

Performance Data

SHEF30

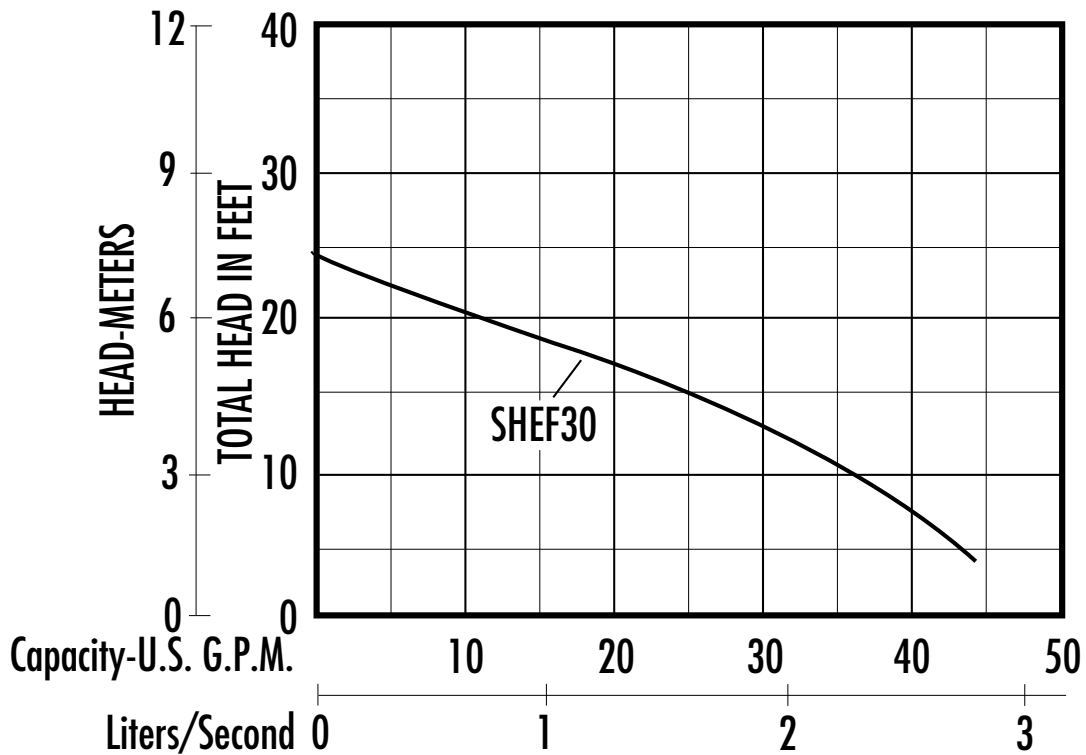
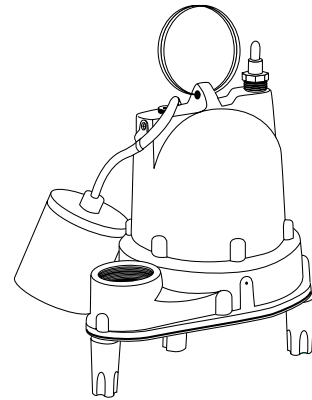
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Section: Performance Data

