

# HALOWEN & ASSOCIATES, P.C.

SOIL & ENVIRONMENTAL SCIENTISTS

P. O. Box 400, 266 Old Coats Road

Lillington, NC 27546

Phone (910) 893-8743 / Fax (910) 893-3594

E-mail: halowen@intrstar.net

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August 30, 2000

Harnett County Health Department  
Environmental Health  
P.O. Box 9  
Lillington, NC 27546

Attn: Mr. Graham Byrd

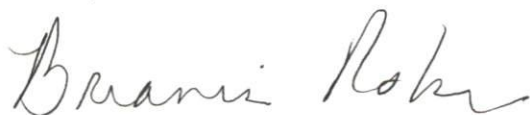
Reference: Lee's Place- Lot 4 Septic System Design and Layout

Dear Mr. Byrd,

A site visit was conducted at the above referenced property on August 28, 2000 to design a septic system for the initial system and the repair system. The site is located on the south side Old US 421 Road, Harnett County, North Carolina. The initial system was designed with a low-pressure pipe system utilizing 360ft of drainline on 6ft centers. The initial septic system is loaded on a 0.2gpd/sqft application rate. A 12in trench depth is suggested with an 18in trench width. Lot 4's repair area is also utilizing a low-pressure pipe system to equally distribute wastewater to each drain line.

Attached are the system layouts and the supporting information for the system designs. The supporting information is in a table form that has each component needed for low-pressure pipe systems. I trust that this is all the information that you may need at this time. If you have questions, you may contact us at your convenience.

Sincerely,



Brianna Roberts



# Lot 4 Lee's Place

## Initial System:

3 Bedroom (360gal/day)  
 Low Pressure Pipe System  
 30, 45, 60, 3 X 75' Drainlines on 6ft Centers  
 On Contour at 12"  
 LTAR= 0.2gpd/sqft

## Repair Area:

Low Pressure Pipe System  
 4 X 90' Drainlines on 6ft Centers  
 On contour at 12"  
 LTAR= 0.2gpd/sqft

Lines flagged at site on 6-ft centers.

Initial/ Repair	Line#	Line Color	Drainline Length(ft)	Measured Field Line Length(ft)	Relative Elevation(ft)
Initial	L1	B	30	38	101.68
Initial	L2	R	45	49	101.18
Initial	L3	Y	60	61	100.73
Initial	L4	B	75	76	100.27
Initial	L5	W	75	80	99.97
Initial	L6	R	75	112	99.11
Repair	L7	B	90	123	98.82
Repair	L8	Y	90	101	98.51
Repair	L9	B	90	108	98.25
Repair	L10	Y	90	116	97.63
Pump T					94.47
		<b>Total:</b>	<b>720</b>	<b>864</b>	☆ <b>EIP = 100.00</b>

\*\* The unsuitable soil area has been transferred from a hand-drawn map and is approximate.

# Lot 4, Lee's Place

## On-Site Wastewater Design Specifications

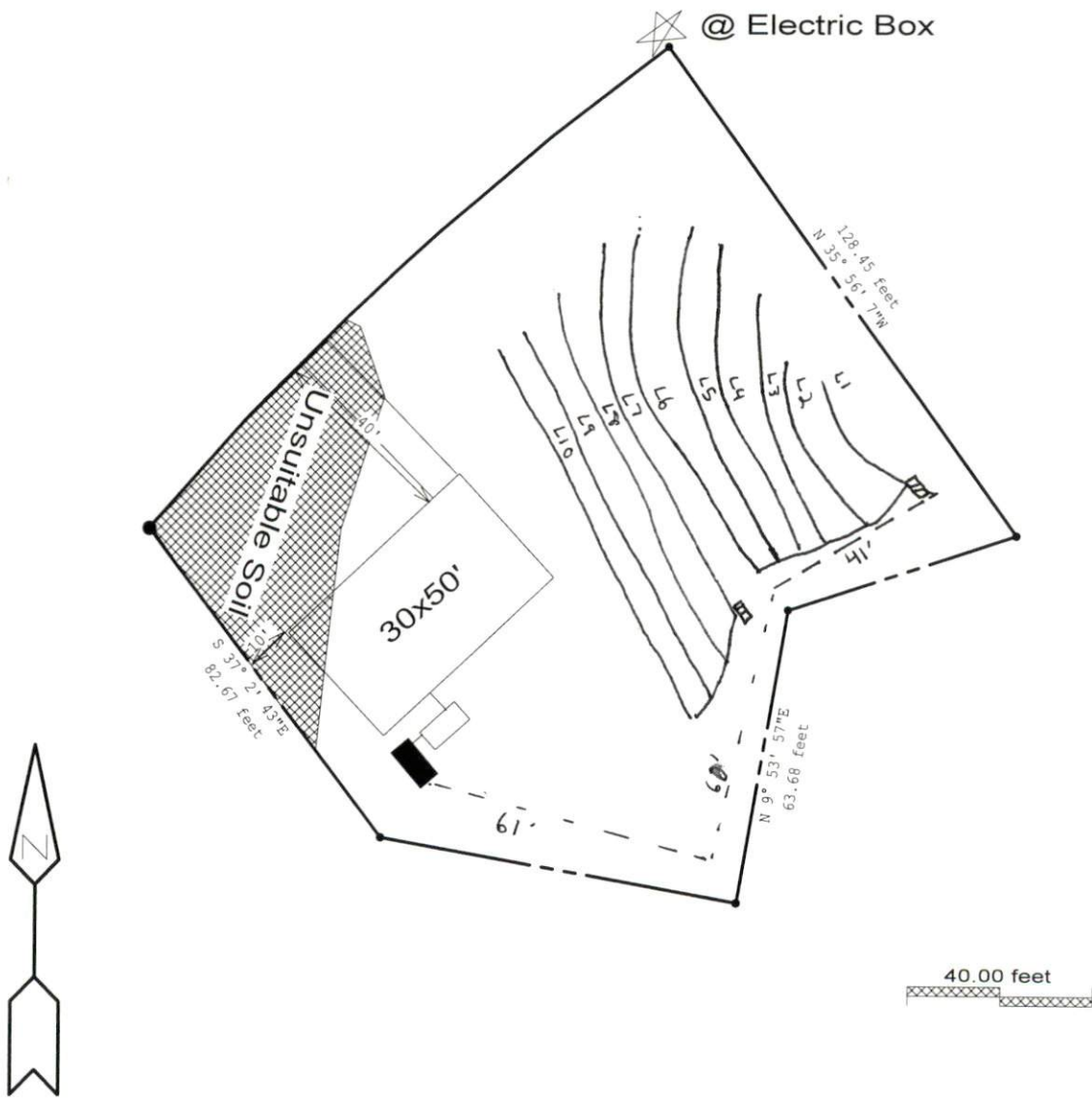
Prepared By:  
Hal Owen & Associates, Inc.  
Soil & Environmental Scientists  
P.O. Box 400, 266 Old Coats Rd.  
Lillington, NC 27546-0400  
Phone: (910) 893-8743

House Footprint: 30x50'  
Bedrooms: 3

Initial System: LPP  
on contour at: 12"  
LTAR: 0.2gpd/sqft  
Repair System: LPP  
on contour at: 12"  
LTAR: 0.2gpd/sqft

