

# SUNTREE TECHNOLOGIES MODEL NO. NSBB-3-6-72

## FLOW & BY-PASS SPECIFICATIONS FOR THE BIOMASS SEPARATING SCREEN SYSTEM, SEDIMENT STORAGE, AND SKIMMER SPECIFICATIONS.

1. Inflow Pipe Area (12" RCP AS DRAWN) ——— 0.79 sq.ft.

### SCREEN SPECIFICATIONS:

2. Open orifice area in screen system ——— 9.10 sq.ft.
3. Open orifice area in screen system with 50% blockage
4. Open orifice area in screen system with 75% blockage ——— 2.26 sq.ft.
5. By-pass through screen system ——— 1.24 sq.ft.
6. Minimum by-pass around screen system ——— 1.56 sq.ft.
7. Screen system storage volume ——— 8.5 cu.ft.

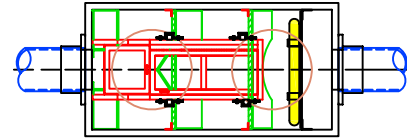
### SEDIMENT STORAGE:

8. Volume of first chamber ——— 18.00 cu.ft.
9. Volume of second chamber ——— 16.50 cu.ft.
10. Volume of third chamber ——— 18.00 cu.ft.
11. Volume of total sediment storage ——— 52.50 cu.ft.

### SKIMMER SPECIFICATIONS:

12. Flow area under skimmer ——— 2.25 sq.ft.
13. Area of pipe in line with skimmer ——— 0.79 sq.ft.
14. Area of between skimmer and outflow pipe parallel with the surface of the pipe

Suntree Technologies Inc.  
798 Clearlake Road, Cocoa, Florida 32922  
Ph: 321-637-7552 Fax: 321-637-7554

