



SUPERCEPTOR[®]

S-2750 System

SuperCeptor S-2750

Services existing sump pit or grease trap daily. Automatically separates grease and oils into a collection container. Solids are placed in a separate container.

System Includes:

- Big Dipper[®] 75 GPM Automatic Grease Removal Unit
- Two (2) Big Flipper[®] Automatic Solids Separators
- System Control Panel
- Back-wash Assembly
- Lift Pump assembly including:
 - Two 1/2 HP (2) diaphragm lift pumps
 - Two (2) 50' flexible hoses with "quick disconnect" fittings*
 - Custom pump discharge fitting
- Powder Coated Aluminum Support Frame
- In-tank grease/oils/solids pick-up assembly

Electrical Requirements. 208-240VAC, 3 Phase, 30 Amp.

Eductor Pump Water Supply Requirements.** . 3/4" supply line, 12 GPM

Maximum Grease Removal. 1744 Pounds/Day

Skimming Rate. 136 Pounds/Hour

Solids Removal Capacity. > 2000 pounds/day

Suggested Containment Space. . . . 8' W x 10' L x 8' H

Diaphragm Pump Maximum Lift Capability.12 feet from static water level of separator tank to highest point of diaphragm pump inlet piping. Please contact factory for higher lift situations.

****S-2750 Wiring Diagrams & Timing Charts are attached to SuperCeptor system.***

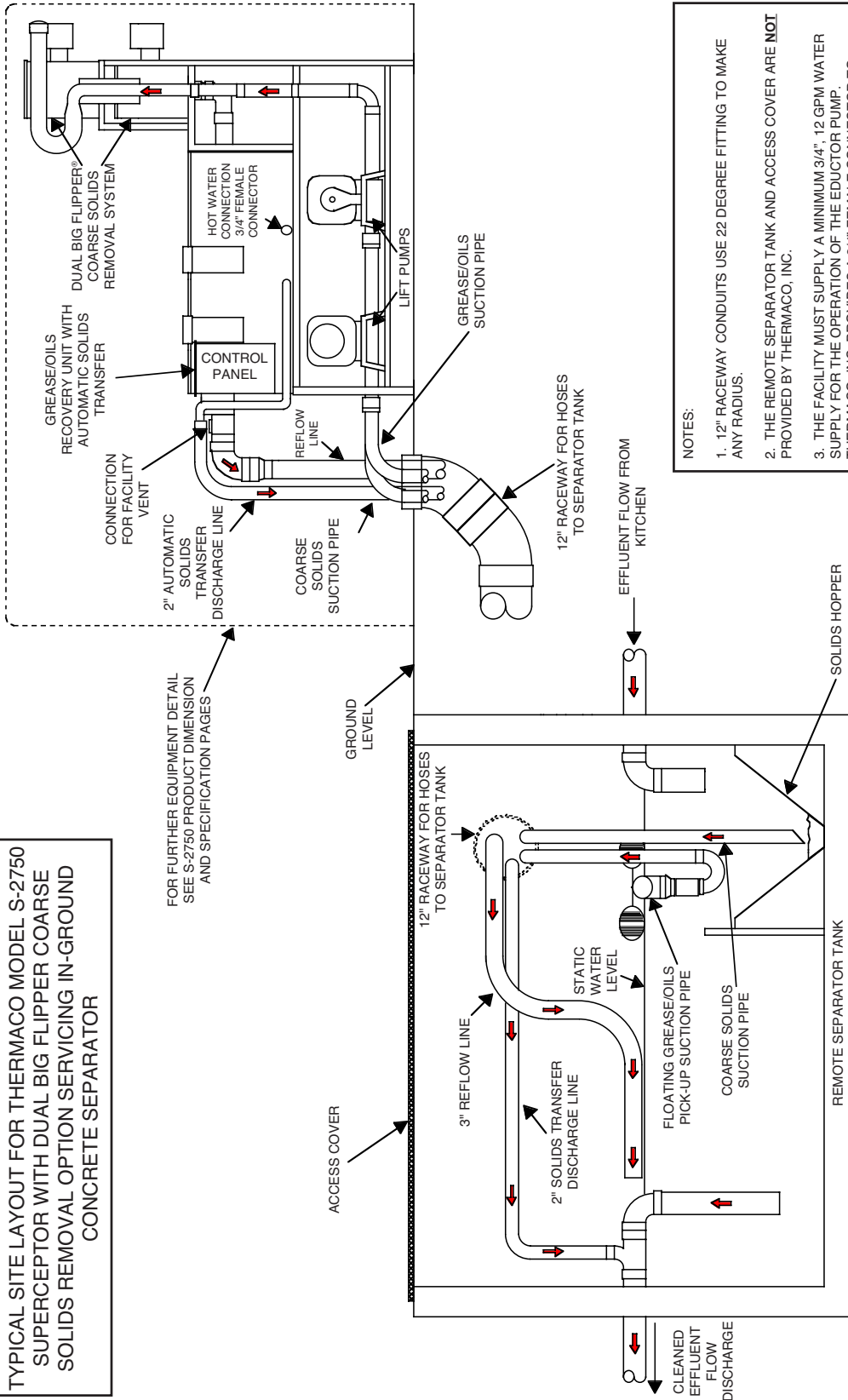
***** Facility is responsible for providing a minimum 3/4", 12 GPM water supply for eductor pump operation. Thermaco, Inc. supplies a 3/4" female connector to connect to this supply.***