### LEGEND

☆	EIP	□	Septic Tank
⊥	Step-down	■	Pump Tank
⊙	Proposed Well	⊖	D-Box
⊗	Existing Well	⊞	Pressure Manifold





# Low Pressure Pipe Materials List

Supply Line 162 ft., 2 in diameter Sch 40 pvc (add extra to connect pump to supply In)

Manifold: 35 ft., 3 in diameter Sch 80 pvc

Lateral Lines: 360 total ft., 1½ in diameter Sch 40 pvc (add extra for 6 turn-ups)

Corrugated Pipe: 360 ft, 3 to 4 in diameter with perforated holes

Gate Valves: 2, 3 in

Clean-outs with Caps: 2, 3 in

Screw Caps and Adapters: 6, 1½ in. diameter Sch 40 pvc for turn-up sleeves

Reducing Tees: 6, 3 in to 1 1/4 in Sch 40 pvc

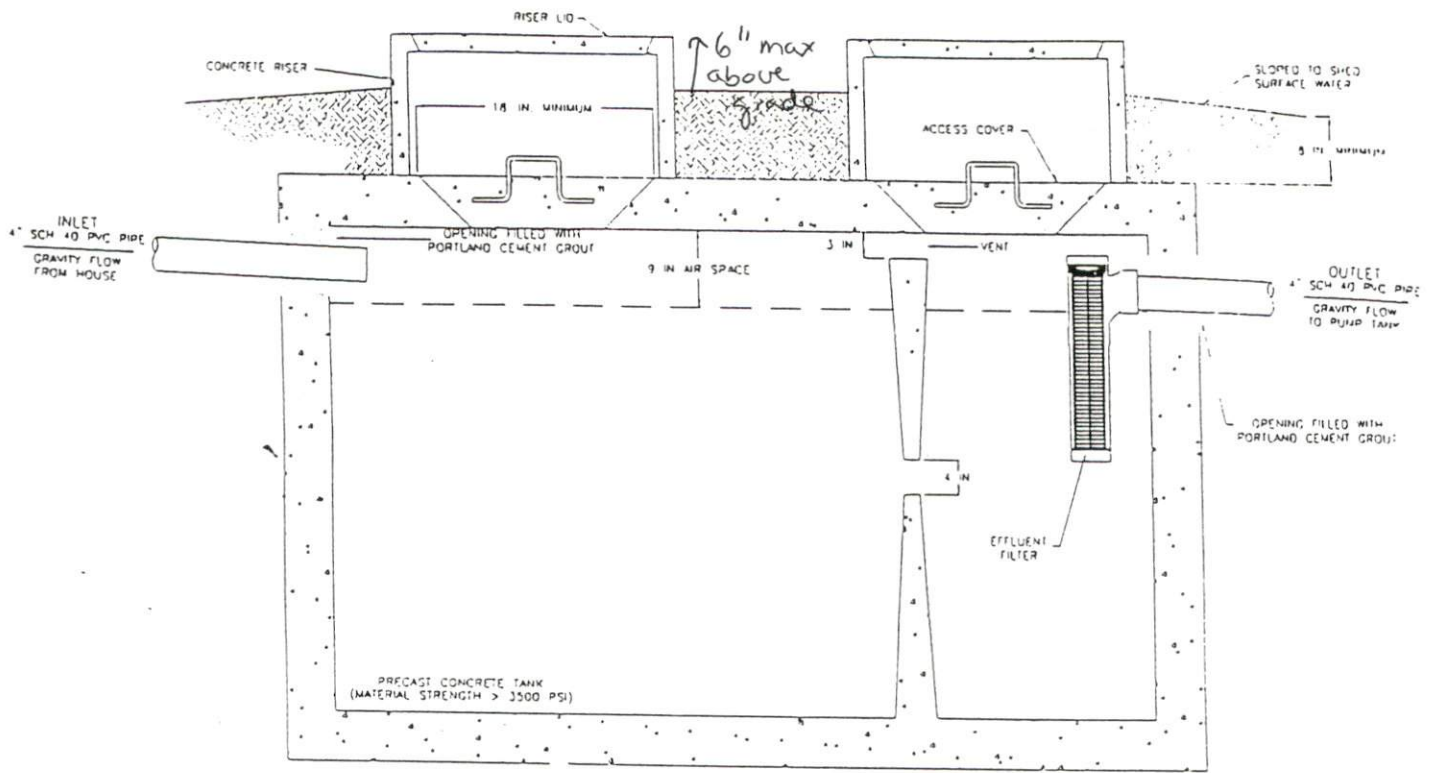
Washed Gravel for trenches: Gravel Size more than or equal to 1 in

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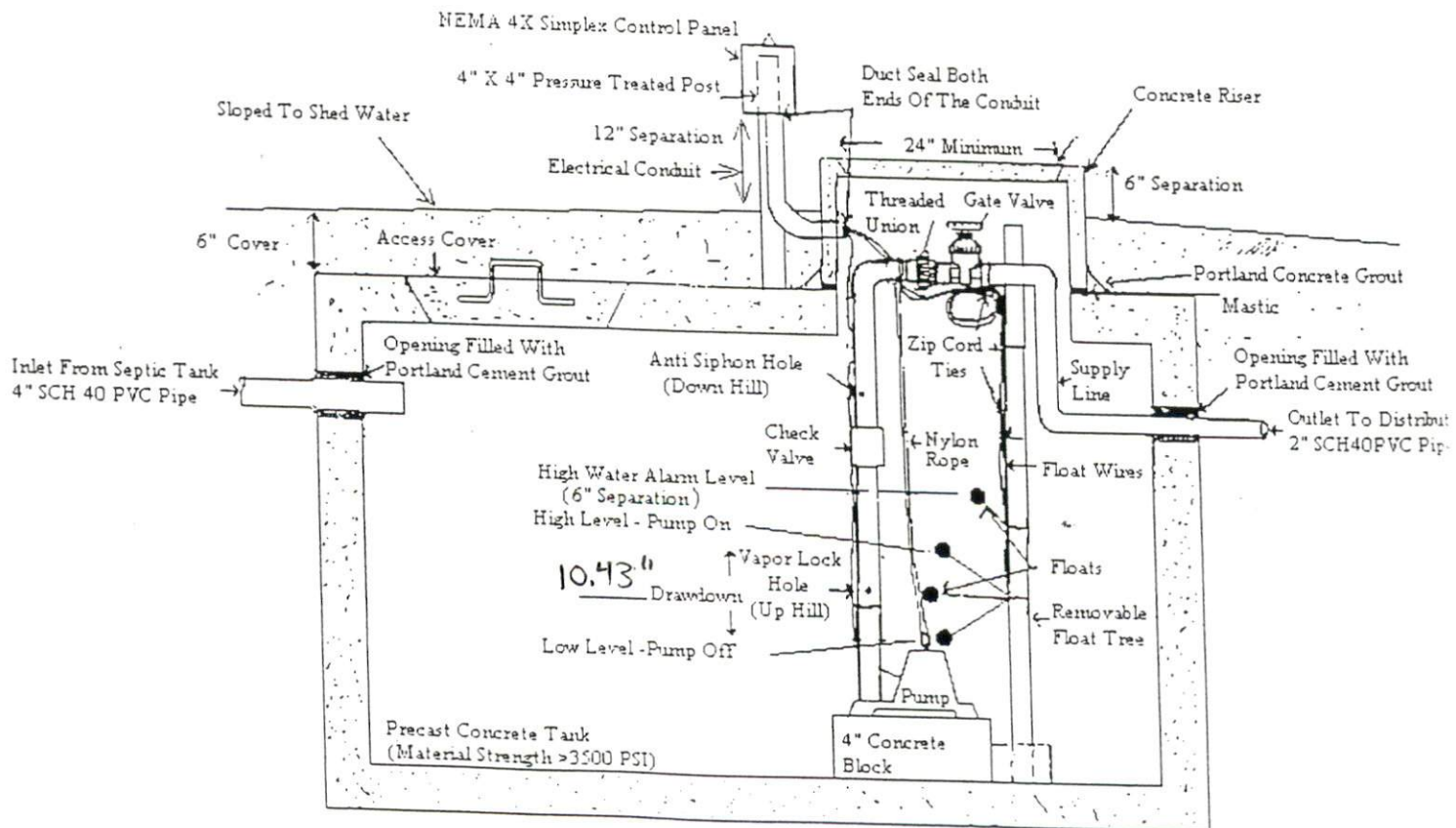
Lot 4 Lee's Place

