Features

- Steel construction
- Flows to 250 GPM
- Solids handling to 3-1/2 in. diameter
- Discharge pressure up to 150 PSI
- Anti-clog ball valve design
- Adjustable flows and pressures
- Self trouble shooting valves
- Self priming—pulls full vacuum
- Low maintenance
- Mobile, lightweight
- Force feed augers are available

Applications

- Chemicals
- Environmental, pit cleaning
- Oil spill response
- Waste water
- Filter cakes
- Pulp and paper, rail car
- Viscous materials
- Sludge injection
- Paint and hazardous sludges
- Crude and #6 oil (bottoms)
- Tank bottom sludges
- Special processes

This hydraulically-driven, piston pumping system is designed to pump heavy sludges, slurries and other viscous materials that contain solids and impurities. The pumping system has a flow rate up to 250 gallons per minute. The self-priming Sludge Master, which is virtually leak proof, can dry run for a limited time without damage. It features low maintenance with no diaphragms that can burst under pressure or mechanical seals to fail.

The integral hydraulic power unit is custom designed to drive the Sludge Master’s reciprocating pistons. The hydraulic power unit includes the engine (diesel or electric), hydraulic reservoir, hydraulic control unit, oil cooler and interconnecting hoses. The hydraulic power unit can be located remotely, as far as 200 feet from the Sludge Master pump.

The Sludge Master pump passes solids such as rags, rocks, nuts, bolts, Tyvec suits, rubber gloves, rope and more without damage to the system and is designed to operate while pumping hazardous chemical materials.
Case Studies

Environmental

The Sludge Master pumping system has met a lot of environmental challenges, including tank cleaning jobs and small oil spills. The Sludge Master pumping system was used as an integral part of a submerged oil cleanup job near Tampa, Florida. Based on its superior performance additional units were purchased for the 600,000 gallon oil spill off the coast of San Juan, Puerto Rico. In addition the pump was an essential component in the cleanup of a superfund site in South Houston. Hydrocarbon based heavy sludge had been dumped at the site by local chemical plants. A total of six Sludge Master pumping systems were used for six months to clean the site. The Sludge Master was the only pumping system used that could remove the heavy sludge material without fouling or damaging the pump.

Process

A refinery in Texas City used the Sludge Master pumping system to pump the heavy slurry into a tilter press. The tilter press removes impurities from a chemical mixture. The Sludge Master pumping system was selected because the discharge pressure of the pump could be adjusted to hold a constant pressure. This self-adjusting capability is achieved by a load sense feature designed into the hydraulic power system.

Mining and Drilling

A major international construction firm purchased three Sludge Master pumping systems to be used in their underground tunnel drilling operations. The Sludge Master pumping system is located in the tunnel bore and is used to pump grindings, sand, rock and other solid materials out of the tunnel. The unique abilities of the Sludge Master pumping system make it the only pump that has worked for this application.

Specifications

<table>
<thead>
<tr>
<th>Sludge Master Pump</th>
<th>Hydraulic Power Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cast iron and steel construction</td>
<td>30 HP diesel engine with 30 gallon fuel tank</td>
</tr>
<tr>
<td>Sealed ball valve control on each cylinder</td>
<td>60 gallon hydraulic oil reservoir</td>
</tr>
<tr>
<td>Dual 12” cylinders capable of moving approximately five gallons per stroke</td>
<td>Skid mounted, ready for trailer mount</td>
</tr>
<tr>
<td>55 strokes-per-minute maximum</td>
<td>Hydraulic oil cooler</td>
</tr>
<tr>
<td>Viton O-rings throughout</td>
<td>Needle control valve</td>
</tr>
<tr>
<td>Nitrile gaskets and polymite packed seals on cylinders and valves</td>
<td>Hydraulic flow control valve</td>
</tr>
<tr>
<td>4” inlet/discharge</td>
<td>Pulsation stabilizer</td>
</tr>
<tr>
<td>Approximately 1000 lbs., 73” W x 24” D x 37” H</td>
<td>Bayou City Pump, Inc.</td>
</tr>
<tr>
<td></td>
<td>8139 Tidwell Road</td>
</tr>
<tr>
<td></td>
<td>Houston, TX 77028 USA</td>
</tr>
<tr>
<td></td>
<td>Tel: 713.631.6451</td>
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<tr>
<td></td>
<td>Fax: 713.631.1319</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.bayoucitypumps.com">www.bayoucitypumps.com</a></td>
</tr>
</tbody>
</table>

The pumps worked so well for us in Tampa that we bought three more and went to Puerto Rico with them. Charles Keenan
Vice President, LARCO