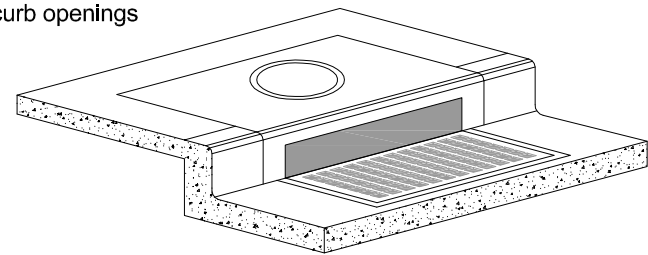


**ERTEC® Combo Guard™** – For drainage inlets with grate and curb openings  
Installation Guide

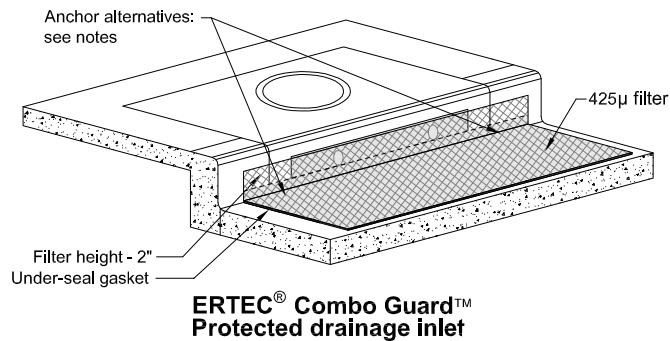
Grate Size	Combo Guard™ Size
24" x 20"	CG 28" x 22"
36" x 18"	CG 48" x 22"
36" x 20"	CG 48" x 22"
40" x 18"	CG 48" x 22"
40" x 24"	CG 48" x 27"
42" x 28"	CG 48" x 30"

**Construction Details**  
 \* Filter height = 2 inches  
 \* UV resistant HDPE outer jacket  
 \* Under-seal gasket to prevent underflow  
 \* CG height = 6 inches (vertical component)

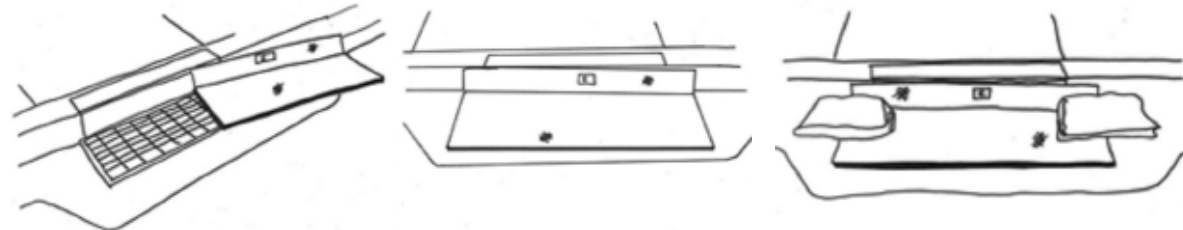
- Installation Notes**
- Placement:** Place CG tightly against curb opening and cover entire grate. CG should extend at least 2 inches past grate towards street.
  - Overlap for long openings:** Overlap CG units at longer openings.
  - Anchor:** Anchor CG so that water cannot flow behind it.
  - Alternate anchor methods:** **A)** Install gravel bags at each side of CG - half-on and half-off the edges. Use half-filled gravel bags (15 or 20 lbs). Round rock is recommended. **B)** Attach with 16 gauge tie-wire. Cut wire to 18" length. At each corner of CG, feed one end of wire down through CG, around grate bar, and back up thru CG. Above ground, twist wires several times, cut-off excess. **C)** Fasten with concrete anchors/nails at the outside edges of CG.



Unprotected drainage inlet



ERTEC® Combo Guard™ Protected drainage inlet



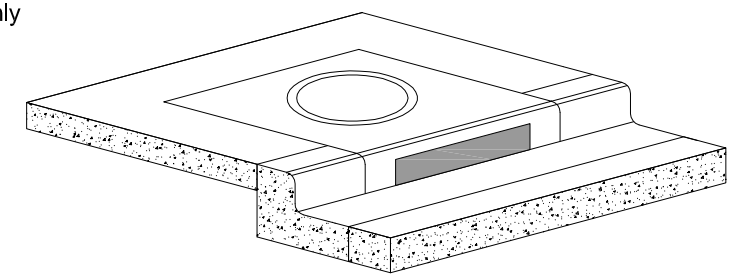
**ERTEC® Curb Inlet Guard™** – For drainage inlets with curb openings only  
Installation Guide