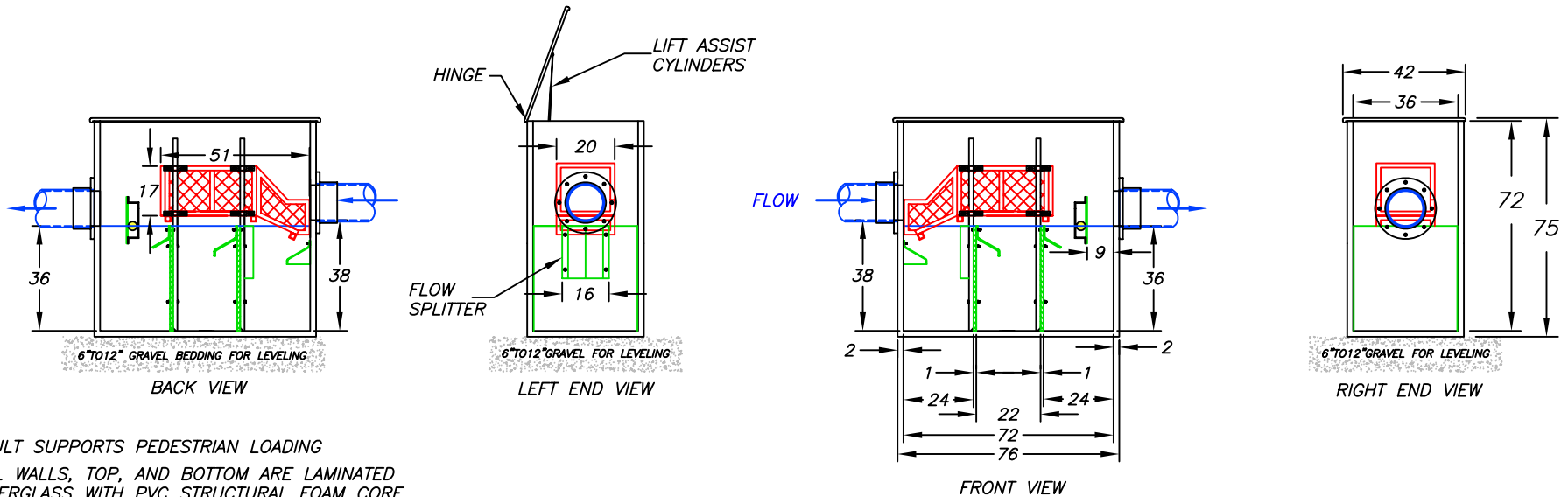


**PATENTED**  
AND PATENTS PENDING

20" X 51" X 17" TALL  
SCREEN SYSTEM

### INSTALLATION NOTES:

1. INFLOW AND OUTFLOW PIPES ARE TO BE FLUSH WITH THE INSIDE SURFACE OF THE CONCRETE STRUCTURE. (CAN NOT INTRUDE BEYOND FLUSH)
2. INVERT OF OUTFLOW PIPE SHOULD BE EVEN WITH THE TOP OF THE BAFFLES.
4. THE BOTTOM OF THE SKIMMER SHOULD BE 6" BELOW THE INVERT OF THE OUTFLOW PIPE.
5. INVERT OF THE INFLOW PIPE SHOULD NOT BE BELOW THE INVERT OF THE OUTFLOW PIPE.



### Notes:

1. VAULT SUPPORTS PEDESTRIAN LOADING
2. ALL WALLS, TOP, AND BOTTOM ARE LAMINATED FIBERGLASS WITH PVC STRUCTURAL FOAM CORE.
3. INFLOW AND OUTFLOW PIPES ARE TO BE FLUSH WITH THE INSIDE SURFACE OF THE CONCRETE STRUCTURE. (CAN NOT INTRUDE BEYOND FLUSH)
4. HINGED LIDS FOR THE SCREEN SYSTEM ARE AVAILABLE UPON REQUEST.
5. TOP IS HINGED WITH STAINLESS STEEL PIANO HINGE ALONG ONE LONG SIDE.

TREATMENT DESIGN FLOW  
3 cfs

PEAK DESIGN FLOW  
5 cfs

SUNTREE TECHNOLOGIES, INC. 798 CLEARLAKE RD, SUITE #2 COCOA, FL. 32922		PROJECT:	
NUTRIENT SEPARATING BAFFLE BOX MODEL NO. NSBB-3-6-72		DRAWING #: 2-07-02-08-02	
DATE: 12/02/07		FILE NAME: NSBB-3-6-72	
SCALE: = 57.6		REVISIONS:	DATE:
DRAFTER: T.H.H.		REVISIONS:	DATE:
UNITS = INCHES			

# SUNTREE TECHNOLOGIES MODEL NO. NSBB-3-6-72

## FLOW & BY-PASS SPECIFICATIONS FOR THE BIOMASS SEPARATING SCREEN SYSTEM, SEDIMENT STORAGE, AND SKIMMER SPECIFICATIONS.

1. Inflow Pipe Area (12" RCP AS DRAWN) ——— 0.79 sq.ft.

### SCREEN SPECIFICATIONS:

2. Open orifice area in screen system ——— 9.10 sq.ft.
3. Open orifice area in screen system with 50% blockage ——— 4.5 sq.ft.
4. Open orifice area in screen system with 75% blockage ——— 2.26 sq.ft.
5. By-pass through screen system ——— 1.24 sq.ft.
6. Minimum by-pass around screen system ——— 1.56 sq.ft.
7. Screen system storage volume ——— 8.5 cu.ft.

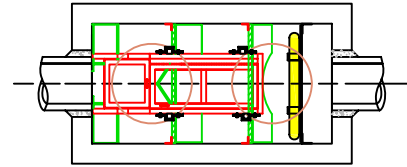
### SEDIMENT STORAGE:

8. Volume of first chamber ——— 18.00 cu.ft.
9. Volume of second chamber ——— 16.50 cu.ft.
10. Volume of third chamber ——— 18.00 cu.ft.
11. Volume of total sediment storage ——— 52.50 cu.ft.

### SKIMMER SPECIFICATIONS:

12. Flow area under skimmer ——— 2.25 sq.ft.
13. Area of pipe in line with skimmer ——— 0.79 sq.ft.
14. Area of between skimmer and outflow pipe parallel with the surface of the pipe ——— 2.35 sq.ft.

