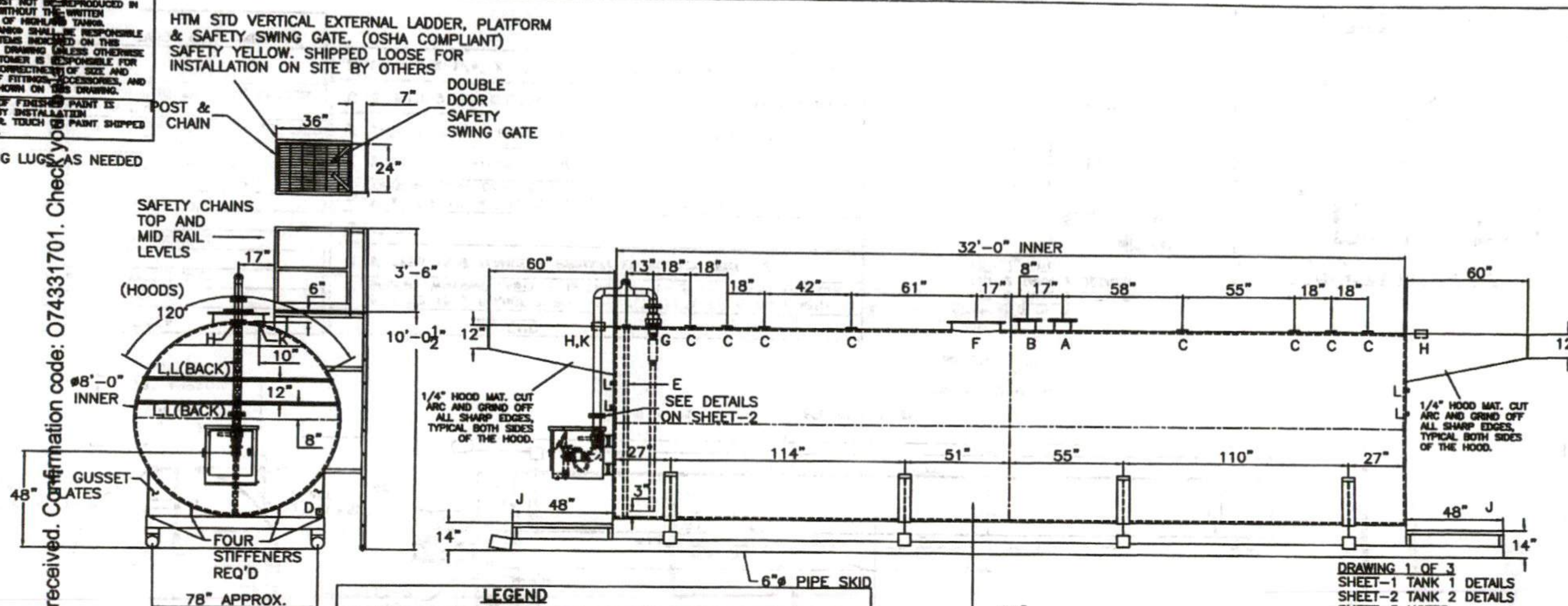
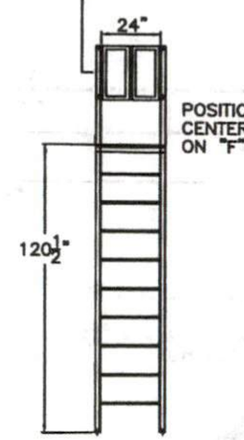
Note: These measurments are Approx

TOUCH UP OF FINISHED PAINT IS REQUIRED BY INSTALLATION CONTRACTOR. TOUCH UP PAINT SHIPPED WITH TANK.