**Table 1**

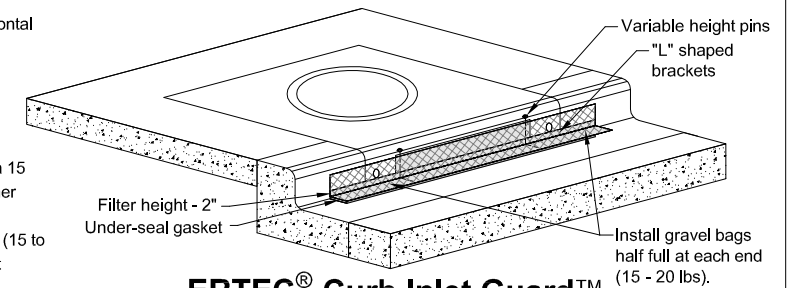
Inlet Size	# of CIG Segments
5'	1
10'	2
15'	3
20'	4

**Construction Details**  
 \* Minimum 2 integrated "L" Brackets  
 \* Minimum 2 variable-height pins for curb  
 \* Filter height = 2 inches  
 \* UV resistant HDPE outer jacket  
 \* Under-seal gasket to prevent underflow  
 \* CIG height = 8 inches  
 \* CIG length = 6.25 feet

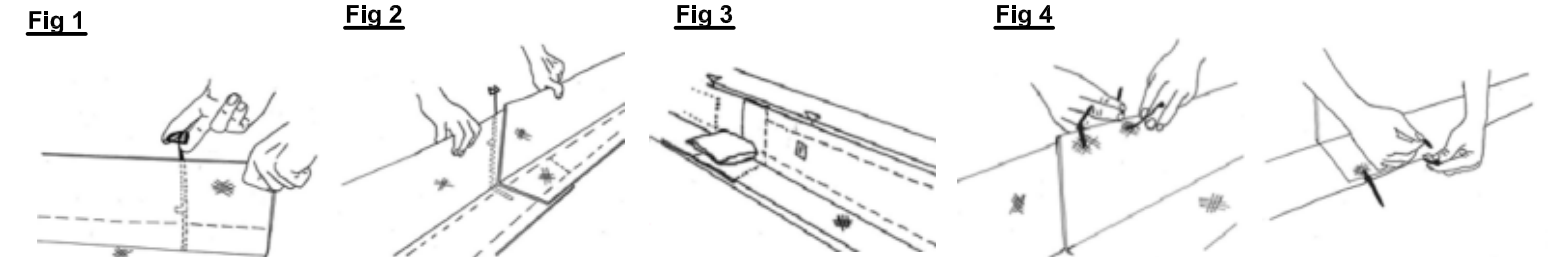
- Installation Notes**
- Placement:** Place CIG tightly against drain opening with metal variable height pins at top and horizontal flap pointing away from curb. Position CIG so that water cannot flow behind.
  - Change height for high openings:** for high curb openings, extend variable height pins upward as needed (Fig 1). Twist to lock.
  - Interconnecting for long curb openings:** Overlap segments so the bottom gasket provides a continuous seal. One end of each segment has a cut-out in the gasket layer for overlapping (Fig 2). Each 6.25' segment fits a 5 foot opening or smaller. Use 2 segments for 8 to 10 foot opening, 3 for a 15 foot opening, etc. (Table 1). Position gravel bag at overlap (Fig 3). If necessary tie segments together with rebar tie-wire or cable-ties (Fig 4).
  - Alternative anchor methods:** **A)** Install gravel bags at each end and at overlaps. Use ½ full bags (15 to 20 lbs) with round rock for low profile and best traffic avoidance. Use clean gravel at drain inlets, not sand. Select bags with long UV resistance and toughness for resistance to traffic. Or where it is not possible to install gravel bags due to traffic proximity, **B)** anchor with concrete anchors, or masonry nails, one at each end or **C)** secure with outdoor caulking around edges.



