



TECHNICAL BULLETIN: POLYETHYLENE VS. STEEL

MATERIAL CHARACTERISTICS

- **Steel is subject to chemical breakdown, rust, and general wear and tear during installation.**
 - The material risks corrosion over time from the environment on the inside and outside of the tank.
 - Oily wastewater on the inside of the tank will cause the steel to rust and corrode over time. Corrosion is sped up by the introduction of surfactants often used in car washes and vehicle maintenance shops.
 - Native soils around the country vary. Some soils may have pH levels that significantly deviate from 7.0 (neutral). High or low pH soils will also add to corrosion on a steel tank, but from the outside in.
- **Rotationally-molded polyethylene is nonporous, corrosion-resistant, and light weight.**
 - Striem backs this fact with a lifetime guarantee. All of our tanks are quality checked via a spark test and high-lumen light test.
 - Polyethylene is resistant to a wide array of chemicals and compounds, including hydrocarbons and aggressive surfactants.
 - Our polyethylene tanks have a light dry weight. This can significantly cut installation and shipping costs. Steel tanks (of any size) typically require additional resources for installation purposes.

KEY TAKEAWAYS

- When using a steel oil separator rather than a polyethylene oil separator, there is an increased risk of hydrocarbons leaking through compromised areas of the tank and leaching into the native soil, groundwater, and surrounding waterways.
- Striem is able to back their oil separators with a lifetime warranty partly due to the robustness of polyethylene as a material.
- Bigger is not always better, especially when using a material that risks corrosion. Bigger oil separators are generally pumped out less frequently, which has the effect of compounding the corrosion effect of the residing wastewater. When and if they are pumped out, it is more costly given that most pumper contractors charge by the gallon.
- If an oil separator is equipped with a monitoring system, it is very important to ensure the tank is not compromised from a leak, otherwise the monitoring system will not perform as intended.

➤ For product specifications, engineering files, or general information, please visit striemco.com.



Pictured: Details of corroded steel tanks



913-222-1500 HELP@STRIEMCO.COM

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