

OFFERING



CHEMICAL  
TANK SYSTEMS

# CHEMICAL STORAGE TANK SYSTEMS AND ACCESSORIES

## Product and Resource Guide



Revision 11-2024. Please Check For The  
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## WHO IS POLY PROCESSING?

Poly Processing Company manufactures polyethylene storage systems and custom parts. The company helped pioneer the process of rotational molding, beginning in 1971. We continue to engage in new product development and innovation.

### **The PPC product offering of consistency includes:**

1. Robust corrosion resistance
2. Broad chemical compatibility
3. Minimal field maintenance
4. Long useful life

The company's ease of business offering to the customer begins with design and engineering support and extends into the marketplace with responsive field service capacity.

Roto-molding of cross-linked polyethylene produces a seamless part that is a sound, economic alternative to fiberglass and stainless steel where storage applications are non-pressure and below 150°F.

### **Markets served include:**

1. Municipal water treatment
2. Industrial chemical storage and distribution
3. Oil and gas
4. Pulp and paper
5. Textile
6. Pharmaceutical
7. Agriculture

PPC, a division of the Abell, LLC, is independently owned and operated. Headquartered in Monroe, Louisiana, the company manufactures additionally in French Camp, California, and Winchester, Virginia.

### **Poly Processing Company is all about the customer.**

Customer service is at the heart of all we do. Our business dialogue and support systems are people-oriented and engineering-friendly. Phone inquiries are answered with the personal touch of a company associate eager to serve customer needs, demands, and expectations.

## INNOVATIONS BASED ON YOUR PROCESSING NEEDS

This is our goal at Poly Processing - to bring you safer, smarter tanks and fittings that make chemical storage easy for you.

We do this by basing our systems on your processing needs. At Poly Processing, each storage system is designed specifically for the chemical it will contain. So issues like fuming, temperature sensitivity, weight and chemical reaction are all used to create the ideal storage situation, at drawing-board level.

### PPC History of Firsts:

- Integrally Molded Flanged Outlet (IMFO®)
- SAFE-Tank® Double Wall Tank System
- OR-1000™ System
- Large Capacity Poly Tanks, up to 15,500 Gallons
- Lined Steel Vessels for Transportation of Corrosives
- Bolted Flanged Fittings
- The B.O.S.S. Fitting®
- Universal Ball and Socket Fitting for Field Alignment
- NSF Certification for Chemical Storage
- UL Listing for Chemical Storage

Visit [www.polyprocessing.com/ppcvideo](http://www.polyprocessing.com/ppcvideo) for more information.



## ABOUT XLPE

High-density cross-linked polyethylene, or XLPE, is a thermoset resin that is specifically designed for critical applications like chemical storage. During the XLPE manufacturing process, a catalyst (peroxide), which is built into the resin, which creates a free radical. The free radical generates the crosslinking of the polymer chain, so the tank essentially becomes one giant molecule. The result is a resin that is specifically designed for critical chemical applications.

### **XLPE versus Linear Polyethylene**

- XLPE has 20 times the environmental stress crack resistance of HDPE
- It has 10 times the molecular weight of HDPE

### **XLPE versus Fiberglass-Reinforced Plastic (FRP)**

- XLPE offers seamless construction for greater strength
- With FRP, chemicals can wick into the fiber, compromising tank life
- XLPE can have a lower cost of ownership, due to the low amount of required maintenance compared to FRP
- FRP often requires special handling to avoid cracking

### **XLPE versus Carbon and Stainless Steel**

- XLPE has seamless one-piece construction, which eliminates the potential for chemical attack points and bad welds
- Unlike carbon and stainless steel, XLPE has very broad chemical resistance capabilities without the need for high-cost coatings
- XLPE requires minimal ongoing maintenance and inspection
- XLPE is a cost-effective solution to high-priced alloys

# WE'RE THE ONLY COMPANY WITH A COMPLETE chemical tank system certified to NSF/ANSI 61!

At Poly Processing, we're the only chemical storage tank manufacturer to certify not only the polyethylene tank to NSF/ANSI 61, but all fittings and parts within the chemical storage tank system as well. This brings peace of mind to water treatment facilities, since they know the entire system meets the highest standards for public safety.

**Poly Processing offers three levels of NSF 61 certification:**

1. Medium-density polyethylene, used in the inner surface of the OR-1000™ chemical storage system for highly oxidizing chemicals such as sulfuric acid and sodium hypochlorite.
2. High-density polyethylene, which is NSF 61 certified for holding potable water only.
3. High-density cross-linked polyethylene (XLPE).

