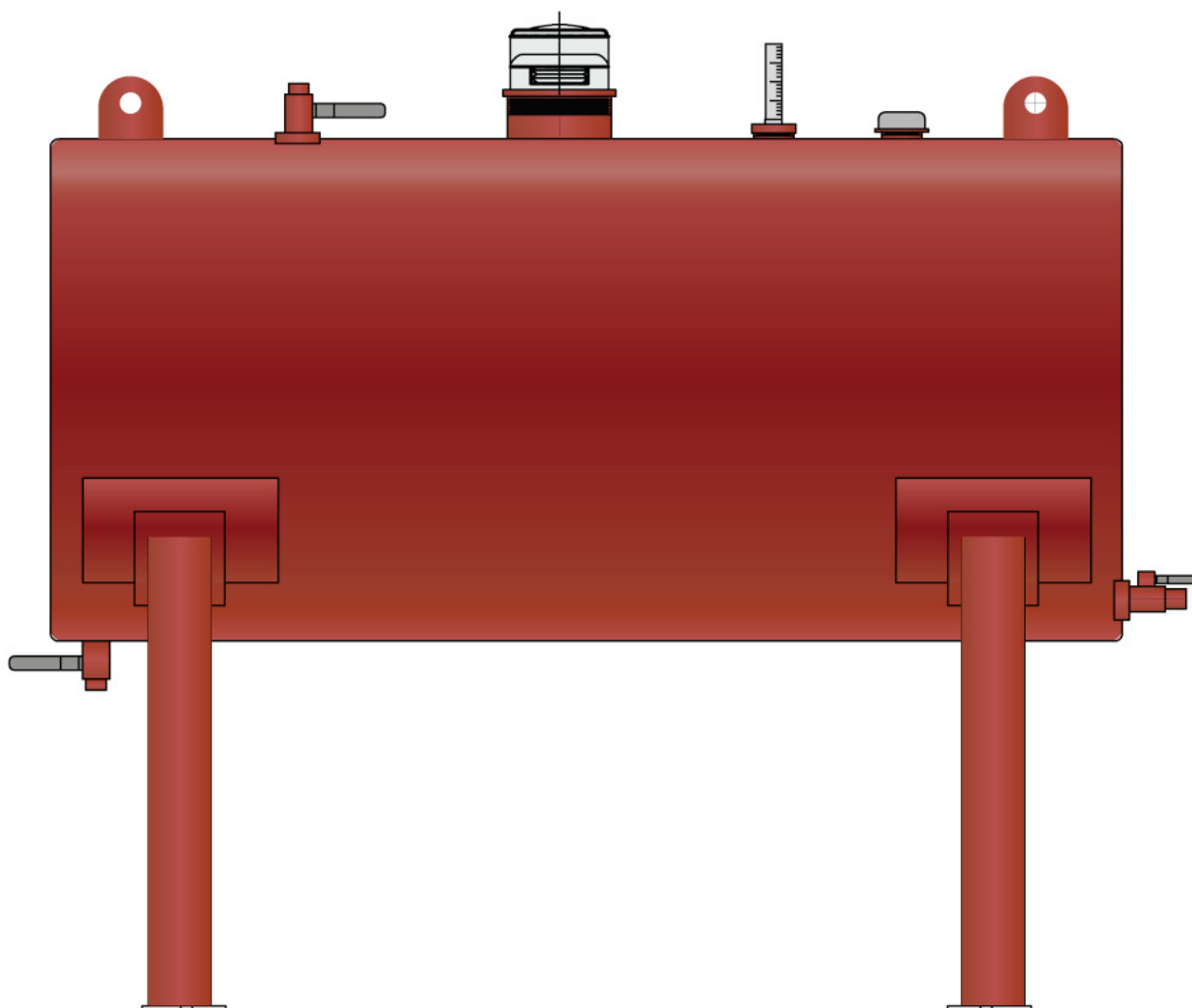


# ABOVE GROUND FUEL TANK

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INSTALLATION,  
OPERATION &  
MAINTENANCE

**MANUAL**



# ABOVE GROUND FUEL TANK

INSTALLATION OPERATION AND MAINTENANCE INSTRUCTIONS

## 1. SCOPE

These instructions apply to stationary installations of cylindrical tanks manufactured by NAFFCO. These tanks are designed to contain stable flammable and combustible liquids at atmospheric pressure (as classified by NFPA 30) with a specific gravity not exceeding that of water. Here are examples of fluids that can be stored in this tank: Fuel Oil, Diesel Fuel, Gasoline, Lubricating Oils .. etc.

Since these tanks are used in a broad range of applications, this document does not cover detailed but only general installation instructions. For specific details and regulations, you must refer to the appropriate codes and local regulations.

For all installations, you can refer to NFPA 30

- If the tank is used to supply Oil - Burning Equipment, you may refer to NFPA 31
- If the tank is installed on a farm or an isolated site, you can refer to NFPA 395.
- If the tank used in Motor Fuel Dispensing Facilities, Marine Refuelling and Repair Garages, you can refer to NFPA 30A and NFPA30.
- If the tank is used to supply Stationary Combustion Engines or Gas Turbines, you can refer to NFPA 37 and NFPA

## 2. TANK INSPECTION

Inspect the tank immediately upon reception. Minor dents and scratches may be acceptable and repaired on site. If damages affect the integrity and performance of the tank, please contact your distributor.