# Septic Tank and Pump Tank Requirements

Lot 4 Lee's Place



1000 GALLON SEPTIC TANK



1000 GALLON PUMP TANK

Typical LPP Trench and Manifold Details

Lot 4 Lee's Place

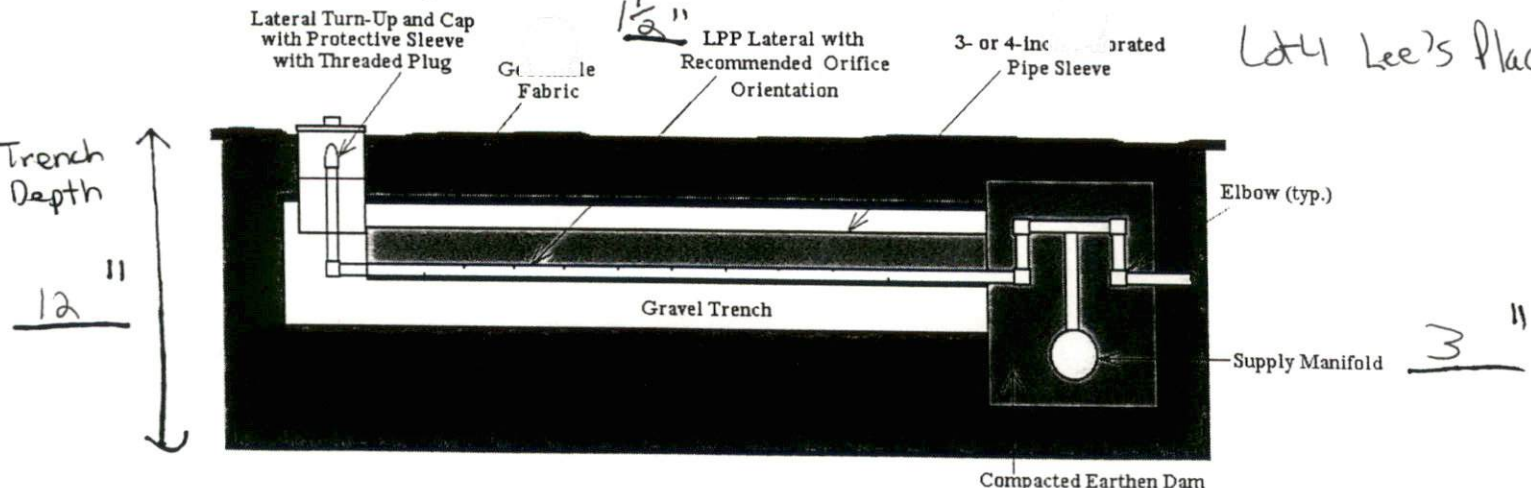


Figure 1: Manifold, Lateral & Trench

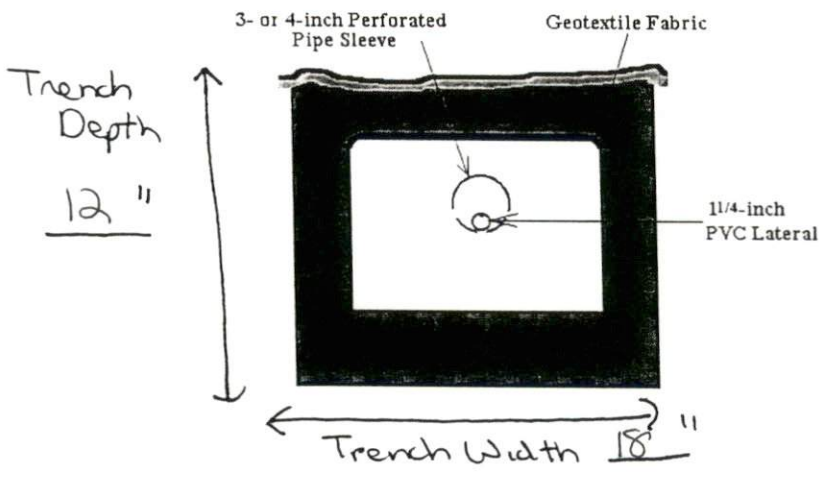


Figure 2: Cross Section of Trench Detail

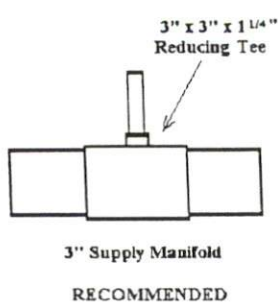


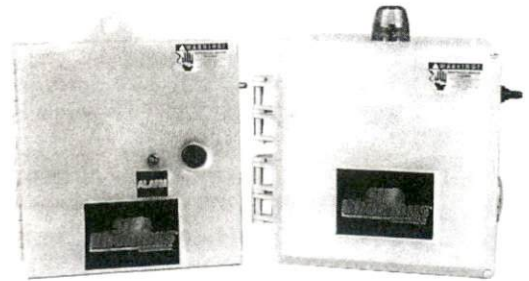
Figure 3: Manifold - Side Profile



# MODEL 112 Control Panel

## Single phase, simplex motor contactor control.

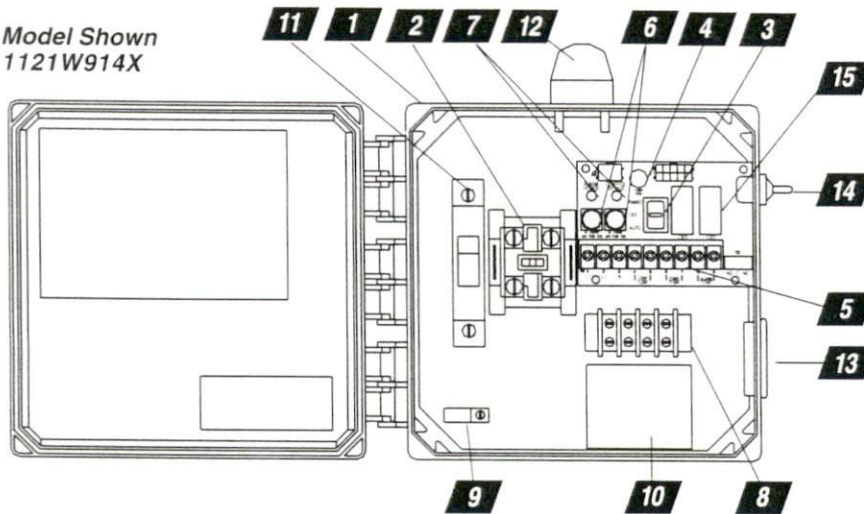
The Model 112 control panel provides a reliable means of controlling one 120, 208, or 240 VAC single-phase pump in pump chambers, sump pump basins, irrigation systems and lift stations. Two control switches activate a magnetic motor contactor to turn the pump on and off. If an alarm condition occurs, an additional alarm switch activates the audio/visual alarm system.



