

BioSTEP®

BioSTEP® Features

Screening Device

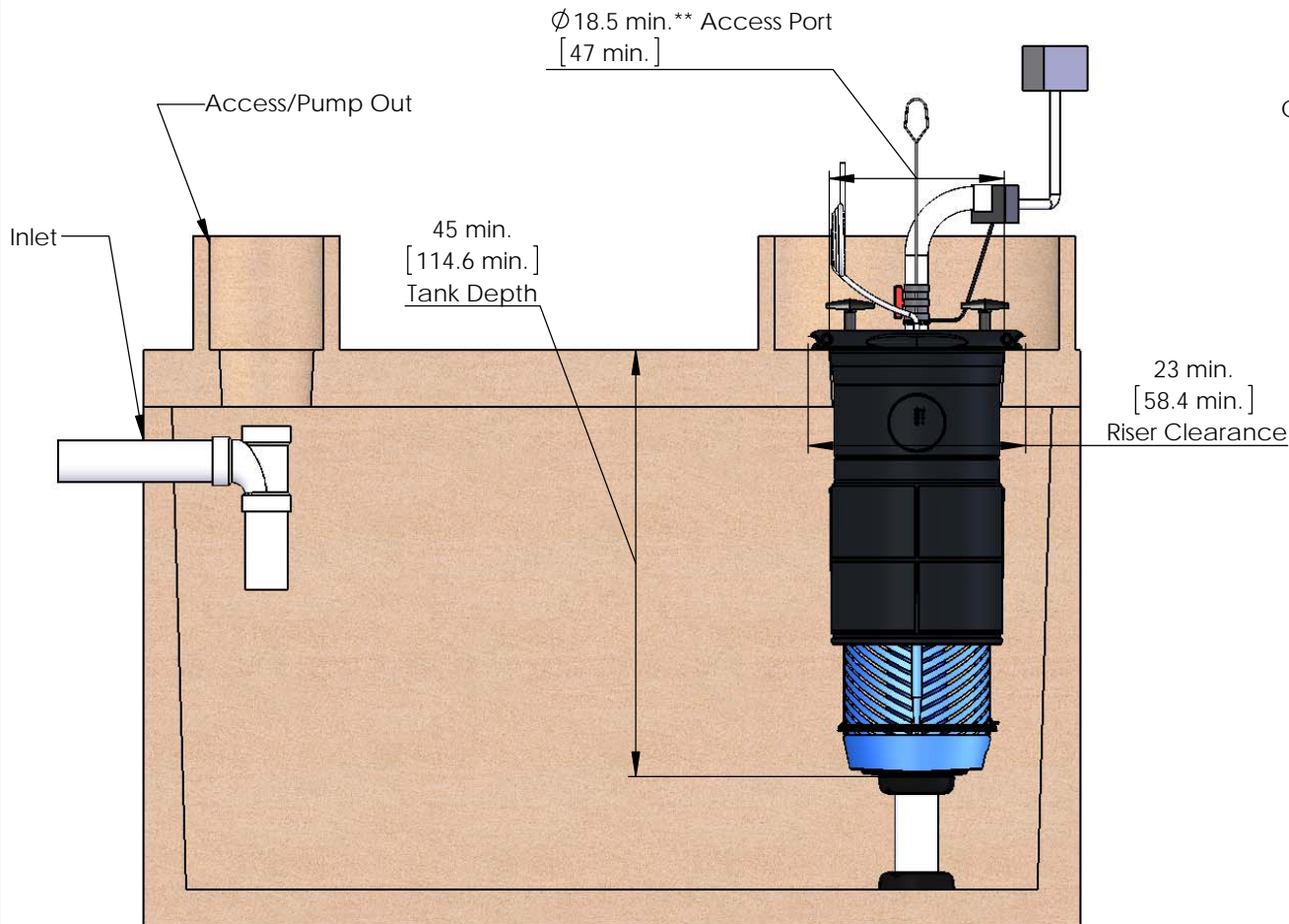
- CIP- Clean In Place (eliminate system removal)
 - Integral external swab
- Deflects solids
- 1/8" [3 mm] angled slots
- Overflow protection cap
- **Adaptable to larger openings (consult factory)

Pump

- Wide variety of power options
- Designed to use variety of pumps
 - Submersible
 - High head

Control Panel

- Continuously monitors float inputs & flow conditions
- Communicates with external devices
- Trouble shooting LED's
- Compact size
- NEMA 4X
- UL/ETL/CE/CSA/RoHS Certified



DO NOT SCALE
UNLESS NOTED
DIMENSIONS
ARE IN INCHES
[CENTIMETERS]
TOLERANCES
± 0.02 IN/IN
[± 0.05 CM/CM]

