



6" Hydraulic Submersible Trash Pump 46HST w/32HPU

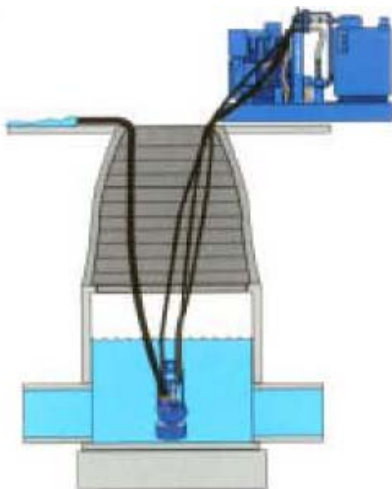
Thompson hydraulic submersible pumps provide a powerful answer when high heads or high lifts become a factor on job sites. These unique variable speed and variable flow hydraulically driven submersible pumps and power units are manufactured from heavy-duty cast iron and steel for high reliability. The Thompson design allows for maximum versatility in dewatering applications and pumping materials.

Features

- Ability to place pump end in the pumping source
- Eliminates suction lift limitations
- Pumps efficiently at heads up to 128 feet
- Variable speed and flow
- Solids Handling to 3"
- 1,575-gpm capacity
- Optional biodegradable lubricants for environmentally sensitive areas

Applications

- Open pit and trench dewatering
- Pipeline dewatering
- Rim ditches
- Manholes
- Sewer lines
- By-pass applications
- Floodwater control
- Drainage and irrigation
- Dewatering of gravel pits, mines, quarries



Typical manhole-sewer line dewatering applica

Working Principle

Thompson's hydraulically driven submersible pumps enable the power unit to remain high and dry while the pump head is submerged into the liquid being pumped. Therefore, there is no need to worry about suction lift limitations or priming problems.

These pumps are designed to run dry without damage to the components and are engineered to handle liquids from muddy, trash-laden water to sewage and sludge.

46HST Materials of Construction

Volute: Heavy-duty class 40 cast iron

Cutwater: Replaceable, 316 stainless steel

Shaft: 416 stainless steel, fitted with a renewable SAE 51420 stainless steel sleeve

Impeller: Dynamically balanced, non-clogging, semi-open, class 40 cast iron with rear-equalizing vanes to reduce axial loading and prolong seal and bearing life; diameter 8.5"

Wear Plate: Replaceable, A36 steel

Hydraulic Motor: High efficiency, external gear type, 3.72 cubic inch displacement with SAE. 2B splined output

Hydraulic Couplings: Delivery: 1" male Snap-Tite75 series quick disconnect, with dust cap; Return: 1.25" male Snap-Tite 75 series quick disconnect, with dust cap;

Bypass: .50" male Snap-Tite 75 series quick disconnect, with dust cap

Mechanical Seal: Dry-running, oil lubricated with Tungsten Carbide rotating and stationary seal faces.