indoor

indoor/outdoor

Model Shown  
1121W914X



1. **Enclosure** measures 8 x 8 x 4 inches (20.32 X 20.32 X 10.16 cm). Choice of NEMA 1 (steel for indoor use), or NEMA 4X (ultraviolet stabilized thermoplastic with removable flanges for outdoor or indoor use).  
\* Options selected may increase enclosure size and change component layout.
2. **Magnetic Motor Contactor** controls pump by switching hot electrical lines.
3. **HOA Switch** for manual pump control (mounted on circuit board).
4. **Green Pump Run Indicator Light** (mounted on circuit board).
5. **Float Switch Terminal Block** (mounted on circuit board).
6. **Alarm and Control Fuses** (mounted on circuit board).
7. **Alarm and Control Power Indicators** (mounted on circuit board).
8. **Pump Input Power and Pump Connection Terminal Block**
9. **Ground Lug**
10. **Terminal Block Installation Label**
11. **Circuit Breaker** (optional) provides pump disconnect and branch circuit protection.

### STANDARD ALARM PACKAGE (other options available)

12. **Red Alarm Beacon** provides 360° visual check of alarm condition.  
**Note:** NEMA 1 style utilizes a door mounted indicator in lieu of a beacon.
13. **Alarm Horn** provides audio warning of alarm condition (83 to 85 decibel rating).  
**Note:** NEMA 1 style utilizes an internally mounted buzzer (83 to 85 decibel) in lieu of horn.
14. **Exterior Horn Test/Normal/Silence Switch** allows alarm horn to be silenced and testing of horn and light to ensure proper operation of alarm system.
15. **Horn Silence Relay** automatically resets alarm after alarm condition has been resolved (mounted on circuit board).

## FEATURES

- Entire control system (panel and switches) is UL Listed to meet and/or exceed industry safety standards
- Dual safety certification for the United States and Canada
- Standard package includes three 20' Sensor Float® control switches
- Complete with step-by-step installation instructions
- Three-year limited warranty



**SJE-Rhombus** CONTROLS  
SJ ELECTRO SYSTEMS, INC.

PO Box 1708, Detroit Lakes, MN 56502

1-888-DIAL-SJE • 1-218-847-1317

1-218-847-4617 Fax

email: sje@sjerhombus.com

**www.sjerhombus.com**

112

MODEL 112

ALARM PACKAGE

- 0 = select options or no alarm package
- 1 = alarm package (includes test/normal/silence switch, fuse, red light, horn & float)

ENCLOSURE RATING

- I = Indoor, NEMA 1 (metal)
- W = Weatherproof, NEMA 4X (engineered thermoplastic)

STARTING DEVICE

- 1 = magnetic motor contactor 120/208/240V
- 9 = magnetic motor contactor 120V only

PUMP FULL LOAD AMPS

- 0 = 0-7 FLA
- 1 = 8-15 FLA
- 2 = 16-20 FLA
- 3 = 21-30 FLA

PUMP DISCONNECTS

- 0 = no pump disconnect
- 1 = pull-out with safety deadfront in a 10"x8" enclosure
- 4 = circuit breaker

FLOAT SWITCH APPLICATION

- H or L = pump down or pump up
- X = no floats

OPTIONS

Listed below

★ Options selected may increase enclosure size and change component layout.

If additional features are required, call the factory for a quote on either a Pro-Line or Engineered Custom control panel system.

CODE DESCRIPTION

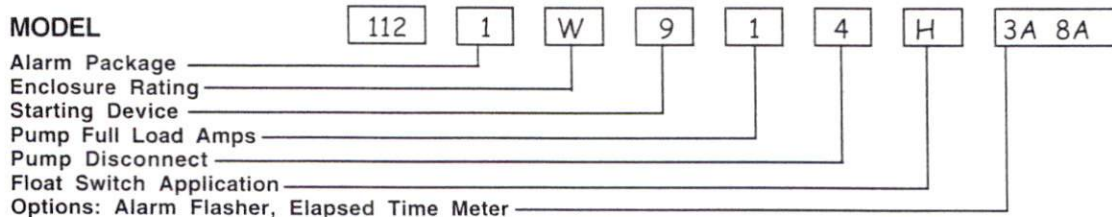
- 1A Red beacon only / no audio  
*must select 1E if floats included*
- 1C Horn only / no visual  
*must select 1E if floats included*
- 1E Alarm float
- 3A Alarm flasher
- ★ 4A Low level cutout  
*select option 4D if floats included*
- ★ 4B Red low-level indicator & alarm  
*must select 4A also*
- 4D Low-level float
- 6A Auxiliary alarm contact, form C type
- ★ 8A Elapsed time meter
- ★ 8C Event (cycle) counter
- 10E Lockable latch - NEMA 4X
- 10E Lockable latch - NEMA 1
- ★ 10F Lightning arrester
- ★ 10K Anti-condensation heater

CODE DESCRIPTION

- 11C NEMA 1 alarm panel *must select option 6A*
  - 11D NEMA 4X alarm panel *must select option 6A*
  - 15A Control / alarm circuit breaker  
*Does not include the circuit board as in standard.*
  - 16A 10' cord in lieu of 20'
  - 16B 15' cord in lieu of 20'
  - 16C 30' cord in lieu of 20'
  - 16D 40' cord in lieu of 20'
  - 17A SJE SignalMaster® / mounting strap ●
  - 17B SJE SignalMaster® / externally weighted ●
  - 17C Sensor Float® / internally weighted ▲
  - 17D Sensor Float® / externally weighted ▲
  - 17E Sensor Float® Mini / pipe clamp ▲
  - 17F Sensor Float® Mini / externally weighted ▲
  - 19X Door mounted pump run indicator
  - 21A Pumpmaster® in lieu of on/off switches ●
  - 21B PumpMaster® Plus in lieu of on/off switches ●
  - 21C Super Single® in lieu of on/off switches ▲
  - 21D Double Float™ in lieu of on/off switches ▲
- Mechanically-activated ▲ Mercury-activated

SAMPLE

MODEL



"QUALITY PUMPS SINCE 1939"



# ZOELLER PUMP CO.



SECTION: 2.30.040  
FM0494  
0300  
Supersedes  
1097

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347  
SHIP TO: 3649 Cane Run Road • Louisville, KY 40211-1961  
(502) 778-2731 • 1 (800) 928-PUMP • FAX (502) 774-3624

