

STAINLESS STEEL RAINSTOPPER WITH 50-YEAR EL GASKET SPECIFICATION

➔ **INTENT:** To reduce inflow, street-level contaminants, sewer odors, traffic-related manhole noise, and cover displacement in municipal sanitary sewer systems.

① **SCOPE:** The contractor shall supply and install a Stainless Steel Rainstopper insert with Extended Life (EL) gasket per manufacturer recommendations, contract drawings, and these specifications.

② MATERIALS AND DESIGN

2.1 GENERAL

The Rainstopper insert and components shall be manufactured from materials resistant to hydrogen sulfide, dilute sulfuric acid, sewer gases, road oils, and other conditions commonly encountered in municipal wastewater collection systems.

2.2 INSERT

The insert body shall be manufactured from 304 stainless steel with a minimum thickness of 18 gauge. The manufacturer shall provide load-test verification demonstrating failure at a load exceeding 3,000 pounds. No fewer than three (3) reinforcing ribs shall be stamped into the bottom of the insert for added strength and rigidity. The insert shall be designed so the manhole cover does not contact the relief plug during normal installation or removal.

2.3 EXTENDED LIFE (EL) GASKET

The Extended Life (EL) gasket shall be designed for a fifty (50) year service life under normal installation and operating conditions.

The gasket shall be extruded directly onto the stainless steel insert using a synthetic elastomer meeting the following ASTM physical property standards:

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

The gasket shall be compatible with the insert material to provide a durable bond in wet and dry conditions.

Upon request, the manufacturer shall provide independent laboratory certification demonstrating that the gasket has been tested at 16.5 feet of water head for more than 300 hours with no leakage.

2.4 NITRILE GAS RELIEF PLUG

The insert shall include a Rainstopper Nitrile Gas Relief Plug designed to release at 0.5 to 1.5 PSI with a water leak-down rate not exceeding 5 gallons per 24 hours.

The relief plug shall be factory-installed in a threaded opening and manufactured from nitrile material with no metallic components subject to corrosion from hydrogen sulfide, dilute sulfuric acid, sewer gases, or similar wastewater conditions.

2.5 HANDLE

The insert shall include a 3/16-inch plastic-coated stainless-steel cable handle attached with a #6 high-grade stainless-steel rivet.

The cable shall be braided to resist cutting with common bolt cutters. The cable terminal and eye shall be stainless steel.

The handle shall not interfere with manhole cover installation or removal.

③ ACCEPTANCE AND STORAGE

Long-term exposure to ultraviolet (UV) rays may deteriorate the EL gasket. Stored units shall therefore be protected from direct sunlight prior to installation.

When stored outdoors, units should remain shrink-wrapped on the pallet. Unpackaged units shall be stored in an area protected from direct sunlight.

④ INSTALLATION

The manhole frame rim shall be cleaned of all dirt, debris, rust scale, and other foreign materials prior to installation.

The Rainstopper insert shall be fully seated around the manhole frame rim to minimize water seepage between the insert and frame.

A generous coating of grease on the gasket is recommended to aid seating, improve sealing, and help prevent corrosion.

⑤ MANUFACTURER

The manhole insert shall be manufactured by:

Southwestern Packing and Seals Company, Inc. DBA Rainstoppers

6905 Westport Avenue

Shreveport, LA 71129

Phone: (318) 687-4330

Email: info@rainstoppercompany.com

Website: www.rainstoppercompany.com

⑥ AMERICAN MADE / BABA COMPLIANCE

Rainstopper inserts are manufactured in the United States and comply with Build America, Buy America (BABA) requirements applicable to federally funded infrastructure projects.

⑦ LIMITED WARRANTY

Rainstopper provides a limited fifteen-year replacement warranty.

If an insert is found to be defective in materials or workmanship within fifteen (15) years of purchase, Rainstopper will replace the insert at no charge, provided the product has not been damaged through mishandling, accident, improper installation, or abnormal use.

This warranty excludes replacement of handle, relief plug, and gasket components.