# PARSON STAINLESS STEEL MANHOLE INSERT

**DESCRIPTION:** The manhole insert is manufactured from 18 gauge 304 stainless steel and have been proven effective in reducing or preventing surface water inflow to the collection system, through the manhole lid. Operating, utility and maintenance costs for plant equipment and pumps are minimized, due to reduced flow during heavy rainfall. PARSON STAINLESS STEEL MANHOLE INSERTS are a practical solution to expensive plant expansions, new construction moratoriums or high sewage treatment costs.

**GASKET:** The gasket is manufactured from closed-cell neoprene material and is attached by a pressure sensitive adhesive, to the weight-bearing surface of the dish.

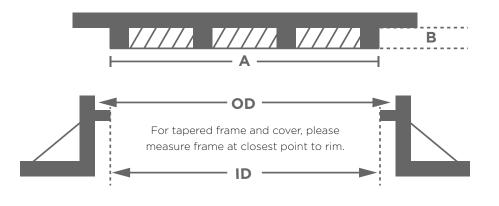
**REMOVAL:** The manhole insert shall have a corrosion resistant 1" heavy weight polypropylene strap installed for easy removal and re-installation into the manhole frame.

One Plastic Coated Stainless Steel handle pop riveted to the insert with a #6 high grade Stainless Steel rivet are also available.

**VENTING:** The ventilation system utilizes one valve manufactured of a Polypropylene Ethlylene compound. The valve material shall be unaffected by temperature within a range of -70°F to 350°F. The valve body and components shall be corrosion and wear resistant and be designed to release gas pressure at a minimum of 1 psi. and have a water leak-down rate no greater than 5 gallons per 24 hours.

#### **MEASURING INSTRUCTIONS:**

Measurements needed for proper installation of Parson Stainless Steel Manhole
Inserts:





### ADVANTAGES:

- Dramatically reduces sewage treatment costs
- Requires no maintenance
- Easy installation and removal
- Extremely durable
- Keeps grit, sand, salt, chemical spills, foreign objects, road oils, etc. from entering the Collection System

### INSTALLATION:

- No special tools are required.
- The manhole frame rim shall be cleaned of all dirt and debris before placing the manhole insert upon the rim.
- The manhole insert shall be fully seated around the manhole frame rim.
- The manhole cover is replaced as before, and the installation is complete.



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## SPECIFICATION: PARSON STAINLESS STEEL MANHOLE INSERT

### 1. SCOPE

- 1.1 Contractor shall furnish PARSON STAINLESS STEEL MANHOLE INSERTS as called for in the specification.
- 1.2 The PARSON MANHOLE INSERT shall effectively reduce or prevent surface water inflow through manhole covers. The insert shall also prove effective in keeping grit, sand, salt, chemical spills, foreign objects, road oils, etc. from entering the manhole and collection system lines.

### 2. MATERIAL & DESIGN

- 2.1 The PARSON STAINLESS STEEL MANHOLE INSERT and components shall be manufactured of materials resistant to corrosion from atmospheres containing hydrogen sulfide and dilute sulfuric acid.
- 2.2 The PARSON STAINLESS STEEL MANHOLE INSERT 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 3,000 lbs. For added strength, no less than three (3) ribs shall be stamped in the bottom of the dish.
- 2.3 The gasket shall be made of closed-cell neoprene, and shall have a pressure sensitive adhesive on one side. The gasket shall be installed by the manufacturer and must be compatible with the insert material to form a long lasting bond in wet or dry conditions.
- 2.4 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 from prevention of corrosion from contact with hydrogen sulfide, dilute sulfuric acid and other gases associated with wastewater collection systems.
- 2.5 The PARSON STAINLESS STEEL MANHOLE INSERT shall have a handle made of 1" wide heavy nylon webbing. The handle shall be attached with a #6 high-grade stainless steel rivet and washer. The handle shall be installed in such a manner that it does not interfere with the installation of the manhole lid. The handle shall be able to withstand a pull force of 500 pounds of force before it fails or separates from the insert.

## 3. INSTALLATION

The manhole frame shall be free of all dirt and debris prior to the installation of the PARSON STAINLESS STEEL MANHOLE INSERT. The PARSON STAINLESS STEEL MANHOLE INSERT should be fully seated around the manhole frame rim to insure 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.

## 4. TESTING

After installation of the PARSON STAINLESS STEEL INSERT, it shall not allow more than 1 gallon of inflow per 24 hours.





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