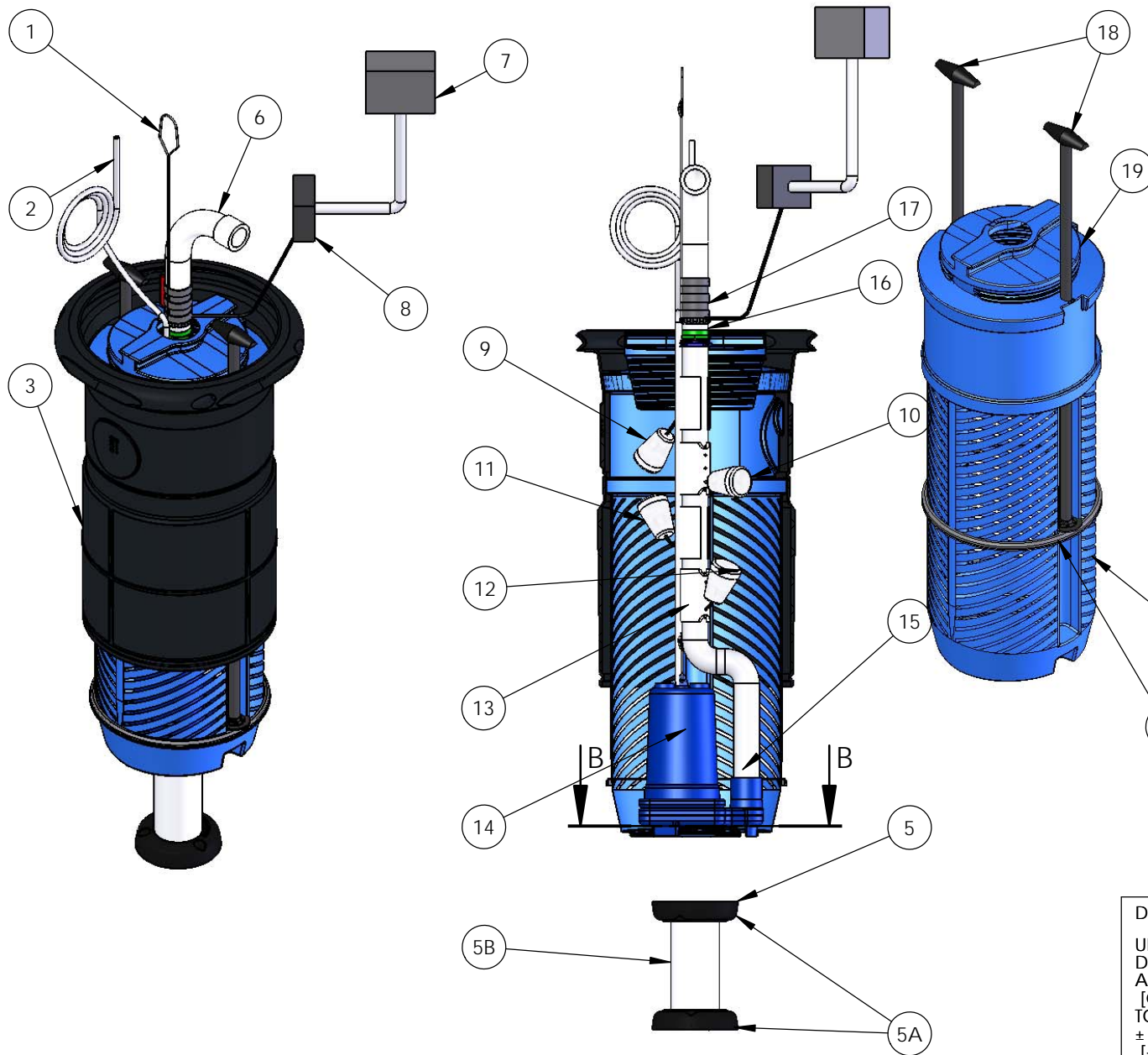


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WEIGHT	lb	SIZE	DRAWING NUMBER		SHEET 1 OF 3
NAME	DATE	A	Installation		
DRAWN	CTC 5/10/2005		REVISED 5/14/2015		
CHECKED	PF 5/14/2015		REV. INI-01-A+		



BioSTEP® Features

1. Lifting Cable
2. Power Cord
3. ScumGuard®
4. SaniTEE® Screening Device
 - 4A. CIP-Clean In Place swab
5. Base Support
 - 5A. Pipe Mount
 - 5B. 4" PVC pipe supplied by others
6. Flexible 2 inch PVC Pipe
7. Control Panel NEMA 4X
8. Junction Box NEMA 4X
9. Float high water alarm & overflow protection
10. Float On
11. Float Off
12. Float low water alarm & shutoff
13. Float Clamp
14. Pump
15. PVC Pipe assembly
16. Union, 2 inch PVC
17. Check Valve, 2 inch PVC
18. Swab Handles
19. Overflow Protection Cap

SECTION B-B
SCALE 1 : 10

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[± 0.05 CM/CM]



BIOSTEP

WEIGHT		lb	SIZE	DRAWING NUMBER		SHEET 2 OF 3
NAME		DATE	A	Components		
DRAWN	CTC	5/10/2005		REVISED 5/14/2015		
CHECKED	PF	5/14/2015		REV. CAT-01		

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1. GENERAL

The BioSTEP® septic tank effluent pumping system as manufactured by Bio-Microbics, Inc. consists of the following principle items of equipment: (1) ScumGuard® mounting sleeve, (1) SaniTEE® wastewater screen, (1) sewage effluent pump, and (1) alarm/controls package.