Lot 4 Lee's Place  
visit our web site:  
<http://www.zoeller.com>

## COMPARE THESE FEATURES

- Non-clogging vortex impeller.
- Durable cast construction. Cast iron switch case, motor and pump housing, base and impeller. No sheet metal parts to rust or corrode. All cast iron class 25-30 25000# tensile strength.
- Stainless steel screws, bolts, float rod, handle, guard and arm and seal assembly.
- Shaft Seal - Carbon & ceramic rotary face seal, with stainless steel wetted parts.
- UL-listed 3-wire neoprene cord and plug. 10 ft. standard for automatic. 15 ft. standard for nonautomatic.
- Upper sleeve bearing and lower ball bearing running in a bath of oil.
- Maximum temperature for sewage or dewatering 130°F. - 54°C.
- Motor - 60 cycle, 1750 RPM, oil-filled, hermetically sealed, automatic reset thermal overload protected (1 PH and Auto 3 PH).
- All models are available in 2" or 3" discharge.
- All models pass 2-inch solids (sphere).
- Automatic units available with float operated, submersible (NEMA 6) mechanical switch. Available in both 1 and 3 Phase Units.\*\*
- Corrosion resistant powder coated epoxy finish.
- On point 15 1/4", Off point 5 1/4".
- Major width 13 9/16". Major height 18 13/16". (Single seal pumps)

## MODELS 4282-4284 DOUBLE SEAL PUMPS (non-auto only)

- Protects motor from seal leaks.
- Improved bearing lubrication.
- Helps eliminate seal and bearing damage from dry runs.
- Major width 13 9/16". Height 20 11/16".



### 282 - 284 Single Seal Series 4282 - 4284 Double Seal Series



(For Pump Prefix Identification see News & Views 0052)

## "WASTE-MATE"



### SUBMERSIBLE SEWAGE



OR DEWATERING PUMP

2" OR 3" FLANGED DISCHARGE • PASSES 2" SOLIDS

AUTOMATIC THREE  
PHASE  
PUMP\*\*



**NEW!**

SINGLE  
SEAL  
PUMP



DOUBLE  
SEAL  
PUMP

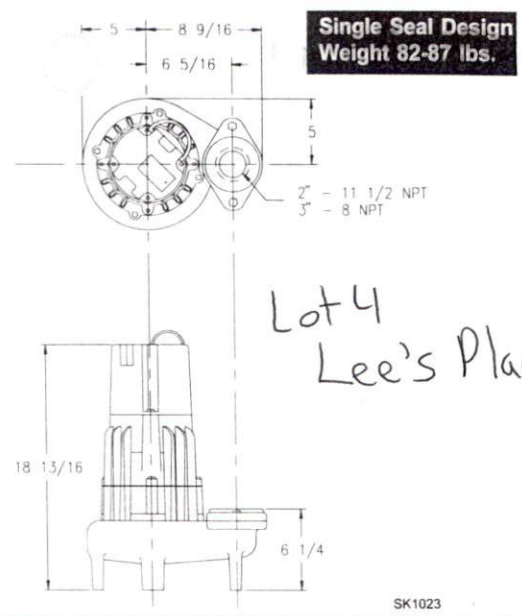
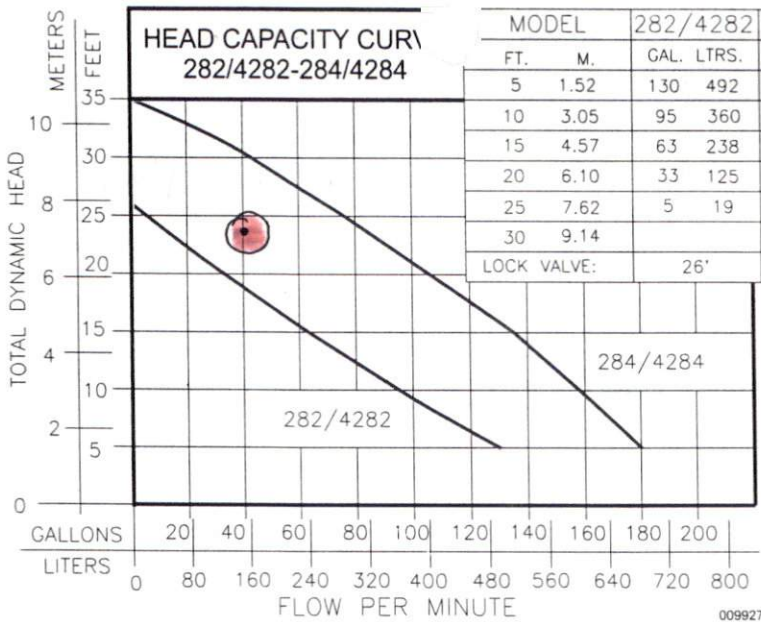


MODELS AVAILABLE

- Automatic or Nonautomatic with single seal
- Nonautomatic with double seals
- 2" or 3" discharge.
- Single phase or three phase motors available.
- See selection chart for specifications or specific models.

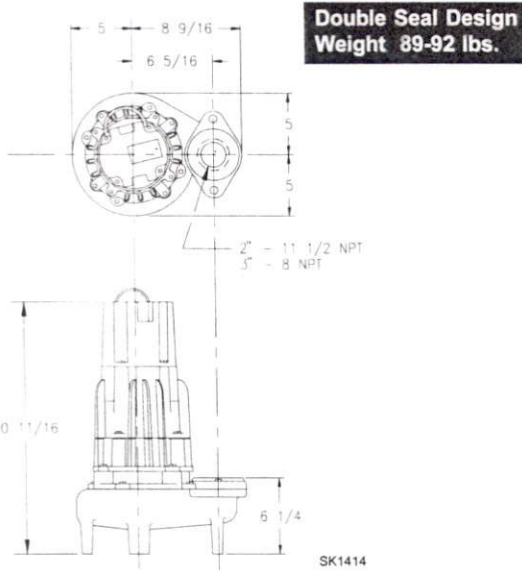
\*NOTE: No UL listing or CSA approval for 200-208V 1Ph or Extra Duty (ED) pumps or Double Seal Series. See back page for UL & CSA Listings

\*\*THREE PHASE AUTOMATIC UNITS AVAILABLE IN 230V SINGLE SEAL ONLY.



### CONSULT FACTORY FOR SPECIAL APPLICATIONS

- Three phase pumps are available in 200/208V, 230V, or 460V, automatic and non-automatic\*\*.
- Electrical alternators, for duplex systems, are available and supplied with an alarm.
- Mechanical alternators, for duplex systems, are available with or without alarm switches.
- Combination starters are available
- Variable level control switches are available for controlling single and three phase systems.
- Double piggyback variable level float switches are available for variable level long cycle controls.
- Long cords are available in lengths or 25 - 35 - 50 feet.
- Simplex and duplex basins are available.



