



General Contractor Information

RTI Bulk Oil Installations

Contents

Line Bundles

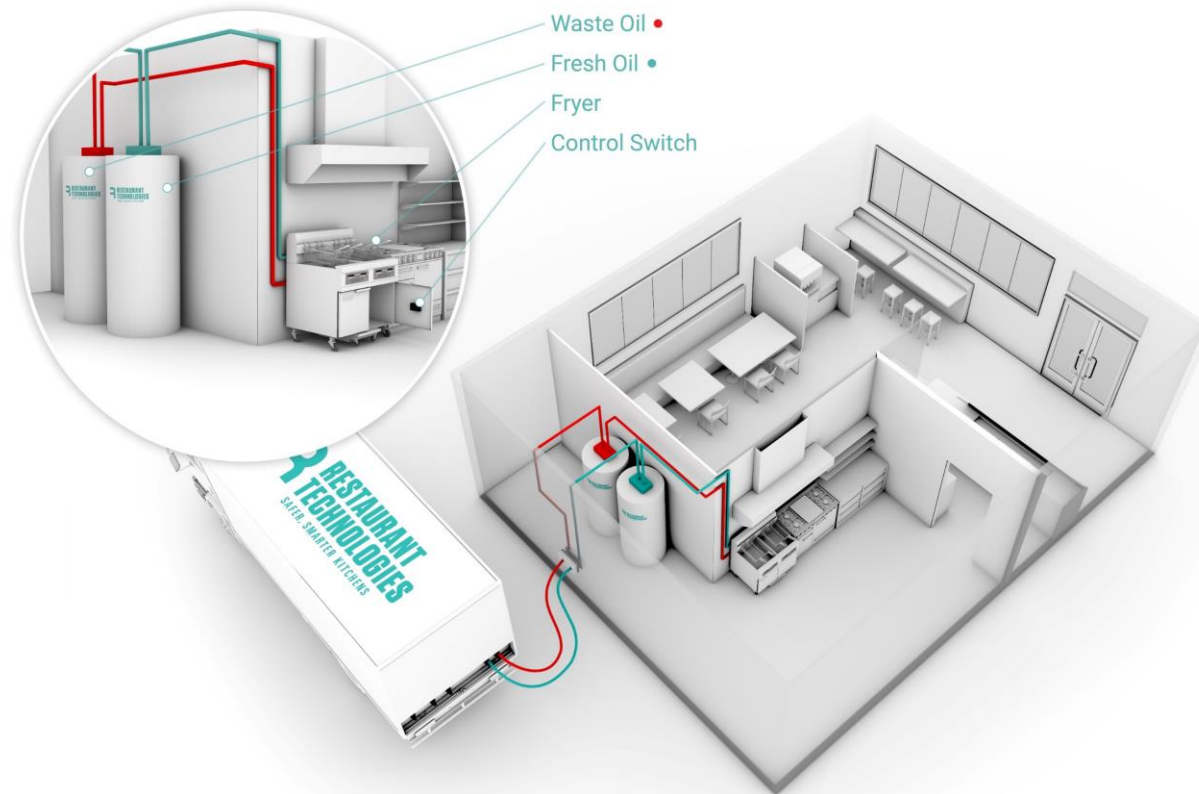
Fill Box

Tanks

When To Install



Total Oil Management System Overview



Line Bundles

We run flex oil lines for all locations. This encompasses from the external Fill Box to Tanks and from the Tanks to Fryers. **We do not run hard pipe.**

We provide Stainless-Steel chases for an aesthetically pleasing look to cover our lines at the fryer location and fill box location, if necessary



Line Bundles Cont.

If the survey shows our lines running through an exposed ceiling, it is up to the customer to decide if our exposed line bundle will suffice. If it is determined that the lines are visible to the customer and not aesthetically pleasing, the customer would need to have the GC run PVC (4") for our line bundle, with a pull string.

