



# 8" Hydraulic Submersible Trash Pump 68HST w/32HPU

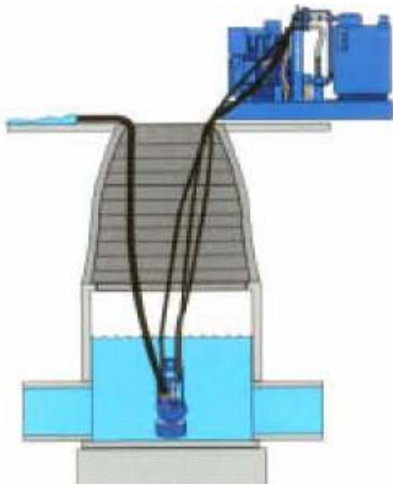
Thompson hydraulic submersible pumps provide a powerful answer when high heads or high lifts become a factor on job sites. These unique variable speed and variable flow hydraulically driven submersible pumps and power units are manufactured from heavy-duty cast iron and steel for high reliability. The 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 75 feet
- Variable speed and flow
- Solids Handling to 3"
- 2,300-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.

## 68HST 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 9.74"

**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-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 or grease 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

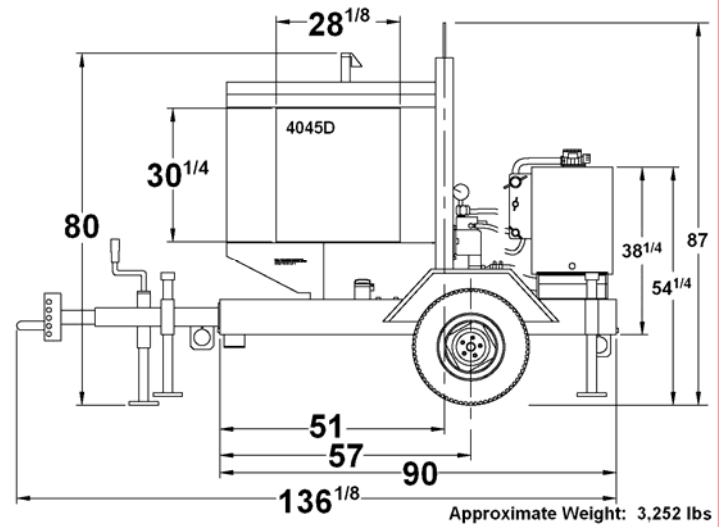
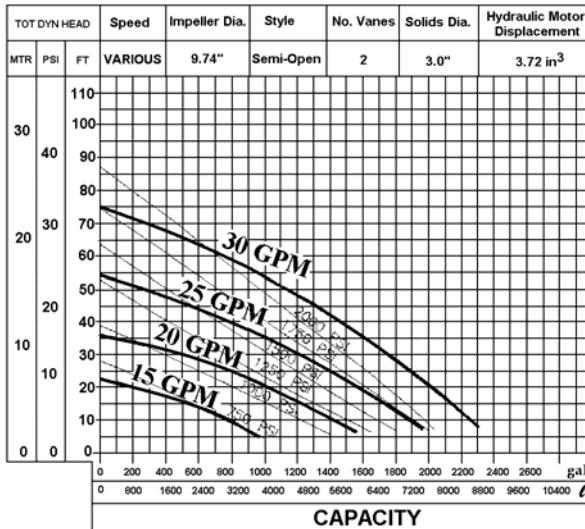
**Strainer:** Large, round hole, 2.5" diameter openings, A36 steel

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

**Seal Protection:** Automatic, over-pressure protection system

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## 68HST 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 in<sup>3</sup> 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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