

# HYDROMATIC®

## SKV40

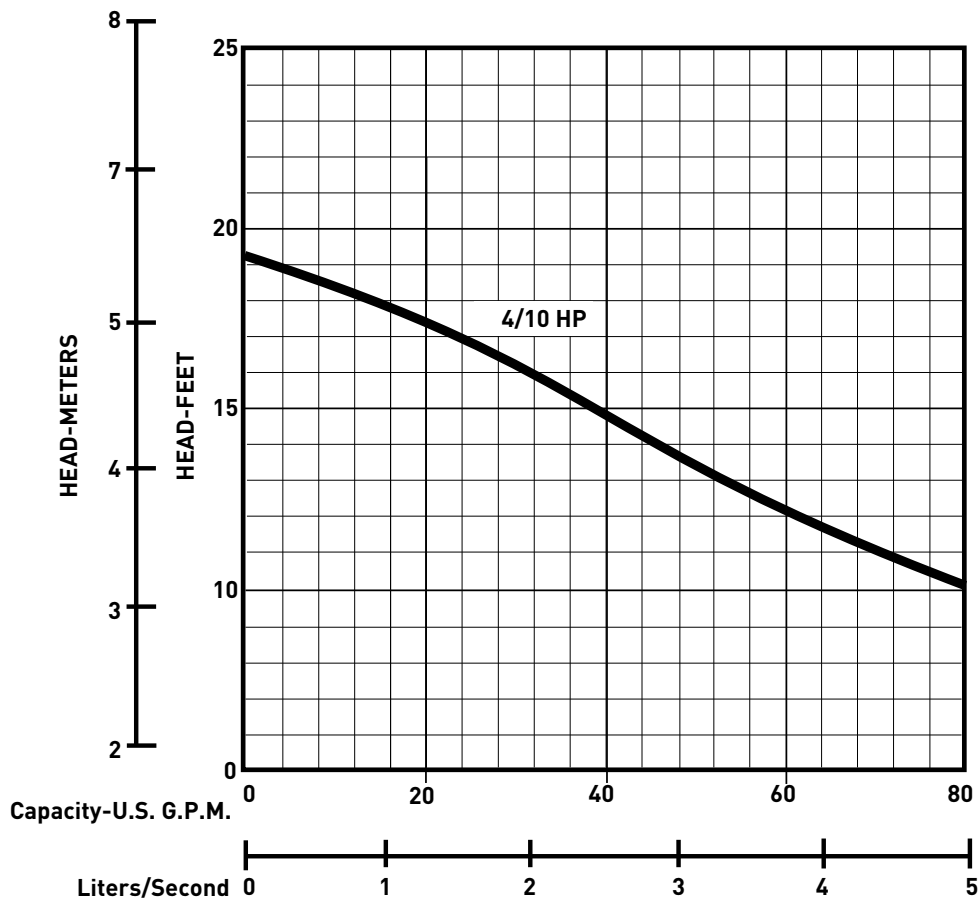
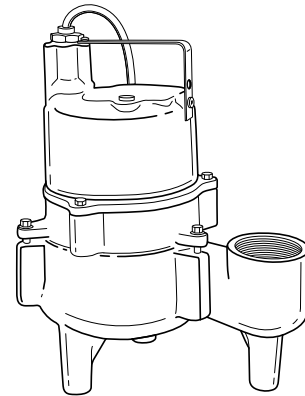
### SUBMERSIBLE SEWAGE EJECTOR

#### PERFORMANCE DATA

Wholesale Products Page: 6730-1

Dated: January 2001

RPM: 1550 Discharge: 2" Solids: 2"