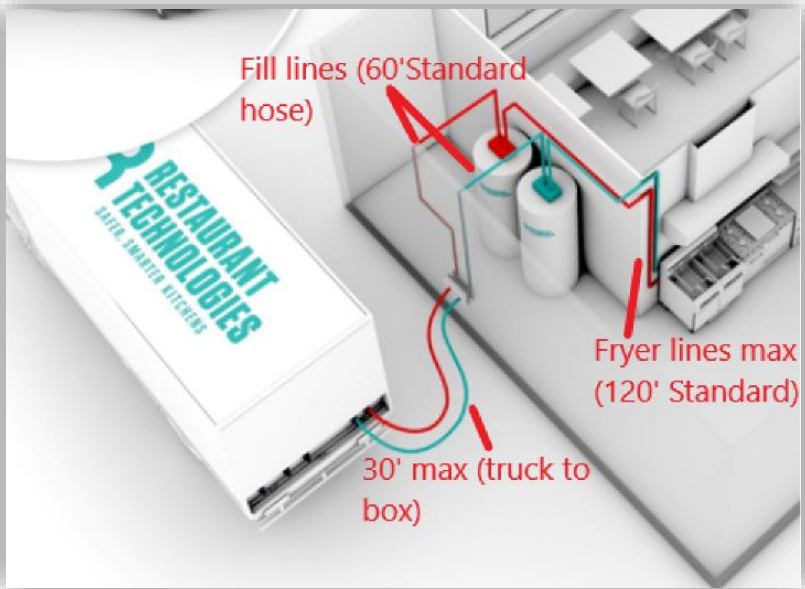


Line Bundles Cont.

Oil is pumped through spur gear pumps. We have specific limitations and parameters. Refer to the chart to determine if your location meets our specifications.

If the tanks are not located on the main floor, please reach out to your RTI Project Manager or Install Coordinator for elevation specifications.

We have the option to increase hose sizes to meet building requirements, however, this may result in additional costs for the customer.



Recommended Maximum Distances:

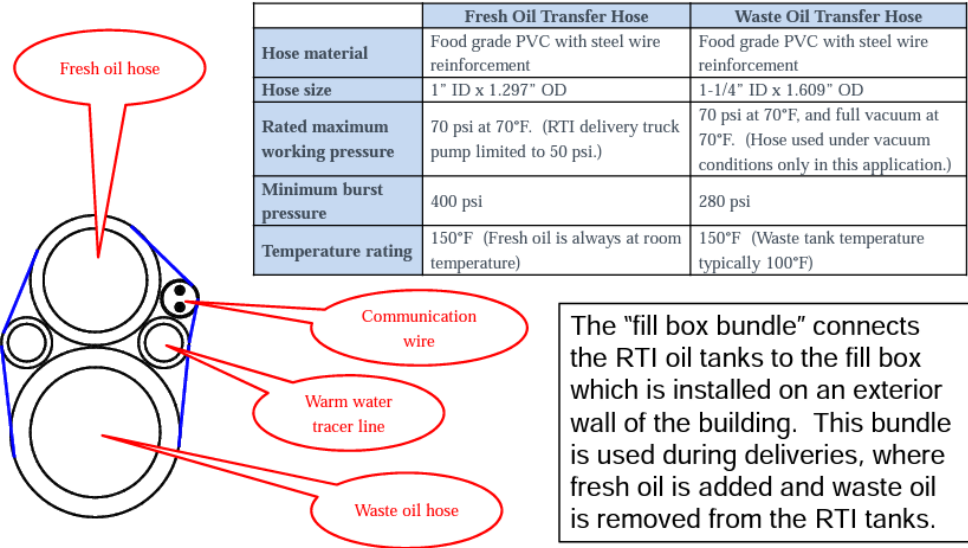
The following distances are for installations where tanks, fill box and fryers are located on the same floor.

Indoor Tanks	Max (ft) Standard Hose	Max (ft) Upsized Hose
Distance from fill box to delivery truck back panel	30'	30"
Length of hose from fill box to fresh oil tank	60'	120'
Length of fresh oil hose from fresh oil pump located on the tank to the fryer	120'	300'
Length of waste oil hose from fryer to waste oil tank	120'	300'

Line Bundle Specifications

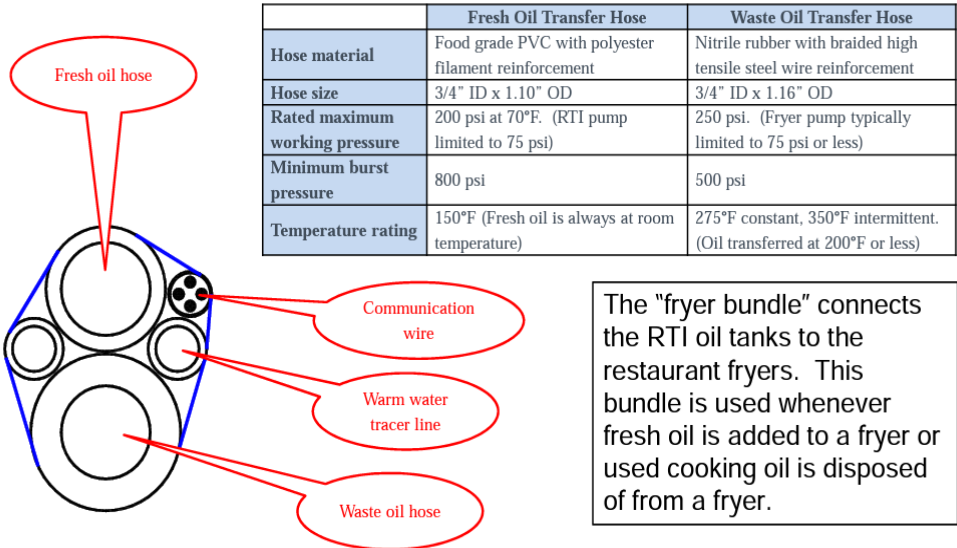
RTI Equipment Spec: Fill Box Bundle

Standard Size Hose – for lengths up to 60 ft.



RTI Equipment Spec: Fryer Bundle

Standard Size Hose – for lengths up to 120 ft.



External Fill Box

Surface Mount - Existing Building



Installed by RT on day of installation

Flush Mount – New Construction

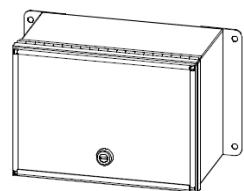


GC is responsible for installation. If you need it immediately to rough in, we can have it shipped to you. **Please Note:** A 4" core hole is required to install. Preferred height 48"-60".

External Fill Box Specs

Surface Mount – Installed by RT

RTI Equipment Spec: Surface Mount Fill Box

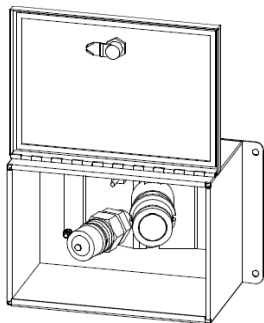


Front View
(lid closed)

RTI part number:	11494974
Primary purpose:	Connection point for delivery truck. Tanks filled/emptied through this point.
Where located:	On exterior wall of building.

Specs:

- Dimensions: 7"H x 13"W (including flange) x 6" deep
- Features:
 - All stainless steel construction
 - Integral locking latch (key retained by RTI)
 - Food-grade new oil coupler
 - Incompatible waste oil coupler
 - Connection for overfill protection
 - Drip tray to catch residual oil
- Mounting details:
 - Surface mounted
 - 3" diameter hole through wall (sealed)
 - Locate within 15 feet of waste oil tank (longer distances possible, but delivery times increase)
 - Locate away from drive-thru (if applicable)

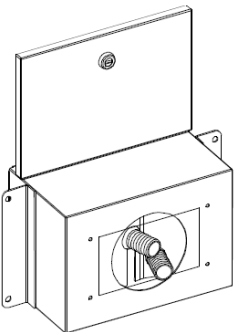


Front View
(lid open)

Rev. 4/12/16

Flush Mount – Installed By GC

RTI Equipment Spec: Flush Mount Fill Box



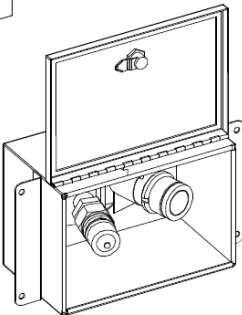
Rear View

RTI part number:	11604432
Primary purpose:	Connection point for delivery truck. Tanks filled/emptied through this point.
Where located:	On exterior wall of building.