Installation Schematic

SuperCeptor S-2750

TYPICAL SITE LAYOUT FOR THERMACO MODEL S-2750 SUPERCEPTOR WITH DUAL BIG FLIPPER COARSE SOLIDS REMOVAL OPTION SERVICING IN-GROUND CONCRETE SEPARATOR

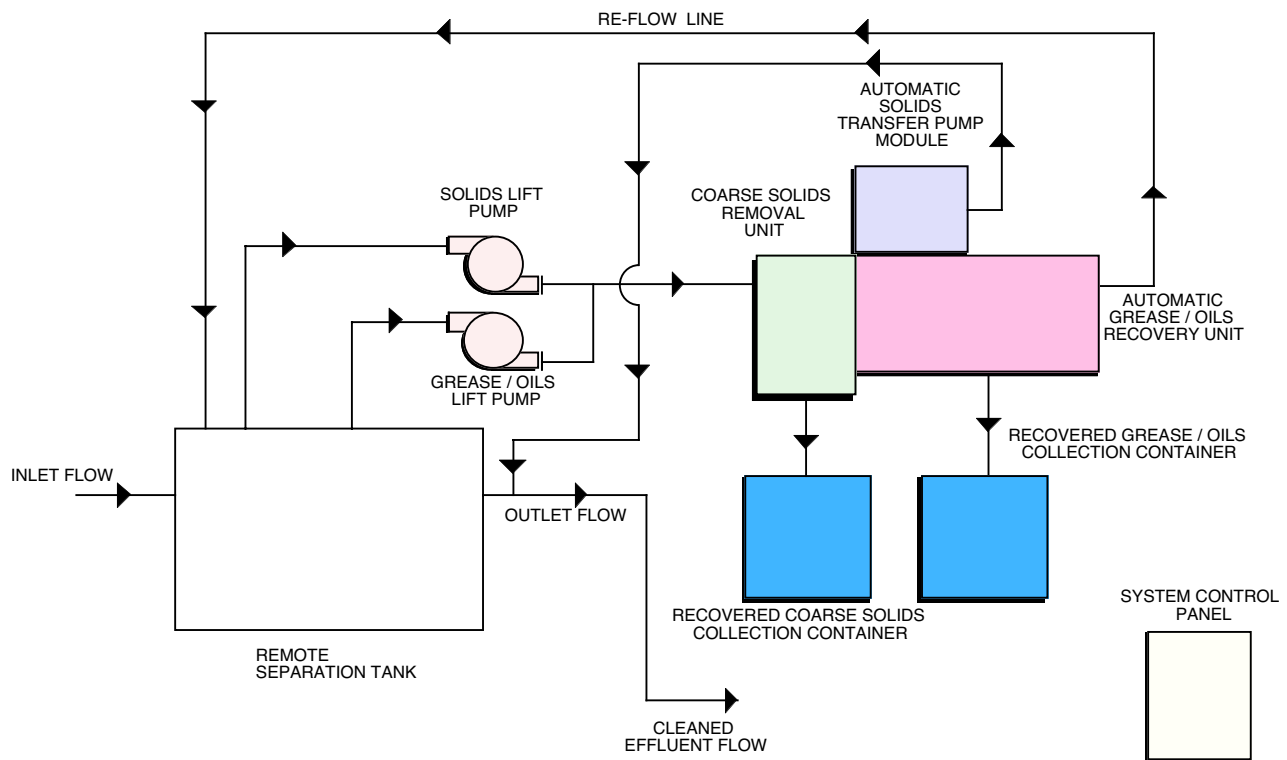
FOR FURTHER EQUIPMENT DETAIL SEE S-2750 PRODUCT DIMENSION AND SPECIFICATION PAGES



