U.S.Patent # 6126817 Additional Patents Pending





(317) 346-4110 www.drainagesolutionsinc.com

### 1. PRODUCT NAME

The SNOUT® Oil-Water-Debris Separator U. S. Patent # 6126817

#### 2. MANUFACTURER

Best Management Products, Inc.

53 Mt. Archer Rd. Lyme CT 06371

Phone: (800) 504-8008 Phone: (860) 434-0277 Fax: (860) 434-3195

E Mail: tjm@bmpinc.com, duran@bmpinc.com

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### 3. PRODUCT DESCRIPTION

**Basic Application:** The SNOUT Oil-Water-Debris Separator is a patented plastic composite hooded outlet cover that attaches to the wall of a stormwater catch basin or other water-quality structure over the outlet pipe in such a manner as to prevent the exit of floating debris and oil.

### Advantages of The SNOUT Oil-Water-Debris Separator

- Easy to install
- Easy to clean
- Very low head loss
- Reduces pipe cleaning maintenance
- Highly corrosion resistant
- Lightweight
- Converts existing structures into oil—debris trap
- Prevents siphoning of trapped contaminants
- Sizes 12" through 96" available

**Composition and Materials:** The SNOUT is hand fabricated from marine grade fiberglass. The attachment hardware is 18-8 stainless steel, the anti-siphon device is schedule 40 PVC and the access hatch is ABS plastic.

These materials have proven to be extremely durable and maintenance free. The SNOUT is adaptable to any type catch basin construction and is available in flat or curved back styles.

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### 4. TECHNICAL DATA

The SNOUT Oil-Water-Debris Separator components consist of

- 1) Standard size composite Hoods
- 2) Gasket, screw down, watertight, clean-out access port
- 3) Stainless steel mounting hardware
- 4) PVC SCH40 fittings and pipe for anti-siphon device
- 5) Pressure sensitive oil resistant foam rubber gasket

SNOUT composite components are hand and chopper gun laminations of these properties:

Physical Properties of Unsaturated Polyester Resin Reinforced Laminates (33 / 66 Glass / Resin 1.5 oz mat Laminates .125 in.)

Flexural Strength	(psi) ASTM D-790	27,100
Flexural Modulus	(psi) ASTM D-790	1,157,000
Tensile Strength	(psi) ASTM D-638	16,700
Tensile Modulus	(psi) ASTM D-638	1,457,000
<b>Tensile Elongation</b>	(%) ASTM D-638	1.54
Hardness, Barcol 9	34.1 ASTM D-2583	55 - 60

Physical Properties of ISO Gel Coat

,	Room Temperature Cured for 45 hours	Post Cured at 50° for 24 hours
Tensile Strength	6,218	6,581
Elongation, %	2.70	1.90
Flexural Strength, psi	11,363	11,329
Heat Distortion, °F	0.544 x 10 <sup>6</sup>	0.713 x 10 <sup>6</sup>
Mandrel Flex, Mandrel		
diameter in Inches		1.0

### Sample Specification for SNOUT OIL-WATER-DEBRIS SEPARATOR:

All new and / or existing catch basin structures shall be outfitted with the BMP, Inc. SNOUT Oil-Water-Debris Separator on the exit pipe. The size and position shall be determined by pipe style and sump depth per manufacturer's recommendations. The anti-siphon device shall extend above the flood level of the structure where practical (a 12" or 24" length of vent pipe is included in the installation kit.) The hood shall be securely attached to the catch basin wall with 6-3/8" diameter stainless steel bolts and sealed to the structure with gasket material supplied in installation kit. The SNOUT Oil-Water-Debris Separator is manufactured by Best Management Products, Inc. (888-504-8008, and 800-504-8008 www.bmpinc.com)

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#### 5. INSTALLATION

- 1. Select the SNOUT Oil-Water-Debris Separator of size and configuration to fit application. (Our SNOUTS are numbered to reflect that they will fit over a pipe with an <u>outside diameter</u> no greater than that number. Example: An 18" "SNOUT" will fit over a pipe with an <u>outside diameter</u> no greater than 18". Select F for flat-walled structures and R for round-walled structures.)
- 2. Center the SNOUT directly over the exit pipe so that the entire pipe is covered and so that the lower edge of the hood is at least 1/2 the pipe diameter below the lowest inside point of the pipe.
- 3. Drill \* equally spaced 7/16" holes through the SNOUT flange. ( \*Number of holes vary depending on size of SNOUT.)
- 4. Mark and drill catch basin and install the tamp-in lead anchors.
  - (1) Drill a 3/4"hole into the base material to the required depth.
  - (2) Blow the hole clean of dust and other material.
  - (3) Insert the anchor into the hole (Lead shield out)
  - (4) Position the setting tool in the anchor. (The outer rim of the tool should seat onto the lead shield rim.)
  - (5) Using the tool, set the anchor by driving the lead sleeve over the cone using several sharp hammer blows. (Be sure the anchor is at the required embedment depth.)
- 5. Attach the vent pipe adapter in the pre-drilled hole in the top of the SNOUT using the 2 flat O ring gaskets and PVC lock-nut supplied in the kit. Install with female slip adapter up and a washer on each side of the SNOUT shell. Tighten lock-nut hand tight.
- 6. Remove PSA backing and with firm pressure, attach gasket strip to back of flange and trim excess.
- 7. Attach the SNOUT to the catch basin wall with 3/8" diameter stainless steel bolts in lead expansion anchors. Do not over tighten,10-15 foot-pounds should be sufficient.
- 8. Cut the anti-siphon vent stack to length and attach to hood at slip adapter with PVC cement.
- 9. Attach 90 degree fitting to vent stack with PVC cement. Ensure that fitting opening is accessible for maintenance and inspection.

