INSTALLATION AND MAINTENANCE GUIDELINES FOR ABOVEGROUND NON-METALLIC TANKS FOR FUEL OIL.

IMPORTANT INFORMATION – FOLLOW ALL INSTRUCTIONS

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1. SCOPE

This guide applies only to the installation and maintenance of domestic, aboveground fuel oil tanks manufactured for Granby Industries to CAN/ULC-S670-14 (Canada) and SU2258 (USA).

These tanks must be installed in accordance with CSA-B139, Installation Code for Oil-Burning Equipment (Canada) or NFPA-31 Standard for the Installation of Oil-Burner Fuels and Other Combustible Liquids (USA) and in compliance with any applicable local codes or regulations.

These guidelines cover non-metallic tanks (FRP) of obround and cylindrical shape, single and double wall with a capacity up to 1135 Liters, (250 Imp. G), (300 USG.)

2. TANK INSPECTION

Visual Inspection of the tank should be performed immediately upon receipt. If any signs of damage that may have occurred during shipment or handling is noticed, do not install the tank. DO NOT ATTEMPT ANY REPAIRS OR MODIFICATIONS TO THE TANK. You should contact your distributor immediately.

3. TANK HANDLING

The tank must be lifted without dragging or dropping to prevent damage. Obround Tank design is to be lifted only by using the handles provided on the tank heads. For the vertical cylindrical tank design, the integral handle provided at the top of the tank together with the rim located at the bottom of the tank is to be used for handling. Use temporary cushioning material covering the tank walls during handling to prevent tank damage. Do not move a tank unless it is empty.

4. TANK INSTALLATION

The applicable Authority Having Jurisdiction should be consulted prior to the tank installation.

The installer shall ensure that the applicable Federal, Provincial, State and Local Codes are met prior to installation.

In most jurisdictions, installation by a technician recognized by the authority having jurisdiction is mandated. Do-it-yourself installations are prohibited and will void warranty. All tank installation must be inspected by the authority having jurisdiction prior to placing in service.

Only labelled tanks bearing the ULC listing mark for Canada and UL listing mark for USA with a serial number are eligible for warranty and installation. Under no circumstances shall a used tank of any design be installed.

4.1. Removal of temporary tank closures

All tank openings are shipped with temporary shipping caps. These caps must be removed and replaced with proper metallic plugs prior to tank installation.

4.2 Condensation

Condensation can form in the tank during the shipping and storing processes. All water and ice should be removed from the tank prior to installation.

4.3. General location of the tank

Fuel oil storage tanks can either be installed inside or outside of a building.

Tank location should be chosen in accordance with the following requirements:

- The tank should be placed in an area where it is unlikely to be adversely affected by normal household activities;
- The tank should be placed in an area where it can be visually inspected from all sides;
- The tank label should be visible;
- If possible, tanks should not be located directly under house eaves where they may be subject to falling snow and ice or dripping water. Protection should be provided if there are no other placement alternatives.
- Tanks should not be placed in intimate contact with walls or structures since leaves and other organic matter can accumulate.
- Tank location shall respect the local code for distance to property lines and to other energy source connection lines or storage systems.

4.4. Foundations

The tank should be properly supported to prevent it from shifting, settling, or falling over. The tank base shall be level, rigid and non-combustible. A poured concrete basement floor provides the best option while other options are also available.

All tanks are at risk from base movement; especially new outside installations placed on recently disturbed ground. A well-drained sub grade is to be provided for proper drainage. Six inches (150 mm) of crushed, clear, mechanically compacted stone is recommended. The site should have all organic materials such as sod or bark removed and the soil mechanically compacted.

4.5. Tank Supports

Our domestic obround non-metallic tank is supplied with integral supports.. DO NOT SLOPE THE VERTICAL CYLINDRICAL TANK AS IT MAY RESULT IN A TIP OVER CONDITION IF THE TOP CONNECTING PIPING WERE TO COME LOOSE.

4.6. Tank piping

Fill, vent and supply piping must respect all applicable codes. Piping shall be designed so that the tank is not subjected to vacuum or pressure exceeding 1 PSIG measured at the top of the tank. On double wall / closed secondary containment tanks, vent the interstitial space vent to atmosphere by removing the shipping plug. For tanks located outdoors, provide a weather-proof vent hood or cap to minimized the ingress of precipitation and blockage by foreign matter such as insects or ice build-up.

4.7. Overfill Protection

An overfill-protection device should be provided on every fuel oil supply tank. When a vent whistle is installed as an overfill protection device, no person should deliver fuel oil to the supply tank when the vent whistle does not function properly. The use of a 6 in (152 mm) long whistle is recommended for obround tank models.

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4.8. Plugging of remaining tank openings

All unused openings on the tank must be adequately plugged and sealed with liquid tight closures before the tank is put in service.

4.9. Cross-connected Tanks

Two obround design oil tanks may be cross connected in accordance with the installation requirements and limits specified in CSA-B139, Installation Code for Oil-Burning Equipment for Canada and NFPA 31 Standard for the installation of Oil-Burning Equipment for USA. DO NOT MULTIPLE CONNECT VERTICAL CYLINDRICAL TANKS.

4.10. Flood Plains and High Wind Areas

Additional stability should be considered in flood plain areas or areas of high wind. This would require some form of shelter and/or anchoring that does not adversely affect the operation of the tank.

5. TESTING

Oil storage systems MUST be tested for leaks before oil is put into the tank. The installed oil tank MUST be tested according to the procedure described in the applicable installation code. In order to reduce the risk of damage to the tank while conducting leakage testing of the piping, DO NOT EXCEED 35 kPa (5 psig) TEST PRESSURE.

All tanks that leave the factory have been tested for leakage. The oil tank could have sustained unforeseen damage during handling, transportation, installation and connection. The installer, oil company representative or a designated person shall be in attendance at the initial filling of the tank. This person shall visually inspect the complete outer surface of the tank for leakage once the tank is full.

Tanks that are not filled immediately after installation shall have all lines blocked and the fill pipe shall be marked to prevent inadvertent filling and to ensure that the first fill inspection is performed.

6. OIL TANK MAINTENANCE

It is important for the homeowner to understand that the oil tank is their property and their responsibility. The tank owner should ensure that it is properly maintained. Proper tank maintenance should include, but is not limited to, the following:

- Subscribing to a maintenance program performed by a heating oil system licensed service technician;
- Visually inspecting the tank(s) at least once per year. Careful visual inspection will uncover traces of oil on the tank surface;
- A weather guard/UV protection gel coat is applied to the exterior of the FRP tank to provide protection for the life expectancy of the tank. However, the use of wax will help to keep the original gloss of the top coating.
- Asking a service technician to check, at least once per year, for the presence of water inside the tank and to remove it.
- The services of a licensed installer should be used to immediately correct an unstable foundation or situations where the tank is likely to topple.
- Maintaining the tank liquid level as high as possible during the summer months to limit water condensation within the tank.
- For a double wall / closed secondary containment tank, visually inspect the interstitial monitoring sight glass through the sight glass protector viewing port for the presence of fluid accumulation. Fuel oil or diesel can be identified by the presence of a dark liquid in sight glass. Do not remove or loosen the sight glass. It has been factory installed and seal tested. In the unlikely event of a primary tank leak, or for any other issues or question contact your distributor immediately.

In Canada, the recommended inspection and maintenance practices are described in the Canadian Oilheat Association (COHA) Today's Oilheat Technician's Manual, or other industry equivalents.

In the USA, the recommended inspection and maintenance practices are described in the National Oilheat Research Alliance (NORA)'s Heating Oil Storage Tanks, Guide for Quality Installation and Maintenance, or other industry equivalents.