Anchor Elevated-Temp Electric Piston Pump™

DIMENSIONS (IN INCHES)
A. Above Well Height ....................... 48.5
B. Driver Length .......................... 43.0
C. Discharge Tee and Well Seal Height  .5.0
D. Driver Diameter .......................... 8.0
E. Foot Valve Assembly .................. 40.0
F. External Foot Valve ..................... 4.0
G. Stainless Steel Strainer ............... 4.0
H. Largest Downhole Diameter .......... 1.9

For Fluids 150°F to 300°F
MODEL 101: ABOVE-WELL DRIVER MOTOR

Surface-grade power, maintenance

Blackhawk’s Anchor Elevated-Temp Electric Piston Pump™ is specially designed to handle high temperature pumping of virtually any fluid, regardless of chemical composition, from 150°F to 300°F (65°C to 149°C).*

The Model 101 electric pump maintains steady flows of 1.35 gallons per minute to depths of 804 feet with a 1 HP motor and 385 feet with a ½ HP motor. Model 102 pumps to 3.27 gpm at 351 feet with 1 HP and 165 feet with ½ HP.

Maximum speed is 20 full strokes (up and down) per minute.

The Anchor Elevated-Temp is a reciprocating-rod, positive-displacement piston pump powered by electricity. Motor and controls are at surface grade, above the wellhead, allowing simplified installation and maintenance.

Top-head drive motor provides linear pumping action direct from the surface through the sucker-rod assembly. Fluid inlet is at pump bottom intake and removes fluid to 0 submergence depth.

*For landfills below 150°F, use standard Blackhawk electric, pneumatic or solar models. Above 300°F, contact Blackhawk to customize pumps with ultra-high-temperature components.

FLOW VS. MOTOR HERTZ

<table>
<thead>
<tr>
<th>Motor Hertz</th>
<th>Flow – Gallons per Minute</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>40</td>
<td>3</td>
</tr>
<tr>
<td>50</td>
<td>4</td>
</tr>
</tbody>
</table>

For 101:
- .3
- .58
- .82
- 1.02
- 1.19
- 1.35

For 102:
- .73
- 1.4
- 1.98
- 2.47
- 2.89
- 3.27
**MODEL 101: Lifts to 804 feet**

**FLOW vs. DEPTH, 1/2 HP Motor**

<table>
<thead>
<tr>
<th>Flow (gpm)</th>
<th>TDH (feet of water)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0 - 165</td>
</tr>
<tr>
<td>2</td>
<td>200 - 385</td>
</tr>
<tr>
<td>3</td>
<td>300 -</td>
</tr>
<tr>
<td>4</td>
<td>400 -</td>
</tr>
</tbody>
</table>

**FLOW vs. DEPTH, 1 HP Motor**

<table>
<thead>
<tr>
<th>Flow (gpm)</th>
<th>TDH (feet of water)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0 - 351</td>
</tr>
<tr>
<td>2</td>
<td>200 - 804</td>
</tr>
<tr>
<td>3</td>
<td>300 -</td>
</tr>
<tr>
<td>4</td>
<td>400 -</td>
</tr>
</tbody>
</table>

**Performance Data**

- **Operating Depth**: 804 ft., 245 m. (1 HP); 385 ft., 117 m. (½ HP)
- **Flow Range**: To 1.35 US gpm, 1,994 gpd; (½ HP & 1 HP)
- **Discharge per Stroke**: 0.068 US gallons per stroke (Flow does not vary with depth)
- **Motor**: ½ HP or 1 HP
- **Power Supply**: 120- or 230-volt single phase, or 230- or 460-volt three phase
- **Max Discharge Pressure**: 50 psig
- **Max. Lift**: 804 ft., 245 m. (1 HP); 385 ft., 117 m (½ HP) *Variable-speed (stroke) control adjusts to well conditions; liquid drawn down to top of strainer
- **Discharge per Stroke**: .05 US gal / .19 liter
- **Temperature Range**: 150°F to 300°F / 65°C to 149°C

**Technical Data**

- **Stroke Length**: 12 in.
- **Recommended Bore Hole**: 2 to 3 in. or more
- **Max External Diameter**: 1.9 in. (4.83 cm)
- **Min Well Casing**: 2 in. (5.08 cm)
- **Cylinder Length**: 30 in.
- **Connection to Riser Pipe**: 1¼ in.
- **Discharge Size**: 2 in. NPT
- **Cylinder Weight**: 8 lb.
- **Driver Weight**: 40 lb.
- **Driver Rod Weight**: 12 lb. per 100 ft.
- **Foot Valve Assembly Wt.**: 8 lb.
- **Installation**: Any angle horizontal to vertical

**Available Options**

- Drive-rod auto oiler
- Pressure-relief valve
- Liquid-level control
- Variable speed control
- Flow meter
- Well seals & kits
- Factory seal replacement

Visit www.blackhawkco.com to see why motors above the wellhead mean less-costly, more compliant, safer operations.