## 3. TANK HANDLING

This is a stationary tank. Do not use this tank to transport any product or move the tank unless it is empty. Never drag or drop the tank.

## 4. TANK INSTALLATION

The installation of the tank must be performed by a certified and qualified technician recognized by the authorities having jurisdiction. It is assumed that the installer possesses the skills, the tools and the appropriate documentation (codes and regulations) to install tank in proper and safe manner.

Condensation can form in the tank during its storage period . During winter months, before its installation, the tank must reside in a warm environment (above freezing level) for a period long enough to melt all the ice that might be present inside. Water must then be drained out of the tank prior to installation.

### 4.1. FOUNDATIONS AND ANCHORING

The tank shall rest on a foundation of concrete, masonry, piling or steel. This foundation has to be designed to minimize the uneven settling of the tank and to minimize the corrosion of the components resting on the foundation. The site should have all organic materials such as Sod or Bark removed and the soil must be mechanically compacted. A

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well-drained sub grade should then be utilized to provide appropriate drainage.

Clearance below the tank shall prevent any part of the tank, except for its base, to be in contact with the soil or foundation. Where a tank is located in an area subjected to flooding, measures shall be taken to prevent the empty tank from floating in water levels established as maximum flood levels

## 4.2. SUPPORT LEGS FOR CYLINDRICAL TANKS

Our cylindrical tanks are provided with four threaded leg supports. Tanks legs shall be 2 1/2" pipes threaded on one end. Leg sizes minimum 500 mm from bottom of the support angle. Tank leg shall be vertically straightened to level to support evenly the weight of the tank filled with fuel.

The installer must verify toward the fuel outlet is respected. This is a critical point of the installation and failure to comply with it will render the tank warranty NULL & VOID.

## 4.3. LOCATION OF TANK

The tank shall be located at a safe distance from property lines, public ways, important buildings and adjacent tanks. Refer to applicable codes and local authorities.

## 4.4. TANK PIPING

Before beginning the piping or the installation of accessories, remove shipping claps from each flange.

### 4.4.1. TANK VENT

Each tank shall be adequately vented to prevent the build-up of pressure or vacuum inside the tank when filling, emptying or when subjected to atmospheric temperature changes to atmospheric temperature changes. The vent size is about 4" as large as the largest filling or withdrawal connection and in no case be smaller than 1 1/4" nominal inside diameter.

### 4.4.2. OPENINGS BELOW LIQUID LEVEL

Each opening below liquid level through which liquid does not normally flow shall be plugged with a liquid tight closure.

### 4.4.3. OPENINGS ABOVE LIQUID LEVEL

All opening that remain unused after completion of the installation shall be properly sealed with a liquid tight metal threaded pipe plug.

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## 5. TESTING

These tanks must pass the appropriate test below at job site before being put in service. Apply internal hydrostatic pressure of not less than 5 PSI and verify the leak at all seams and welded areas.

**WARNING:** Over pressurization may cause tank to fail..

### 5.1. TESTING THE PRIMARY TANK

- Make sure the tank opening is free of any obstruction and is properly vented to atmosphere.
- Pressurize the tank to 5 PSIG
- Make sure all primary tank openings are properly sealed
- If a steady pressure drop is noticed, it may mean a leak in the primary tank

## 6. INSPECTION OF THE TANK AFTER ITS FIRST FILLING

The installer must make sure, at the first filling of the tank that no unforeseen damage has occurred during handling, transportation, installation and connection. Such damage could ultimately result in a leak. **THE ONLY WAY TO MAKE SURE THAT THE INSTALLATION IS TIGHT IS TO BE IN ATTENDANCE THE FIRST TIME THE TANK IS FILLED COMPLETELY WITH FUEL OIL.** The installer or a person delegated by him can perform that function. The installer or fuel company representative shall visually inspect all seams and fittings for leakage after the first complete filling.

## 7. TRANSFER OF PRODUCT

Most premature failures of steel fuel tanks are caused by water and sludge that may accumulate at the bottom of the tank. If you choose to transfer the product from the old tank to new one, you must insure that the transferred product is free of contaminants, sludge and water.

## 8. FUEL OIL TANK MANAGEMENT (MAINTENANCE)

- Each tank shall be inspected and maintained to ensure compliance with the requirements of the codes regulating it.
- The tank and all tank accessories shall be maintained to ensure that they function as intended.
- If a tank is found to be leaking, it must be emptied of its content immediately and be replaced.
- The tank should be inspected at least once a year for presence of water. If found, water should be removed immediately.
- All openings on the tank (ex: gauging) shall be closed when not in use.
- If liquid is found in the interstitial space of double wall tank, replace it.
- If foundation is not stable or tank is likely to topple; take action to correct the situation immediately.

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## NOTES

Project Name : .....

Location : .....

Commissioned By : .....

Date of Commissioning : .....

Signature of Commissioning Engineer : .....



**NAFFCO**  
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In line with NAFFCO policy for continuous product development, NAFFCO has the right to change specifications without prior notice.

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FOR ANY ASSISTANCE, PLEASE CONTACT

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