



Department of Environmental Protection

2600 Blair Stone Road ♦ Tallahassee, Florida 32399-2400

DEP Form: 62-761.900(9)

Form Title: Storage Tank Equipment

Registration Form

Effective Date: July 2019

Incorporated in Rule 62-761.850, F.A.C.

Storage Tank System Equipment Registration Form

Fill out completely

General Information

Company Name: Contact Name:
Company Address: City, State: Zip:
E-mail: Contact Number:
Product Name: Product Type:
Model Number(s):
Rule(s) citation that registration is being requested within Chapter 62-761 (UST), and/or 62-762 (AST),

F.A.C.: Write a brief description of equipment registration request including product limitations:

Information Checklist (Choose Yes, No, or N/A - Not Applicable):

Yes No N/A

1. Third-party Certification by a Nationally Recognized Testing Laboratory? (Required)
2. Documentation of third-party evaluation that the equipment meets DEP Rules?
3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory?
4. Technical information and drawings included?
5. Installation instructions included?
6. Annual Operability Testing Requirements (Rules 62-761.500, 62-762.501, & 62-762.502 F.A.C.)?
7. Integrity Testing Requirements (Rules 62-761.700, 62-762.701, & 62-762.702, F.A.C.)?
8. Compatible with fuel blends containing >10% ethanol or >20% biodiesel?
9. Has the product been approved or registered in other countries or states? (If so provide list)
10. Any requirements for company-certified installers or trainers?
11. Was this product(s) previously approved or registered by the Department? If yes, EQ-
12. Any changes or modifications to the equipment since the last submittal to DEP?

Document Information: Provide supporting documents indicated as "Yes" above including this form via email to Tanknotify@floridadep.gov, or documents can be sent to FDEP, Division of Waste Management, 2600 Blair Stone Road, MS 4560, Tallahassee, FL 32399.

Write a brief description of equipment installation and performance in the U.S.:

Equipment Registration Certification:

To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

Printed Name and Title

Signature (right click to sign)

Date

For Department Use Only:

Date Application Received: 03/09/2023 Application complete: Yes: No:

EQ- 993 Date of complete or incomplete letter sent: 03/10/2023 Date Equipment Requires Renewal: 03/10/2028

Storage tank system equipment requires renewal every 5 years in accordance with subsection 62-761.850(2), F.A.C.

CERTIFICATE OF COMPLIANCE

Certificate Number MH64506
Report Reference MH64506-20210702
Date 2021-July-09

Issued to: KBK Industries LLC
1914 Hwy 183
Rush Center, KS 67575 US

**This is to certify that
representative samples of**

UNDERGROUND TANKS

8, 10 and 12 foot Diameter Fiberglass Double Wall
Underground Tanks for Petroleum Products, Oxygenates
and Oxygenated Fuels, E0 to E100, B0 to B100 at ambient
temperatures, and #6 Fuel Oil up to 60oC.

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

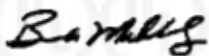
Standard(s) for Safety: UL/ULC 1316, Fibre Reinforced Underground Tanks for
Flammable and Combustible Liquids

Additional Information: See the UL Online Certifications Directory at
<https://iq.ulprospector.com> for additional information

This Certificate of Compliance does not provide authorization to apply the UL Mark. Only the UL Follow-Up
Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's
Follow-Up Services.

Look for the UL Certification Mark on the product.

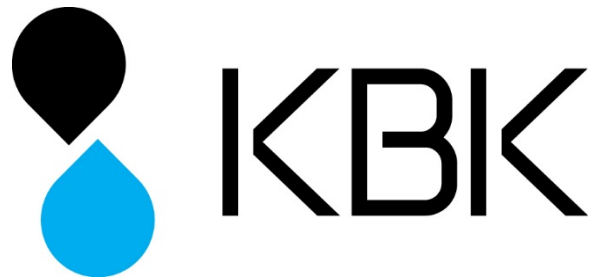


Bruce Mahrenholz, Director North American Certification Program

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please
contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>





UNDERGROUND STORAGE TANK

Installation Manual

&

Guidelines for Use

June 2021

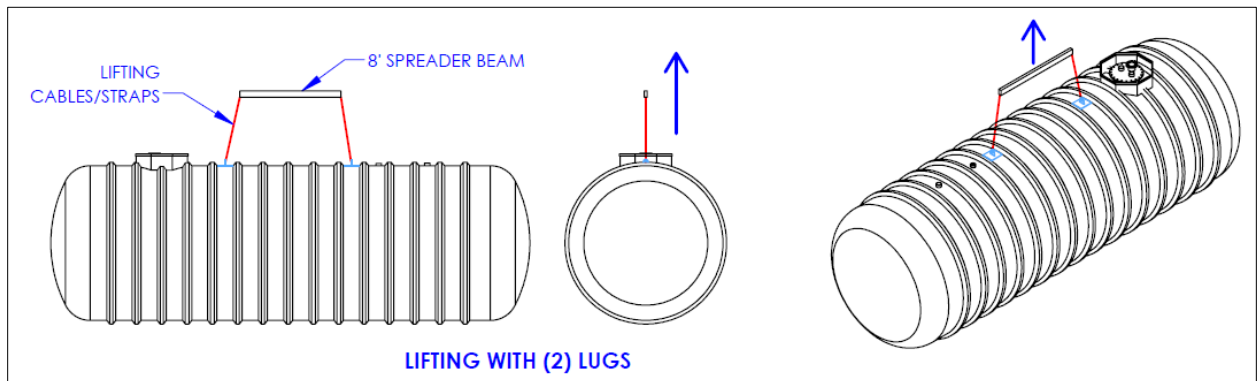
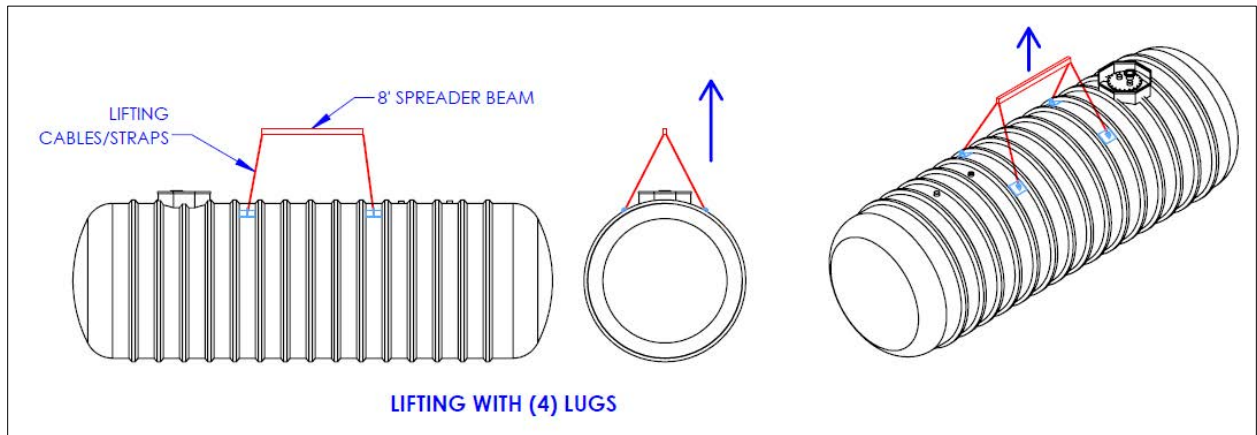
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1. INTRODUCTION

- 1.1.** Before beginning tank installation, read through the entire installation manual & operating guidelines. It is the responsibility of the installer & operator to understand & follow the requirements of this manual along with all federal, state, & local regulations.
- 1.2.** All work must be performed in accordance with industry standards and follow all OSHA guidelines for safety. Failure to follow the appropriate guidelines or reckless operation of any equipment could result in injury or death.
- 1.3.** Federal, state, and local codes and regulations always take precedence over a KBK requirement.
- 1.4.** Failure to follow the procedures & instructions in this manual will void KBK's warranty and may result in failure of the tank, property damage, serious injury, or death.
- 1.5.** For additional info regarding tank warranty, please contact your KBK Sales Representative.
 - 1.5.1. KBK's Underground Tank Installation Checklist must be filled out during tank installation process.
 - 1.5.2. Never perform unauthorized repairs on KBK tanks.
- 1.6.** During tank installation, complete the tank installation checklist. It is advised that all involved with tank installation keep a copy of the completed checklist.
- 1.7.** Equipment necessary for tank installation includes:
 - 1.7.1. Excavation Equipment and necessary tools for leveling.
 - 1.7.2. Lifting Equipment rated for the size of tank & deadmen required.
 - 1.7.3. 50' tape measure, tamping rod(s), pipe wrenches, shovel(s)
 - 1.7.4. If air test is required in the field, a source of pressure, soap & water solution with sprayer will be needed.
- 1.8.** Only personnel with confined space training may enter the tank.
 - 1.8.1. Tank must be fully emptied and vented for adequate air supply.
- 1.9.** Ensure that materials stored in the tank are what is specified on the KBK Drawing. Additional things to consider:
 - 1.9.1. Specific Gravity
 - 1.9.2. Corrosive properties
 - 1.9.3. Min & Max temperature ratings
- 1.10.** Never overfill or over-pressurize KBK Tanks while filling or testing. This could result in damages to the tank or injury to those nearby.
- 1.11.** This installation manual should be kept on file by the tank owner for future reference. Owner should also keep a copy of the tank installation checklist.