HTM STD VERTICAL EXTERNAL LADDER, PLATFORM & SAFETY SWING GATE. (OSHA COMPLIANT) SAFETY YELLOW. SHIPPED LOOSE FOR INSTALLATION ON SITE BY OTHERS
POST & CHAIN
36"
7"
DOUBLE DOOR SAFETY SWING GATE
24"
SHIPPING LUGS AS NEEDED
SAFETY CHAINS TOP AND MID RAIL LEVELS
17"
3'-6"
(HOODS)
6"
120°
H
K
10"
10'-0 1/2"
L,L(BACK)
ø8'-0" INNER
12"
L,L(BACK)
8"
GUSSET PLATES
48"
D
FOUR STIFFENERS REQ'D
78" APPROX.
32'-0" INNER
60"
13" 18" 18"
8"
18"
42"
61"
17"
17"
58"
55"
18" 18"
60"
12"
H,K
G C C C C F B A C C C C H
12"
1/4" HOOD MAT. CUT ARC AND GRIND OFF ALL SHARP EDGES, TYPICAL BOTH SIDES OF THE HOOD.
E
SEE DETAILS ON SHEET-2
L
L
27"
114"
51"
55"
110"
27"
3"
J
48"
48"
J
14"
14"
6"ø PIPE SKID

DRAWING 1 OF 3
SHEET-1 TANK 1 DETAILS
SHEET-2 TANK 2 DETAILS
SHEET-3 NOTES



DESIGN DATA

CAPACITY – 12,000 GALLONS	
TYPE – DOUBLE WALL – TYPE I 360°	
NO. REQ. – 1	
OPERATING PRESSURE – ATMOSPHERIC	
SPECIFIC GRAVITY – 1.0	
TANK MATERIAL – MILD CARBON STEEL	
THICKNESS – INNER – HEADS: 5/16"	SHELL: 1/4"
THICKNESS – OUTER – HEADS: 7 GA	SHELL: 7 GA
CONSTRUCTION – INNER – LAP WELD OUTSIDE ONLY OUTER – LAP WELD OUTSIDE ONLY	
TANK TEST – INNER – 5 PSIG OUTER – +3 PSIG OR 13"hg VACUUM	
INT. FINISH – NONE	
EXT. FINISH – SP6 BLAST, FINISH GRAY URETHANE	
LABEL – UL 142	

LEGEND

A	8" FFSO 150# FLANGE THROUGH OUTER SHELL ONLY, MARK WITH SPECIAL WARNING LABEL – INTERSTITIAL EMERGENCY VENT USE ONLY
B	8" FFSO 150# FLANGE – PRIMARY EMERGENCY VENT USE
C	4" FITTING
D	3" x 3" PLATE w/ 1/2"ø (MIN.) HOLE ON CENTER (GROUND LUG– ONE REQ'D)
E	2" INTERNAL INTERSTITIAL MONITOR PIPE
F	24"ø TIGHT BOLT MANWAY w/ 1/8" FIBREFLEX GASKET MATERIAL.
G	6" FITTING FOR CUSTOMER SUPPLIED OVERFILL PREVENTION VALVE
H	6" DIA PIPE SLEEVE X 4" LONG HALF INSIDE & HALF OUTSIDE OF CANOPY
J	PUMP MOUNT 48" X SKID WIDTH X 1/4" PLATE TOP ON 2" ANGLE FRAME
K	4" DIA PIPE SLEEVE X 4" LONG HALF INSIDE & HALF OUTSIDE OF CANOPY
L	1-1/2" UNISTRUT WELDED TO TANK HEAD

REV.	DESCRIPTION	DATE	BY
2	ADDED "K" AND "L" UNISTRUT PIECES	03/21/22	001
1	ADDED PM AND HOODS, MOVED ACCESS EQ, ADD (3) "C"S	03/11/22	001

Highland Tank

UNLESS NOTED, TOLERANCES ARE +/- 1"

12,000 GAL 96"ø DW SKID TANK
TANK 1

CUSTOMER: PHOENIX PUMP
GREENSBORO, NC.

PROJECT: GAINES OIL
GOLDSTON, NC.

QUOTE NO: 517240 | CHK'D BY:

SCALE	DATE	DWG. BY	DWG. NO.
1/4" = 1'	3/8/22	002	120101–1

3/23/2022
Clif Poole

Donna,

Please see the description below in regards to your request for information for more data on the tank. Please let me know if this will suffice. I will send you the drawing with measurements in the morning.

The tank will have a UL sticker and a Highland tank sticker providing the relevant information. The serial number on that sticker can actually be researched with UL to validate this information.

-It is a UL-142 spec double wall tank. So, it has secondary containment built in. The tank is required by UL (and currently has) emergency venting in compliance with UL-142 requirements.
It has emergency venting on the primary and secondary layers. The dimensions of the vent are dictated by UL-142 specs. (UL-142 tanks are classified as “unprotected” or “other” types of tanks when referencing NC fire prevention code 2306.2.3)

-The tank was tested for leaks prior to shipping from Highland by pressure test. We can perform either a pressure or vacuum leak test on the tank once its in its final resting place. The STI (steel tank institute) recommends testing tanks after they have been set as some flexing could cause a leak during transport. Typically fire prevention code will require a tank test once the tank has been set on its foundation. This is usually accomplished by pulling a vacuum on the tank’s interstitial space and holding it for 1 hour with a fire marshal present to validate the test results.

-The tank does have 2 forms of overfill prevention. It is standard practice to have an audible overfill alarm set on the tank to a % capacity somewhere below 90%. We typically set these to 85% capacity. The tank also has a mechanical overfill prevention valve on the remote fill line set to 90%. Since the driver cannot visually inspect how full the tank is, he must rely on visual and audible cues from the level gauge. If he should miss these cues, the mechanical OPV will close at 90%, preventing the tank from being filled further. Both the audible overfill alarm and the mechanical overfill prevention valve are UL approved for fuels.

-The “method of dispensing operations” is from a tank mounted submersible turbine pump. The submersible turbine pump pushes fuel through a mechanical anti-siphon solenoid, meter, emergency shutoff valve, filter assembly, and finally to the hose reel. The hose reel terminates in an automatic fuel shutoff nozzle with a safety breakaway. Every component from the submersible pump to the nozzle is UL approved for use with motor fuels.
As part of the tank’s expansion, we would be adding a near identical dispensing setup to the other end of the tank.
It is relevant to note here: because this is a UL-142 double wall tank, all penetrations are through the top of the tank so all fuel must be pulled out through the top of the tank. We have no flooded suction lines. NC fire code prohibits pulling fuel from the bottom of a tank and pushing it by pump to the engine fuel tank of a motor vehicle. (bulk plants with dike walls that load transports are exempt from this requirement.)

Matthew Poole
Projects Division Manager
Gaines Oil Company
919-561-4338

Overfill Protection Tanks

HT-1009

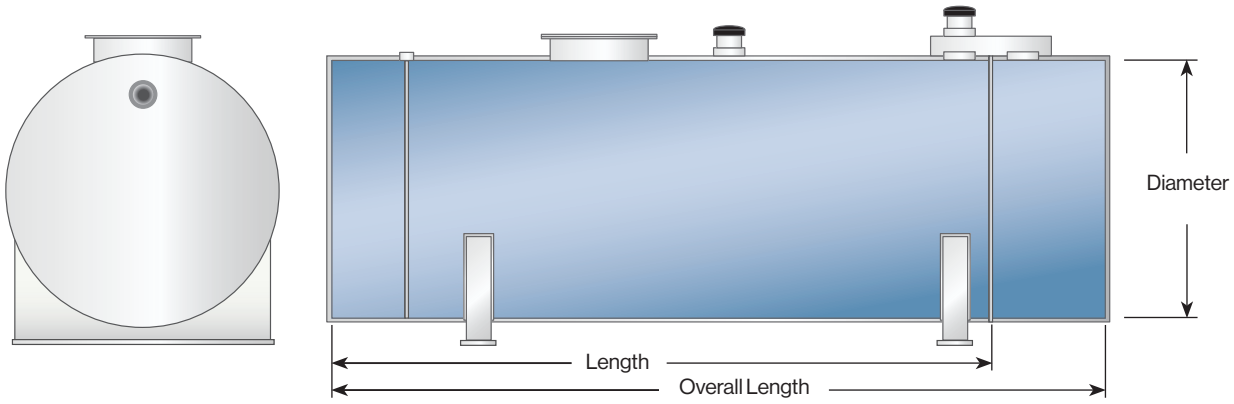
The OP Tank is equipped with a patented overfill protection system and integral overfill chamber designed to capture and store overfills resulting from mistakes or failures during filling operations. Unlike other forms of secondary containment, the OP keeps the product in the storage tank where it can be easily recovered and used.

The entire OP Tank system is UL-listed for flammable and combustible liquid storage, and does not need to be cleaned or freed from vapors after pump-out.

Overfill Protection From:
- Malfunctioning overfill limiter, vents, gauges or alarms
- Unattended delivery truck
- Distracted delivery attendant
- Incorrect inventory record

OP Tank Features
In the unlikely event of an overfill, the Overfill Protector chute directs spills into the containment chamber which is sized to contain a spill equal to at least 20% ofthe tank's storage volume. The collected product can be pumped back to the primary tank, or to another storage tank, through the pump-out fitting in the top of the tank.

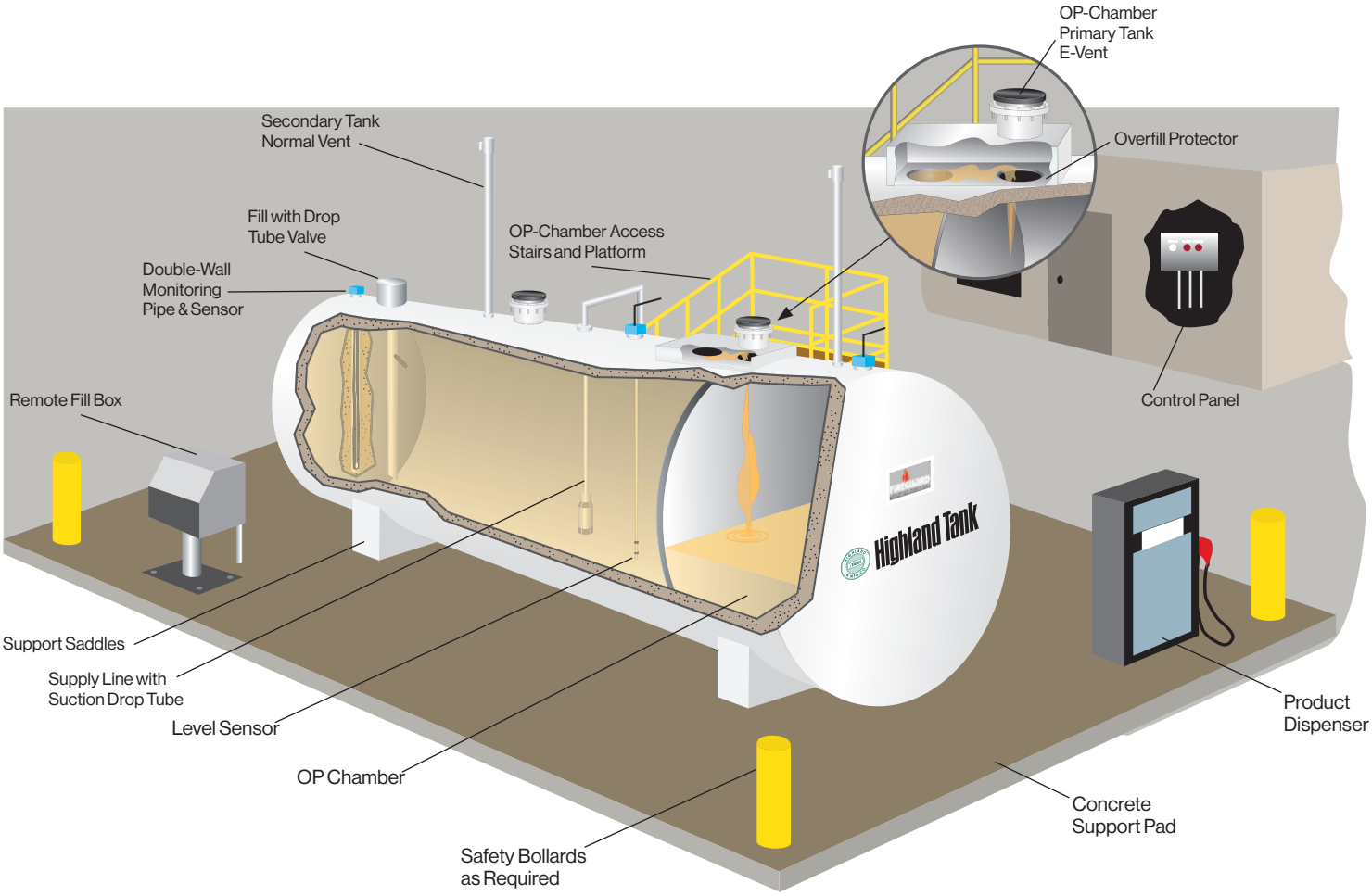
Drawing & Details

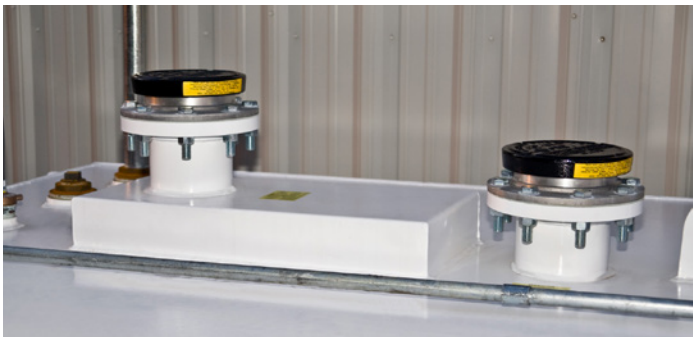


Volume Gallons	Nominal Inside Dimensions Diameter	Length	Chamber Volume Gallons	Overall Tank Length
500	4'-0"	5'-5"	156	7'-1"
1,000	4'-0"	10'-9"	203	12'-11"
1,000	5'-4"	6'-0"	306	7'-10"
1,500	5'-4"	9'-0"	306	10'-10"
2,000	5'-4"	12'-0"	403	14'-5"
2,500	5'-4"	15'-0"	501	18'-0"
3,000	5'-4"	18'-0"	612	21'-8"
4,000	5'-4"	24'-0"	807	28'-10"
4,000	6'-0"	19'-0"	810	22'-10"
4,000	8'-0"	10'-8"	814	12'-10"
5,000	6'-0"	23'-10"	1,022	28'-8"
5,000	8'-0"	13'-4"	1,002	16'-0"
6,000	6'-0"	28'-8"	1,216	34'-5"
6,000	8'-0"	16'-0"	1,222	19'-3"
8,000	8'-0"	21'-4"	1,629	25'-8"
8,000	10'-0"	14'-0"	1,664	16'-10"
10,000	8'-0"	26'-8"	2,005	32'-0"
10,000	10'-0"	17'-0"	2,007	20'-5"
