

LibertyCES Chemical Storage Cone-Bottom Tanks – Technical Specifications

This document outlines the key technical specifications, performance advantages, and use cases for LibertyCES's cone-bottom chemical storage tanks. These tanks are ideal for applications requiring complete drainage, sediment separation, or aggressive chemical compatibility. Below are the most common configuration details sourced from our top-tier vendors including Poly Processing, Snyder Industries, Norwesco, and DenHartog (Ace Roto-Mold).

Core Technical Specifications

- Capacity Range: 15 to 10,500+ gallons
- Cone Angles: 15°, 30°, 45°, and 60° (steeper for sludge and solids separation)
- Materials: HDPE (High-Density Polyethylene) or XLPE (Crosslinked Polyethylene)
- Wall Thickness: 0.25" to 0.5" depending on tank size and chemical requirements
- Colors: Black (UV resistant), White/Natural (translucent), Green
- Fittings: Bulkheads, drains, top-fill ports, vents, level sensors, overflows
- Support: Steel stand or cradle mount required (included or sold separately)
- Certifications: NSF/ANSI 61 (potable), FDA CFR 177.1520, SPCC-compliant configurations available
- Temperature Rating: Typically up to 120°F for HDPE, 130–160°F for XLPE
- Chemical Compatibility: Compatible with acids, bases, oxidizers, and aggressive chemicals (except molten alkali metals & elemental fluorine)

Performance Advantages

- 100% bottom drainage – eliminates standing liquids and sludge buildup.
- Ideal for batch mixing, sediment separation, or flocculation systems.
- Highly resistant to chemical attack and UV degradation.
- Supports aggressive pH, oxidizing agents, and temperature cycling.
- Available with pre-installed fittings and accessories for faster commissioning.
- Safe and compliant for SPCC-regulated and NSF-certified systems.

Common Applications

- Chemical processing and blending systems
- Water and wastewater treatment
- Sludge and sediment handling
- pH neutralization and chemical feed systems
- Agricultural fertilizer and pesticide storage
- Food and beverage batch tanks