Suntree Technologies Inc.  
798 Clearlake Road, Cocoa, Florida 32922  
PH: 321-637-7552 Fax: 321-637-7554

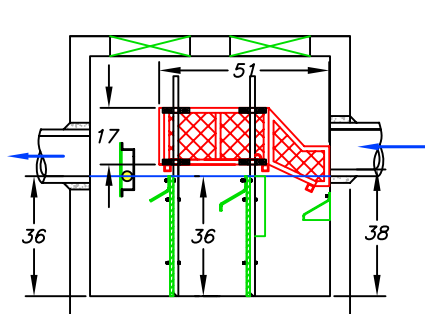


**PATENTED**  
AND PATENTS PENDING

**20" X 51" X 17" TALL  
SCREEN SYSTEM**

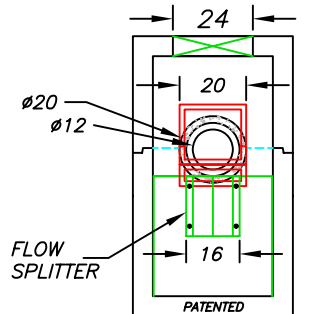
### INSTALLATION NOTES:

1. INFLOW AND OUTFLOW PIPES ARE TO BE FLUSH WITH THE INSIDE SURFACE OF THE CONCRETE STRUCTURE. (CAN NOT INTRUDE BEYOND FLUSH)
2. INVERT OF OUTFLOW PIPE SHOULD BE EVEN WITH THE TOP OF THE BAFFLES.
4. THE BOTTOM OF THE SKIMMER SHOULD BE 6" BELOW THE INVERT OF THE OUTFLOW PIPE.
5. INVERT OF THE INFLOW PIPE SHOULD NOT BE BELOW THE INVERT OF THE OUTFLOW PIPE.



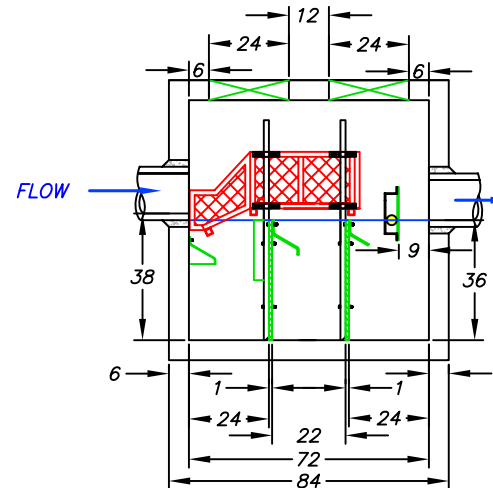
6" TO 12" GRAVEL BEDDING FOR LEVELING

BACK VIEW

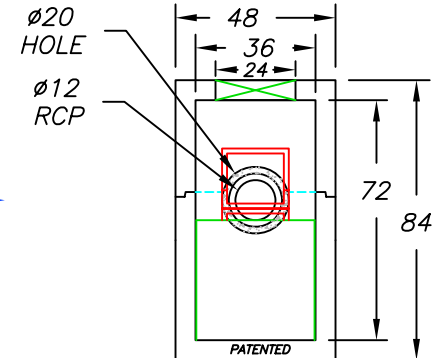


6" TO 12" GRAVEL FOR LEVELING

LEFT END VIEW



FRONT VIEW



6" TO 12" GRAVEL FOR LEVELING

RIGHT END VIEW

### Notes:

1. CONCRETE 28 DAY COMPRESSIVE STRENGTH  $f_c$  - 5,000 PSI.
2. REINFORCING: ASTM A-615, GRADE 60.
3. SUPPORTS AN H2O LOADING AS INDICATED BY AASHTO.
4. JOINT SEALANT: BUTYL RUBBER SS-S-00210
5. ALL WALLS, TOP, AND BOTTOM ARE 6" THICK.
6. INFLOW AND OUTFLOW PIPES ARE TO BE FLUSH WITH THE INSIDE SURFACE OF THE CONCRETE STRUCTURE. (CAN NOT INTRUDE BEYOND FLUSH)
7. HINGED LIDS FOR THE SCREEN SYSTEM ARE AVAILABLE UPON REQUEST.

TREATMENT DESIGN FLOW  
3 cfs

PEAK DESIGN FLOW  
5 cfs

SUNTREE TECHNOLOGIES, INC. 798 CLEARLAKE RD, SUITE #2 COCOA, FL. 32922		PROJECT:	
NUTRIENT SEPARATING BAFFLE BOX MODEL NO. NSBB-3-6-72		DRAWING #: 2-07-02-08-01	
DATE: 12/02/07		FILE NAME: NSBB-3-6-72	
SCALE: = 57.6		REVISIONS:	DATE:
DRAFTER: T.H.H. UNITS = INCHES		REVISIONS:	DATE: