

# STAINLESS STEEL EL RAINSTOPPER

## SPECIFICATIONS



### INTENT

To provide a system for eliminating inflow to your municipality's sanitary sewer system, while reducing the infiltration of street level contaminants, controlling the escape of undesirable sewage odor, and minimizing traffic related manhole noise and cover displacement.

## 1 SCOPE

Under this item, the contractor shall supply and install to manufacturer's recommendations a Rainstopper manhole insert as shown on contract drawings and specified hereafter.

## 2 MATERIALS AND DESIGN

### 2.1 GENERAL

The Rainstopper insert and components shall be manufactured of materials resistant to corrosion from atmospheres containing hydrogen sulfide and dilute sulfuric acid.

### 2.2 INSERT

The insert body shall be manufactured of 304 stainless steel with a thickness of not less than 18 gauge. The insert shall have a straight side design to allow a loose fit into ring for easy removal. The insert manufacturer must furnish a load test verification showing a load test failure in excess of 3000 lbs. For added strength, no less than three (3) ribs shall be stamped in the bottom of the dish.

### 2.3 GASKET

The gasket shall be extruded onto the stainless dish with a synthetic elastomer adhering to the following ASTM physical property standards:

Tensile Strength (ASTM D412)	335 psi
Elongation (ASTM D412)	400-600%
Shore Hardness (D2240)	25 Shore A
Adhesion to Stainless (D4541/ASTM D7234)	580 psi

Gasket must be compatible with the insert material to form a long-lasting bond in wet or dry conditions. The gasket must be tested at 16.5 ft of waterhead for > 300 hours with no leaks and certified by an independent lab.

### 2.4 RELIEF VALVE

The gas relief valve shall be designed to release at a pressure of .5 to 1.5 PSI and have a water leak down rate no greater than 5 gallons per 24 hours. The valve shall be installed in the insert by means of a hole tapped in the insert by the manufacturer. The valve shall be made of nitrile for prevention of corrosion from contact with hydrogen sulfide, dilute sulfuric acid and other gases associated with waste-water collection systems.

## 2.5 HANDLE

The dish shall have a handle of 3/16" plastic-coated stainless-steel cable installed on the body of the dish. The handle shall be attached with a #6 high-grade stainless-steel rivet. The cable shall be braided in a manner which resists cutting with common bolt cutters. The cable terminal and eye shall be stainless steel.

## 3 ACCEPTANCE AND STORAGE

Long term exposure to UV rays will deteriorate the EL gasket, so care should be taken to protect the stored units prior to installation. Manufacturer recommends either leaving polyethylene shrink wrapped units on pallets if stored outside or storing unpackaged units in an area protected from direct sunlight.

## 4 INSTALLATION

The manhole frame rim shall be free of all dirt and debris prior to the installation of the insert. The Rainstopper insert should be fully seated around the manhole frame rim to ensure against water seepage between the insert and manhole frame rim. A generous coating of grease on the gasket is helpful in seating and prevents rust.

## 5 MANUFACTURER

The manhole insert shall be manufactured by Rainstopper, Inc. at 6905 Westport Ave, Shreveport, LA, 71129 (318-687-4330), or prior approved equal hereafter.

## 6 LIMITED WARRANTY

Limited fifteen-year replacement warranty: If an insert is defective in materials or workmanship within fifteen years of purchase, it will be replaced free of charge by Rainstopper if not damaged through mishandling, accident, or abnormal use, and excludes replacement of handle, valve, and gasket.

