



8" Hydraulic Submersible Trash Pump 80HST w/32HPU

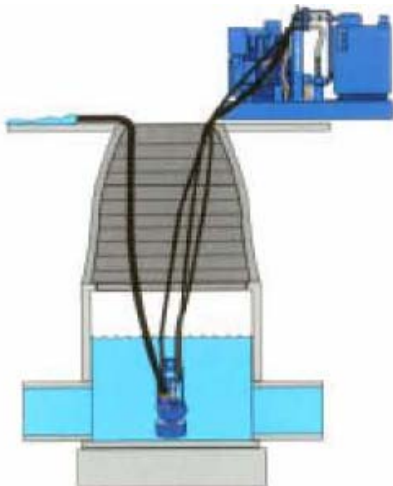
Thompson hydraulic submersible pumps provide a powerful answer when high heads or high lifts become a factor on job sites. These unique variable speed and variable flow hydraulically driven submersible pumps and power units are manufactured from heavy-duty cast iron and steel for high reliability. The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

Features

- Ability to place pump end in the pumping source
- Automatic priming
- Eliminates suction lift limitations
- Pumps efficiently at heads up to 140 feet
- Variable speed and flow
- Solids Handling to 3"
- 2,600-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



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.

80HST Materials of Construction

Volute: Heavy-duty, class 30 cast iron

Shaft: SAE 1144 Stress Proof steel, fitted with a renewable type 416 stainless steel sleeve

Impeller: Dynamically balanced, non-clogging, enclosed, 65-45-12 ductile-iron with rear equalizing vanes to reduce axial loading and prolong seal and bearing life; Diameter 10.5"

Wear Plate: Hot Rolled 1117 Steel

Hydraulic Motor: High efficiency, external Gear type, 3.83 cubic inch displacement with SAE D splined output

Hydraulic Couplings: Delivery: 1" male Snap-Tite 75 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, AISI 1040 Steel

Strainer: Large, round hole, A36 steel

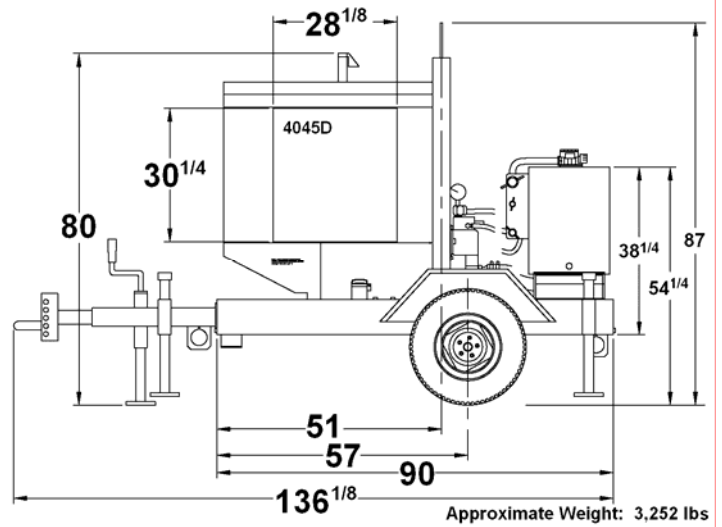
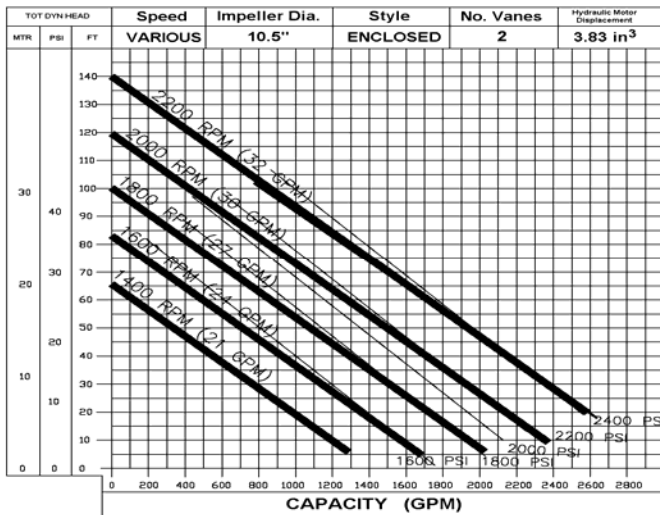
Discharge Fittings: 8" MNPT and 8" male aluminum cam and groove quick coupler

Seal Protection: Automatic, over-pressure protection system

Oil Cooler: Tubular steel, air to oil.

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80HST Performance Curve



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: 50 psi
Maximum Casing Pressure: 50 psi

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
Options: Aeroquip 5100 series quick disconnects, ISO46 Blue 10 #40240 hydraulic fluid, bio-degradable #40779, environmentally friendly, hydraulic fluid, hydraulic hose racks or reels, discharge hose racks.

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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