



TPO INFLOW DEFENDER MAX™

Technical Sheet

The TPO Inflow Defender Max™, inflow dish was designed to significantly prevent rainfall from entering the sanitary sewer system through the manhole cover and upper frame area. The TPO Inflow Defender Max™ inflow dish is part of Utility Sealing Services complete AIIM Wastewater Inflow and Infiltration Abatement program.



Features

- Neoprene gasket
- Effectively blocks abrasive debris
- Eliminates excess flow
- Fully assembled - no special tools required
- Thermoplastic polyolefin (TPO) impact resistant; long lasting; resists heat & cold
- Molded structural ribs
- Standard SS316 Eyebolt Hardware
- Custom logos on orders of 100 or more

Installation Procedures

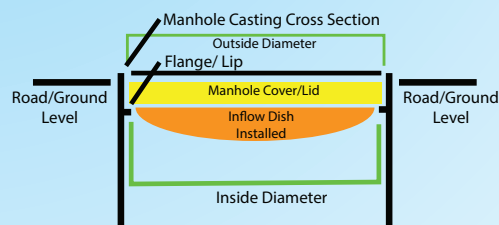
- 1) Remove the manhole cover
- 2) Clean the manhole flange area of dirt and debris to ensure accurate measurement
- 3) Locate manhole frame Inside Diameter (ID) and measure across ID with a minimum of two dimensional readings for accuracy-record the smallest measurement to the nearest 1/8"
- 4) Locate manhole frame Outside Diameter (OD) and measure across OD with a minimum of two dimensional readings for accuracy-record the smallest measurement to the nearest 1/8".

Benefits

- Reduces maintenance costs
- Eliminates motor run-time spikes, significantly reduces sewerage treatment costs
- Custom sized - installs quickly and easily
- Impact resistant; long lasting; resists heat and cold
- Ribs prevent dish from falling into manhole
- Made in the USA

The following ring/covers are not candidates for inflow dishes:

- Offset ring/cover
- Hinged lids
- Composite bolt down lids
- A-Frame castings



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TPO INFLOW DEFENDER MAX™

Specification Sheet



General Description

The USSI Manhole TPO Inflow Defender Max™ (Inflow Dish) was designed to significantly abate rainfall “Inflow” from entering the sanitary sewer system through the manhole cover and upper frame area. Inflow Dish shall withstand all gases associated with waste water collection systems.

Inflow Dish Body

The inflow dish body shall be manufactured from high density TPO material, comply with UL Standard, and meet all associated ASTM specifications related to TPO. Dish thickness shall be a uniform 1/8” thick or greater. Inflow dish shall have a minimum depth at the 90° vertical point of 3.8 inches and a minimum depth of five inches at the center point. Inflow dish body to be fabricated with molded ribbing members in bowl area for structural integrity. Inflow Dish to have smooth radius molded edges for additional strength and prevention of cracking. Inflow dish to have manufacture date (Month & Year) permanently molded in dish body for future warranty identification.

Gasket Seal

The gasket seal shall be made of closed cell neoprene material and have a pressure sensitive adhesive on one side for adhering to inflow dish body, seating rim. Gasket to be 1/2” wide and shall have a minimum thickness of 1/2”.

Lift Strap

The Lift Strap shall be made from SS 316 eye bolt hardware.

Installation

For proper abatement results, the inflow dish, when installed, must seat fully flush within the manhole frame rim seat area. Frame must be cleaned of all dirt and debris prior to installation.

Maintenance

USSI recommends clients inspect inflow dish gasket seal on an annual basis. To ensure proper abatement performance, replacement of worn or missing gaskets may be required.

Warranty

Five-year warranty on manhole inflow dishes standard. Manufacture date molded into Inflow Dish Body. Gasket Seal not included. Replacement gasket seals are available from USSI.

Manufacture

The TPO Inflow Defender Max™, Manhole Inflow Dish, shall be furnished exclusively by Utility Sealing Systems Incorporated, Venice, Florida.

Ordering Criteria

To ensure proper fit with manholes, inflow dishes are manufactured to specific measurements provided by the client. To order, please see USSI TPO Inflow Defender Max™ Dish Technical Sheet.

Engineering Approval

Inflow Dish manufacturer must provide specifying engineer with their inflow dish specifications and samples for review and acceptance.

Additional Abatement Products & Technologies

For complete information on other Waste Water Infiltration & Inflow abatement products and technologies, please contact USSI.

TPO Inflow Defender Max™

Product Description



(TPO) is designed for thermoformed exterior or interior applications that require low-temperature toughness and dimensional stability. This extrusion-grade material exhibits enhanced melt strength for a wide thermoforming processing window.

PRODUCT CHARACTERISTICS

Status	Commercial: Active
Test Method used	ISO
Availability	North America
Processing Method	Extrusion Thermoforming
Features	Good Dimensional Stability, Good Melt Strength, LowTemperature Toughness
Typical Customer Applications	Panels & Profiles, Exterior Applications, Bumpers,Industrial

TYPICAL PROPERTIES

Physical	Method	Value Unit
Density	ISO 1183	1.12 g/cm3
Melt flow rate (MFR) (230 °C/ 2.16 kg)	ISO 1133	0.60 g/10 min

Mechanical	Method	Value Unit
Tensile Stress at Yield (50 mm/min) Note: 150x10x4 mm specimen	ISO 527-1, -2	21.0 MPa
Flexural modulus (2 mm/min) Note: 80x10x4 mm specimen	ISO 178	2100 MPa