Unprotected drainage inlet



ERTEC® Curb Inlet Guard™ Protected drainage inlet



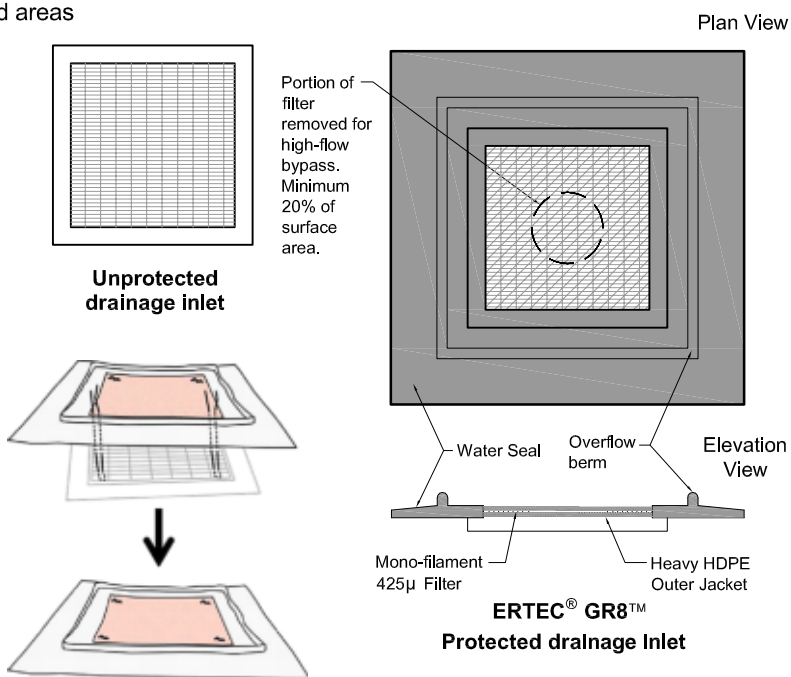
**ERTEC® GR8 Guard™** – For drainage inlets with grates in paved areas  
Installation Guide

**Table 1**

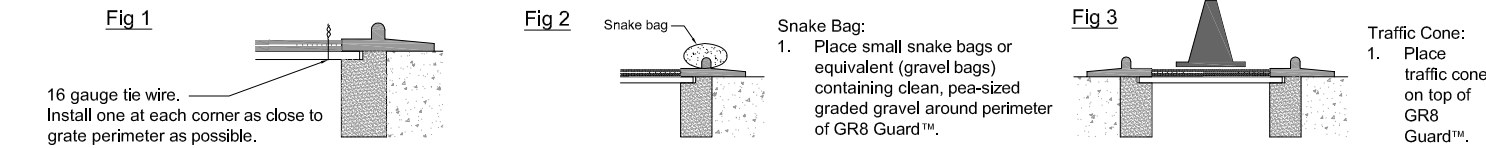
Grates less than	GG size
13"X13"	GG 13"X13"
20"X20"	GG 20"X20"
28"X28"	GG 28"X28"
36"X24"	GG 36"X24"
36"X36"	GG 36"X36"
42"X28"	GG 42"X28"
48"X36"	GG 48"X36"
48"X48"	GG 48"X48"

Custom sizes are available.

- Installation Notes**
- Placement:** Select correct size (Table 1). DO NOT remove grate. Lay GR8 Guard™ on top of grate. GR8 Guard™ shall extend at least 3 inches beyond grate in each direction.
  - Anchor methods:** **A)** Attach with 16 gauge tie-wire. Cut wire to 18" length. At each corner of GR8 Guard™, feed one end of wire down through GR8 Guard™, around grate bar, and back up thru GR8 Guard™. Above ground, twist wires several times, cut-off excess (Fig 1). **B)** Place small snake bags or equivalent (gravel bags) containing clean, pea-sized graded gravel around perimeter of GR8 Guard™ (Fig 2). **C)** Place traffic cone on top of GR8 Guard™ (Fig 3).
  - Clean:** Accumulation of leaves, debris and sediment can cause backups! Clean after every storm or as necessary.
  - Protect:** In stop and go traffic areas where exposed to constant tire abuse, it is useful to place traffic cones or delineators on or near GR8 Guard™ to discourage run-overs. GR8 Guard™ works well with periodic run-overs, but does not survive long in constant stop and start traffic.