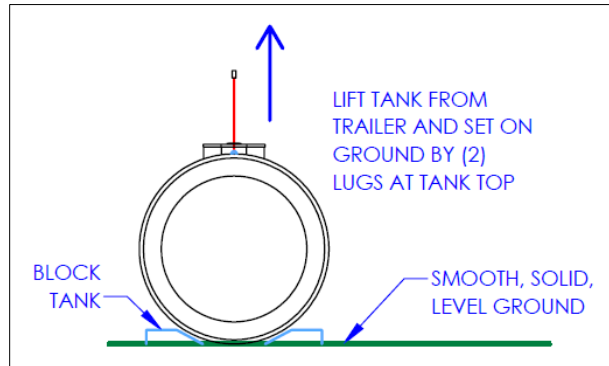
2. HANDLING & STORAGE

- 2.1. Do not drop tank; Tank is structurally sound and designed for burial loads, not impacts from dropping. Move tanks by lifting & setting down only, do not roll or drag tank.
- 2.2. Lift tank by provided lift lugs. Use appropriate spreader beams as necessary to equalize the load. If you are unable to use the lift lugs, slings may be used around the tank at the same locations as the lift lugs. Do NOT use Cables or Wires around the tank.



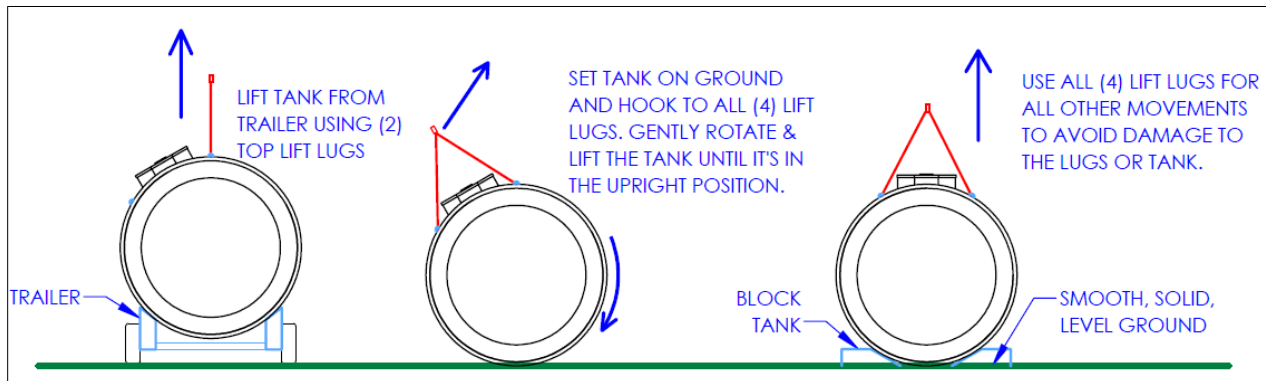
- 2.3. Before tank is unloaded or moved at a jobsite or storage location:
 - 2.3.1. Tank should be inspected for any damage that may have occurred during shipping. Document any damages on BOL & sign required delivery documents.
 - 2.3.2. Verify that equipment is rated to lift the tank and that there is a smooth, solid, & level surface for the tank to set on.
 - 2.3.2.1. Setting the tank on debris or sharp objects can puncture the sidewall of the tank.
 - 2.3.2.2. Be sure to use wedge blocks to keep the tank from rolling. Uneven surfaces and strong winds can cause the tank to roll.
- 2.4. When lifting the tank off the truck:
 - 2.4.1. Smaller diameter tanks with only (2) Lugs for lifting, will be shipped without rotating the tank.

- 2.4.1.1. These tanks can be lifted from the trailer using the two upright lugs and set on a flat clear surface.
- 2.4.1.2. Block tank in place until site is ready for tank installation. Tank can easily roll if ground is unlevel or if pushed by wind.



2.4.2. Larger diameter tanks will have (4) lugs used for lifting. To keep shipping dimensions smaller, the tanks will be rotated while setting on the trailer.

- 2.4.2.1. These tanks will need lifted from the trailer and set on the ground by using the (2) lugs that are upright.
 - 2.4.2.1.1. Only move the tank with (2) lugs when removing it from the trailer.
 - 2.4.2.1.2. All (4) lugs are required for future tank movements.
- 2.4.2.2. Once tank is on a flat clear surface, hook to all (4) lift lugs and gently rotate and lift the tank until it's in the upright/operating position.
- 2.4.2.3. Block tank in place until site is ready for tank installation. Tank can easily roll if ground is unlevel or if pushed by wind.



2.5. Larger tanks (over 30,000 gallons) will often have (2) sets of (4) lift lugs. These tanks will need picked up from both sets of lugs.

- 2.5.1. Ensure load is equal between both sets of Lugs. Two cranes or larger spreader beams are recommended for these tanks.

- 2.6. Do not wrap chains or cables around the tank as this could cause cosmetic damages or even structural damages.
- 2.7. Guide ropes may be used as needed. Ensure ropes are long enough that personnel can stay clear of the tank.
- 2.8. If tank will need to be stored before installation, use straps over tank ribs to tie the tank down to prevent rolling or other movement. High winds can cause the tank to roll. Do not use wire, cables, or chains to secure.

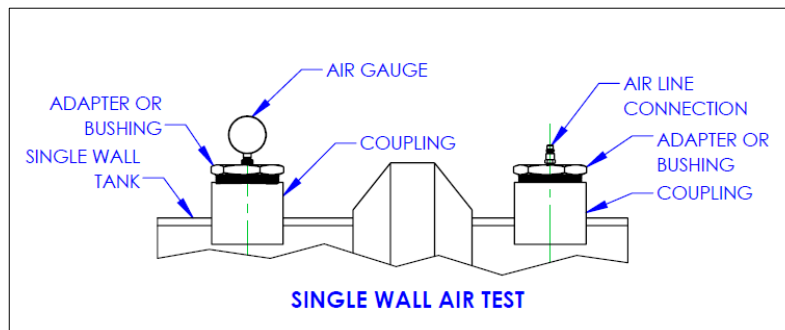
3. PREINSTALLATION INSPECTION & TESTING

3.1. NOTES:

- 3.1.1. Tank must be inspected & tested prior to installation. Inspection with documentation (Installation Checklist) must be completed to validate KBK Warranty.
 - 3.1.1.1. All Tanks are tested before shipment but, to verify no transit/shipping damage, tests must be conducted on site before installation.
 - 3.1.1.2. Tanks must remain empty until all testing is complete.
 - 3.1.1.3. Do not test tank while on the trailer.
 - 3.1.1.4. Do not lift or move a pressurized tank.
 - 3.1.1.5. Do not over-pressurize tank.
 - 3.1.1.5.1. Use of a pressure relief valve is recommended.
- 3.1.2. If any damage is found, contact your KBK Sales Representative before installing the tank.

3.2. SINGLE WALL TANKS:

- 3.2.1. Measure Tank Diameter & Document on installation checklist.
- 3.2.2. Air Test tank.
 - 3.2.2.1. Use one fitting with adapter to install an air gauge.
 - 3.2.2.2. Use a second fitting with necessary adapter to connect to the air source.
 - 3.2.2.3. If using a pressure relief valve, install with necessary adapter to a third fitting.



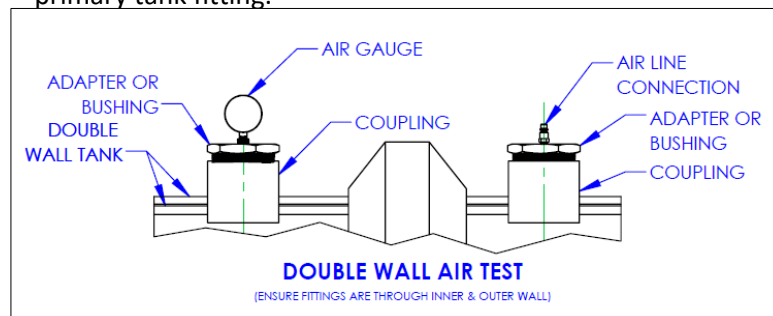
- 3.2.2.4. Ensure all remaining fittings, manways, and flanges are adequately plugged/covered. Gaskets should be used with manway covers & flanges. Apply sealant to threaded connections.
- 3.2.2.5. Pressurize tank to the appropriate pressure for the tank type.
 - 3.2.2.5.1. Test tanks rated for atmospheric pressure to 1 psi.

- 3.2.2.5.2. If you are unsure of the pressure rating, please refer to the tank drawing.
- 3.2.2.6. Apply a soap & water solution to the exterior of the tank shell to check for any visible leaks.
- 3.2.2.7. Monitor the pressure gauge throughout the process to confirm no changes in pressure are present during the designated time.
 - 3.2.2.7.1. Changes in temperature may cause changes in pressure if test is conducted over an extended period.
- 3.2.2.8. When tank is fully inspected for leaks and test is finished, slowly release pressure to avoid injury.
- 3.2.2.9. Document test result on installation checklist.

3.3. UL 1316 & DOUBLE WALL TANKS

3.3.1. PRIMARY TANK TESTING

- 3.3.1.1. Measure Tank Diameter & Document on installation checklist.
- 3.3.1.2. AIR TEST
 - 3.3.1.2.1. Use one primary tank fitting with adapter to install an air gauge.
 - 3.3.1.2.2. Use a second primary tank fitting with necessary adapter to connect to the air source.
 - 3.3.1.2.3. If using a pressure relief valve, install with necessary adapter to a third primary tank fitting.



