



Position Statement Hydrochloric Acid (HCl) ≤37% Storage Tanks

Tank:

HDLPE, 1.9 SpGr rating (ASTM D-1998 - 600 psi hoop stress design)

Full Drain Option:

SUMO™ (Snyder Unitized Molded Outlet):

- Available on single wall vertical tanks 2000 to 12,500 gallons.
- Encapsulated Hastelloy threaded ring with PVC adapter.

Double Wall Tanks:

Mini-Captor™ and CAPTOR™ Containment Systems (CCS) – 35 to 10,000 gallons

- Primary Tank
 - HDLPE, 1.9 SpGr, Natural color (ASTM D-1998 - 600 psi hoop stress design)
- Secondary Containment Tank
 - HDLPE, 1.5 SpGr, Natural color

Fittings:

Material of Construction:

- Fitting: PVC (schedule 80)
- Gasket: Viton®
- Bolt: Hastelloy

Plumbing to the tank:

Required use of **flexible connections** with fittings

- Allows for 4% lateral and vertical expansion and contraction of the tank
- Reduces pump and piping vibration stress on the tank, fittings, and gaskets
- Flexible connections, piping, and valves must have structural support independent of tank sidewall and dome

Venting:

Tanks are designed for use at atmospheric pressure. Pressure or vacuum situation can cause excessive deformation or damage to the tanks and void warranty. Venting equipment should be sized to limit pressure or vacuum in the tank to a maximum of ½" water column (0.018 PSI). If the tank will be pneumatically filled (through tanker discharge) additional pressure relief may be required.

Hydrochloric acid in concentrations above 10-20% is a volatile liquid and will start fuming at ambient temperatures. These fumes can be corrosive to the environment around the tank. For this reason a bolted and sealed (fume tight) manway should be considered for hydrochloric acid tanks and special considerations should be taken for venting the tank to a scrubber system.

Foundation and Restraints:

Tanks should be positioned on a smooth concrete or asphalt pad providing adequate support. The pad should be clean, smooth and level so it fully supports the entire tank bottom with no deflection. If a seismic restraint system is used the pad must be adequate in size for anchor plate attachments per the seismic code.

Temperature:

Product should not exceed 100 degrees F at delivery or during storage.