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: \_\_\_\_\_

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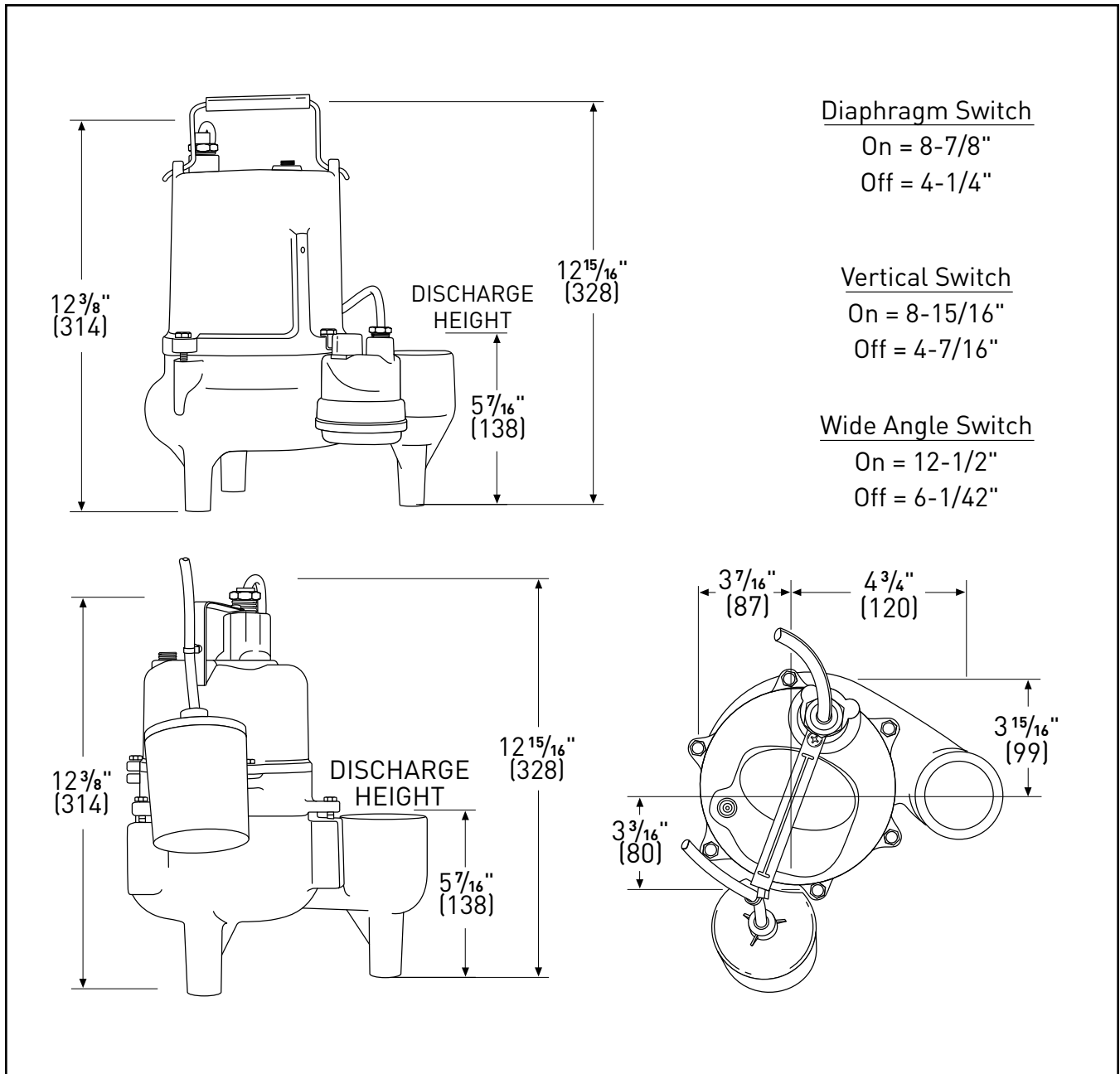
## SKV40

### SUBMERSIBLE SEWAGE EJECTOR

#### DIMENSIONAL DATA

Wholesale Products Page: 6730-2

Dated: January 2001



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.