SPECIFICATIONS							CONTROL SELECTION			Listings	
Single Seal Model	Double Seal Model	Volt-Phase	Mode	Amps	HP	Cord Lgth.	Simplex	Duplex	UL	CSA	
M282		115 1Ph	Automatic	10.3	1/2	10	1		Y	Y	
N282	N4282	115 1Ph	Nonauto	10.3	1/2	15	2	3 or 5 & 6	Y	Y	
D282		230 1Ph	Automatic	5.0	1/2	10	1		Y	Y	
E282	E4282	230 1Ph	Nonauto	5.0	1/2	15	2	3 or 5 & 6	Y	Y <sup>(1)</sup>	
*H282		200-208 1Ph	Automatic	6.1	1/2	10	1		N	N	
*I282	*I4282	200-208 1Ph	Nonauto	6.1	1/2	15	2	3 or 5 & 6	N	N	
*J282	*J4282	200-208 3Ph	Nonauto	3.6	1/2	15	4 & 6	3&4 or 5&6	Y	Y	
*F282	*F4282	230 3Ph	Nonauto	3.0	1/2	15	4 & 6	3&4 or 5&6	Y	Y	
*CF282		230 3Ph	Automatic	3.0	1/2	15	1		Y	Y	
*G282	*G4282	460 3Ph	Nonauto	1.7	1/2	15	4 & 6	3&4 or 5&6	Y	Y	
D284		230 1Ph	Automatic	8.9	1	10	1		Y	Y	
E284	E4284	230 1Ph	Nonauto	8.9	1	15	2	3 or 5 & 6	Y	Y <sup>(1)</sup>	
*H284		200/208 1Ph	Automatic	9.3	1	10	1		N	N	
*I284	*I4284	200/208 1Ph	Nonauto	9.3	1	15	2	3 or 5 & 6	N	N	
*J284	*J4284	200/208 3Ph	Nonauto	5.5	1	15	4 & 6	3&4 or 5&6	Y	N	
*F284	*F4284	230 3Ph	Nonauto	5.0	1	15	4 & 6	3&4 or 5&6	Y	Y	
*CF284		230 3Ph	Automatic	5.0	1	15	1		Y	Y	
*G284	*G4284	460 3Ph	Nonauto	2.6	1	15	4 & 6	3&4 or 5&6	Y	Y	

\* No Molded Plug  
<sup>(1)</sup> CSA Approval without plug.  
 \*\* Three phase automatic available in 230V only.

For information on additional Zoeller products refer to catalog on Piggyback Variable Level Float Switches, FM0477; Electrical Alternator, FM0486; Mechanical Alternator, FM0495; Sump/Sewage Basins, FM0487; Simplex Pump Control, FM1596; Alarm Systems, FM0732; and Disconnect/Rail Systems, FM0787.

All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electric Code (NEC) and the Occupational Safety and Health Act (OSHA).

**CAUTION**

### RESERVE POWERED DESIGN

For unusual conditions a reserve safety factor is engineered into the design of every Zoeller pump.

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# HYDROMATIC SPD50H/100H

## Submersible Effluent Pump

Lot 4 Lee's Place

- Septic Tank Effluent
- High-Capacity Sump
- High-Head Dewatering





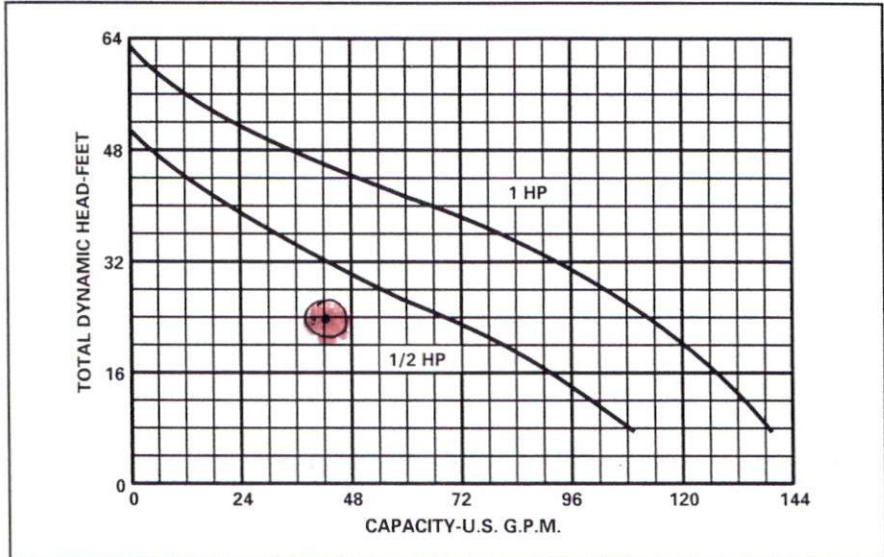
# ENGINEERING DETAILS - SPD50H/100H

Lot 4 Lee's Place

## Pump Characteristics

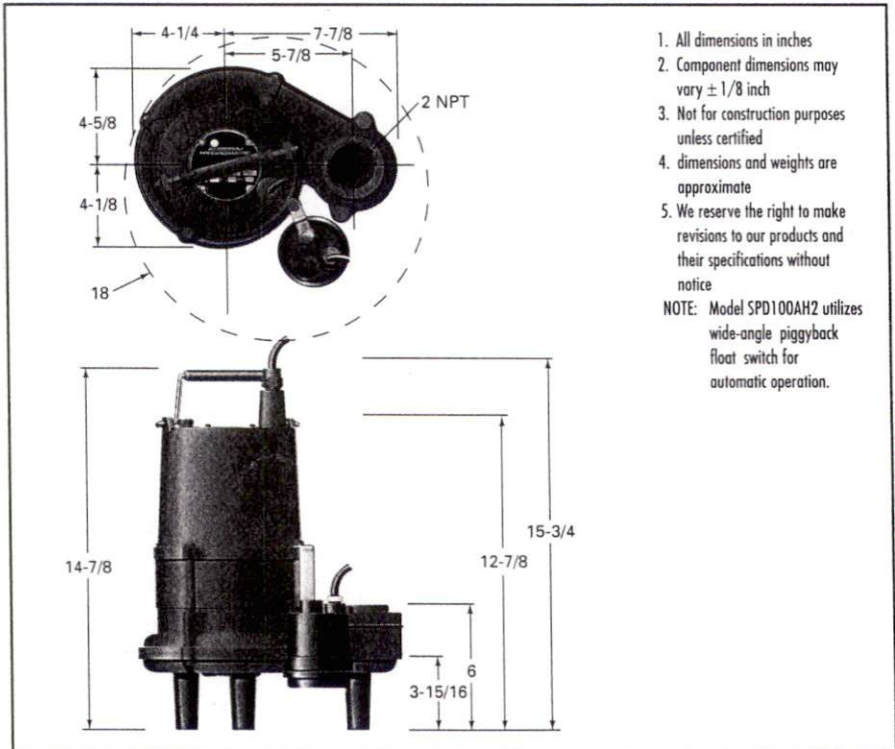
Pump/Motor Unit	Submersible				
Manual Model (50)	MH1	MH2	MH6	MH4	MH5
Automatic Models	AH1	AH2	-	-	-
Horsepower	1/2				
Full Load Amps	15.0	7.5	4.0	1.8	1.5
Motor Type	Capacitor Start		Three-Phase		
R.P.M.	3450				
Phase Ø	1		3		
Voltage	115	230	200	460	575
Manual Model (100)	MH2	MH6	MH3	MH4	MH5
Automatic Models	AH2	-	-	-	-
Horsepower	1				
Full Load Amps	9.5	4.5	4.0	2.5	1.5
Motor Type	Cap.		Three-Phase		
R.P.M.	3450				
Phase Ø	1		3		
Voltage	230	200	230	460	575
Hertz	60				
Operation	Intermittent				
Temperature	140°F Ambient				
NEMA Design	B				
Insulation	Class B				
Discharge Size	2" NPT (3" opt.)				
Solids Handling	3/4"				
Unit Weight	73 lbs.				
Power Cord: SPD50H 14/3, SJTW-A, 1ø, 115V = 10' std. (20' opt.)-14/4, STW-A, 1ø, 115V = 10' std. (20' opt.)-16/3, STW-A, 1ø, 230V = 20' std.-16/4, STW-A, 1ø, 230V = 20' std. SPD100H 16/3, STW-A, 1ø, 230V = 20' std.-16/4, STW-A, 1ø, 230V = 20' std.-18/5, STW-A, 3ø, 200V, 230V, 460V or 575V = 20' std.					

