[00190FGHOP048](https://www.highlandtank.com/app/data/drawings-specs/00190FGHOP048.PDF)

**190-Gallon Capacity Aboveground Vertical Fireguard® Hopper UL-2058**

**Thermally Insulated, Double-Wall Steel Storage Tank with Secondary Containment**

Quantity: \_\_\_\_

Nominal Capacity: 190-gallons, as indicated on drawing.

Nominal Tank Dimensions: Diameter Height

Primary Tank: 4-feet, 0-inches 2-feet, 1-inches

Secondary Tank: 5-feet, 0-inches 3-feet, 1-inches

Overall Height 5-feet, 1-inches

Minimum Steel Thickness: Head (Top/Bottom) Shell

Primary Tank: 10-gauge/10-gauge 10-gauge

Secondary Tank: 7-gauge/7-gauge 7-gauge

Tank shall be manufactured, tested and labeled in conformance with Underwriters Laboratories’

UL-2085 Standard for Protected Aboveground Tanks for Flammable and Combustible Liquids, Double-wall Construction. Tank shall be manufactured and labeled in strict accordance with Steel Tank Institute (STI) Fireguard® Thermally Insulated, Double-wall Steel Aboveground Storage Tank standards as applied by a licensee of the STI. Tank shall be subject to the STI’s Quality Assurance program and shall be backed by

the STI 30-year limited warranty.

The tank shall be a cylindrical, vertical, steel tank intended for the storage of flammable and combustible liquids at atmospheric pressure. Tank shall include integral steel secondary containment and thermal insulation that provides a minimum two-hour fire rating. The tank design shall comply with UL 2085 "Protected" Tank standard having been tested for Ballistics, Impact, Hose Stream, and Pool Fire performance standards. Tank shall be designed for possible relocation at a future date. Concrete encased tank designs are not equal and will NOT be permitted.

Inner (primary) and outer (secondary) tanks shall be fabricated from mild carbon steel with flat-flanged heads, coned tops and lap-welds at all seams and joints. Primary and secondary tanks are air tested at the factory. (Primary tank may need to be retested for tightness at the jobsite prior to commissioning. Consult AHJ for requirements.) Tank shall be supplied with emergency vents for the primary and the secondary containment tanks. Emergency venting by "form of construction" is not equal and will NOT be permitted.

Tank shall comply with the latest edition of National Fire Protection Association NFPA 30 Flammable and Combustible Liquids Code. The tank system shall also meet or exceed the requirements of:

• National Fire Protection Association NFPA 30A Automobile And Marine Service Station Code

• 1997 Uniform Fire Code (UFC) "Protected" AST criteria as per Appendix II-F,

including ballistics protection

• California Air Resources Board (CARB) testing requirements for air emissions

• International Fire Code (IFC)

**Construction**

Tank shall be of double-wall construction and provide complete secondary containment of the primary storage tank’s contents by an impervious steel outer wall. Inner and outer tanks shall be manufactured in accordance with UL-142 Standard for Steel Aboveground Tanks for Flammable and Combustible Liquids as referenced in UL-2085. Tank shall be fabricated of mild carbon steel with shell seams of continuous lap weld construction.

A minimum of 6" of porous, lightweight monolithic thermal insulation material shall be installed at the factory within the interstitial space between the inner and outer wall. Thermal insulating material:

• Shall be in accordance with American Society of Testing Materials (ASTM) Standards C-332 and C-495.

• Shall allow liquid to migrate through it to the monitoring point.

• Shall not be exposed to weathering and shall be protected by the steel secondary containment

outer wall (an exterior concrete wall or vault exposed to the elements will NOT be permitted).

Each tank shall be delivered as a complete UL-listed assembly including the following fittings

and components as standard equipment:

* 18" diameter hinged aluminum fill access chamber with single-stroke hand pump and bracket
* 4” fitting with locking fill cap
* 3" fitting for suction (pump out)
* 2" x 8' vent pipe and 2" normal vent (specify a 2" flame arrester if storing waste thinner)\*
* 2" interstice inspection pipe and secondary containment pump-out
* (2) 4" fittings with emergency vents (sized in accordance with UL-142)\*
* 2" fitting with level gauge\*
* 2" spare fitting with 2" cast iron threaded plug
* 15” x 30” Step with fiberglass grating inlay
* Thread protectors shall be inserted in all threaded openings prior to shipment

\* Level gauge, vent pipe, normal and emergency vents ship loose, to be installed by contractor or owner

See standard drawings at www.highlandtank.com for quantity, size and location of fittings on

standard tanks. All fittings must be located above the maximum fluid level per UL-2085 / STI Fireguard

requirements. Normal vent sizes are equal to, or larger than largest fitting to be used for fill or

withdraw from the tank. Emergency vent size is based on the wetted surface area of the tank.

• Two (2) Welded-on Tank Supports with grounding hole

• Lifting lugs shall be provided at balancing points to facilitate handling and installation.

Exterior Protective Coating

All items included in tank unit shall be coated with white urethane paint.

**Optional Equipment**

\_\_\_\_ Pump mount(s): \_\_\_\_ Top Mount, \_\_\_\_ Side Mount

External Access component(s) please specify:

\_\_\_\_ Ladder(s), \_\_\_\_ Stairs, \_\_\_\_ Platform(s), \_\_\_\_ Walkway(s) with Handrails

\_\_\_\_ HTLP 1.5” Interstitial Float Switch Sensor for leak detection (Requires HTSC 2″ Pipe Cap)

\_\_\_\_ HTF-1 Float Switch Interface Stem Sensor for overfill detection

\_\_\_\_ Electronic Alarm Panel. Channel quantity: \_\_\_\_\_

Optional Interior & Exterior Coatings & Linings:

\_\_\_\_ Commercial grit blast (SSPC-6), epoxy primer coating (finish paint by installer)

\_\_\_\_ Exterior polyurethane paint color: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (red, green, blue, or yellow;

Note: Red is generally used for waste solvents and Blue is generally used for waste oil).

\_\_\_\_ Other exterior coating \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, Color: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Execution**

Tank to be set level on a solid foundation of reinforced concrete constructed by owner or installer.

Installation and testing shall be in strict accordance with STI’s Fireguard® Installation Instructions and performed by a licensed installer.

**Warranty**

The tank is warranted by Highland Tank & Mfg. Co. to be free from defects in manufacturing, workmanship and materials. Highland Tank will repair or replace, at its sole discretion F.O.B. factory, within a period of 30 years after date of shipment, any item of our manufacture. All other items shall be warranted by their respective manufacturers. Liability hereunder is limited, as stated above, and does not include labor, installation costs, indirect or consequential damages of any kind. Tanks must be returned to the factory and if found to be defective upon examination, will be repaired, replaced or credit will be issued at our option.

Tank to be manufactured by Highland Tank at one of the following locations: Stoystown, PA; Manheim, PA; Watervliet, NY; Greensboro, NC; Friedens, PA; Clarkston, MI or Mancelona, MI.