

.....  
TYPE  
.....  
**VB 1 1/2 D**

**SUMP PUMPS**







**Figure 3 Unit**

Includes a suspension plate and discharge pipe. Unit is designed to be suspended from a pit cover, allowing clearance between bottom of pump and bottom of pit.

Flows to 60 gpm, heads to 30 ft. 1/4, 1/3, and 1/2 hp. 1 1/2" discharge, 1750 rpm, free standing and suspended units.

**HIGHLIGHTS**

-  Simplex and Duplex Units
-  Bronze Impeller
-  Stainless Steel Shaft
-  Available in all Bronze

## FEATURES

**MOTOR:** Standard NEMA frame sizes. Ball bearings are factory sealed and do not require field lubrication. Drip-proof motors are standard. Totally enclosed and explosion-proof motors also available. Single phase (115/230v.) motors have built-in thermal overload protection. Three phase (208-230/460v.) motors should be provided with magnetic starters.

**FLOAT SWITCH:** Double break type in steel enclosure, actuated by copper float with brass rod and stops.

**COUPLING:** Single-piece type with adjustable set screws.

**HANGAR PIPE:** Rigid steel pipe support insures accurate alignment.

**SUSPENSION PLATE:** 14" Diameter steel suspension plate is standard on Fig. 3 units. Split type cast iron adjusting collar is available for field adjustment of length of pump extension below suspension plate.

**DISCHARGE PIPE:** Included on Fig. 3 units only. Discharge size is 1.5".

**STAINLESS STEEL SHAFT:** Diameter sized to operate at maximum speed with minimum vibration and deflection.

**BEARINGS:** Bronze guide bearings at pump casing and at intervals along shaft to prevent radial deflection. Intermediate bearings are grease lubricated. Lower bearing is self-lubricating and suitable for pumping hot or cold water.

**IMPELLER:** Single-piece bronze impeller, machined and balanced; held firmly by key and lock nut. Open, non-clog type.

**CASING:** Cast iron, with 1.5" discharge opening.

**STRAINER:** Strainers on Fig. 1 units are perforated brass, forming part of the pump stand. Strainers on Fig. 3 units are large area cast iron, fastened to bottom of casing.

**COVERS AND BASINS:** Steel covers are available for round, square, or rectangular pits and can be furnished with grouting frames if desired. Fiberglass or steel basins of all diameters and depths are also available. Covers are fabricated to suit Fig. 3 pump suspension plates and include vent connection and manhole. Basin inlet size and location are determined by job conditions.

**MATERIALS OF CONSTRUCTION:** Standard pumps are of bronze fitted construction. All-iron, or all-bronze pumps are also available.

**SINGLE AND DUPLEX UNITS:** Figure 3 pumps are available as single or duplex units.

**Single unit** includes one pump and motor, one float switch, one magnetic starter (if required), and one pit cover or basin.

**Duplex unit** includes two pumps and motors, two float switches,\* two magnetic starters (if required), and one pit cover or basin.

\*One alternating float switch can be furnished on duplex units, instead of the two standard float switches, to alternate the operation of the two pumps, and to provide two-pump simultaneous operation if one pump cannot handle the in-flow.

Selection Table				
1750 RPM				
Type	GPM	Head (ft.)	HP	
VB-1.5	10	24	.25	
VB-1.5	10	26	.33	
VB-1.5	10	30	.5	
VB-1.5	15	23	.25	
VB-1.5	15	25	.33	
VB-1.5	15	29	.5	
VB-1.5	20	21	.25	
VB-1.5	20	23	.33	
VB-1.5	20	28	.5	
VB-1.5	25	20	.25	
VB-1.5	25	21	.33	
VB-1.5	25	27	.5	
VB-1.5	30	18	.25	
VB-1.5	30	20	.33	
VB-1.5	30	26	.5	
VB-1.5	40	14	.25	
VB-1.5	40	16	.33	
VB-1.5	40	24	.5	
VB-1.5	50	8	.25	
VB-1.5	50	10	.33	
VB-1.5	50	20	.5	
VB-1.5	60	5	.25	
VB-1.5	60	7	.33	
VB-1.5	60	15	.5	

## SUGGESTED SPECIFICATIONS

Furnish and install where shown on plans, Type VB 1 1/2, Fig. 1 (or Fig. 3; Simplex or Duplex). Vertical, Submerged, Sump Pump: as manufactured by Federal Pump Corporation, (each) pump having a capacity of \_\_\_ gpm. against a Total Dynamic Head of \_\_\_ feet.