Specs:

- Dimensions: 7"H x 13"W (including flange) x 6" deep
- Features:
 - All stainless steel construction
 - Integral locking latch (key retained by RTI)
 - Food-grade new oil coupler
 - Incompatible waste oil coupler
 - Connection for overfill protection
 - Drip tray to catch residual oil
- Mounting details:
 - Flush mounted (protrudes 2" from surface of wall)
 - Required opening: 7-1/8"H x 10-1/4"W x 4" deep (if wall is thicker than 4", a 3" diameter hole is also required for remaining wall thickness)
 - Locate within 15 feet of waste oil tank (longer distances possible, but delivery times increase)
 - Locate away from drive-thru (if applicable)

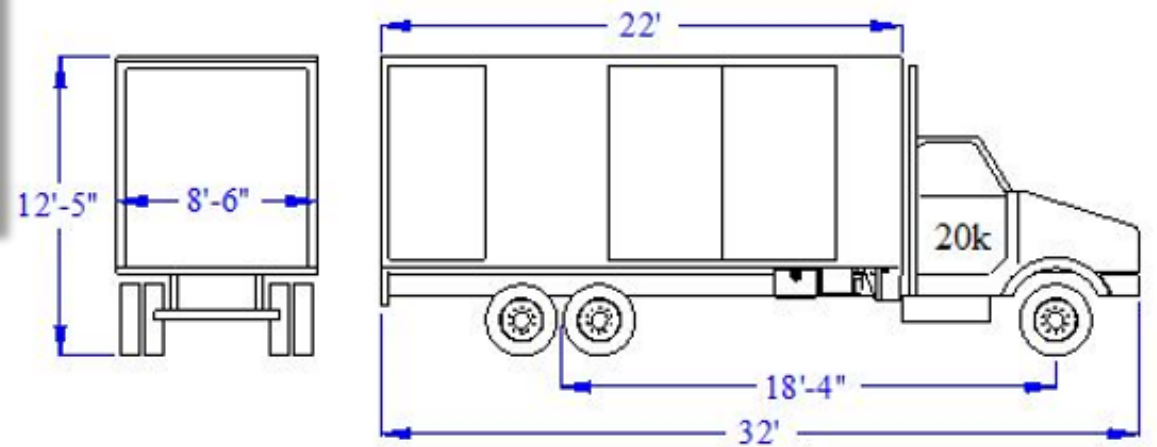
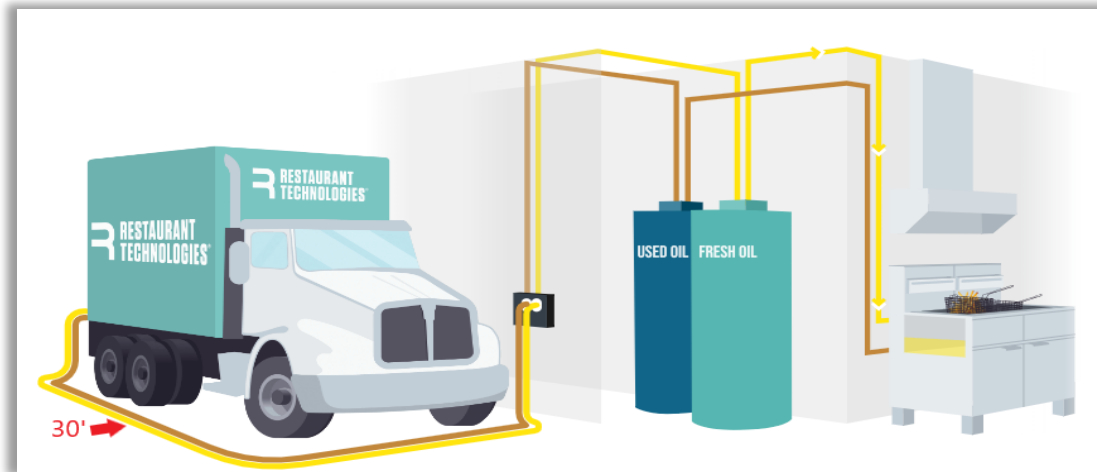
Front View



Rev. 4/12/16

External Fill Box and Truck Placement

This placement of this box must be within 30' of where the RT Truck will park to deliver. Upon placement, please designate a safe location for our Truck to park for deliveries. Truck dimensions below. Please be mindful of tight spaces, low awnings and parking garages may not be suitable for a truck this size.



Indoor Tanks Option

Electrical Requirements for RT Indoor Tanks

(Restaurant Technologies to visibly post at tank location)

Listed below are the power requirements for the Restaurant Technologies indoor tanks. These requirements are for the supporting equipment located on top of the Restaurant Technologies tanks.



Dedicated Quad Outlet



Equipment to be installed:

- One (1) quad outlet, or two (2) duplex receptacles.