- 3.3.1.2.4. Ensure all remaining primary tank fittings, manways, and flanges are adequately plugged/covered. Gaskets should be used with manway covers & flanges. Apply sealant to threaded connections.
- 3.3.1.2.5. Pressurize tank to the appropriate pressure for the tank type.
 - 3.3.1.2.5.1. UL 1316 Tanks need pressurized to +/- 3 psi for 12' diameter & +/- 5 psi for 10' diameter and smaller.
 - 3.3.1.2.5.2. Pressure/Vacuum should be held for 30 minutes with a change less than .15 psi.
 - 3.3.1.2.5.3. For non-UL tanks, if you are unsure of the pressure rating, please refer to the tank drawing.
- 3.3.1.2.6. If tank has multiple compartments, test must be performed separately for each.
- 3.3.1.2.7. Document test result on installation checklist.

3.3.2. INTERSTITIAL SPACE TESTING

3.3.2.1. Vent primary tank to atmosphere.

3.3.2.2. If tank is shipped with interstitial space under vacuum:

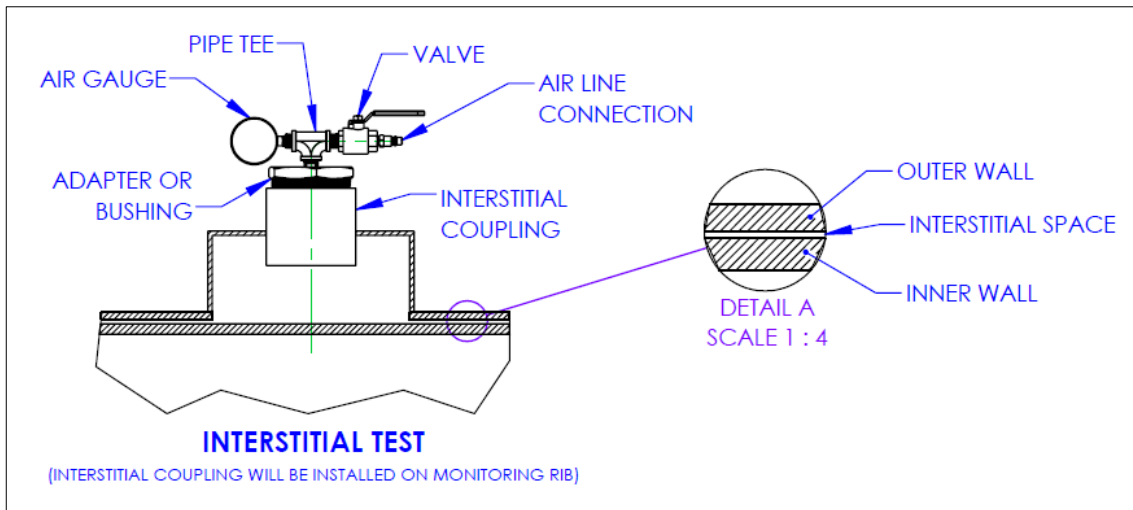
3.3.2.2.1. OPTION 1: Leave interstitial space under vacuum during installation.

Monitor gauge throughout installation and verify no changes except for those caused by temperature.

3.3.2.2.2. OPTION 2: Release interstitial space vacuum upon delivery and perform interstitial testing after tank is installed.

3.3.2.3. If tank is shipped without interstitial space under vacuum:

3.3.2.3.1. Install test manifold to interstitial fitting.



3.3.2.3.2. Ensure valve is open and pressurize OR vacuum to (+/-)5 psi.

3.3.2.3.3. Close valve and let tank sit for one hour. Monitor to ensure no changes in pressure.

3.3.2.3.4. Document test result on installation checklist

4. EXCAVATION & BACKFILL

4.1. GENERAL:

4.1.1. During installation, ensure that all safety guidelines are followed. Excavation sites provide additional hazards that other construction sites may not.

4.1.2. Verify tank Diameter by measuring the inside of the tank once tank is set in final location.

4.1.2.1. Changes in diameter measurement indicate the tank may be twisted, compacted, or otherwise installed incorrectly.

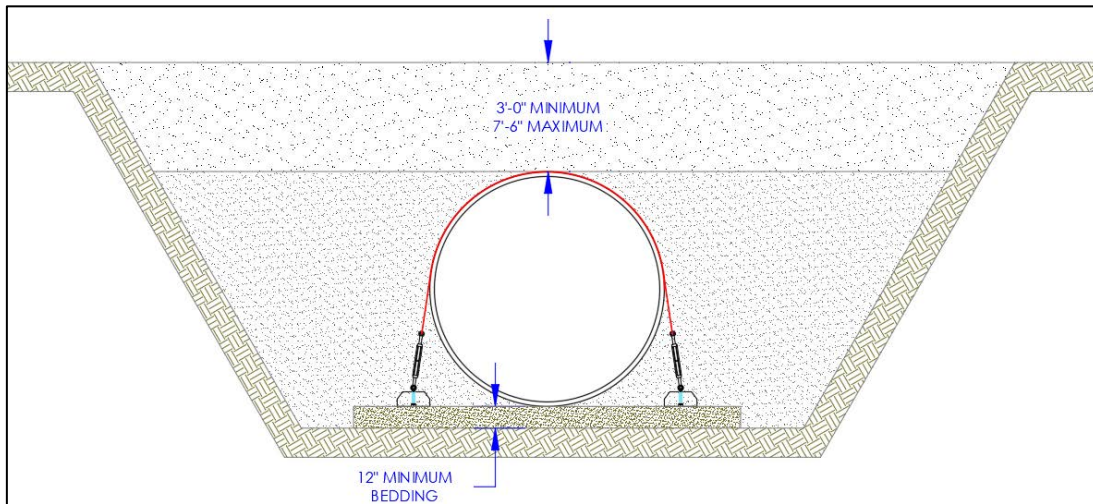
4.1.3. Use items such as a shovel handle or other wooden object to tamp backfill around tank. Do not use metal rods or other metal items as this may cause damage to the tank.

4.2. EXCAVATION:

4.2.1. Ensure that the installing contractor takes all necessary precautions during this process.

4.2.1.1. Utilities, existing tanks, and other underground items must be clearly marked before starting the excavating process.

- 4.2.1.2. Secure walls of excavation and ensure that the area is properly fenced off or barricaded to prevent unauthorized traffic.
- 4.2.1.3. OSHA's standard: Part 1926, Subpart P; lists additional safety practices that must be followed.
- 4.2.2. Consult with your engineer(s) & local authorities for proper excavation size, depth & location. Factors to consider include:
 - 4.2.2.1. Nearby buildings, foundations, or other structures.
 - 4.2.2.2. Traffic at site
 - 4.2.2.3. Groundwater Conditions
 - 4.2.2.4. Soil Conditions
 - 4.2.2.5. Local Codes & Regulations
- 4.2.3. Minimum of 12" of backfill material is required as bedding below the tank.
- 4.2.4. Minimum burial depth is 3'-0" for traffic rated KBK Tanks.
- 4.2.5. Maximum burial depth is 7'-6" for traffic rated KBK Tanks.



- 4.2.6. If you are unsure of the required tank burial depth, please contact your KBK Sales Representative.
- 4.2.7. Excavation should be level and clear of debris and any other loose material.
 - 4.2.7.1. If Installing tank in wet hole, pump water out of the hole throughout the installation process.
 - 4.2.7.2. Wet Hole installations require site specific engineering to ensure correct anchoring is provided.

4.3. BACKFILL:

- 4.3.1. Only native Class I & Class II Backfill material may be used when installing the tank.
 - 4.3.1.1. Standard Options:
 - 4.3.1.1.1. Angular Crushed Stone or Rock (little or no fines)
 - 4.3.1.1.2. Crushed Gravel (little or no fines)
 - 4.3.1.1.3. Graded Gravel & Gravel-Sand Mixtures (little or no fines).
 - 4.3.1.1.4. Sands & Gravels which are borderline between clean & with Fines.

Tank Backfill Material						E', psi (kPa) for Degree of Embedment Compaction				
ASTM D 2321*		ASTM D 2487		AASHTO M43 Notation	Min. Std. Proctor Density (%)	Lift Placement Depth	Dumped	Slightly < 85%	Moderate 85% - 95%	High > 95%
Class	Description	Notation	Description							
IA	Open-graded, clean manufactured aggregates	N/A	Angular crushed stone or rock, crushed gravel, crushed slag; large voids with little or no fines	5 56	Dumped	18" (0.45 m)	1000 (6,900)	3000 (20,700)	3000 (20,700)	3000 (20,700)
IB	Dense-graded, clean manufactured, processed aggregates	N/A	Angular crushed stone or other Class IA material and stone/sand mixtures; little or no fines							
II	Clean, coarse-grained soils	GW	Well-graded gravel, gravel/sand mixtures; little or no fines	57 6 67	85%	12" (0.30 m)	N/R	1000 (6,900)	2000 (13,800)	3000 (20,700)
		GP	Poorly graded gravel, gravel/sand mixtures; little or no fines							
		SW	Well-graded sands, gravelly sands; little or no fines							
		SP	Poorly graded sands, gravelly sands; little or no fines							

4.3.2. Slight compaction (Density of less than 85% per AWWA M45) may be used but avoid excess compacting on the tank beyond normal loads.

