



The 100-Year, Corrosion-Proof, Factory-Assembled Manhole System

MagnaPlast™, the flagship HDPE sewer manhole system from Houston Polytank, sets a new standard for sewer infrastructure by combining a corrosion-proof, factory-assembled design with a 100-year service life.

MAGNAPLAST™ ADVANTAGES OVER CONCRETE

Corrosion-Proof, Certified Leak Free, Minimal Maintenance Burden

One-piece, factory-assembled HDPE structure that is pressure and vacuum tested and certified before shipment. Impervious to hydrogen sulfide, sulfuric acid, and sewer-system chemicals, eliminating the primary causes of concrete manhole failure and associated corrosion-related maintenance burdens.

Fast, Crane-Free Installation

Installs in approximately one-third the time of a short concrete manhole, with the time-savings advantage increasing as depth increases. Lightweight construction eliminates the need for cranes or heavy equipment, improving crew safety and reducing site complexity.

Easy Field Modification and 100-Year Service Life

Engineered for a 100-year service life with minimal maintenance. HDPE can be drilled or cut using simple carpentry tools for adding down pipes or custom penetrations. Factory-formed channels provide extremely smooth surfaces that improve flow and reduce buildup.

Integrated Anti Flotation System

A 6-ft HDPE concrete-fill tub at the base provides the weight needed to prevent flotation in high-water-table conditions. Concrete is isolated from all inlets and outlets. Each unit ships with the tub installed and includes proprietary cement for securing the threaded riser when selected. A flat-top version is available for installations using standard cast-iron covers.

TECHNICAL SPECIFICATIONS

Wall thicknesses by depth

- 1" thick for depths up to 6 ft
- 1.5" thick for depths from 7–20 ft
- 2" thick for depths greater than 20 ft

Inlets & Outlets

The manhole will accommodate inlets and outlets from 2" to 24" diameter, depending on project requirements. The system has 31 factory-assembled inlet configurations available, and additional field penetrations can be added easily because HDPE is field drillable.

Adjustable Riser System

The riser will have a 24"–30" ID that can be male and female threaded to allow for 9" height adjustment in the field.

Standard Dimensions

- Inside diameter: 48"
- Available depths: 4 ft to 20+ ft
- Manway opening: 24" standard, 30" option
- Channel cross slope: 2.08%
- Internal flow surfaces: Manning's $n = 0.010$

Traffic-ready manhole options

H-20/HS-25 capable designs are available.

Built to eliminate concrete failures and operate with minimal maintenance.

INNOVATION PROTECTED

MagnaPlast™ includes proprietary design elements covered under U.S. Patent No. 10,150,264.