower hub
- Stage plate with stainless steel seal/wear surface for impeller eye

ASSEMBLED PUMP STAGE
- Laminated phenolic thrust washer on top of every stage provides down-thrust protection and axial sealing for the impeller inside the next stage above

BREAKDOWN
- Glass-filled Noryl® Discharge Head with field replaceable fluted Internal Check Valve. Molded jug handles - no need for safety cable adapter, ½ HP thru 1½ HP models. Available in Stainless Steel up to 5 HP.
- Fluted Polyurethane Bearing at top end of shaft. Excellent abrasion and wear resistance.
- Stainless Steel Cable Guard for maximum cable protection. Attached with stainless steel screws.
- Balanced Teflon® impregnated Impellers made of glass-filled thermoplastic, provide for lower friction for longer pump life.
- Stainless steel Hex Shaft with slotted end for test turning.
- Fully enclosed, glass-filled thermoplastic Diffusers and Stage Plates with stainless steel wear surfaces. Each stage is complete with an individual composite thrust washer for extra protection.
- Heavy wall, high quality Stainless Steel Pump Casing sized inside for perfect stage alignment.
- Glass-filled Noryl® Motor Support ½ HP thru 1 ½ Hp models. Available in Stainless Steel up to 5 HP.
- Stainless Steel screen, cannot snap off during installation.

SURVIVOR 4” SUBMERSIBLE PUMP MODEL NUMBER BREAKDOWN

<table>
<thead>
<tr>
<th>Catalog Section</th>
<th>Number of Stages</th>
<th>Horsepower</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 = 2 Wire</td>
<td>1 = 115 Volt, Single Phase</td>
<td></td>
</tr>
<tr>
<td>3 = 3 Wire</td>
<td>2 = 230 Volt, Single Phase</td>
<td></td>
</tr>
<tr>
<td>L = Lancaster Hydro-Force Motor (no letter L) = Franklin Electric Motor</td>
<td>3 = 230 Volt, Three Phase</td>
<td></td>
</tr>
<tr>
<td>P = Plastic Discharge Head Plastic Motor Support</td>
<td>(Additional Voltages Available)</td>
<td></td>
</tr>
<tr>
<td>S = Stainless Steel Discharge Head Stainless Steel Motor Support</td>
<td>50 = 0.50 HP</td>
<td></td>
</tr>
<tr>
<td>SP = Stainless Steel Discharge Head Plastic Motor Support</td>
<td>75 = 0.75 HP</td>
<td></td>
</tr>
<tr>
<td>J = 5 GPM</td>
<td>100 = 1.0 HP</td>
<td></td>
</tr>
<tr>
<td>L = 7 GPM</td>
<td>150 = 1.5 HP</td>
<td></td>
</tr>
<tr>
<td>T = 10 GPM</td>
<td>200 = 2.0 HP</td>
<td></td>
</tr>
<tr>
<td>U = 15 GPM</td>
<td>300 = 3.0 HP</td>
<td></td>
</tr>
<tr>
<td>W = 22 GPM</td>
<td>500 = 5.0 HP</td>
<td></td>
</tr>
</tbody>
</table>
LANCASTER HYDRO-FORCE™

4" ENCAPSULATED SUBMERSIBLE MOTORS
SINGLE PHASE TWO-WIRE (½ - 1½ HP, 230V) & THREE-WIRE (½ - 1 HP, 230V)
EQUIPPED WITH LIGHTNING ARRESTORS

TECHNICAL FEATURES

TWO-WIRE DESIGN
• Split-phase induction run (IP) design with built-in electronic starter connected in series to a high resistance auxiliary start winding – no capacitor required – electronic starter controls disengagement of start winding as a function of starting time and starting voltage.

THREE-WIRE DESIGN
• Capacitor-start induction run (CSIR) design – control box required.
• Control box quick-disconnect design disconnects control box components from the electrical system when the lid is removed – will retrofit F.E. Q-D control boxes of same HP and voltage.
• Control box components include a 230V voltage relay for easy installation, two ground terminals, cable terminals up to AWG 8, and a start capacitor for higher starting torque.
• Control box painted steel enclosure with multiple knockouts is rated NEMA 3R for indoor or outdoor installation.

TWO-WIRE AND THREE-WIRE DESIGNS
• Stator filled with special epoxy resin and hermetically sealed for a better insulation of the winding and a greater heat exchange.
• Rotor and thrust bearings lubricated by water mixed with Propylene Glycol.
• Built-in check valve for restoring of cooling liquid (well water) as needed.
• Built-in lightning arrestors providing surge protection.
• Built-in automatic reset overload providing thermal (overheat) protection caused by high amperage and/or inadequate motor cooling.
• AISI 304 Stainless Steel motor frame shell, stator ends and liner, hermetically sealed for maximum corrosion resistance.
• AISI 303 Stainless Steel splined shaft end.
• Cathodic epoxy electrocoated G20 cast iron top and bottom end brackets.
• AISI 304 Stainless Steel top and bottom end bracket covers.
• Shaft sealing system using labyrinth seal, sand slinger and lip seal.
• Pressure equalizing diaphragm.
• 4" NEMA flange.
• M8 threaded mounting studs.
• Removable plug-in lead cable.
• Degree of protection: IP68.
• Insulation: Class B.
• Time Rating: Continuous Duty.
• UL recognized component.
• UL classified water quality system component in accordance with ANSI/NSF 61 (health effects) and 372 (lead content).

FRANKLIN: Lancaster Pump is also teamed up with Franklin Electric’s 4” super stainless and high thrust submersible motors, delivering high quality and dependable service.
• Corrosion-resistant stainless steel exterior
• Stainless steel splined shaft
• Hermetically-sealed windings
• Filter check valve
• Water lubrication
• Kingsbury-type thrust bearing
• Pressure-equalizing diaphragm
• Built-in lightning arrestors (All single-phase, super stainless 200 & 230V three-phase)
• Removable water bloc lead
• UL Recognized and CSA certified component
• ANSI/NSF 61 certified
• Industry standard NEMA mounting dimensions