

# Rovanco® Piping Systems



ISO 9001:2015  
CERTIFIED COMPANY

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**Pre-Engineered,  
Pre-Fabricated  
Steel Manholes**

**VS**

**Pre-Fabricated  
& Pour-In-Place  
Concrete  
Manholes**



## **Pre-Fabricated Steel Manholes by Rovanco**

- Arrive Ready to Set in Place & Connect to Exterior Piping
- Can Be Manufactured With Leak Detection Pre-Installed
- **1/2 The Cost Of Concrete Manholes**

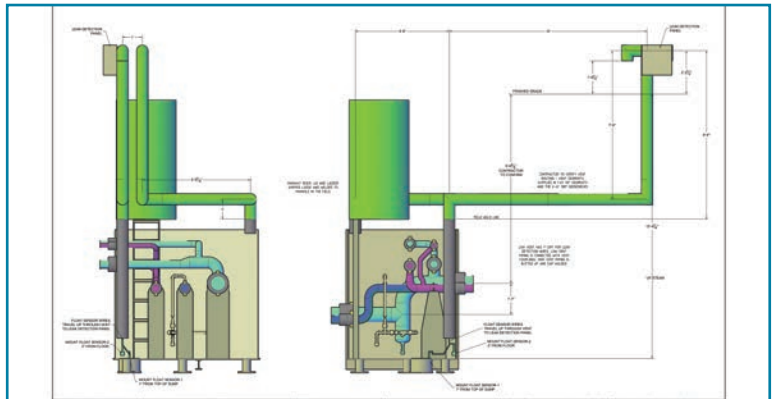
## Pre-Fabricated Steel Manholes

- Cost 1/2 as much as concrete manholes
- Construction is done in a controlled, level, labor-friendly environment
- Totally welded steel, pre-fabricated, pre-piped, pre-insulated & factory pressure tested – **watertight!**
- Has sump pit, air vents, manhole access, ladder for entry already installed
- Coated with a watertight 2 part marine grade submersible epoxy
- Steel manholes create a dry, well-ventilated environment
- Expansion joints, trap stations, anchor points with high vent & low point drains can be included
- **Can be installed in 1 day, save more than 5x's the time from start to finish**
- Lead times are fast, consult with Rovanco to establish a delivery time
- Each steel manhole can come equipped with leak detection already installed *(optional)*
- Utilizes a 50 year cathodic system with a sacrificial anode protecting the outer shell *(optional)*
- Can be built up to 45' long, 10' wide & 10' high
- Rovanco has been building steel pre-fabricated manholes since 1982

# Pre-Fabricated Steel Manholes by Rovanco



**Steel Manholes are built in factory environment, pre-fabricated, pre-piped, pre-insulated & factory pressure tested for 1/2 the cost of concrete!**



**Steel Manholes interiors can be customized to meet your specific needs with expansion joints, trap stations, anchor points & high vent & low point drains.**



**Steel Manholes can be installed 5x's faster. They arrive ready to drop in place & connect to exterior piping with Leak Detection already in place!**

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## Pre-Fabricated & Pour-In-Place Concrete Manholes



**Concrete Manholes will leak & fail resulting in costly repairs & extensive downtime.**



**Concrete Manholes cost 2x as much as steel & can take more than 5x's as long to install!**



**Concrete Manholes require regular rehabilitation because they are not watertight.**

## Pre-Fabricated & Pour-In-Place Concrete Manholes

- They WILL leak & fail...
- Failure causes damage to internal piping, fiber optics, cables & wiring
- Failure results in less service time, expensive repairs & creates dangerous situations
- Concrete manholes have an increased chance of steam pipe breaches, expansion joint & vent failure
- Concrete manholes do NOT have leak detection built into each one
- Cost 2x as much as a steel manhole to fully install
- Is very susceptible to corrosive Hydrogen Sulfide generated in sewer systems
- Requires costly rehabilitations on a regular basis once corrosion starts
- Rehabilitation such as chemical grouting, coating systems & structural re-lining are temporary and manholes will need to be replaced
- Takes more than 5x as long to install due to the process involved
- Has to be installed in the elements, increasing downtime, risk to installers and area residents

## Standard Specifications: Steel Pre-Fabricated Manholes

Manholes shall be custom fabricated to project specifications. The manholes shall be made up of the subcomponents listed below and shall be shipped complete from the plant to the job site. The following materials will be provided unless otherwise specified in the contract document.

### Carrier Pipe in Manholes:

The carrier piping in pre-fabricated manholes shall be identical to the piping of the pre-fabricated piping connecting to the manhole. Suitable supports for piping shall be provided where required.

### Insulation of Carrier Piping & Valves:

The insulation shall be Foamglas or removable insulation blanket in accordance with manufacturers' recommendations. Thickness for each pipe size shall be equal to that used in the adjacent conduit. Insulation shall be covered with a .016" thick metal jacket, fastened at maximum 18" centers with 32 gauge stainless steel strap conforming to ASTM A-167, type 304.

### Manhole Shell:

The body of the manhole shall be 3/8" minimum thick black steel plate conforming to ASTM A-36. The top and bottom plate shall be 1/2" minimum thick black steel plate conforming to ASTM A-36. The top or bottom plate shall be 2" larger in diameter than the body. Structural steel I-beams or channels, conforming to ASTM A-36, shall be welded to the top and bottom plate as required. Lifting eyes shall be attached to the top plate as required.

### Sump Pit:

A 12" diameter sump pit shall be located in every manhole. The pit shall be a minimum of 8" deep. The sump shall be constructed with 3/8" minimum steel plate conforming to ASTM A-36.

### Stub Outs:

Stub outs shall be located on the manhole at elevations and locations as required. These stub outs shall have the same carrier pipe, insulation and conduit/jacket and shall be made to fit with adjoining section of the conduit system.

### Air Vents:

Each manhole shall have two air vents for ventilation. They shall protrude through, and will be welded to, the top plate. One shall extend to 12" above the bottom plate and the other shall terminate 3" below the top plate. The vents shall extend at least 6" above grade or as specified in the contract documents. A 180 degree elbow (gooseneck) shall be provided with each vent line. The vent lines shall be constructed of 6" 10 gauge epoxy coated steel pipe. These are optional if manholes are not airtight.

### Manhole Access:

Access to the manhole shall be provided by a 36" minimum diameter, 1/4" minimum wall thickness steel tube conforming to ASTM A-139, which shall be welded to the top plate. The access tube shall extend a minimum of 6" above grade, or as specified in the contract documents. A cover shall be provided on the top of the access tube.

### Ladder:

A ladder for entry shall extend through the access tube down through the manhole body to the floor. The ladder rungs shall have non-slip surfaces and the ladder uprights shall be constructed of steel conforming to ASTM A-36.

### Valves and Internal Components:

Valves and internal components shall be provided as described in the contract documents.

### Insulation:

The insulation shall be foamglas in accordance with manufacturers' recommendations. Insulation shall be covered with aluminum jacket conforming to ASTM A-167.

### Protective Coatings:

The exterior surfaces of the manhole shall have a factory applied coating. The interior of the manhole and all internal components, excluding the jacket/insulated pipes and accessories, shall be coated with a high temperature coating.

### Installation:

The manholes shall be installed at the locations shown on plans. A monolithic concrete anti-flotation block shall be poured by the installing contractor, so as to provide adequate keying and shall be of sufficient size to prevent manhole flotation.

*Optional cathodic protection and leak detection supplied by Rovanco.*

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