Dated: January 2001

RPM: **1550**

Discharge: **1-1/2"** Solids: **3/4"**

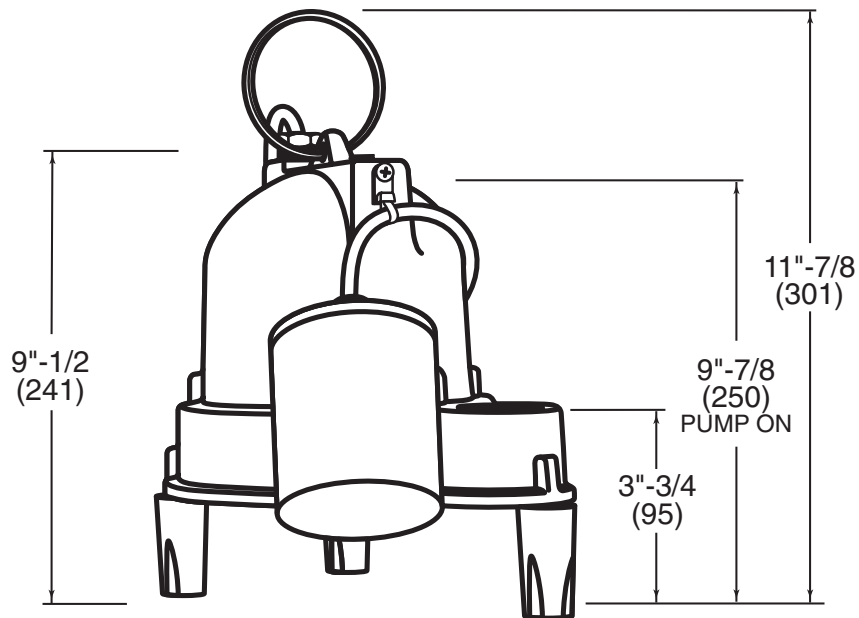
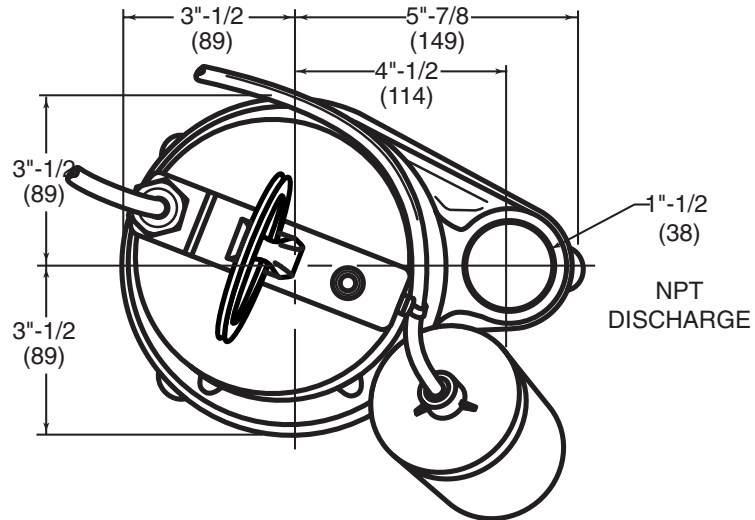


The curves reflect maximum performance characteristics without exceeding full load (Nameplate) horsepower. All pumps have a service factor of 1.2. Operation is recommended in the bounded area with operational point within the curve limit. Performance curves are based on actual tests with clear water at 70° F. and 1280 feet site elevation.

Conditions of Service:

GPM: _____ TDH: _____



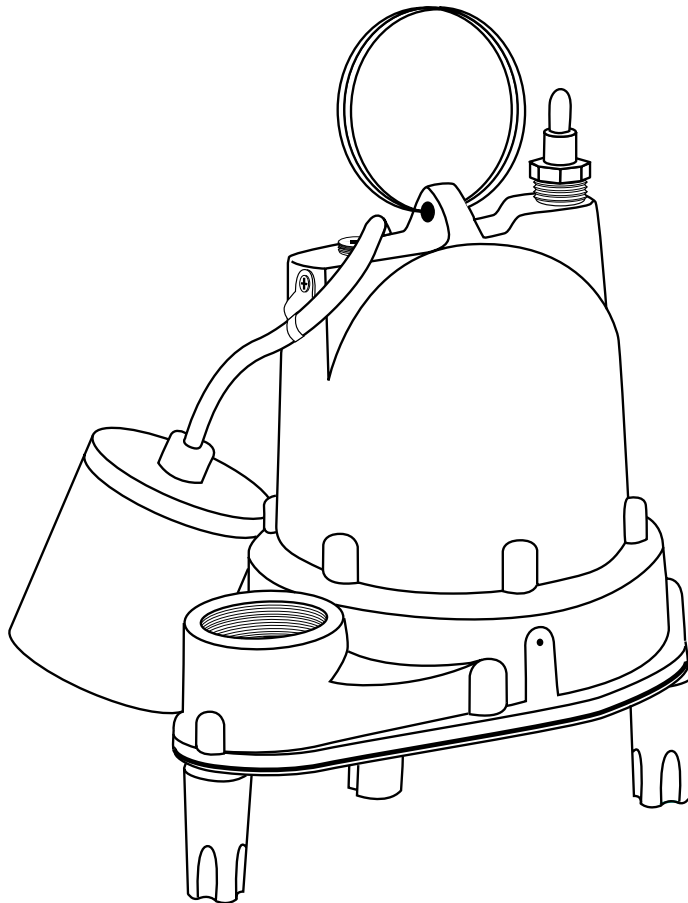


All dimensions in inches. Metric for international use. Component dimensions may vary $\pm 1/8$ inch. Dimensional data not for construction purpose unless certified. Dimensions and weights are approximate. On/Off level adjustable. We reserve the right to make revisions to our product (s) and the product (s) specifications without notice.

