

Hydrochloric Acid (HCl) Storage Tanks for Concentrations ≤ 37%

Tank:

SAFE-TANK® of crosslinked polyethylene with OR-1000™

- 1.9 spg rating for primary tank
- 1.65 spg rating for secondary tank

Non SAFE-TANK® alternatives:

- Vertical, flat-bottom tank, crosslinked polyethylene with OR-1000™, 1.9 spg rating
- IMFO® available for full drainage

Crosslinked polyethylene tanks without OR-1000™ available with lesser warranty term

Secondary Containment: REQUIRED

SAFE-TANK® secondary tank of crosslinked polyethylene with 1.65 spg rating

Non SAFE-TANK® alternatives

- PPC secondary containment basin of crosslinked polyethylene
- Other secondary containment suitable for hydrochloric acid and of adequate size

Fittings:

Sidewall:

- 3" maximum size on the lower 1/3 of sidewall
- Fitting must keep hydrochloric acid from contacting tank wall cross section

Dome: No restrictions

Fitting Material of Construction: PVC & CPVC (schedule 80), PPL, Alloy C-276

Gasket Material of Construction: Latharge Viton or EPDM

Plumbing to the tank:

Required use of **flexible connections** with fittings on lower 1/3 of sidewall

- Allows for lateral and vertical expansion and contraction of the tank
- Reduces pump and piping vibration stress on the tank

Flexible connections, piping, and valves must have structural support independent of tank sidewall and dome

Venting:

Venting Requirements For Polyethylene Tanks									
Mechanical Pump Fill	Pneumatic Fill								
IF ≤ 1000 gallons	IF - Vent length ≤ 3 feet			IF - Vent length > 3' and ≤ 30'			IF - Scrubber Application		
Vent size should equal size of largest fill or discharge fitting	AND - Vent screen mesh size ≥ 1/4" or no screen used			AND - 3 or less 90° elbows with no other restrictions or reduction in pipe size			Vent pipe size throughout scrubber system CANNOT be reduced! Centerline of dispersion pipe not to be submersed > 6 inches		
IF > 1000 gallons	Emergency Pressure Relief Cover Required			Emergency Pressure Relief Cover Required			Perforated dispersion pipe must be same diameter or larger, as vent. Sum of perforations ≥ cross sectional area of pipe		
Vent size should exceed the largest fill or discharge fitting by 1 inch	Tanker Discharge	Inlet/Fitting Size	Minimum Vent Size	Tanker Discharge	Inlet/Fitting Size	Minimum Vent Size	Tanker Discharge	Inlet/Fitting Size	Minimum Vent Size
	2"	2"	4"	2"	2"	6"	2"	2"	6"
	3"	2"	6"	3"	2"	6"	3"	2"	8"
	3"	3"	6"	3"	3"	8"	3"	3"	10"

(2) 2 inch vents **DO NOT EQUAL** 4 inch venting capacity

For detailed venting guidelines, please visit our Technical Resources at www.polyprocessing.com

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Foundation and Restraints:

Smooth concrete, asphalt, or steel foundation

No restraint or ladder attachment bands circumscribing the tank are allowed; cable restraint systems must pass cables over the top of the tank or utilize molded-in lifting lugs when appropriate

Temperature:

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