# SEDIMENT FILTER BAG

# PRODUCT DESCRIPTION

Sediment Filter Bags are designed to control and filter silt and sediment-laden water during dewatering activities. Filter Bags are constructed of non-woven geotextile material that filters soil particles greater than 150 microns (.150 mm), while allowing discharge water to pass though the bag. Each bag has a sewn-in spout to accommodate a discharge hose of up to six inches (6"). The amount of discharge water a bag can effectively filter depends upon such factors as the flow rate of the pump, the amount and type of sediment, degree of the slope, and the permeability of the underlying surface. Filter Bags are available in three standard sizes:  $6.25' \times 15'$ ,  $15' \times 15'$ , and  $15' \times 30'$ . Custom sizes are available.



# **COMMON APPLICATIONS**

Use during dewatering activities for construction of Highways, Utilities, Bridges, Marinas, Pipelines and Water Well Drilling Sites

## FEATURES AND BENEFITS

- Easy to Install
- Cost effective
- Meet stringent water discharge standards
  - · Easy to transport
  - Site cleanup made easy
    - Sewn in spout

# **INSTALLATION GUIDELINES**

• Lifting straps (not included) can be placed under the filter bag to facilitate easy removal.

• Unfold filter bag on a stabilized area over either a bed of straw evenly distributed at a rate of one (1) bale per 30 square feet, or on an aggregate pad constructed of #57 stone at a minimum depth of three inches (3"). The filter bag should not be placed on bare soil.

• Insert discharge pump hose into the filter bag spout a minimum of six inches (6") and tightly secure the hose with tie wire or a pipe clamp to prevent water from flowing out of spout without being filtered.

# SIZE, PUMPING RATE AND CAPACITY

Product Number	Dimensions	Geotextile Weight	Maximum Initial Pumping Rate	Capacity Cu. Ft.	Shipping Weight in pounds	UPS
FB1	6.25' x 15'	10 oz.	800 gals./minute	95	14	Yes
FB3	15' x 15'	10 oz.	2000 gals./minute	225	38	Yes
FB4	15' x 30'	10 oz.	4000 gals./ minute	450	76	No
Custom Siz	zes Available.					

## MAINTENANCE

Monitor and evaluate entire pumping and filtering operation to assure that the bag continues to function properly. As the bag collects sediment particles the flow from the bag will be reduced. Replace the filter bag when it is 1/2 full of sediment or when the sediment has reduced the discharged flow rate to an impractical rate. Overfilling, extreme pumping rates, and high sediment concentration can cause the filter bag to burst.



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## **SEDIMENT FILTER BAG SPECIFICATIONS**

## 1.0 DESCRIPTION:

1.1 This work is furnishing, installing, maintaining and disposing of a Sediment Filter Bag. The purpose is to control sediment discharge in any dewatering or pumped water application.

### 2.0 MATERIALS:

2.1 FB-3 15' x 15' Sediment Filter Bag as manufactured by: Frank Roberts & Sons Inc. 1130 Robertsville Road, Punxsutawney, PA 15767 Phone: 1-800-262-8955 Fax: 1-814-938-0880

2.2 The geotextile fabric shall be a non-woven fabric with the following properties:

#### 4.0 MAINTENANCE

4.1 Pump flow rates are not to exceed 50% of maximum flow rate as indicated by the manufacturer. Monitor and evaluate entire pumping and filtering operation to assure that the bag continues to function properly. Replace the filter bag when it is 1/2 full of sediment or when the sediment has reduced the discharged flow rate to an impractical rate or as directed by the inspector on-site.

4.2 Dispose of Sediment Filter Bag after use in a manner satisfactory to the engineer/inspector or in one of the following ways:

4.2.a Cut open the filter bag and remove the visible fabric, level and seed contents of the filter bag.

4.2.b Remove the filter bag and contents to an approved off-site disposal area.

5.0 Measurement and Payment

5.1 Lump sum payment based on the actual number of Sediment Filter Bags used and shall include materials, labor, and equipment necessary to install, maintain, and dispose of Sediment Filter Bags.

Properties	Test Method	Units	MARV			
Grab Tensile Strength	ASTM D-4632	lbs.	270			
Grab Elogation	ASTM D-4632	%	50			
Trapezoid Tear	ASTM D-4533	lbs.	100			
Puncture	ASTM D-4833	lbs.	150			
Mullen Burst	ASTM D-3786	psi	450			
Permittivity	ASTM D-4491	sec.	1.3			
Permeability	ASTM-D-4491	cm/sec	.35			
AOS	ASTM-D-4751	U.S. Sieve	100 (.150 mm)			
UV Resistance (500 hrs.)	ASTM D-4355	%	70			
Water Flow Rate	ASTM-D-4491	gpm/ft	110			
Water Flow Rate	ASTM-D-4491	cu ft/sec/ sq ft	.189			
Seam Strength	ASTM-D-4632	lbs.	250			
*MARV: Minimum Average Roll Values						

2.3 The Sediment Filter Bag Seams shall be a double 401 lock chain stitch seam with a 250 lbs./inch sewn seam strength, tested in accordance with ASTM D-4632.

2.4 The Sediment Filter Bag shall have a sewn-in spout large enough to accommodate a six inch (6") diameter discharge hose.

## 3.0 CONSTRUCTION

3.1 Unfold filter bag on a stabilized area over either a bed of straw evenly distributed at a rate of one (1) bale per 30 square feet, or on a aggregate pad constructed of #57 stone at a minimum depth of three inches (3"). Filter bag should not be placed on bare soil.

3.2 Insert discharge pump hose into the filter bag spout a minimum of six inches (6") and tightly secure the hose with tie wire or pipe clamp.