NOTES:

1. 12" RACEWAY CONDUITS USE 22 DEGREE FITTING TO MAKE ANY RADIUS.
2. THE REMOTE SEPARATOR TANK AND ACCESS COVER ARE NOT PROVIDED BY THERMACO, INC.
3. THE FACILITY MUST SUPPLY A MINIMUM 3/4", 12 GPM WATER SUPPLY FOR THE OPERATION OF THE EDUCTOR PUMP. THERMACO, INC. PROVIDES A 3/4" FEMALE CONNECTOR TO CONNECT TO THIS WATER SUPPLY.

Note: The remote separator tank is not provided by Thermaco. The remote separator tank will be designed by the engineer to be a passive grease trap.



1. Grease/Oil/Solids bearing flow enters the separator tank from the kitchen. Wastes immediately separate into floating & non-floating (heavier than water) components.
2. Time controller activates SuperCeptor to begin automatic separation operation.

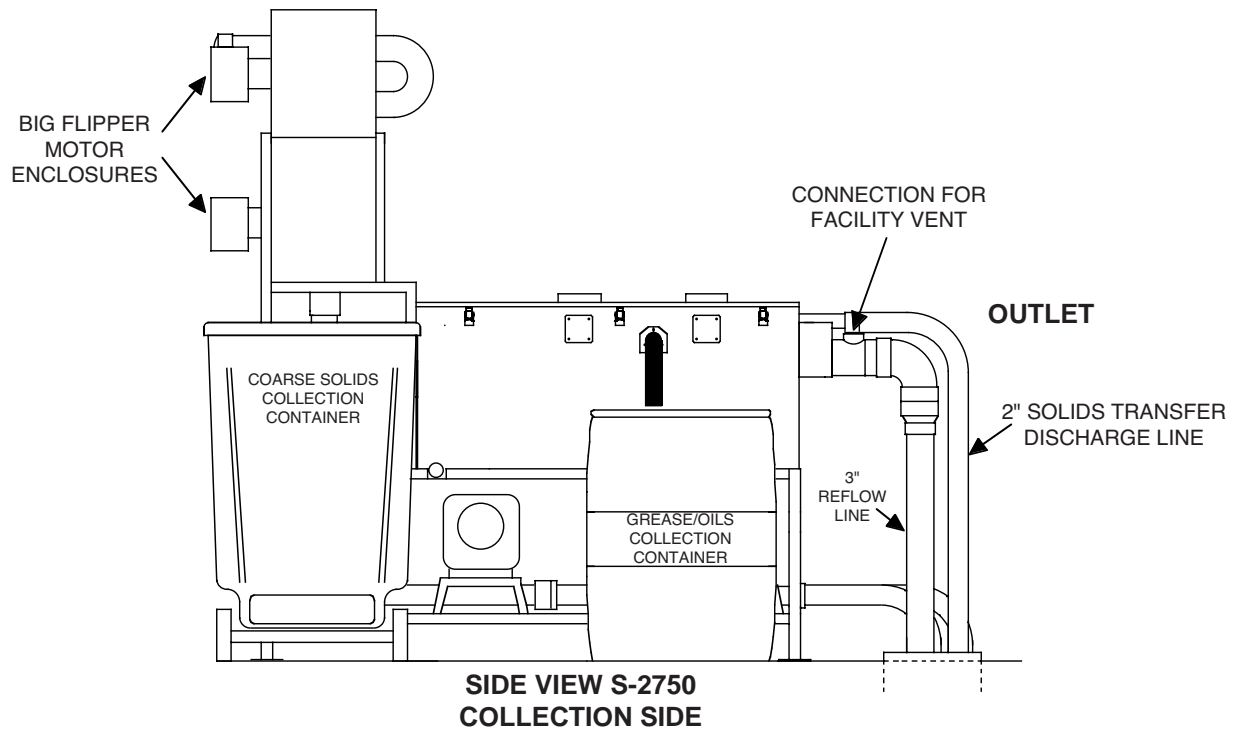
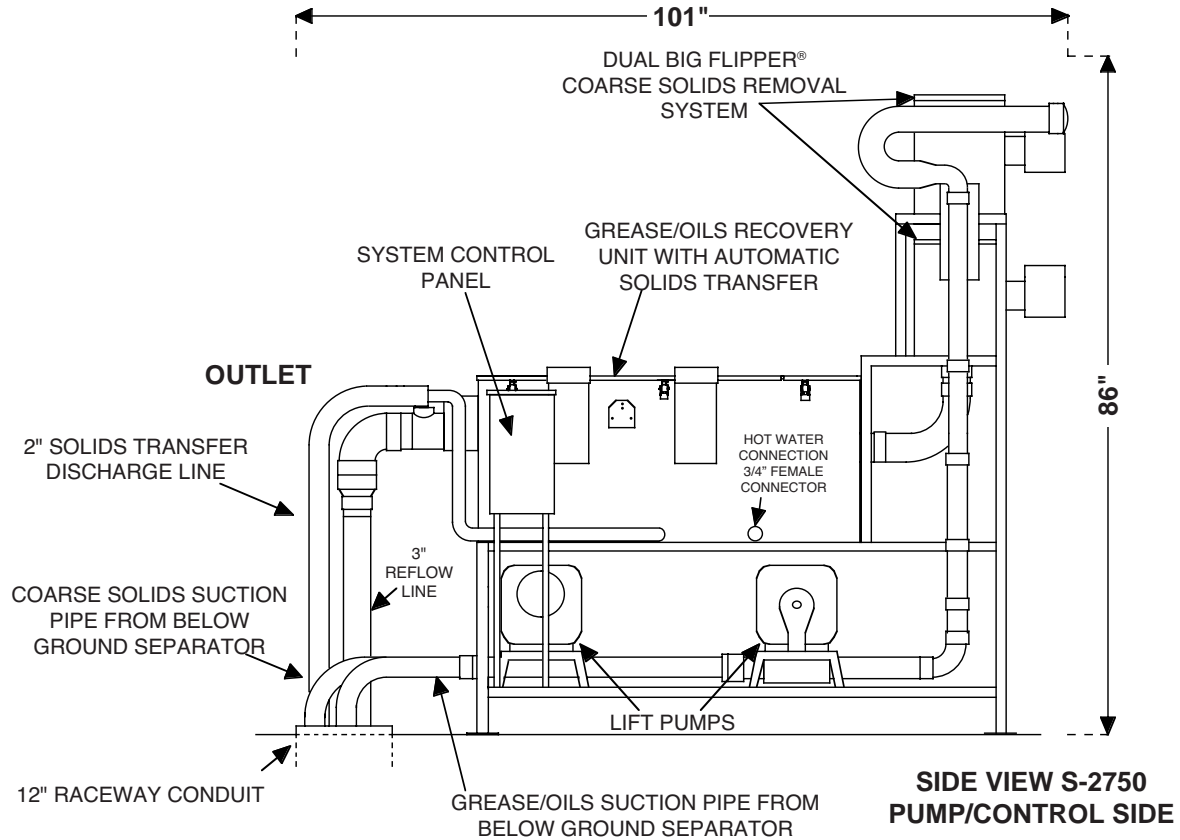
Solids Cycle