Bearings: Heavy-duty, oil lubricated to carry both axial and radial loads

Bearing Housing: Heavy-duty class 30 cast iron

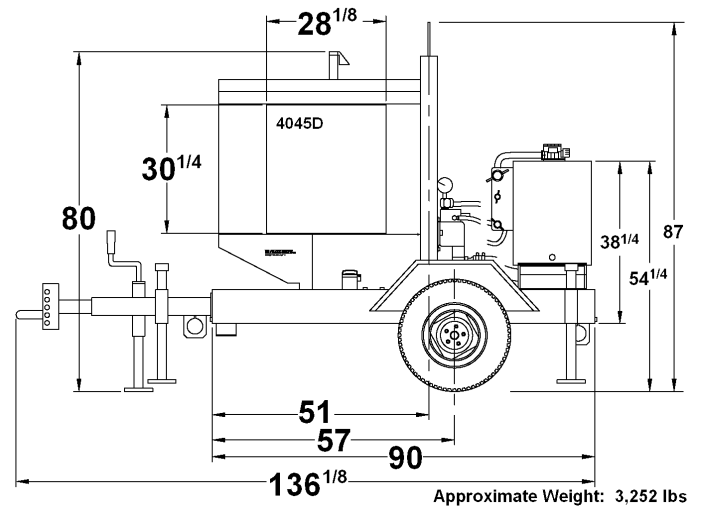
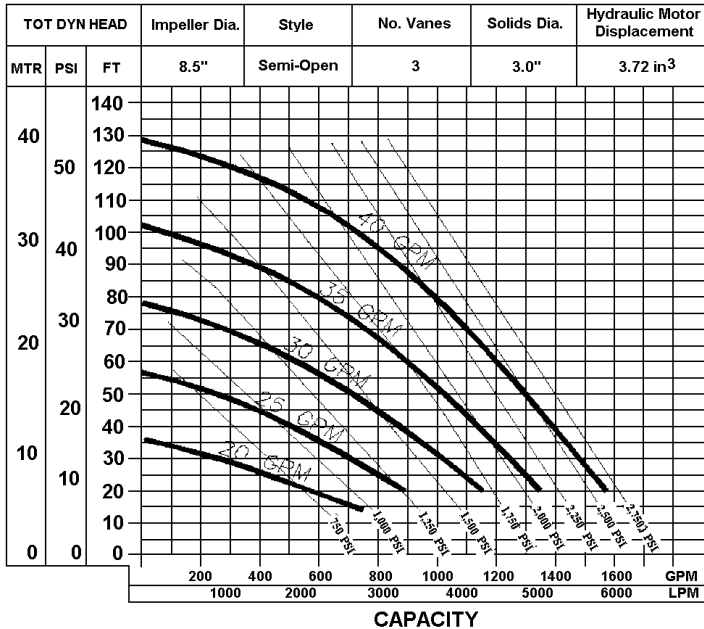
Strainer: Large, round hole, 2-1/2" diameter openings, A36 steel

Discharge Fitting: 6" MNPT and 6" male aluminum cam and groove quick coupler

Seal Protection: automatic over-pressure protection system

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46HST Performance Curve



32HPU Materials of Construction

Pump: HDP30.61, positive displacement, external gear type, single pump, 3.72 in³ displacement

Control Valve: Needle type

Relief Valve: Pump mounted, internally pilot operated, pressure compensated with vent provision and pressure gauge for system diagnostics

Reservoir: Fabricated steel, with internal baffles, large access port, drain valve, sight glass level and temperature gauge, air vent, sump strainer, and shutoff valve

Sump Strainer: 100 mesh spin on type

Return Filter: 60 gpm at 5 psi backpressure, 25 micron, in tank mounted with internal bypass at 25 psi, integral filler/breather

Hydraulic Couplings: Delivery: 1" female Snap-Tite 75 series quick disconnect with dust plug; Return: 1.25" female Snap-Tite 75 series quick disconnect with dust plug; Bypass: .50" female Snap-Tite 75 series quick disconnect with dust plug

Safety Shutdowns: Low hydraulic fluid level; high hydraulic fluid temperature

Engine Specifications

Engine: John Deere 4045D, 62 hp @ 1,800 rpm

Type: 4-cylinder, in-line, 4-cycle, water-cooled, natural aspiration, direct-injected, Tier II diesel

Standard Equipment: Alternator, radiator, muffler, and exhaust stack with rain protection

Displacement: 276 cubic inches

Fuel Economy: .379 lb/hp-hr @ 1,800 rpm

Safety Shutdowns: High coolant temperature; Low oil pressure

Unit Specifications

Fuel Tank Capacity: 55 US gallons

Fuel Consumption: 3.26 gph

Maximum Operating Speed: 2,000 rpm

Maximum Operating Temperature: 212°F

Maximum Working Pressure: 85 psi

Maximum Casing Pressure: 85 psi

In the interest of product improvement, Thompson Pump & Manufacturing reserves the right to change specifications without incurring any obligation for equipment previously or subsequently sold. Capacity, Head and Pump Curve are for comparative purposes. Consult engineering data for exact capabilities.

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