## Performance Data



Total Head (feet)	10	20	30	40	50	60
1/2 HP	105	77	50	23	0	-
1 HP	137	120	96	67	31	0

## Dimensional Data

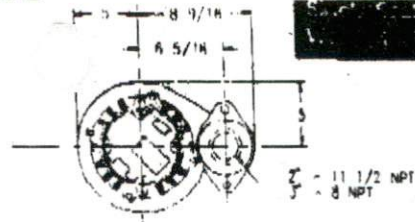
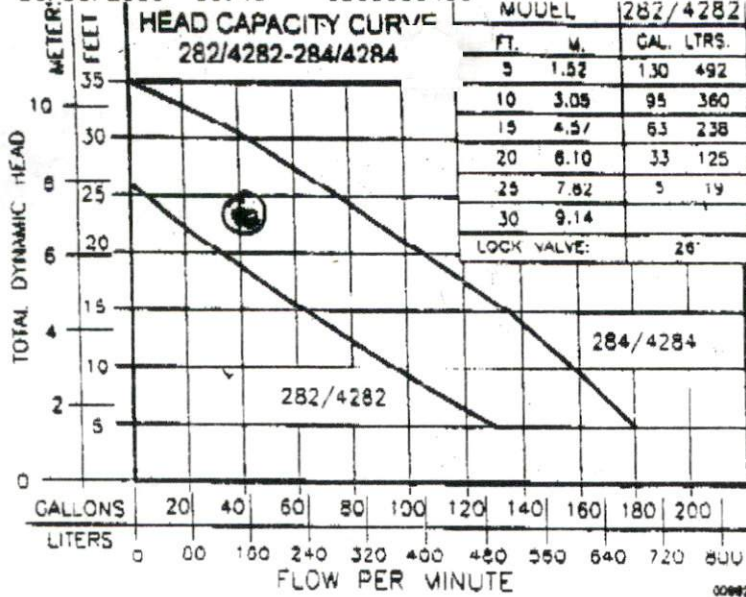


- All dimensions in inches
  - Component dimensions may vary  $\pm 1/8$  inch
  - Not for construction purposes unless certified
  - dimensions and weights are approximate
  - We reserve the right to make revisions to our products and their specifications without notice
- NOTE: Model SPD100AH2 utilizes wide-angle piggyback float switch for automatic operation.

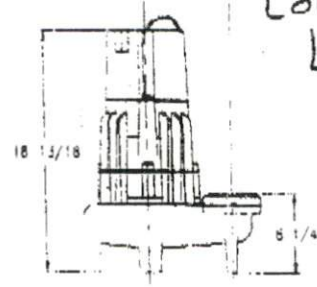
## Materials of Construction

Handle	Steel
Lubricating Oil	Dielectric Oil
Motor Housing	Cast Iron
Seal Housing	Cast Iron
Pump Casing	Cast Iron
Shaft	Stainless Steel
Mechanical Shaft Seal	Seal Faces: Carbon/Ceramic Seal Body: Brass Spring: Stainless Steel Bellows: Buna-N
Impeller	Cast Iron
Upper Bearing	Single Row Ball Bearing
Lower Bearing	Single Row Ball Bearing
Base	Cast Iron
Fasteners	Stainless Steel

**AURORA/HYDROMATIC Pumps, Inc.**  
 1840 Baney Road, Ashland, Ohio 44805  
 (419) 289-3042

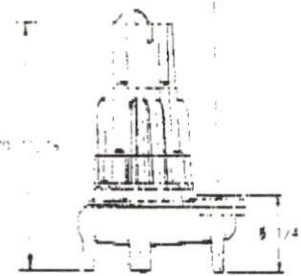
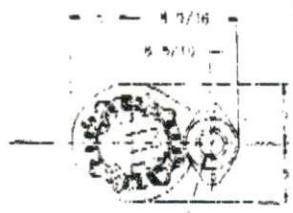


Lot 4  
Lee's Place



SK1023

Double Seal Design  
Weight 89.92 lbs.



SK1016

**CONSULT FACTORY FOR SPECIAL APPLICATIONS**

- Three phase pumps are available in 200/208V, 230V, or 460V, automatic and non-automatic\*\*.
- Electrical alternators, for duplex systems, are available and supplied with an alarm.
- Mechanical alternators, for duplex systems, are available with or without alarm switches.
- Combination starters are available
- Variable level control switches are available for controlling single and three phase systems.
- Double piggyback variable level float switches are available for variable level long cycle controls.
- Long cords are available in lengths of 25 - 35 - 50 feet.
- Simplex and duplex basins are available.

**SELECTION GUIDE**

1. Integral float operated 2-pole mechanical switch, no external control required.
2. Single piggyback variable level float switch or double piggyback variable level float switch Refer to FM0477.
3. Mechanical alternator M-Pak 10-0072 or 10-0075. Refer to FM0495
4. Simplex three phase control panel. Refer to FM1228.
5. See FM0712 for correct model of Electrical Alternator.
6. Variable level control switch 10-0225 used as control activator, specify simplex (3) float or duplex (3) or (4) float system.

SPECIFICATIONS							CONTROL SELECTION			Listings	
Single Seal Model	Double Seal Model	Volt-Phase	Mode	Amps	HP	Cord Lgth.	Simplex	Duplex	UL	CSA	
M282		115 1Ph	Automatic	10.3	1/2	10	1		Y	Y	
M282	M4282	115 1Ph	Nonauto	10.3	1/2	15	2	3 or 5 & 8	Y	Y	
D282		230 1Ph	Automatic	4.0	1/2	10	1		Y	Y	
E282	E4282	230 1Ph	Nonauto	4.0	1/2	15	2	3 or 5 & 8	Y	Y <sup>†</sup>	
M282		200-208 1Ph	Automatic	6.1	1/2	10	1		N	N	
M284	M4284	200-208 1Ph	Nonauto	6.1	1/2	15	2	3 or 5 & 8	N	N	
M282	M4282	200-208 3Ph	Nonauto	3.8	1/2	15	4 & 6	364 or 566	Y	Y	
F282	F4282	230 3Ph	Nonauto	3.0	1/2	15	4 & 6	364 or 566	Y	Y	
CP282		230 3Ph	Automatic	3.0	1/2	15	1		Y	Y	
G282	G4282	460 3Ph	Nonauto	1.7	1/2	15	4 & 6	364 or 566	Y	Y	
G284		460 1Ph	Automatic	8.9	1	10	1		Y	Y	
E284	E4284	230 1Ph	Nonauto	8.9	1	15	2	3 or 5 & 8	Y	Y <sup>†</sup>	
M284		200/208 1Ph	Automatic	9.3	1	10	1		N	N	
M284	M4284	200/208 1Ph	Nonauto	9.3	1	15	2	3 or 5 & 8	N	N	
M284	M4284	200/208 3Ph	Nonauto	5.5	1	15	4 & 6	364 or 566	Y	N	
F284	F4284	230 3Ph	Nonauto	6.0	1	15	4 & 6	364 or 566	Y	Y	
CP284		230 3Ph	Automatic	5.0	1	15	1		Y	Y	
G284	G4284	460 3Ph	Nonauto	2.8	1	15	4 & 6	364 or 566	Y	Y	

\* No Motor Plug  
† CSA Approval without plug.  
--- Three phase automatic available in 230V only.