4.3.2.1. No equipment should drive over the tank during the backfill process.

4.3.2.2. Do not use rammer –type compacting equipment over the tank.

4.3.3. Ensure that heavy machinery does not cause any excess pressure to the outside of the tank during the backfill process.

4.3.3.1. This includes dropping backfill materials from elevated heights. Make sure to carefully cover the tank to avoid damages.

4.3.4. Backfill materials should be clear of large rocks, organic materials, ice/snow, or any other item that will breakdown over time.

4.3.5. If more than one type of backfill material is used, geotextile filter fabric should be used between the different layers.

5. TANK INSTALLATION & ANCHORING

5.1. GENERAL

5.1.1. KBK Recommends that each tank location be evaluated for any special conditions that would affect the ability of standard anchoring to be used with the tank.

5.1.2. Anchoring offered by KBK has been designed by our engineers to ensure tanks are adequately anchored in most situations but are not site specific.

5.1.2.1. It is the responsibility of the tank owner to verify site specific geotechnical information and confirm KBK anchors are sufficient.

5.1.3. Alternatives to KBK's predesigned anchors may be used but be sure that they do not cause damage to the tank.

5.2. CONCRETE DEADMAN ANCHORS

5.2.1. KBK's Concrete Deadman Anchors (CDA) are designed to meet the current edition of ACI 318.

5.2.2. CDA size is based on the tank diameter & CDA's must run the full length of the tank's straight sidewall.

5.2.3. Each CDA has slots that allow for adjustment of strap location as needed.

5.3. STRAPS

- 5.3.1. KBK recommends use of nylon straps for anchoring underground storage tanks.
- 5.3.2. Never use Cables or Chains to secure the tank. Doing so may cause damage to the tank and serious injury.
- 5.3.3. Anchor straps are required approximately every 6' per KBK's design.
- 5.3.4. Anchor straps should be installed over a tank rib to avoid damage to the tank's outer shell.

5.4. HARDWARE

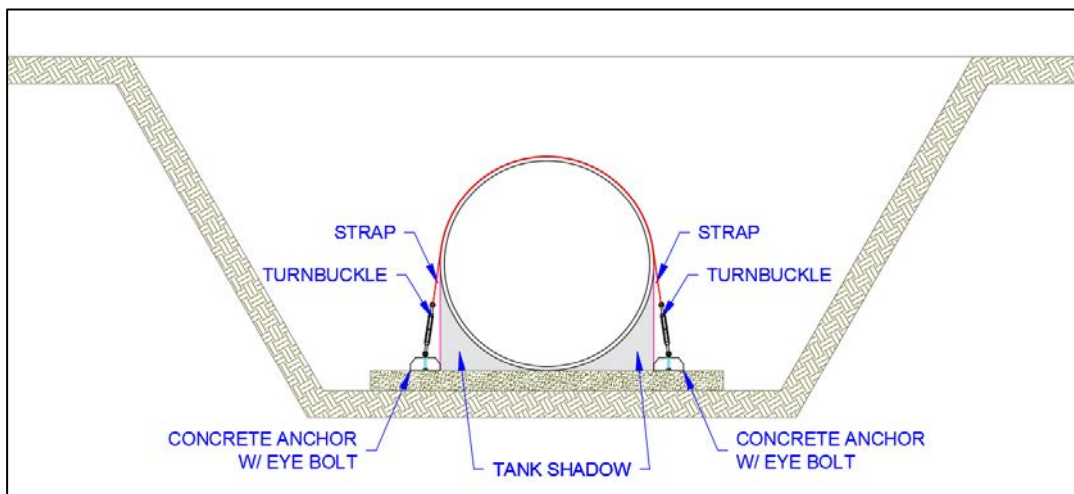
- 5.4.1. Standard Hardware for each strap instance includes:
 - 5.4.1.1. (2) Turnbuckles
 - 5.4.1.2. (2) Shouldered eye bolts
- 5.4.2. Turnbuckle & eye bolt sizes may vary depending on tank diameter.

5.5. TANK SPACING

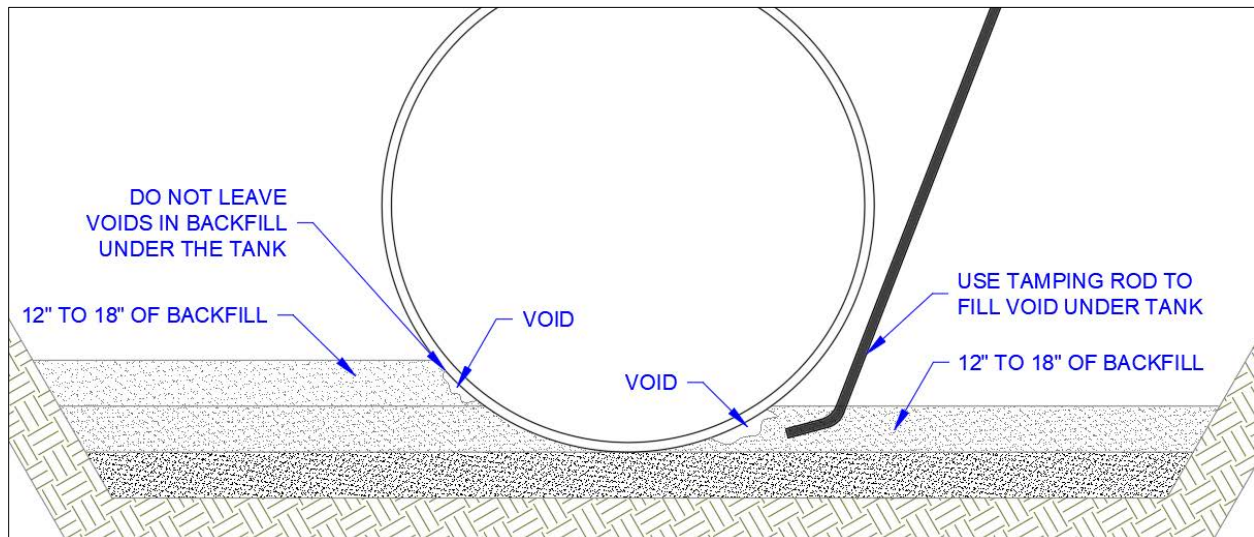
- 5.5.1. If multiple tanks are located side by side, tanks must be placed far enough apart for each tank to have its independent anchoring system.
 - 5.5.1.1. Tanks may not share KBK Deadman anchors.
- 5.5.2. Minimum distance between tanks that are placed end to end is 24".

5.6. TANK INSTALLATION

- 5.6.1. Once the excavation site is ready for the tank installation, use proper lifting procedures to set the tank on the 12" bedding.
 - 5.6.1.1. Concrete Deadman Anchors (CDA) be placed before or after the tank is placed but tank will need centered between them. See 5.6.4 for additional details.
- 5.6.2. Verify tank diameter and record in installation checklist.
 - 5.6.2.1. If diameter is not within tolerance, tank will need adjusted so that it is square/level in the hole.
- 5.6.3. Ensure Tank is level by placing a 4' level across two consecutive support ribs.
- 5.6.4. If CDA have not been placed, do so now.
 - 5.6.4.1. Bottom of CDA should be level with the bottom of the tank. (See detail)
 - 5.6.4.2. CDA will sit just outside the tank shadow. (See detail)
 - 5.6.4.3. Adjust eye bolt locations to line up with the marked strap locations.



- 5.6.5. Place straps in each marked location on the tank.
- 5.6.5.1. Straps will connect to a turnbuckle connected to the eye bolts in the CDA.
- 5.6.6. Tighten all straps equally along the length of the tank. Straps need to be snug but not so tight that they cause deflection of the tank.
- 5.6.7. Take tank diameter measurement again to ensure there is no deflection and record in installation checklist.
- 5.6.7.1. Excess deflection to the tank may cause damage to the tank resulting in leaks.
- 5.6.8. If needed, install any bottom connections & piping at this time.
- 5.6.8.1. All connections installed in tank sidewalls (not in tank top) and connections in ends need to use flexible connections to avoid damages to tank or other equipment.
- 5.6.9. Backfill with 12" to 18" of approved backfill material.
- 5.6.9.1. Use any (nonmetal) tamping rod to ensure the backfill is fully packed under the tank.
- 5.6.9.2. All voids must be filled to ensure tank is adequately supported.
- 5.6.10. Backfill with additional 12" to 18" of approved backfill material and repeat the packing process to ensure there are no voids.



- 5.6.11. If ballasting is required, do so now.
- 5.6.11.1. Ballast level inside tank must be below backfill or less than 12" above the water table in the hole.
- 5.6.11.2. Ballasting tank may be necessary sooner in the installation if water cannot be kept out of the hole.
- 5.6.12. Continue to backfill in larger increments to the top of the tank.
- 5.6.12.1. Do not use Excess compaction above the tank.
- 5.6.13. Measure tank diameter again and record in installation checklist.
- 5.6.14. Perform required post installation testing. (Tank may not require post installation testing depending on end use.)
- 5.6.14.1. AIR TEST
- 5.6.14.1.1. For single wall tanks, repeat steps in 3.2.

