

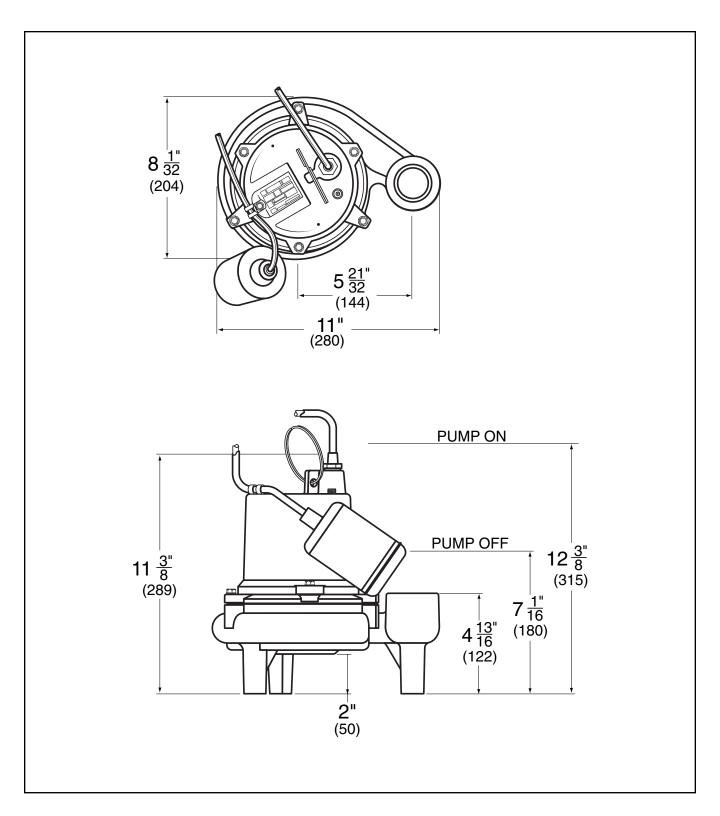
The curves reflect maximum performance characteristics without exceeding full load (Nameplate) horsepower. All pumps have a service factor of 1.2. Operation is recommended in the bounded area with operational point within the curve limit. Performance curves are based on actual tests with clear water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



Conditions of Service:

GPM:\_\_\_\_\_ TDH:\_\_\_

Dimensional Data HTS33A1



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.

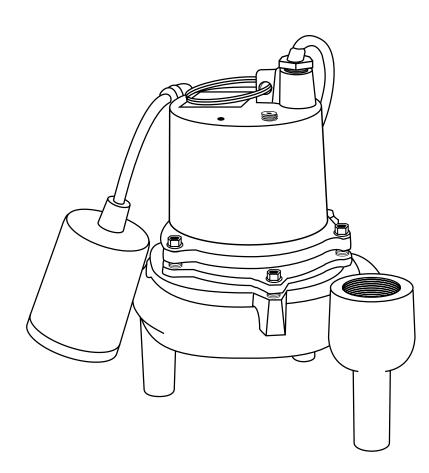




# MODEL: HTS33A1, High Temperature Sump Pump

R.P.M.	1725
MOTOR TYPE	SHADED POLE, OIL FILLED

HP	VOLTAGE	PHASE	NEC CODE	SERVICE FACTOR	FULL LOAD AMPS
1/3	115	1	-	1	9.5







## MODEL: HTS33A1, High Temperature Sump Pump

### Physical Data:

DISCHARGE SIZE	1-1/2" NPT
SOLIDS SIZE	3/4"
IMPELLER TYPE	
CABLE LENGTH	20' STANDARD
PAINT	

### **Temperature:**

MAXIMUM LIQUID	200°F
MAXIMUM STATOR	
OIL FLASH POINT	

### Technical Data:

POWER CORD TYPE		
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON
	CASING	CAST IRON
	IMPELLER	THERMOPLASTIC
	MOTOR SHAFT	
	HARDWARE	STAINLESS STEEL
	"O" RINGS	
MECHANICAL SEALS Standard:		
UPPER BEARING		
LOWER BEARING		



## MODEL: HTS33A1, High Temperature Sump Pump

#### 1.01 GENERAL

Contractor shall furnish all labor, materials, equipment and incidentals required to provide (Qty.) submersible high temperature sump pump(s) as specified herein. The pump model covered in this specification is the HTS33A1. 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 seal housing for the HTS33A1 is cast iron construction.
- 2. The pump inlet shall be open and clear, without screening to provide access for sewage and 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 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 split phase or capacitor start with centrifugal switch. 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 bearing and lower thrust bearing shall be required. The upper bearing is a cast iron sleeve while the lower bearing is a single row ball bearing which are permanently and continuously lubricated and cooled by the dielectric oil which fills the motor housing. The motor shaft shall be stainless steel and sealed from the pumped liquid with a carbon ceramic mechanical seal.





#### 7.01 **IMPELLER**

The Impeller shall be a recessed thermoplastic impeller.

#### 8.01 **AUTOMATIC CONTROL**

All single phase pumps should be capable of automatic operation.

#### 9.01 FLOAT SWITCH

The pump is supplied with a tilt-sensitive wide-angle float switch which is sealed in a non-corrosive PVC enclosure. The unit 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 MANUAL CONTROL

A wide-angle piggy-back float switch is supplied which permits simple conversion to manual operation.

#### 11.01 **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.

#### 12.01 **TESTING**

All pumps shall be individually tested to include the following:

- 1. The pump and power cord shall be visually inspected for imperfections, cuts or nicks.
- 2. 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.
- 3. The motor and volute housing shall be pressurized and a 10 second air leak decay test run.
- 4. Oil is added, and the pump is run. Voltage and current are monitored visually, electronically, and the tester listens for any noise or malfunction.