12,000	8'-0"	32'-0"	2,412	38'-5"
12,000	10'-0"	20'-6"	2,447	24'-8"
15,000	8'-0"	40'-0"	3,008	48'-0"
15,000	10'-0"	25'-6"	3,035	30'-8"
20,000	10'-0"	34'-0"	4,014	40'-10"
20,000	10'-6"	31'-0"	4,048	37'-3"
25,000	10'-6"	42'-7"	5,019	46'-6"
30,000	10'-6"	46'-6"	6,045	55'-10"
30,000	12'-0"	35'-6"	6,063	42'-8"
40,000	12'-0"	47'-6"	8,037	57'-0"
50,000	12'-0"	59'-6"	10,081	71'-5"

Highland Tank®

How it works





OP Tank Options

The OP Tank is available as a UL-2085 Fireguard® tank or as a standard single or double-wall UL-142 horizontal tank. In addition to our standard features and options, we can also supply a larger (above 20%) containment chamber if greater spill containment
is required.

Consult Highland Tank if a larger (above 20%) spill containment
capability is required.

U.S. Patent No. 5,381,923

Highland Tank

MADE IN U. S. A.

Stoystown, PA
One Highland Rd .
Stoystown, PA 15563
(814) 893-5701

Manheim, PA
4535 Elizabethtown Rd.
Manheim, PA 17545
(717) 664-0600

Watervliet, NY
958 19th St.
Watervliet, NY 12189
(518) 273-0801

Greensboro, NC
2700 Patterson St.
Greensboro, NC 27407
(336) 218-0801

Friedens, PA
1510 Stoystown Rd.
Friedens, PA 15541
(814) 443-6800

Clarkston, MI
4701 White Lake Rd.
Clarkston, MI 48346
(248) 625-8700

Mancelona, MI
9517 Lake St.
Mancelona, MI 49659
(231) 587-8412