5.6.14.1.2. For UL & Double wall tanks, repeat steps in 3.3.

5.6.14.1.2.1. If interstitial space was left under vacuum, confirm vacuum is still in place.

5.6.14.1.3. If a leak is detected, contact your KBK Sales Representative.

5.6.15. Install top piping, venting, & other attachments now.

5.6.15.1. Sumps, monitors, valves, etc.

5.6.16. Finish backfills to grade or subgrade depending on site specifics.

6. TANK VENTING & OTHER ACCESSORIES

6.1. VENTS

6.1.1. Tank must be properly vented at all times. This includes:

6.1.1.1. Primary Tank

6.1.1.2. ALL Tank Compartments

6.1.1.3. Interstitial Space – Only on Hydrostatically monitored tanks.

6.1.1.3.1. Tanks with dry interstitial space can vent to the atmosphere.

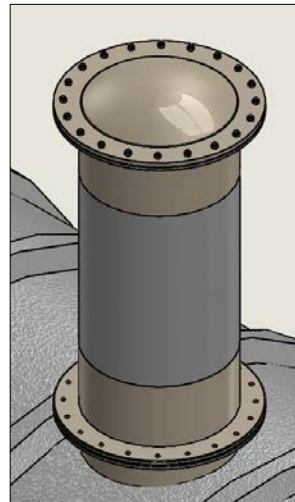
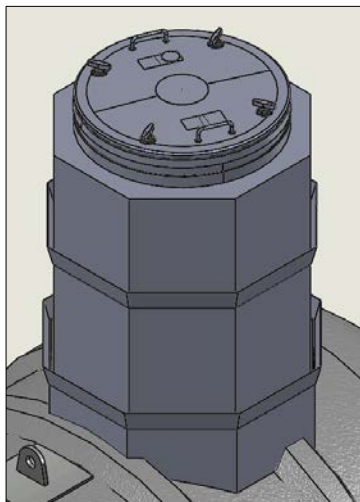
6.1.2. Do not use vent-restricting devices in instances where the tank operator will pump-fill or pressure-fill the tank.

6.1.3. Most tanks are designed to operate at atmospheric pressure. Ensure that the venting set up is large enough to maintain atmospheric pressure inside the tank.

6.1.4. There are instances where KBK Tanks are designed for higher operating pressures. In this case, ensure that the tank is vented so that the max operating pressure is not surpassed.

6.2. SUMPS & MANWAY RISERS

6.2.1.1. KBK offers a variety of sumps to fit various applications. For info on a specific sump, contact your KBK Sales Representative.



6.2.2. Sumps and Manway Risers are not designed to withstand traffic loads. Ensure that the sump is isolated from such loads and does not transfer a concentrated traffic load to the KBK Tank.

6.2.3. Sumps and Manway Risers are shipped loose and will need installed in the field.

6.2.3.1. Inspect Sump for Damages before installation, if there are damages, please contact your KBK Sales Representative.

6.2.3.2. All Sumps are provided with a kit to install and instructions.

6.2.3.3. Always wear proper eye protection and gloves when handling frp & epoxy materials during sump installation.

6.2.4. A minimum of 3" clearance from the top of the sump to the load bearing surface (concrete pad or street box frame) is required.

6.2.4.1. Sump can be trimmed before installation to fit the length required; See Sump Instructions for additional details.

6.2.5. KBK recommends using 1'-0" of sand or pea gravel as the primary backfill material around the sump.

6.3. OTHER CONNECTIONS

6.3.1. Follow all instructions provided by the manufacturer when installing other connections such as pumps, valves, alarms, etc.

6.3.2. Accessories and other Connections on the tank are determined by site needs.

6.3.3. Do not over-tighten bolts or threaded connections or it may cause damage to threads.



KBK UNDERGROUND TANK INSTALLATION CHECKLIST

The Tank Installation checklist and all related tank documents must be retained by the tank owner. These documents will be required to submit warranty claims to KBK Industries.

GENERAL

Tank Owner: _____ Installation Date: _____

Owner Address: _____ Site Address: _____

Owner Phone: _____ Owner Email: _____

Contractor Name: _____

Contractor Address: _____ Phone: _____

Email: _____

TANK INFORMATION:

Serial Number: _____ Tank Type: _____

(Double Wall, Single Wall, UL, etc.)

Visual Inspection of Tank: _____

(Note condition of tank: No Damage, Cosmetic damage, etc. If damage is found record here and attach photos)

AIR TEST FINDINGS

(If test is not necessary, circle "NA")

Primary Showed No Evidence of Leaks during soap test: YES NO NA

Comp. #__ Showed No evidence of Leaks during soap test: YES NO NA

Comp. #__ Showed No evidence of Leaks during soap test: YES NO NA

Comp. #__ Showed No evidence of Leaks during soap test: YES NO NA

Interstitial Space held required vacuum during test: YES NO NA

TANK DIAMETER MEASUREMENTS

Measurement #1: _____

(Before Installation)

Max Allowable Deflection – 7'-10" Tanks: 1 ¼"

Max Allowable Deflection – 10'-0" Tanks: 1 ½"

Max Allowable Deflection – 12'-0" Tanks: 1 ¾"

Measurement #2: _____

(After Tank is Set in Hole)

Measurement #3: _____

(After Anchor Straps are Tightened)

Measurement #4: _____

(When backfill is to Top of Tank)

SITE & INSTALLATION SPECS

Primary Backfill Material: _____

Secondary Backfill Material: _____
(If Used)

Will Site Experience Traffic Loads? YES NO

Backfill above top of tank: _____
(Note any concrete or asphalt pads if used on top of backfill)

Excavation Size: _____ Dry Hole or Wet Hole

Min of 12" of tank Bedding: YES NO Material: _____

Is Anchoring provided by KBK? YES NO If no, specify anchoring details below:

Were straps placed in marked locations across the tank on top of ribs? YES NO NA

Was fill installed in 12" to 18" sections? YES NO NA

Was each section of backfill packed around the tank to ensure no voids? YES NO NA

Are flexible connections used for all fittings except those in tank top? YES NO NA

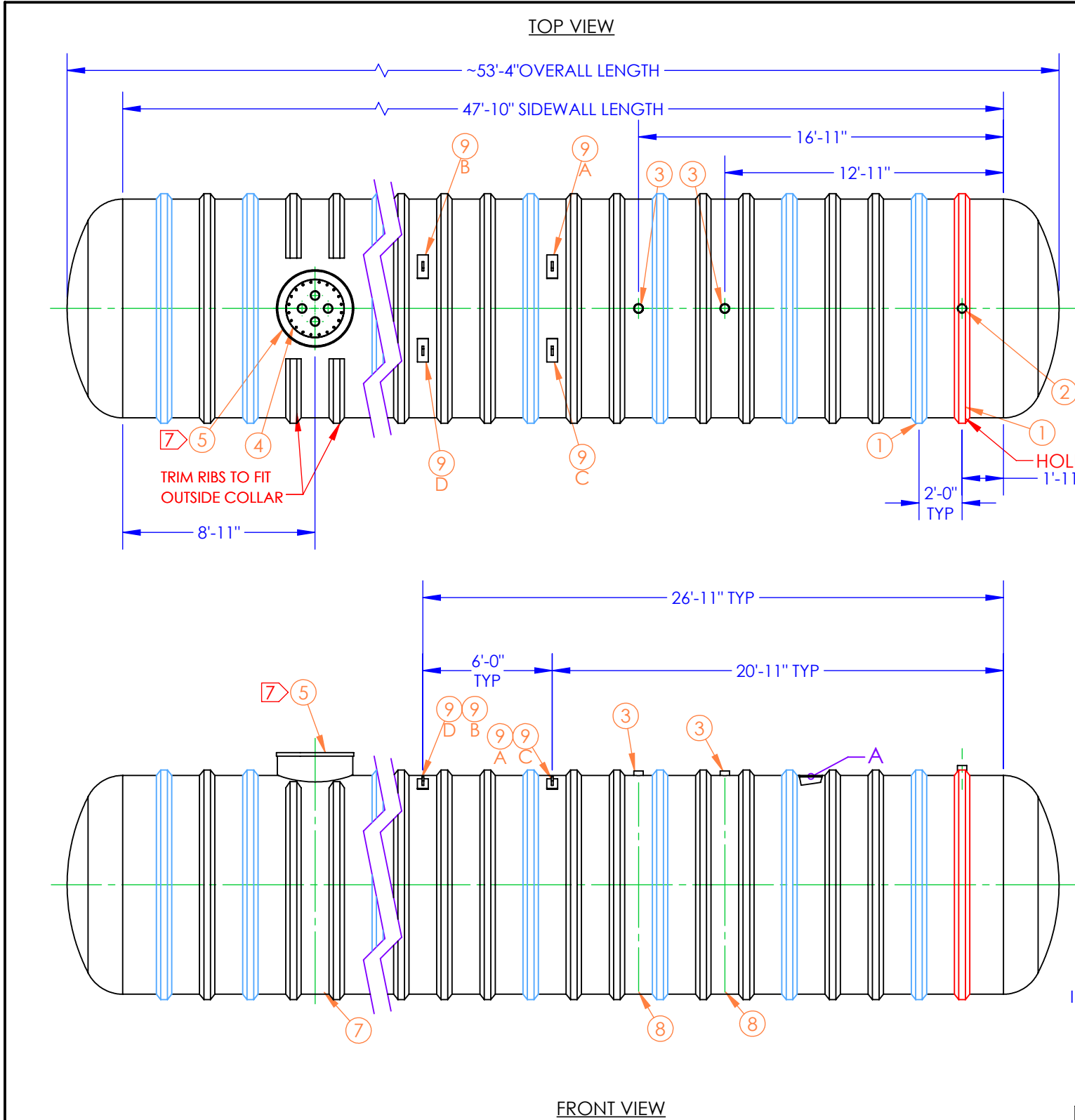
Did Tank and/or Anchoring require site specific Engineering? YES NO NA