2. TANK

The BioSTEP® system shall be installed in a tank (one or multiple compartments) to be furnished by others. This tank must meet all applicable regulations. The tank must have access port(s) located so that all operation and maintenance functions can be properly performed.

3. SCUMGUARD® MOUNTING SLEEVE

The Bio-Microbics, Inc. ScumGuard® mounting sleeve serves as the mounting device for the BioSTEP® pumping system and also helps to deflect large debris. The ScumGuard® must be mounted in an access port of at least 18.5 inch [47 cm] Ø utilizing a riser with a minimum internal diameter of 23 inches [58.4 cm]. For access ports greater than 18.5 inches [47cm] diam. , 3/4" Ø Sched 80 pipe can be inserted into the ScumGuard® for proper fit (consult factory).

4. WASTEWATER SCREEN and Discharge Assembly

The Bio-Microbics, Inc. SaniTEE® wastewater screen shall be mounted inside the ScumGuard® mounting sleeve. The screen is approximately 16" in Ø with multiple, acutely angled slots having a 1/8" width. The screen shall be supplied with a screw on top for easy access to the system. The screen shall also have a self-contained external cleaning swab to facilitate Clean In Pace cleaning of the screen. The discharge assembly is made of PVC sched 40 and shall include: 2" PVC union, 2" flexible pipe, 2" ball valve, and 2" SxMIP adapter. All other piping and fittings shall be supplied by others.

5. Sewage Pump

The sewage effluent pump shall be mounted inside the SaniTEE® Screen. The pump provided by Bio-Microbics shall be capable of passing at least a 3/4" spherical solid. The pump shall also have the following features: cast iron housing, stainless steel shaft, silicon carbide seals, 2" Ø NPT discharge port, cast iron impeller, 20 ft of stainless steel retrieval cable, UL778 listing, and a class B insulated motor capable of withstanding an instantaneous internal temperature up to 140° F. High head pumps are available, consult Bio-Microbics Inc. for recommended options.

6. Controls & System

The four float switches (high water alarm/overflow protection, On, Off, & low water alarm/shutoff) and clamps are to be mounted on the pump outlet piping and installed to allow free movement and proper operation of each float. The panel shall have the following features: NEMA 4X enclosure, UL listing, 72-95 db alarm with exterior silencing mechanism, exterior alarm light, circuit breakers for the pump, and manual pump run control with status light. Controls can be purchased for most power supplies.

7. ELECTRICAL

All electrical equipment shall utilize 220VAC, single phase, 60 Hz power standard (most other power supplies are available). A NEMA 4X junction box and 4 cord grips are included. Wiring must conform to all applicable codes. All conduit, wiring and misc. supplies are to be supplied by others.

8. INSTALLATION AND OPERATING INSTRUCTIONS


All work must be done in accordance with local codes and regulations and installed in accordance with the instructions provided by Bio-Microbics. If at any point during installation or operation there are questions concerning this product, call Bio-Microbics, Inc. at 800-753-3278.

9. WARRANTY

Bio-Microbics, Inc. warrants all new BioSTEP® units against defects in materials and workmanship for a period of one year after installation or eighteen (18 months) from the date of shipment which ever occurs first, subject to the following terms and conditions:

During the warranty period, if any part is defective or fails to perform as specified when operating at design conditions, and if the equipment has been installed and is being operated and maintained in accordance with the written instructions provided by Bio-Microbics, Inc., Bio-Microbics, Inc. will repair or replace at its discretion such defective parts free of charge. Defective parts must be returned by owner to Bio-Microbics, Inc.'s factory postage paid, if so requested. The cost of labor and all other expenses resulting from replacement of the defective parts and from installation of parts furnished under this warranty and regular maintenance items such shall be borne by the owner. This warranty does not cover general system misuse, components which have been damaged by flooding or any components that have been disassembled by unauthorized persons, improperly installed or damaged due to altered or improper wiring or overload protection. This warranty applies only to the STEP unit and does not include any of the house wiring, plumbing, drainage, septic tank or disposal system. Bio-Microbics, Inc. reserves the right to revise, change or modify the construction and/or design of the system, or any component part or parts thereof, without incurring any obligation to make such changes or modifications in present equipment. Bio-Microbics, Inc. is not responsible for consequential or incidental damages of any nature resulting from such things as, but not limited to, defect in design, material, or workmanship, or delays in delivery, replacements or repairs.

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DO NOT SCALE			
UNLESS NOTED DIMENSIONS ARE IN INCHES [CENTIMETERS] TOLERANCES ± 0.02 IN/IN [± 0.05 CM/CM]			
WEIGHT lb		SIZE A	DRAWING NUMBER
NAME DATE		Specifications	
DRAWN	5/10/2005	REVISED 5/14/2015	
CHECKED	PF 5/14/2015	REV.	

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