ERTEC® GR8™ Protected drainage Inlet



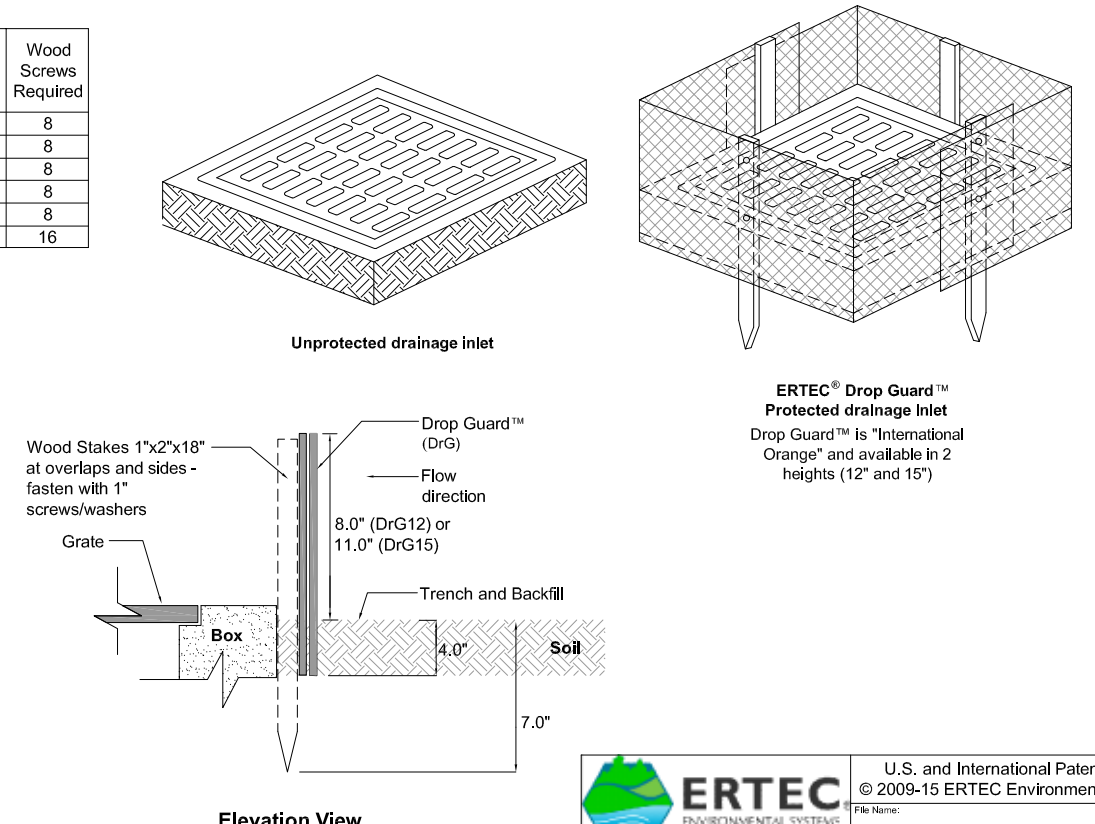
**Maintenance:** Perform maintenance as required. Inspect following rainfall events and at least daily during prolonged rainfall. Maintain to provide an adequate sediment holding capacity. Debris shall be removed daily and sediment shall be removed when the sediment accumulation reaches 50% of the barrier height. Removed sediment shall be incorporated in the project at designated locations.

**Important:** All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each project for their application. ERTEC Environmental Systems makes no warranties as to the accuracy of completeness of the information, and disclaims any liability regarding its use. ERTEC Environmental System's only obligations are those in the ERTEC Environmental Systems Standard Terms and Conditions of Sale for this product, and in no case will ERTEC Environmental Systems or its distributors be liable for any incidental indirect or consequential damages arising from the sale, resale, use or misuse of the product. Specifications are subject to change without notice. In addition, ERTEC Environmental Systems reserves the right to make changes, without notification to Buyer, to processing or materials that do not affect compliance with any applicable specification.

**ERTEC® Drop Guard™** – For drainage inlets in ditches and fields  
Installation Guide

Size of Concrete Apron	Linear Footage (ft)	Drop Guard 7' Panels Req'd	Wood Stakes Required	Wood Screws Required
2'x2'	8	2	4	8
2'x3'	10	2	4	8
3'x3'	12	2	4	8
3'x4'	14	3	4	8
4'x4'	16	3	4	8
5'x5'	20	4	8	16

- Installation Notes:**
- Trench around grate or concrete apron to a minimum depth of 4".
  - Wrap Drop Guard™ around outside of concrete apron or grate. Bend sharply at corners for tight fit.
  - Overlap panels by 4" minimum (panels are 7 ft. long). See Table 1 for number of panels required.
  - Install stakes (1"x2"x18") on inside or outside at overlaps and in center of each side. Drive stakes so that tops are flush with top of Drop Guard™. Fasten each stake to Drop Guard™ with two 1" wood screws. Backfill soil.
  - After installation, it is recommended to stabilize the soil around the drain inlet with straw mulch or erosion control blankets. Drop Guard™ is highly effective when used in combination with other surface soil erosion/re-vegetation practices such as erosion control blankets, hydraulic mulching, etc.



ERTEC® Drop Guard™ Protected drainage Inlet Drop Guard™ is "International Orange" and available in 2 heights (12" and 15")

1150 Ballena Blvd, Suite 250  
Alameda, CA 94501  
P. 866-521-0724  
F. 510-521-3972  
<http://www.ertecsystems.com/>

U.S. and International Patents Apply  
© 2009-15 ERTEC Environmental Systems  
File Name:  
ERTEC - Top Guard - Installation Guides.dwg

Layout Name:  
**P1 Details**

Scale: NONE    Default Print Size: 11" x 17"    Page: 1 of 1