Were tanks ballasted during installation? YES NO NA

Was tank level when installed in the hole? YES NO NA

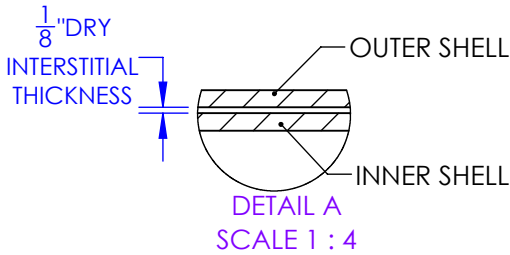
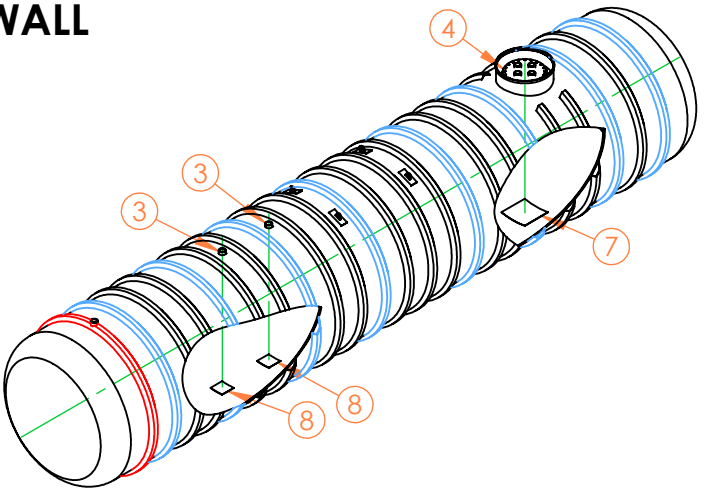
POST INSTALLATION TESTING NOTES_____

_____**OTHER NOTES**_____



IN PROCESS	FINAL QC	ITEM NO.	DESCRIPTION	SIZE	QTY.	PART NUMBER
		1	RIBS	8" x 4" x 2-1/2"	23	25FR10808
9	8	2	INTERSTITIAL MONITOR	4" HALF COUP. FRP	1	26HF0400
9		3	AUXILIARY	4" API FULL COUP. A36 STEEL	2	36ACP040
2		4	MANWAY	24" UL FRP W/ A36 COVER	1	90MWUL24S
7		5	SUMP COLLAR	BRAVO Ø 42" COLLAR	1	B420-12-S-CO-S10
10	2	6	AUXILIARY	4" API HALF COUP. A36 STEEL	4	36AHC040
2		7	STRIKER PLATE	3/16" x 22" x 22" A36 STEEL	1	32SP2222
2		8	STRIKER PLATE	3/16" x 12" x 12" A36 STEEL	2	32SP1212
		9	HEAVY LIFT-LUG	PART #23 GALVANIZED STEEL	4	32PT23LUGLIFTH

UL-1316-DOUBLE WALL
30,000 DIESEL

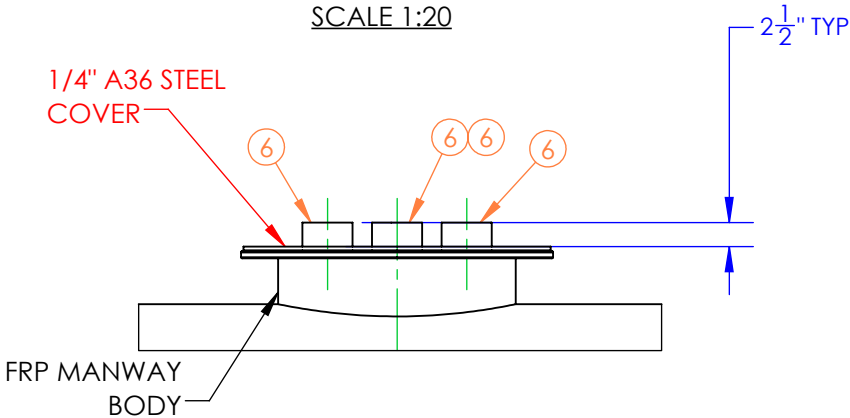
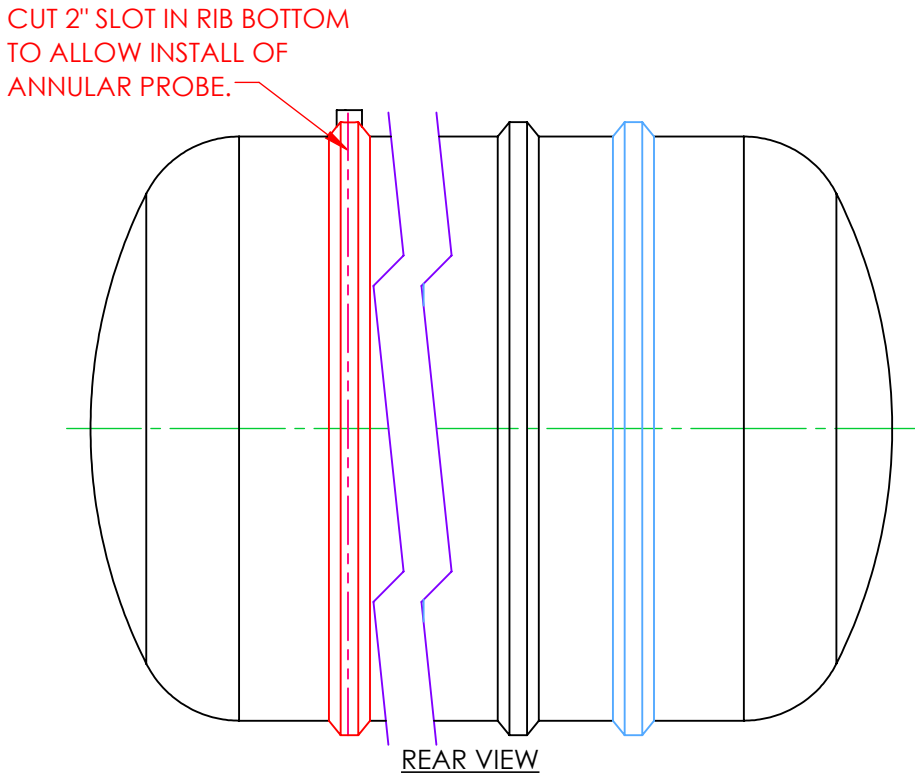
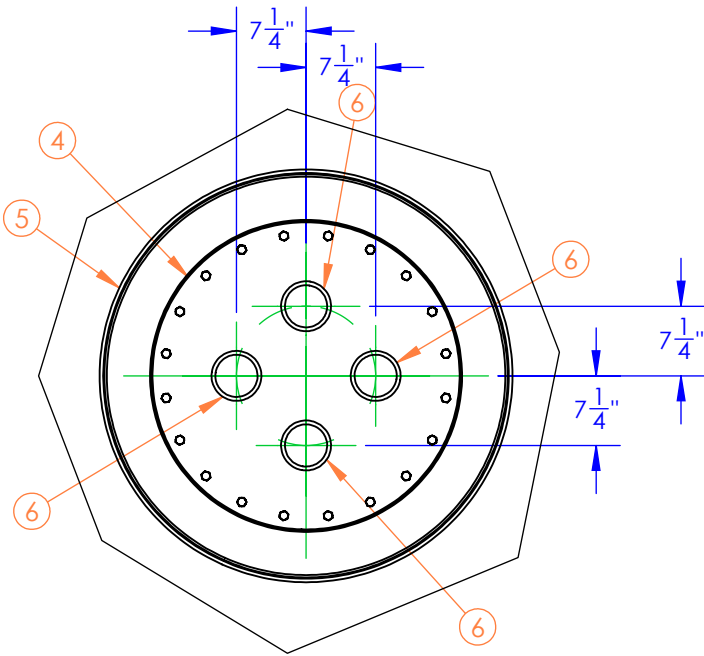
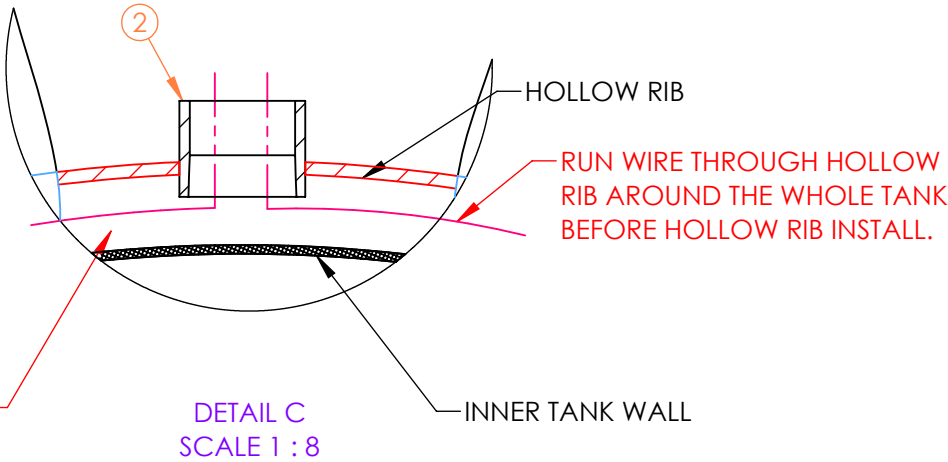
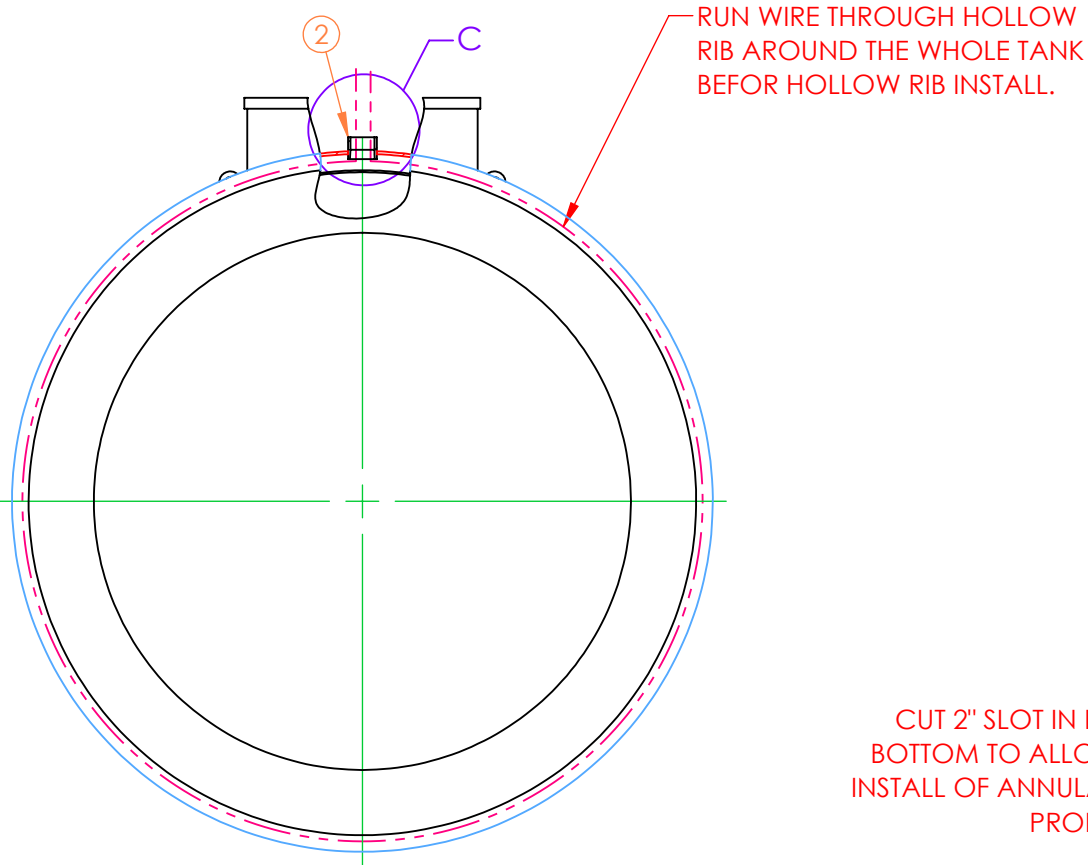