3. Lift pump #2 activates and lifts heavier-than-water solids from the solids hopper installed in the separator tank. This flow passes through the dual Big Flipper® units, where coarse solids are separated, dewatered, and emptied into the waste container.
4. The effluent passes through the Big Flipper into the Big Dipper® automatic grease & oil removal unit, where fine solids are trapped and automatically removed from the system.
5. The cleaned water passes through the Big Dipper and is returned to the separator tank.

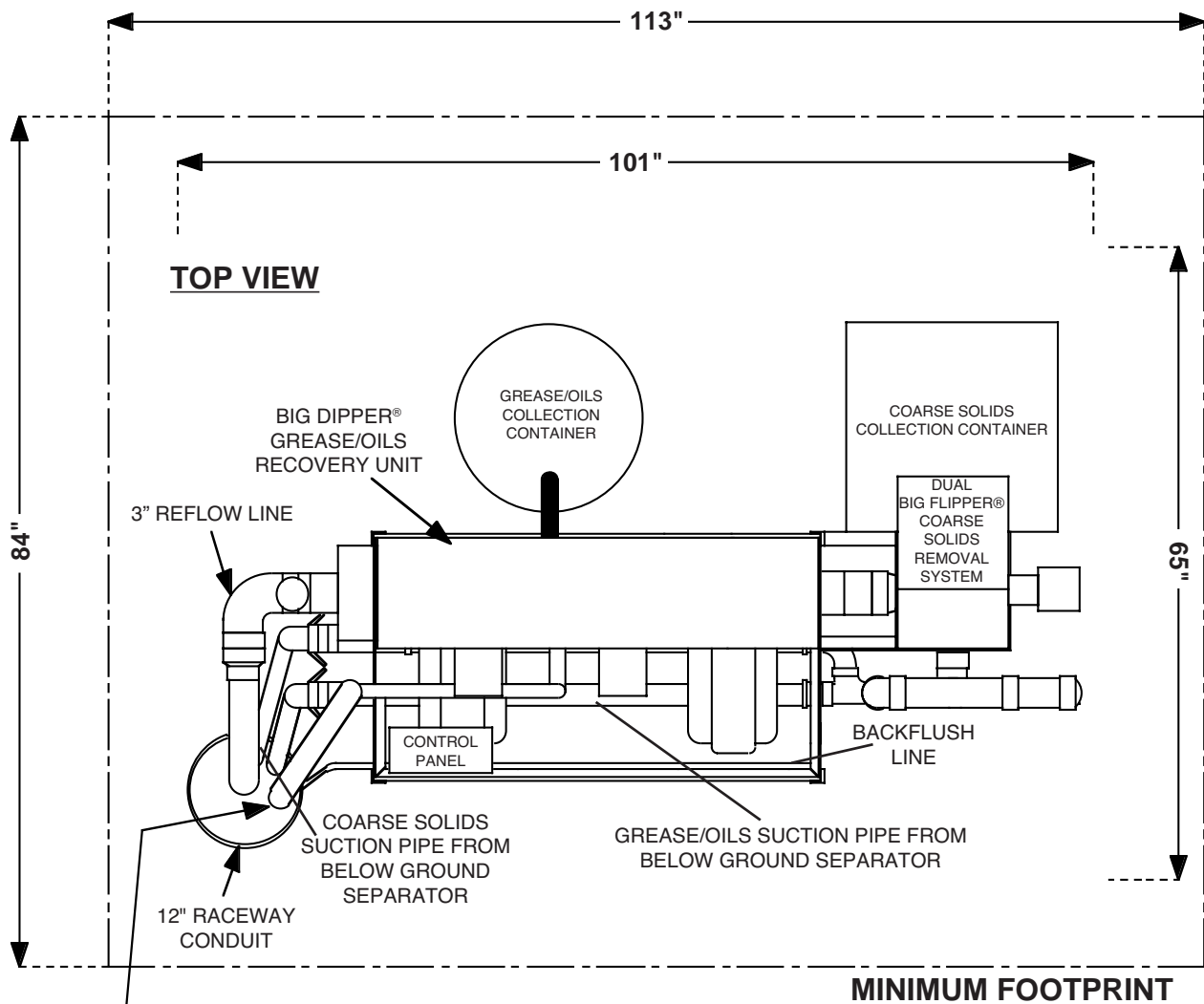
Grease Cycle

6. Lift pump #1 activates, lifting accumulated fats, oils and grease from the top 2 - 3" on the separator tank. Any coarse solids in this flow are separated through the Big Flipper component, and any fine solids are removed using the eductor pump on the Big Dipper.
7. The fats, oils and grease separate from the effluent in the Big Dipper. The "cleaned" effluent passes through the Big Dipper and is returned to the separator tank.
8. The motors & heaters in the Big Dipper activate, skimming the fats, oils & grease out and depositing them into a grease collection container.
9. The backwash lines activate periodically during the Big Dipper skimming cycle to maintain static liquid level in the Big Dipper unit for optimum skimming efficiency.

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System Control

S-2750 System Control

The SuperCeptor S-2750 is designed with the flexibility to service a variety of situations. The system control panel may be easily programmed to provide up to six cleaning cycles per day (most applications require only one or two daily cycles). Setting the cleaning cycles is a simple process. Inside the S-2750 control panel are two 24-hour timers. Each timer controls a grease cycle and a solids cycle. The timers in turn are controlled by two selector switches. These selector switches determine how long each cycle will run for. The selector switches are labelled "Light", "Medium", and "Heavy". The operator determines the setting according to which setup works best with the installation/facility. Pushing in one (1) tab on the timer starts the SuperCeptor cleaning cycle. Each cleaning cycle can take up to four (4) hours (when the "Heavy" cycle is selected for both the Grease & Solids cycle). Therefore, a maximum of one tab should be pushed in on either timer each four hour period.

When the S-2750 senses a tab in the "On" position, a pre-programmed logic controller (part #PLC-1) is activated. The PLC-1 automatically controls timing sequences that ensure the pumps, heaters, motors and other components needed to provide grease & solids removal operate in the proper sequence. The PLC-1's operating cycle is programmed and tested at Thermaco, Inc., and cannot be altered by non-factory personnel. The operating cycle & timing sequences are displayed on an instruction sheet provided with the system.

The SuperCeptor S-2750 is designed to operate with 208-240 volt three phase power. The system requires 30 amp rated fuses on the supply input. The S-2750 has individual internal fusing for each major component group. Shutting off power to the SuperCeptor will not harm the internal electronics or programming.

The S-2750 is supplied with a mechanic's cycle, which enables the SuperCeptor to operate at 1/10 normal time. This allows the SuperCeptor to operate each cycle ten times faster than normal, allowing the operator to check each cycle to ensure full operation. To operate the mechanic's cycle, simply press the button in the Control Panel labelled "Mechanic's Cycle".

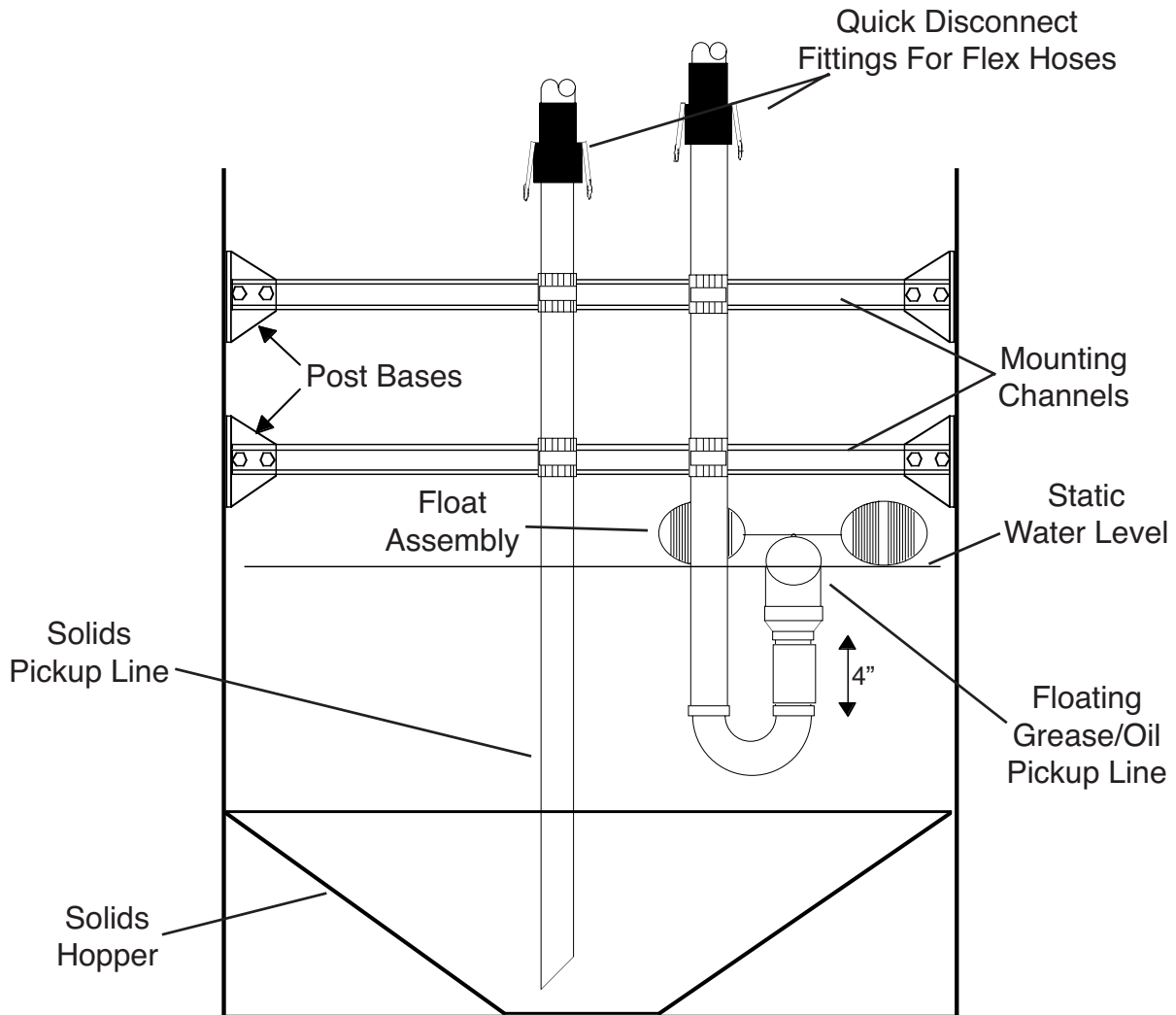
There is also a feature that allows the grease removal unit to drain itself out. To utilize this feature, push the button labelled "Tank Drain" on the Control Panel when the SuperCeptor is not actively engaged in either the Grease or Solids cycle. Pushing this button activates the eductor pump, emptying the grease removal unit. This feature allows for ease of periodic cleaning of the Big Dipper® grease removal component included with the S-2750.

Note: This equipment must be installed to comply with all national, state, and local electrical & plumbing codes for your area. Installation should only be performed by a qualified, licensed electrician & plumber.

Note: Caution should be used when working with any electrical device. Shutting off power to the SuperCeptor will not harm the internal electronics or programming.

GOPA-2000

All SuperCeptor S-2750 models come equipped with a Grease/Oils/Solids pickup assembly (GOPA-2000). The GOPA-2000 contains 4 post bases that bolt to the side of the existing grease trap/separator tank that the SuperCeptor system services. Sturdy channels run between each set of post bases to provide a secure mounting surface for the grease/oil pickup and solids pickup lines. The floating grease/oil pickup is designed such that it self-adjusts to keep the bottom lip of the pickup 1.5" to 2" below the static water level. The floating assembly enables the grease/oils pickup to fluctuate up to 4" up or down with changes in the static water level in the grease trap/separators tank. The solids pickup line extends down to 4" above the bottom of the solids hopper. The solids hopper is a hopper/baffle system that traps coarse solids around the solids pickup line. The GOPA is plumbed to the SuperCeptor with 2" flex hoses that attach to "quick disconnect" fittings located at the top of the GOPA assembly.





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S-2750 Specifications

Job Specification:

Grease and oil separators shall be automatic grease / oil / solids recovery system as noted on plans.

Separator Specifications:

Furnish and install _____ bright finish type 304 stainless steel automatic self-cleaning grease and oil recovery separator systems for floor mounted, rated at 218 pounds of grease capacity and including as an integral part of the unit, all wetted surfaces shall be stainless steel or corrosion resistant materials, 6 rotating gear hydrophobic wheel assemblies for automatic grease / oil removal, self-regulating enclosed electric immersion heater, a vessel vent, an integral gas trap, an internal microprocessor control panel with dual integral programmable 24 hour multi-event controls, a momentary mechanical cycle switch for accelerated operation sequence cycle, a momentary mechanical draining switch for Big Dipper tank draining cycle, quick release stainless steel lid clamps, a gasketed and fully removable 304 grade stainless steel lid with safety switch, an eductor transfer pump, serviced by 30 amp 208-240V 3 Phase AC Power. Skimmer electric motor assembly shall be tested to comply with pertinent sections of the Standards for Safety ANSI/UL 73 and /or ANSI/UL 1004, and electric motors shall be equipped with thermal overload protection with automatically resettable switch. Eductor pump shall have fine solids transfer capability. Each system shall include an installed dual stage separating mechanism with twin rotating screens, each with self adjusting stable pressure blade, including overflow by-pass modality, rotating spiral wound wedge wire stainless steel construction strainer screens with thermal overload protected fractional horsepower motors. These motors shall be tested to comply with pertinent electricity sections of the Standard for Safety ANSI/UL 73 and /or ANSI/UL 1004. System shall include a floating grease / oil / solids pick-up assembly to adapt to fluctuations in the separator tank static water level with site specific field adjustable horizontal in-vault support beams with four field adjustable pick-up mounts, two 50 feet suction-rated 2" hoses, one 2" solids transfer pump return hose, one 3" clean water (50') reflow hose, one in-vault stainless steel construction solids hopper assembly, with grease / oil / solids pick-up assembly with quick connect fittings. Pick up assembly shall operate with two 1/2 horsepower diaphragm lift pumps with self sealed diaphragm gear box, viton diaphragms and viton valves. System shall include an aluminum unit support frame with powder coated finish, pump support shelf shall be stainless steel. System shall include a flow shocker-dampening manifold. Provider shall provide an owners-operators manual and an optional start-up for the equipment installations which shall include setting the system's operating sequence to match the expected loading conditions, train facility personnel regarding daily operation of system including daily / weekly / quarterly / bi-annual maintenance requirements.