Required Voltage/Amperage:

- 120Vac, 20amp, single phase.
- The Restaurant Technologies equipment that will plug into these receptacles are UL listed appliances and will pull less than 20amps total when all are running at the same time (rare occasion).

Location of Receptacle:

- On wall centered between Restaurant Technologies tanks, 7 feet above floor.

Wiring:

- Can put both receptacles in one enclosure (quad) or separate enclosures. If separate enclosures, receptacles must be located within 3 feet of each other.
- Wire to building switchboard or panelboard.
- Wire both duplex receptacles to a single dedicated 20amp breaker.
- Label breaker "RTI"
- All wiring must conform to the NEC.
- Permits should be pulled when required by the authority having jurisdiction.

Equipment Spec – Indoor Tanks

Standard Size (1,400 lbs. capacity)



Dimensions

- Tank Height = 81"
- Tank Diameter = 28"
- With a Stand (All California installs require a stand for each tank)
- Tank Height on a Stand = 83.5"
- Tank Diameter on a stand = 29"

Vessel Material = Food-Grade Polyethylene

- Max temp rating = 120°F (fresh oil tank), 235°F (waste oil tank)

Net Storage Capacity, at overfill switch trip point

- Fresh oil tank = 1,400 lbs. (183 gallons)
- Waste oil tank = 1,400 lbs. (183 gallons)

Weight

- Fresh oil tank: Empty = 82 lbs., Full = 1,482 lbs.
- Waste oil tank: Empty = 142 lbs., Full = 1,542 lbs.

- Tanks must be located indoors in an area that is adequately heated (always 60°F or warmer).

Features

- Tank provided with mounting inserts to secure to floor.
- Overfill switch provided on both tanks.
- Waste oil tank is heated.
- Fresh oil tank provided with accurate level gauge that reads in "pounds of oil" inside restaurant.
- Space above oil tanks for locating supporting equipment.
- Certified by NSF to ANSI/NSF Standard 4
- Certified by ETL to UL 2152, *Special Purpose Nonmetallic Containers and Tanks for Specific Combustible and Noncombustible Liquids*.
- Meets the requirements of 2018 NFPA 30 Section 19.7 and 2018 IFC Section 608.

Tanks will be installed the same day of installation. One Fresh Tank and one Waste Tank will be provided. We request the installation of a quad outlet before our scheduled arrival date.

Outdoor Tanks Option

Equipment Spec – Outdoor Tank

Standard Capacity (1,300 lbs. capacity)



- Dimensions
 - 88" Long x 48" Wide x 50" Tall
 - NOTE: Fill box door will stick up an additional 2" when open.
- Tank Material = Food-Grade Polyethylene
- Enclosure Material = Polyethylene
- 120 VAC power required (maximum draw = 25 amp)
- Net Storage Capacity, at overfill switch trip point
 - Fresh oil tank = 1,300 lbs. (169 gallons)
 - Waste oil tank = 1,300 lbs. (169 gallons)
- Weight
 - Empty = 883 lbs.
 - Full = 2,183 lbs. (typical max weight, fresh tank full and waste tank empty)
 - Max = 3,483 lbs. (both tanks full – unlikely scenario)
- Features:
 - Overfill protection provided on both tanks.
 - Heated enclosure (500W max enclosure heater draw).
 - Fresh oil tank provided with remote level gauge, located inside kitchen, that reads in "pounds of oil".
 - Space inside enclosure for locating supporting equipment.
 - Enclosure 100% sealed. Meets SPCC requirements for secondary containment.
 - Fresh oil tank certified by NSF to ANSI/NSF Standard 4.
 - Assembly listed to UL 499.

Electrical Requirements for RT Outdoor Tank

(Restaurant Technologies to visibly post at tank location)

Listed below are the power requirements for the Restaurant Technologies outdoor tank. These requirements are for the tank heating system and supporting equipment located inside the tank enclosure.

WARNING:

DO NOT connect to 220Vac power!
Connect to 120Vac, single phase.



Equipment to be installed:

- One (1) electrical disconnect.

Required Voltage/Amperage:

- 120Vac, 25amp, single phase

Specifications for Disconnect:

- Minimum rating = 25 amps at 120Vac, single phase.
- Number of poles = 2 plus ground
- Enclosure type = must be rated for outdoor use
- Arc shield required over terminals
- Enclosure must have knock-outs for 1/2" conduit.
- Switch type = lever (blade) type. Must be capable of being locked in the OFF position.

Location of Receptacle:

- On exterior wall, 60" (min.) above ground and within 6 ft of outdoor tank.

Wiring:

- Wire to building switchboard or panelboard, 25 amp dedicated breaker.
- Label breaker "RTI"
- All wiring must conform to the NEC.
- Permits should be pulled when required by the authority having jurisdiction.



Electrical Disconnect

If a site is receiving an Outdoor Tank, we will require the General Contractor (GC) to install an electrical disconnect for the tanks.

Outdoor Tanks Surface Preparation

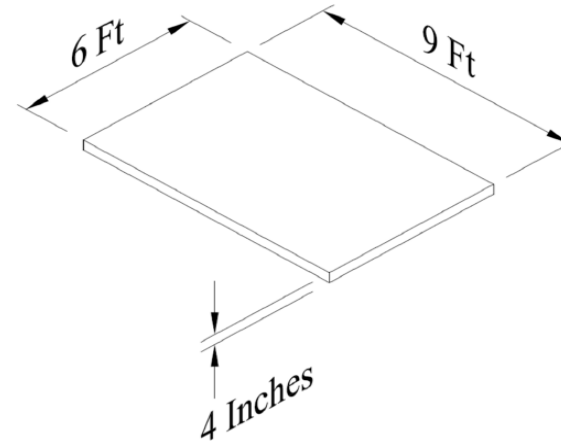
Equipment Spec – Outdoor Tank

Site Prep Requirements

- 1) The 1300 lb outdoor tank must be installed on a flat, hard, level surface. The surface must be capable of handling the weight of the outdoor tank when full. The surface should not be wooden or made of any other material that can rot or degrade over time.
 - 1) Acceptable surfaces = concrete, asphalt, bricks, pavers, patio blocks, hard dirt. Surface must be level.
 - 2) Unacceptable surfaces = wood, wooden pallets, gravel, loose stone, mulch, loose dirt, or any unlevel surface.
- 2) It is the customer's responsibility to ensure that the above acceptable surface is in place prior to the installation of the RT tank.
- 3) The 1300 lb outdoor tank shall not be installed on an elevated platform or deck. The only exception would be if the customer provides in advance an approval by a Civil Engineer licensed in the state and an approval by the local Building Department or AHJ.
- 4) If the 1300 lb outdoor tank is to be installed in a seismic zone (west coast or Memphis, TN), the tank must be installed either on existing concrete (min. 4" thick) or have a concrete pad created per the specs on the next page. These conditions are required if seismic restraints are needed.
- 5) Required clearance around tank:
 - 1) Enough space to get between the tank and the wall for access to the lids. Recommended clearance = 18" to 24" minimum.
 - 2) For seismic zones, enough space to install seismic restraints (see dimensions of concrete pad on next page).
 - 3) Fill Box must be accessible to the RT Delivery Driver.

Equipment Spec – Outdoor Tank

Concrete Pad Specs



- Dimensions = 6 feet x 9 feet.
- Thickness = 4" minimum.
- Compressive strength (f'_c) = 3000 psi minimum in accordance with ACI 318-14.

NOTE:

This pad is required for sites where seismic restraints are required.

Examples of Installed Outdoor Tanks

Coming out of the drop ceiling to the outside, RT Technicians will drill a hole and run PVC down to the tanks. Our flex oil line will run inside the PVC that we provide. Sometimes we penetrate low and chase up on the inside (far right picture).



When to Install

While the customer prefers a prompt installation, our bulk oil system is designed as a finished product. We install everything in one shot, usually within 6-8 hours.

As most of our installs are within existing locations, we are accustomed to installing with a full ceiling in place. We handle the removal of ceiling tiles and the running of hoses with care. The hoses will be securely zip-tied high above the ceiling tiles and framing.

We typically Install the week after Fryers arrive

Other action items that need to be complete before we can install:

- ✓ Parking lot is complete so that we can safely offload our Tanks.
- ✓ Floors and walls complete so that our Tanks can be mounted.
- ✓ Permanent power to the building is required so that we can capture filtration readings from your fryer and oil readings from your tank.





**We look forward to working
with you! Please reach out
if you need more
information.**