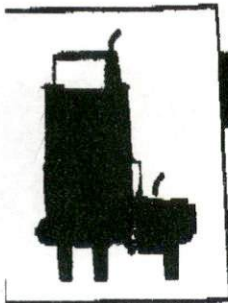
For information on additional Zoeller products refer to catalog on Piggyback Variable Level Float Switches, FM0477; Electrical Alternator, FM0486; Mechanical Alternator, FM0495; Sump/Sewage Basins, FM0487; Simplex Pump Control, FM1596; Alarm Systems, FM0732; and Disconnect/Rail Systems, FM0787.

**CAUTION**  
All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electric Code (NEC) and the Occupational Safety and Health Act (OSHA).

**RESERVE POWERED DESIGN**

For unusual conditions a reserve safety factor is engineered into the design of every Zoeller pump.

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# ENGINEERING DETAILS - SPD50H/100H

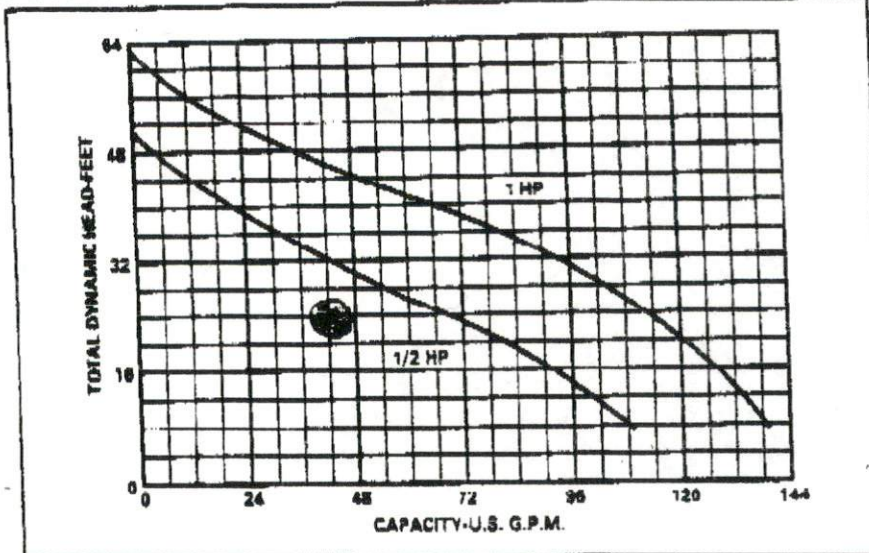
Lot 4 Lee's Place

## Performance Data

## Pump Characteristics

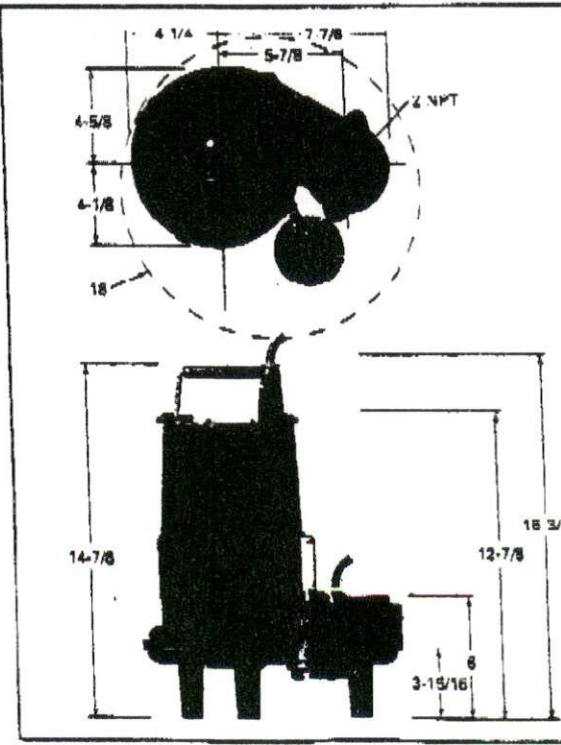
Pump/Motor Unit	Submersible				
Manual Model (50)	MH1	MH2	MH6	MH4	MH5
Automatic Models	AH1	AH2	-	-	-
Horsepower	1/2				
Full Load Amps	12.0	7.5	4.0	1.8	1.5
Motor Type	Capacitor Start		Three-Phase		
R.P.M.	3450				
Phase Ø	1		3		
Voltage	115	230	200	460	575
Manual Model (100)	MH2	MH6	MH3	MH4	MH5
Automatic Models	AH2	-	-	-	-
Horsepower	1				
Full Load Amps	9.5	4.5	4.0	2.5	1.5
Motor Type	Cap.		Three-Phase		
R.P.M.	3450				
Phase Ø	1		3		
Voltage	230	200	230	460	575
Hertz	60				
Operation	Intermittent				
Temperature	140°F Ambient				
NEMA Design	B				
Insulation	Class B				
Discharge Size	2" NPT (3" opt.)				
Solids Handling	3/4"				
Unit Weight	73 lbs.				

Power Cord: SPD50H 14/3, SJTW-A, 1c, 115V = 10' std. (20' opt.)-14/4, SJTW-A, 1c, 115V = 10' std. (20' opt.)-16/3, SJTW-A, 1c, 230V = 20' std.-16/4, SJTW-A, 1c, 230V = 20' std. SPD100H 16/3, SJTW-A, 1c, 230V = 20' std.-16/4, SJTW-A, 1c, 230V = 20' std.-18/5, SJTW-A, 3c, 200V, 230V, 460V or 575V = 20' std.



Total Head (feet)	10	20	30	40	50	60
1/2 HP	105	77	50	23	0	-
1 HP	137	120	96	67	31	0

## Dimensional Data



- All dimensions in inches
  - Component dimensions may vary ± 1/8 inch
  - Not for construction purposes unless certified
  - Dimensions and weights are approximate
  - We reserve the right to make revisions to our products and their specifications without notice
- NOTE: Model SPD100AH2 utilizes wide-angle piggy-back float switch for automatic operation.

## Materials of Construction

Handle	Steel
Lubricating Oil	Dielectric Oil
Motor Housing	Cast Iron
Seal Housing	Cast Iron
Pump Casting	Cast Iron
Shaft	Stainless Steel
Mechanical Shaft Seal	Seal Faces: Carbon/Ceramic Seal Body: Brass Springs: Stainless Steel Bellows: Buna-N
Impeller	Cast Iron
Upper Bearing	Single Row Ball Bearing
Lower Bearing	Single Row Ball Bearing
Base	Cast Iron
Fasteners	Stainless Steel

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