Pump to have 1.5 inch ips discharge and to be constructed for pit \_\_\_ft. \_\_\_ins. in depth. Shaft shall be stainless steel with bronze non-clog impeller.

Motor to be \_\_\_hp, 1750 rpm, \_\_\_phase, \_\_\_cycles, \_\_\_volts, drip-proof enclosure with drip canopy. (Each) pump shall be controlled by an enclosed float switch actuated by copper float, brass rod and adjustable stops.

(For duplex units, specify: Furnish a pedestal mounted alternating float switch assembly with copper float, brass rod and adjustable stops, to alternate cycles of operation of pumps and provide 2-pump operation under peak load conditions.)

Provide built-in thermal overload protection for single phase motors.

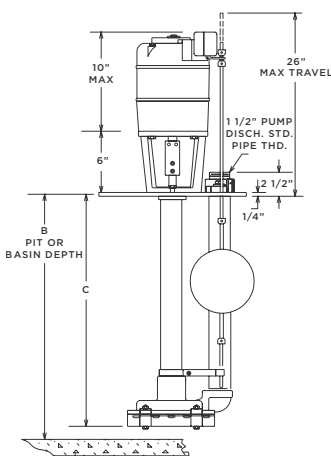
Furnish magnetic starters for 3 phase motors.

Furnish steel pit cover for concrete pit \_\_\_ft. \_\_\_ins. x \_\_\_ft. \_\_\_ins., with necessary openings for pump, manhole, controls and vent connection.

**If required, specify:** Welded angle iron grouting frame also to be furnished.

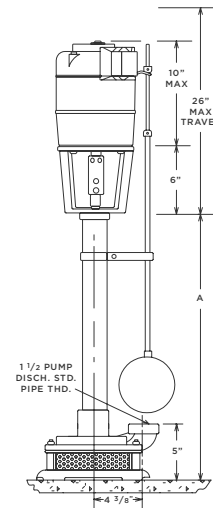
**If concrete pit is not to be installed, specify:** Furnish fiberglass (or steel) \_\_\_basin, \_\_\_ft. \_\_\_ins. in diameter and \_\_\_ft. \_\_\_ins. in depth, complete with cover and inlet as required by job conditions.

**Type VB 1 1/2 Figure 1**  
(Pumps only, Freestanding)

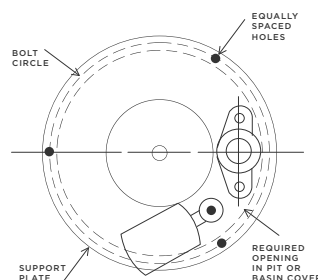


Pit Depth	"A" Pump Length
2'-0"	24.5"
2'-6"	28.25"
3'-0"	34.25"
3'-6"	40.25"
4'-0"	46.25"
4'-6"	52.25"
5'-0ins.	58.25"
5'-6"	63.25"
6'-0"	69.25"
6'-6"	75.25"
7'-0"	81.25"
7'-6"	87.25"
8'-0"	93.25"

**Type VB 1 1/2 Figure 2**  
(Pumps only)



"B" Pit or Basin Depth	"C" Pump Length
2'-0"	22.5"
2'-6"	26.5"
3'-0"	32.5"
3'-6"	38.5"
4'-0"	44.5"
4'-6"	51.5"
5'-0"	56.5"
5'-6"	61.5"
6'-0"	67.5"
6'-6"	73.5"
7'-0"	79.5"
7'-6"	85.5"
8'-0"	91.5"



Support Plates				
Dia. Plate	B.C.	Cover Opening	No. Bolt Holes	Dia. Holes
14	13	12	3	15/32
20	19	18	4	15/32