



## Sludge Master Pumping System

Bayou City Pump, a service and manufacturing company founded in 1973, has been serving the Houston and Gulf Coast region's industrial community for 34 years. Dedicated to providing the highest level of customer service, Bayou City Pump provides on-site or in-house service 24 hours a day, 7 days a week. We are proud of our customer loyalty and work to build long term relationships that are mutually beneficial.

### 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

Specializing in marine pump repair, Bayou City Pump has the expertise to repair any industrial pumping system. Our in-house, full service, heavy industrial machine shop facilitates quick turn around times on all repairs.

Bayou City Pump manufactures a specialty pumping system, the Sludge Master, designed and developed by our company. 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, Tyvek 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.

*"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*

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 heavy slurry into a filter press. The filter 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

Sludge Master Pump	Hydraulic Power Unit
<ul style="list-style-type: none"> <li>• Cast iron and steel construction</li> <li>• Sealed ball valve control on each cylinder</li> <li>• Dual 12" cylinders capable of moving approximately five gallons per stroke</li> <li>• 55 strokes-per-minute maximum</li> <li>• Viton O-rings throughout</li> <li>• Nitrile gaskets and polymite packed seals on cylinders and valves</li> <li>• 4" inlet/discharge</li> <li>• Approximately 1000 lbs., 73" W x 24" D x 37" H</li> </ul>	<ul style="list-style-type: none"> <li>• 30 HP diesel engine with 30 gallon fuel tank</li> <li>• 60 gallon hydraulic oil reservoir</li> <li>• Skid mounted, ready for trailer mount</li> <li>• Hydraulic oil cooler</li> <li>• Needle control valve</li> <li>• Hydraulic flow control valve</li> <li>• Pulsation stabilizer</li> </ul>