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## Each SNOUT® is shipped with an Installation Kit \* —the number of items vary depending on size of SNOUT®, but each kit contains

Expansion anchor assemblies consisting of:

expansion anchors 3/8 x 1" stainless steel bolts stainless steel washers

- (1) 1" or 2" pipe adapter
- (2) neoprene O rings
- (1) PVC lock-nut

PSA backed gasket strip(s)

- (1) 1" or 2" diameter 12" or 24" length PVC pipe
- (1) 90 degree elbow

The 48" and 96" SNOUTS are shipped knocked down in 2 or more parts. Therefore it will be necessary to site assemble the top and base sections and extra gaskets and bolts, nuts, and washers are included to do this.

### We also manufacture:

Split Snouts
Riser Sections
Flow Deflectors
Optional Odor Control Filter available for all sizes
Floating Oil Booms are available
Reusable installation tool available

### BEST MANAGEMENT PRODUCTS, INC.

### The SNOUT® OIL-WATER-DEBRIS SEPARATOR SPECIFICATIONS

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### Optional Flow Restrictor for flow control is now available for the 12" 18" and 24" SNOUTS

### Flow Restrictor Installation Instructions:

- Attach Flow Restrictor to SNOUT
  - (a) Position the Flow Restrictor Plate on the SNOUT bottom flange with the smooth side facing up.
  - (b) Align the back edges of both the SNOUT and Flow Restrictor and drill five equally spaced holes 1/4" diameter through both flanges.
  - (c) Remove gasket backing and with firm pressure attach gasket strip to the bottom flange of the SNOUT where it mates with the Flow Restrictor and also across its back (wall) flange.
  - (d) Bolt the Flow Restrictor to the SNOUT
  - (e) Insert your pre-slotted standpipe into the sleeve in the Flow Restrictor base so that the bottom (inlet) of the pipe is at least 1/2 the outlet pipe diameter below the lowest inside point of the outlet (min. of 6" below plate.) Secure the standpipe with a rubber coupler (FERNCO type).
- Center the SNOUT directly over the outlet pipe so that the entire pipe is covered and so that the exit pipe is inside the hood and is as close to the bottom edge of the hood as possible. <u>NOTE!! This is the correct location for a SNOUT with a Flow</u> Restrictor.

### Flow Restrictor Basic Kit

- (1) Flow Restrictor
- (1) PSA backed gasket strip(s)
- (5) 1" X 1/4" stainless steel bolts
- (5) 1/4" stainless steel lock-nuts

### Flow Restrictor Optional Full Kit

- (1) Flow Restrictor
- (1) PSA backed gasket strip
- (5) 1" X 1/4" stainless steel bolts
- (5) 1/4" stainless steel lock nuts
- (1) size x size rubber coupler (FERNCO type)
- (1) PVC pipe

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### 6. AVAILABILITY AND COST

The SNOUT is manufactured by Best Management Products, Inc. and is available through them at:

BEST MANAGEMENT PRODUCTS, INC.

53 Mt. Archer Rd.

Lyme CT 06371

800-504-8008 860-434-0277 860-434-3195 fax.

Email: tim@bmpinc.com or duran@bmpinc.com

OR from authorized distributors of quality wastewater products nationally and in Canada. For an up-to-date list of suppliers and suggested pricing, visit our web site at www.bmpinc.com/

### 7. WARRANTY

Best Management Products, Inc. warrants for a period of one year from date of delivery to the original purchaser that the product is free from defects in material and workmanship. BMP, Inc. makes no other warrant of any kind, expressed or implied, in fact or in law, including without limitation, the warranty of merchantability or the warranty of fitness for a particular purpose other than the warranty set forth above. Failure to follow the instructions for installation provided by BMP, Inc. will void this warranty.

### 8. MAINTENANCE

The catch basin should be emptied of debris and the accumulated solids removed as required by site conditions or once a year. The SNOUT itself requires no real maintenance other than routine inspection and rinsing with a hose or pressure washer during the cleaning sequence of the catch basin and flushing the anti-siphon vent with water or air to verify that it is clear.

### 9. TECHNICAL SUPPORT

For technical consultation or additional information, and for custom design and fabrication services, please contact

T.J. Mullen at (888) 354-7585 (tjm@bmpinc.com) or Lee Duran at (800) 504-8008 (duran@bmpinc.com).

Visit our web site at: http://www.bmpinc.com

