

BRONZE SUBMERSIBLE SUMP PUMPS

 **OBERDORFER PUMPS**
A Subsidiary of Thomas Industries Inc.

MODEL
3500S
3500S F31
4100S
4100S J27

PIPE SIZE 1-1/4" NPT



Pump No.	Motor
3500S	None (Pump Only)
3500S-F31	1/3 HP, 115V, AC, 1725 RPM
4100S	None (Pump Only)
4100S-J27	1/2 HP, 115V, AC, 3450 RPM

FEATURES

- Operates In and Underwater . . . Automatically
- Corrosion Resistant Bronze Pump
- Corrosion Resistant Stainless Steel Motor Case
- No External Floats or Actuators Required
- All Vital Working Parts Sealed Internally
- All electrical parts are protected inside the sealed stainless steel motor case which serves as a float turning motor ON and OFF as water level demands.
- Easy to Install, Plug-in Appliance Simplicity
- 1-1/4" Pipe Thread Vertical Discharge
- 1/3 H.P., 115 volt, 60 Cycle Ball Bearing Motor or
1/2 H.P., 115 volt, 60 Cycle Ball Bearing Motor
- Automatic Overload Prevents Winding Burn Outs
- Adjustable Water Level
- Cord, Handle, and Switch Assembly Replaceable in Field

CAPACITY - GALLONS PER HOUR VS. FT. HEAD

Model	1 Ft.	5 Ft.	10 Ft.	15 Ft.	20 Ft.	25 Ft.	30 Ft.
3500S-F31	3650	3500	2700	1800	800	---	---
4100S-J27	4100	4000	3800	3400	2500	1500	500

INSTALLATION

This unit is designed to run IN or UNDER water. Do not run dry. Prolonged dry running can damage seals and insulation.

Locate the pump in the sump pit so that it is resting on its feet and on a firm, level, foundation. Do not suspend the pump from its discharge piping. The stainless steel motor case must be free from wires, electric cord or other restraining devices. The motor must be free to float up and down in order to maintain water level by turning the motor ON and OFF.

IMPORTANT - The motor cord provides a "vent" or "equalizer" for the motor. It breathes through the cord via the plug at the end of the cord. For proper breathing action it is important the plug at the end of the cord never be submerged in water or by splicing the cord to electrical supply lines or by compressing the cord through tight squeeze bushings.

For maximum safety, be sure the unit is properly grounded. A three prong plug is provided for this purpose. If the two prong adapter to two prong receptacles is used, be sure to connect the external ground wire to a water pipe or make other suitable ground connection.

This pump cannot be used for handling oil.

Temperature limit is 150°F.

ADJUSTING WATER LEVEL

The float setting on this unit is calibrated at the factory and normally requires no external adjustment. When placed in water, the unit should start before the water rises to 1-1/2 inches from the top of the dome of the casing and shut off before the water drops to one inch above the bottom edge of the casing.

Switch operation can be manually checked by lifting up on the stainless steel casing which should start the motor and pressing down on the casing which should stop the motor.

Calibration changes can be made by turning the screw located in the center of the motor handle. If the unit fails to turn on when water rises on the casing, turn the calibration screw a fraction of a turn clockwise.

DIMENSIONS

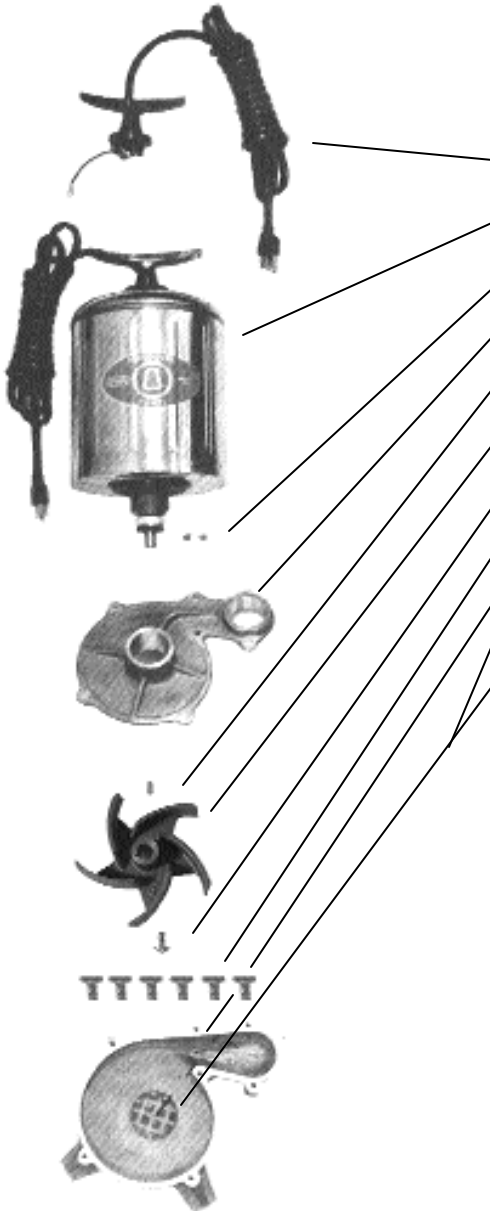
Overall height is 14-5/8" (3500S-F31), 16" (4100S-J27). Maximum width is 9-1/2". For pit installation, provide 10-1/2" minimum pit hole diameter.

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EXPLODED VIEW & PARTS LIST



Part No.	Qty Reqd	Name
6946*	1	Switch Assembly - Includes Handle and Cord
6945	1	Motor - 1/3 Includes Switch Assembly (3500S-F31)
7436		Motor - 1/2 Includes Switch Assembly (4100S-J27)
6995	2	Set Screw 5/16 - 18 x 5/16 Soc. Hd.
6938	1	Cover
6947	1	Key
6943	1	Impeller (3500S)
7440		Impeller (4100S)
6437	1	Screw to attach impeller
6993	7	Hex. Hd. Cap Screw 1/4 - 20 x 1/2
6944	1	Body
6987	1	Screen Plate
6437	4	Screw to attach Screen Plate
9922	1	Loctite (.5ml ampule) to attach 6437 screw in motor shaft (3500S & 4100S pumps only)

* REPLACING SWITCH ASSEMBLY

The switch assembly includes motor handle and cord in order to insure complete water seal. (See part No.6946 above).

To replace switch assembly remove three handle screws and carefully withdraw from top of dome by tilting motor handle and switch for clearance. Disconnect three wire leads from the switch as follows:

- White lead - Cut crimp connection and strip about 1/4" of remaining motor lead.
- Green lead - (ground) Unscrew from motor bracket inside the dome. Use long nose pliers to remove the screw being careful not to drop the screw inside the motor.
- Black lead - Slide off quick - connect from switch terminal.

WIRE NEW SWITCH ASSEMBLY TO MOTOR AS FOLLOWS:

- White lead - Reconnect to stripped motor lead using an insulated crimp connector.
- Green lead - Connect to bracket inside motor along with copper braided lead previously disconnected. Be sure wires are clear of plastic switch button also located on bracket.
- Black lead - Reconnect black lead quick - connect prong on switch terminal.

Insert switch through opening in dome by tilting and guiding leads ahead of switch. Replace handle screws and tighten.

Specifications are subject to change without notice.

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