- NOTES:
- BUILD TANK TO UL 1316 STANDARDS; TANK IS UL CERTIFIED.
 - STRIKER PLATES REQUIRED BELOW ALL CONNECTIONS EXCEPT THE VENT FITTINGS.
 - TEST IN ACCORDANCE WITH UL 1316.
 - ALL OPENINGS MUST BE COVERED DURING SHIPMENT
 - SEE SHEET 3 FOR SHIPPING DETAILS.
 - ONLY USE UL APPROVED RAW MATERIALS.
 - KBK TO PROVIDE BRAVO COLLARS, WILL SHIP THE SUMP DIRECT TO SITE FOR INSTALLATION.
 - RUN WIRE THROUGH HOLLOW RIB BEFORE RIB INSTALLATION, SEE SHEET 2 FOR DETAILS.
 - ITEM IS DETAILED ON SHEET 2.
 - INSTALL 1/4" A36 CS PLATE TO INSTALL COUPLINGS ON FIBERGLASS SIDEWALL.

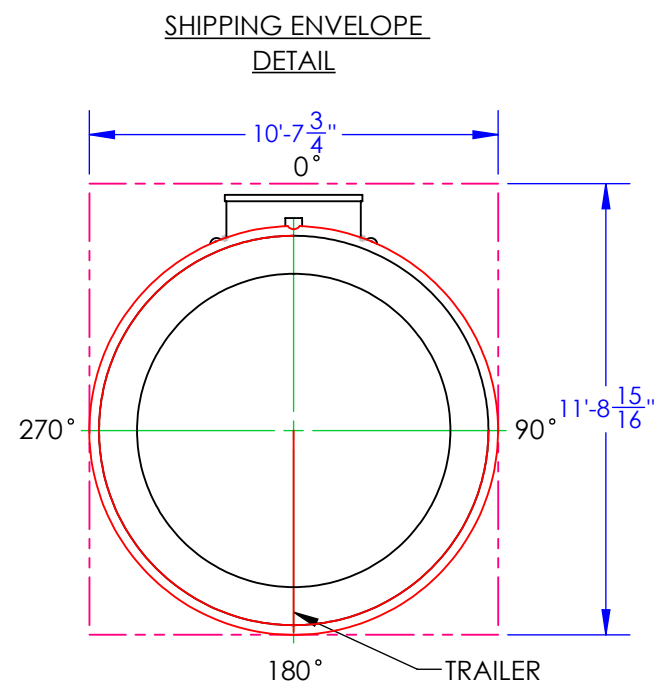
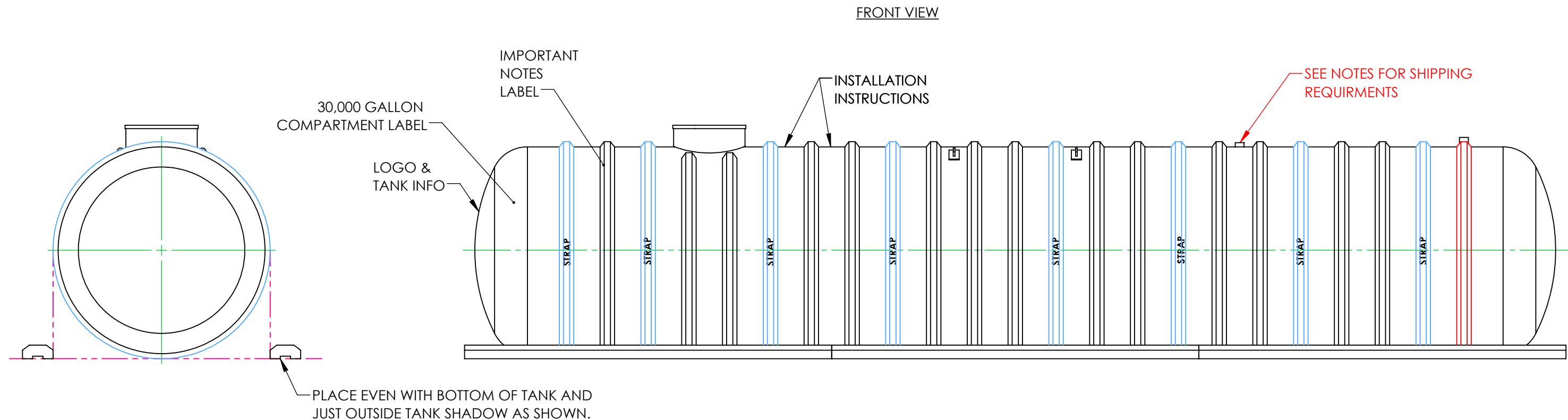
DESIGN PARAMETERS		FABRICATION MATERIALS		FABRICATION MATERIALS	
PRESSURE:	+/- 5.0 psi	LINER RESIN:	UL APPROVED	GEL COAT:	NONE
MAX TEMP:	AMBIENT	LINER GLASS TYPE:	C-VEIL	PIGMENT:	CARLSBAD CANYON
MIN TEMP:	AMBIENT	STRUCTURE RESIN:	UL APPROVED	GROUNDING STRIP:	NO
CONTENTS:	DIESEL	STRUCTURE GLASS:	E-GLASS	WATER TEST:	NO
SPECIFIC GRAVITY:	1.0 MAX	WOVEN ROVING:	24oz (.033")	POST CURE	NO
EMPTY WEIGHT:	15,000 LBS	CHOP HOOP:	E-GLASS (.046")	THIEF HATCH GSKT:	NA
CAPACITY:	30,000 GAL	CHOP GLASS:	E-GLASS (.043")	MANWAY GASKET:	NEOPRENE
REFERENCE SPEC:	KBK-UL 1316	CHOPPED MAT:	1 1/2 oz E-GLASS	BOLT TYPE:	ZINC PLATED GR5