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## ELECTRICAL DATA

### SKV40 SUBMERSIBLE SEWAGE EJECTOR

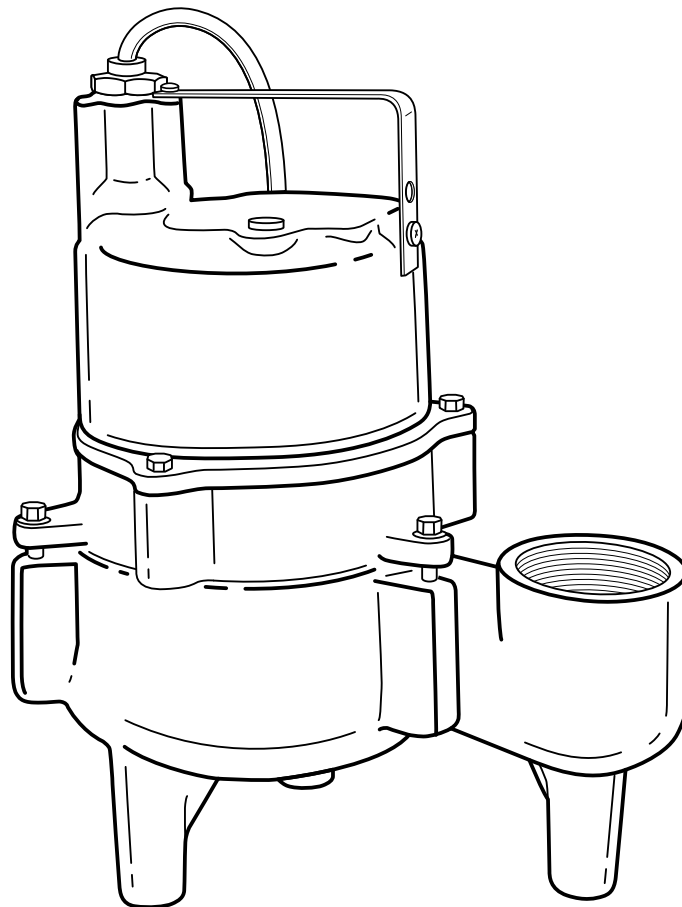
Wholesale Products Page: 6730-3

Dated: January 2001

#### MODEL: SKV40

R.P.M.	1550
MOTOR TYPE	OIL FILLED, SPLIT PHASE WITH THERMAL OVERLOAD
MOTOR PROTECTION	AUTOMATIC RESET / THERMAL OVERLOAD

HP	VOLTAGE	PHASE	NEC CODE	SERVICE FACTOR	FULL LOAD AMPS
4/10	115	1	-	1	12
	230				6



### SKV40

### SUBMERSIBLE SEWAGE EJECTOR

Wholesale Products Page: 6730-4

Dated: January 2001

#### MODEL: SKV40

##### Physical Data

DISCHARGE SIZE	2" NPT
SOLIDS SIZE	2"
IMPELLER TYPE	RECESSED VORTEX
CABLE LENGTH	10' STANDARD 20' OPTIONAL
PAINT	PAINTED AFTER ASSEMBLY, DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

##### Temperature

MAXIMUM LIQUID	140°F
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	

# SKV40

# SUBMERSIBLE SEWAGE EJECTOR

Wholesale Products Page: 6730-5

Dated: January 2001

## MODEL: SKV40

### 1.01 GENERAL

Contractor shall furnish all labor, materials, equipment and incidentals required to provide \_\_\_\_\_ (Qty.) submersible centrifugal sewage ejector pump(s) as specified herein. The pump model covered in this specification is the SKV40. 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. The seal housing for the SKV is corrosion resistant high density thermoplastic.
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 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 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 shall be brass while the lower bearing is a heavy duty single row ball. They are both 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.

# SKV40

# SUBMERSIBLE SEWAGE EJECTOR

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Dated: January 2001

## 7.01 IMPELLER

The Impeller shall be a 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 PRESSURE SWITCH

The single phase pumps are furnished with a pressure diaphragm switch that features a piggy-back plug that allows the pump to be operated manually without removal from the sump.

## 10.01 FLOAT SWITCH

The SKV40 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.

## 11.01 VERTICAL MECHANICAL SWITCH

The V-A1 single phase pump is furnished with a magnetic mechanical switch which is sealed in a non-corrosive PVC enclosure. The switch will be activated by a PVC float sliding up and down a non-corrosive rod. The mechanical switch cord shall also be fitted with a piggy-back plug that allows the pump to be operated manually without removal from the sump.

## 12.01 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.

## 13.01 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.



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Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice.