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Dual Wall Storage Tanks

Sometimes referred to as secondary containment tanks

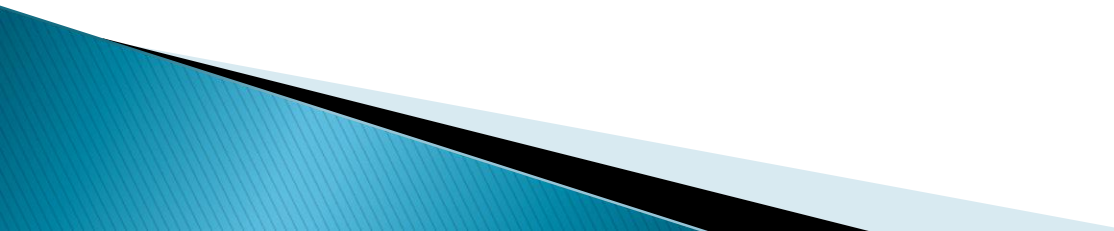
What is considered the interstice?

How big is the interstice???????

Should the interstice contain 110% of the primary tank?

Why NOT???????

Okay...How is a dual wall tank built?



You have to start with making the heads



Finished Head Product



Steel Material is purchased on CTL Sheets
So we start with a blank, flat sheet of steel



Then you have to roll a primary shell
This is how it starts



This is rolling the primary shell





Welding the rings together



Setting the rings on the fit up rolls



Adding rings to get the length of the tank required



Adding an additional ring to get the proper length



Weld the inside of the primary tank – Butt welding



Compartmentalize Dual Wall Horizontal



Install the heads - One on each end



Hand welded on the primary tank



Finished welding on primary tank



Air Primary tank to 5 psi for testing



Testing the tank with a “secret” solution





Putting the Primary inside the Interstice





Installing the head





Attach Come-A-Long to pull outer wrap tight against tank







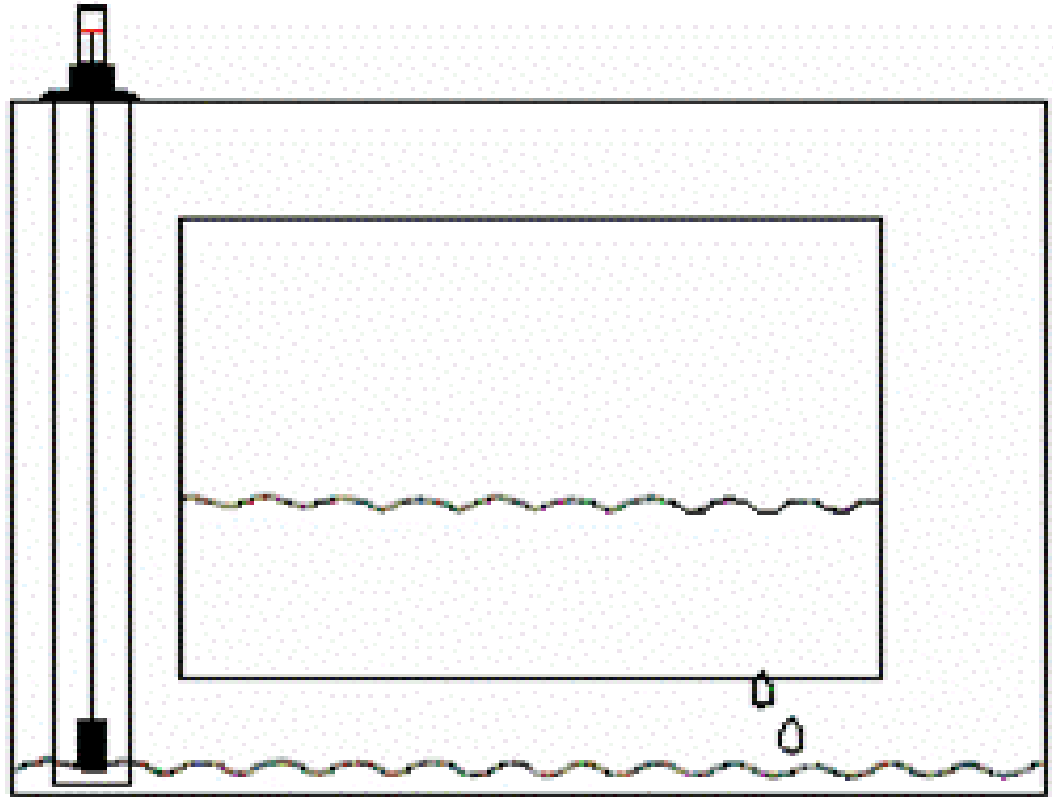








In expensive float gauge detects liquid in the interstice.



Sensors and Install Kits



TS-3WSNS 3-Wire Sensor Module

- ▶ 8 inputs
 - Interface with 3 wire discriminating and non-discriminating sensors
 - Also supports 2 wire sensors
 - Third wire needed to supply power to 3 wire sensors
 - Supports all sensor types except the DMS Mag sensors



T5 Series Fuel Management Systems



TSP-ULS

- ▶ **Universal Liquid Sensor**
 - Non-Discriminating Sensor
 - Normally Closed Circuit
 - Two wire sensor
- ▶ Installed in sumps, dispenser pans, steel double-wall tanks
- ▶ Utilizes float switch technology to indicate if a leak has occurred
- ▶ Indicates following alarms
 - Sensor on



TSP-EIS

- ▶ **Electro-Optic Interstitial Sensor**
 - Non-Discriminating Sensor
 - Normally Closed Circuit
 - Three wire sensor
- ▶ Installed in dry double-wall tanks or other locations where presence of liquid indicates a leak has occurred
- ▶ Utilizes a light-emitting diode and prism to indicate if a leak has occurred
- ▶ Indicates following alarms
 - Sensor on



TSP-DIS

- ▶ **Discriminating Interstitial Sensor**
 - Discriminating Sensor
 - Brite Sensor identification
 - Three wire sensor
- ▶ Installed in dry double-wall tanks or other locations where presence of liquid indicates a leak has occurred
- ▶ Utilizes a light-emitting diode and prism to indicate the presence of liquid
- ▶ Miniature probes at the end of the sensor distinguish between petroleum and water
- ▶ Indicates following alarms
 - Product Alarm
 - Water Alarm
 - Sensor malfunction



TSP-HIS & TSP-HIS-XL

- ▶ **Hydrostatic Interstitial Sensor**
 - Non-Discriminating Sensor
 - Brite Sensor identification
 - Three wire sensor
- ▶ Used in Interstitial Space Filled with Brine Solution
- ▶ Dual float sensor
 - High brine alarm
 - Low brine alarm
- ▶ Comes in two sizes
 - 11 inch
 - 21 inch
- ▶ Indicates following alarms
 - High Brine
 - Low Brine
 - Sensor malfunction
- ▶ Includes vented riser cap



TSP-KI2

- ▶ **Interstitial Sensor Riser Cap Installation Kit**
- ▶ For 2 inch riser pipes
- ▶ Used for the installation of the following sensors
 - TSP-ULS (Steel Interstitial Tanks)
 - TSP-EIS
 - TSP-DIS



Questions?????