REV	DATE	REVISION	DRN	CHD	CUSTOMER		
					DRAWING NAME		
					Ø 10' x 47'-10" UL 1316		
					DRAWING NUMBER		
					UL-1316-2022-0103		
PROPRIETARY NOTICE THIS DRAWING IS THE PROPERTY OF KBK INDUSTRIES, PO BOX 216, RUSH CENTER, KS. THIS DRAWING, ALL ASSOCIATED CALCULATIONS, AND CONTENTS HERE WITHIN ARE THE SOLE PROPERTY OF KBK INDUSTRIES & ANY USE OF THIS DRAWING FOR ANY PURPOSE OTHER THAN END-CLIENT APPROVAL OR KBK FABRICATION IS STRICTLY PROHIBITED. AT ANY TIME, KBK MAY REQUEST THIS DRAWING AND ALL ASSOCIATED MATERIAL BE RETURNED TO KBK INDUSTRIES.					DRAWN BY	R. HYLTON	2/9/22
					CHECKED BY	J. MULLER	2/9/22
					SERIAL NUMBER	TBD	
					SCALE	1:75	SHEET 1 OF 3

IN PROCESS	FINAL QC	ITEM NO.	DESCRIPTION	SIZE	QTY.	PART NUMBER
		2	INTERSTITIAL MONITOR	4" HALF COUP. FRP	1	26HF0400
		3	AUXILIARY	4" API FULL COUP. A36 STEEL	2	36ACP040
		4	MANWAY	24" UL FRP W/ A36 COVER	1	90MWUL24S
		5	SUMP COLLAR	BRAVO Ø 42" COLLAR	1	B420-12-S-CO-S10
		6	AUXILIARY	4" API HALF COUP. A36 STEEL	4	36AHC040



REV	DATE	REVISION	DRN	CHD	CUSTOMER		
					DRAWING NAME		
					Ø 10' x 47'-10" UL 1316		
					DRAWING NUMBER		
					UL-1316-2022-0103		
PROPRIETARY NOTICE THIS DRAWING IS THE PROPERTY OF KBK INDUSTRIES, PO BOX 216, RUSH CENTER, KS. THIS DRAWING, ALL ASSOCIATED CALCULATIONS, AND CONTENTS HERE WITHIN ARE THE SOLE PROPERTY OF KBK INDUSTRIES & ANY USE OF THIS DRAWING FOR ANY PURPOSE OTHER THAN END-CLIENT APPROVAL OR KBK FABRICATION IS STRICTLY PROHIBITED. AT ANY TIME, KBK MAY REQUEST THIS DRAWING AND ALL ASSOCIATED MATERIAL BE RETURNED TO KBK INDUSTRIES.					DRAWN BY	R. HYLTON	2/9/22
					CHECKED BY	J. MULLER	2/9/22
					SERIAL NUMBER	TBD	
					SCALE	1:45	SHEET 2 OF 3



SHIPPED LOOSE:
(8) FIBERGLASS HOLD DOWN STRAPS
DEADMAN, TURNBUCKLES, AND EYE
BOLTS SUPPLIED BY CUSTOMER

NOTES:

- DURING TANK INSTALLATION, HOLD DOWN STRAPS MUST BE PLACED ON RIBS (SHOWN IN BLUE ON DRAWING).
- APPLY 10in Hg VACUUM TO INTERSTITIAL SPACE PRIOR TO SHIPMENT.
-INSTALL PLUG IN INTERSTITIAL VENT AND GAUGE AND VALVE TO PLUG.
- PRIMARY COMPARTMENT TO BE VENTED TO ATMOSPHERE.
-INSTALL PVC PLUG IN ONE OF PRIMARY TANK FITTINGS W/ MIN. 3/16" HOLE THROUGH CENTER FOR VENTING.
-INSTALL THREAD PROTECTORS IN REMAINING TANK FITTINGS.
-INSTALL THREAD PROTECTORS IN ALL MANWAY FITTINGS.

REV	DATE	REVISION	DRN	CHD	CUSTOMER		
					DRAWING NAME		
					Ø 10' x 47'-10" TANK MARKINGS		
					DRAWING NUMBER		
					UL-1316-2022-0103		
					DRAWN BY	R. HYLTON	2/9/22
					CHECKED BY	J. MULLER	2/9/22
					SERIAL NUMBER	TBD	
					SCALE	1:60	
						RUSH CENTER, KANSAS LIBERAL, KANSAS	SHEET 3 OF 3

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20,000 Gallon UST Chart

DIPSTICK	GALLONS	DIPSTICK	GALLONS	DIPSTICK	GALLONS	DIPSTICK	GALLONS
1/2	8	23 1/2	2,712	46 1/2	7,159	69 1/2	12,112
1	24	24	2,796	47	7,265	70	12,219
1 1/2	44	24 1/2	2,881	47 1/2	7,371	70 1/2	12,326
2	68	25	2,967	48	7,476	71	12,432
2 1/2	95	25 1/2	3,054	48 1/2	7,583	71 1/2	12,539
3	125	26	3,141	49	7,689	72	12,645
3 1/2	158	26 1/2	3,229	49 1/2	7,796	72 1/2	12,751
4	193	27	3,318	50	7,902	73	12,857
4 1/2	230	27 1/2	3,407	50 1/2	8,009	73 1/2	12,962
5	270	28	3,497	51	8,116	74	13,067
5 1/2	311	28 1/2	3,588	51 1/2	8,223	74 1/2	13,172
6	355	29	3,679	52	8,331	75	13,277
6 1/2	400	29 1/2	3,771	52 1/2	8,438	75 1/2	13,382
7	448	30	3,863	53	8,546	76	13,486
7 1/2	496	30 1/2	3,956	53 1/2	8,653	76 1/2	13,590
8	547	31	4,049	54	8,761	77	13,694
8 1/2	599	31 1/2	4,143	54 1/2	8,869	77 1/2	13,797
9	653	32	4,238	55	8,977	78	13,900
9 1/2	708	32 1/2	4,333	55 1/2	9,058	78 1/2	14,003
10	764	33	4,428	56	9,194	79	14,106
10 1/2	822	33 1/2	4,524	56 1/2	9,302	79 1/2	14,208
11	882	34	4,621	57	9,409	80	14,309
11 1/2	942	34 1/2	4,717	57 1/2	9,517	80 1/2	14,411
12	1,004	35	4,815	58	9,626	81	14,512
12 1/2	1,067	35 1/2	4,913	58 1/2	9,735	81 1/2	14,613
13	1,131	36	5,011	59	9,843	82	14,713
13 1/2	1,197	36 1/2	5,110	59 1/2	9,952	82 1/2	14,813
14	1,263	37	5,209	60	10,061	83	14,913
14 1/2	1,331	37 1/2	5,308	60 1/2	10,169	83 1/2	15,012
15	1,400	38	5,408	61	10,278	84	15,110
15 1/2	1,469	38 1/2	5,509	61 1/2	10,386	84 1/2	15,209
16	1,540	39	5,609	62	10,495	85	15,307
16 1/2	1,612	39 1/2	5,711	62 1/2	10,603	85 1/2	15,404
17	1,685	40	5,812	63	10,711	86	15,501
17 1/2	1,759	40 1/2	5,914	63 1/2	10,820	86 1/2	15,597
18	1,833	41	6,016	64	10,928	87	15,693
18 1/2	1,909	41 1/2	6,118	64 1/2	11,036	87 1/2	15,789
19	1,985	42	6,221	65	11,144	88	15,884
19 1/2	2,063	42 1/2	6,324	65 1/2	11,252	88 1/2	15,978
20	2,041	43	6,428	66	11,360	89	16,072
20 1/2	2,220	43 1/2	6,531	66 1/2	11,468	89 1/2	16,166
21	2,300	44	6,635	67	11,576	90	16,258
21 1/2	2,381	44 1/2	6,740	67 1/2	11,683	90 1/2	16,351
22	2,462	45	6,844	68	11,791	91	16,442
22 1/2	2,545	45 1/2	6,949	68 1/2	11,898	91 1/2	16,534
23	2,628	46	7,054	69	12,005	92	16,624

20,000 Gallon UST Chart

DIPSTICK	GALLONS	DIPSTICK	GALLONS
92 1/2	16,714	115 1/2	19,891
93	16,803	116	19,929
93 1/2	16,892	116 1/2	19,964
94	16,980	117	19,997
94 1/2	17,067	117 1/2	20,027
95	17,154	118	20,054
95 1/2	17,240	118 1/2	20,077
96	17,325	119	20,098
96 1/2	17,410	119 1/2	20,113
97	17,494	120	20,121
97 1/2	17,577		
98	17,659		
98 1/2	17,741		
99	17,821		
99 1/2	17,901		
100	17,980		
100 1/2	18,059		
101	18,136		
101 1/2	18,213		
102	18,288		
102 1/2	18,363		
103	18,437		
103 1/2	18,509		
104	18,581		
104 1/2	18,652		
105	18,722		
105 1/2	18,791		
106	18,858		
106 1/2	18,925		
107	18,990		
107 1/2	19,054		
108	19,117		
108 1/2	19,179		
109	19,240		
109 1/2	19,299		
110	19,357		
110 1/2	19,413		
111	19,469		
111 1/2	19,522		
112	19,574		
112 1/2	19,625		
113	19,674		
113 1/2	19,721		
114	19,767		
114 1/2	19,810		
115	19,852		