MODEL: SHEF30, Effluent Pump

| | |
|-------------------------|---|
| R.P.M. | 1550 |
| MOTOR TYPE | SHADED POLE WITH THERMAL OVERLOAD, OIL FILLED |
| MOTOR PROTECTION | AUTOMATIC RESET / OVERLOAD PROTECTED |

| HP | VOLTAGE | PHASE | NEC CODE | SERVICE FACTOR | FULL LOAD AMPS |
|-----------|----------------|--------------|-----------------|-----------------------|-----------------------|
| 1/3 | 115 | 1 | - | 1 | 8.0 |



MODEL: SHEF30, Effluent Pump**Physical Data:**

| | |
|----------------|--|
| DISCHARGE SIZE | 1-1/2" NPT |
| SOLIDS SIZE | 3/4" |
| IMPELLER TYPE | VORTEX |
| CABLE LENGTH | 20' STANDARD |
| PAINT | PAINTED DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED. |

Temperature:

| | |
|-----------------|------|
| MAXIMUM LIQUID | 140° |
| MAXIMUM STATOR | |
| OIL FLASH POINT | |

Technical Data:

| | | |
|-------------------------------|------------------|-----------------|
| POWER CORD TYPE | SJTW | |
| | | |
| MATERIALS OF CONSTRUCTION | MOTOR HOUSING | CAST IRON |
| | CASING | CAST IRON |
| | IMPELLER | THERMOPLASTIC |
| | MOTOR SHAFT | STEEL |
| | HARDWARE | STAINLESS STEEL |
| | "O" RINGS | BUNA - N |
| MECHANICAL SEALS Standard: | CARBON / CERAMIC | |
| UPPER BEARING | N/A | |
| LOWER BEARING | SINGLE ROW-BALL | |

SUBMERSIBLE HIGH HEAD EFFLUENT MODEL: SHEF30

1.01 GENERAL

Contractor shall furnish all labor, materials, equipment and incidentals required to provide _____ (Qty.) submersible centrifugal high head effluent pump(s) as specified herein. The pump model covered in this specification is the SHEF 30. The pump furnished for this application shall be MODEL _____ as manufactured by Hydromatic Pumps.

2.01 DESIGN CONDITIONS

Each pump shall be rated _____ H.P., _____ volts, _____ phase, _____ hertz and operate at _____ RPM.

3.01 OPERATING CONDITIONS

The pump shall deliver _____ U.S. GPM/LPS at _____ feet/meters TDH, and handle a _____ inch solid. The curve submitted for approval shall state, in addition to head and capacity performance, solid handling capability, amp rating, and design impeller diameter.

4.01 CONSTRUCTION

Each pump shall be of the sealed submersible type, incorporating features normally found in pumps furnished for the residential market.

These features include:

1. The pump volute, motor, and seal housing shall be high quality gray cast iron, ASTM A-48, Class 30.
2. The pump inlet shall be open and clear, without screening to provide access for effluent and septic tank solids.
3. All external mating parts shall be machined and Buna N, O-Ring sealed.
4. All fasteners exposed to the pumped liquid shall be 300 series stainless steel.
5. All power cords shall be water resistant UL or CSA approved, with double insulation, and sized as a function of Amp. draw.

5.01 MOTOR AND SHAFT

The stator, rotor and bearings shall be mounted in a sealed submersible type housing. Single phase motors shall be shaded pole (SHEF30). Three phase motors shall be Polyphase. Full Load and Locked Rotor Amps as well as Start and Run winding resistance shall be tabulated for each pump.

6.01 BEARINGS, SHAFT AND MECHANICAL SEAL

An upper bushing and lower thrust bearing shall be required. The upper bearing shall be Cast Iron (SHEF30), while the lower bearing is a single row ball. The bearings will be permanently and continuously lubricated and cooled by the dielectric oil which fills the motor housing. The motor shaft shall be corrosion resistant steel and sealed from the pumped liquid with a carbon ceramic mechanical seal.

7.01 IMPELLER

The Impeller in the SHEF30 shall be thermoplastic, eight vane, vortex design with three pump out vanes on the back side. These vanes wash out grit and stringy material that will damage the shaft and mechanical seal.

8.01 AUTOMATIC CONTROL

All single phase pumps should be capable of automatic operation.

9.01 FLOAT SWITCH

The SHEF30 pump is supplied with a tilt sensitive wide-angle float switch which is sealed in a non-corrosive PVC enclosure. The switch is UL listed for water and sewage and CSA certified. The float switch shall also be fitted with a piggy-back plug that allows the pump to be operated manually without removal from the sump.

10.01 PAINTING

All cast iron parts shall be painted before assembly with a water reducible alkyd air dried enamel. The paint shall be applied in one coat with a minimum thickness of 3 to 4 mils.

11.01 TESTING

All pumps shall be individually tested to include the following: The pump and power cord shall be visually inspected for imperfections, cuts or nicks.

11.02 The pump shall have a ground continuity check and the motor chamber shall be Hi-potted to test for moisture content and/or insulation defects.

11.03 The motor and volute housing shall be pressurized and a 10 second air leak decay test run.

11.04 Oil is added, and the pump is run. Voltage and current are monitored visually, electronically, and the tester listens for any noise or malfunction.