**The tank and all fittings are NSF 61 certified for all chemicals listed here:**

Acetic Acid 80%	Hydrochloric Acid 37%	Sodium Aluminate 100%
Aluminum Chlorohydrate 100%	Hydrofluoric Acid 52%	Sodium Bisulfite 40%
Aluminum Sulfate 50% (Alum)	Hydrofluosilicic Acid 30%	Sodium Carbonate 85%
Calcium Carbonate 60-100%	Hydrogen Peroxide 10%	Sodium Chloride 26%
Calcium Chloride 30%	Liquid Ammonium Sulfate 35-45%	Sodium Chlorite 34%
Chlorine Dioxide 38%	Magnesium Chloride 35%	Sodium Hydroxide 50%
Citric Acid 100%	Peracetic Acid 10%	Sodium Hypochlorite 0.8%
Copper Sulfate 25%	Phosphoric Acid 75%	Sodium Hypochlorite 15%
Deionized Water	Poly Aluminum Chloride 100%	Sodium Permanganate 40%
Ferric Chloride 50%	Polyorthophosphate 100%	Sodium Silicate 100%
Ferric Sulfate 60%	Potable Water	Sulfuric Acid 98%
Ferrous Chloride 37%	Potassium Hydroxide 50%	Zinc Orthophosphate 100%
Ferrous Sulfate 30%	Potassium Permanganate 4%	

Talk to your Poly Processing representative to find out more - or visit [www.polyprocessing.com/NSFANSI61](http://www.polyprocessing.com/NSFANSI61).



## ASTM D 1998 OR YOUR TANK MANUFACTURER

### Who has tougher standards?



On the surface, polyethylene storage tanks can look pretty similar. It's tough to tell a more expensive, well-designed and constructed tank from a cheap, inferior one. Many customers are unaware that there is a standard for tank construction based on resin properties and testing – or they simply assume all tank manufacturers follow ASTM D 1998 standards.

It's important that you don't depend upon the manufacturer to certify the standard of safety for the polyethylene chemical storage tank you choose for your operations. Instead, verify that your storage tank has been manufactured according to ASTM D 1998 standards.

For example, polyethylene producers generate the mechanical property data for their resin by using samples of poly that has been compression molded. This process doesn't take rotational molding into account – and rotational molding can lead to a much stronger tank.

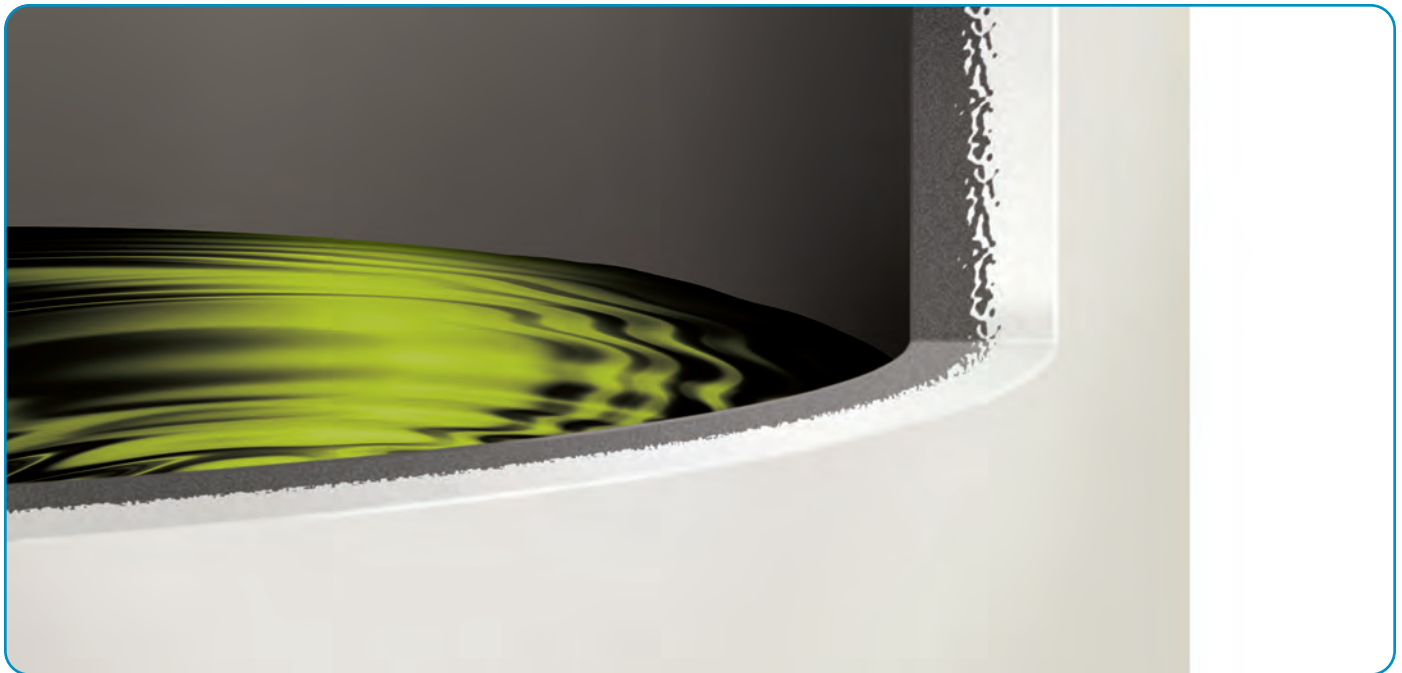
In order to provide the proper factor of safety, ASTM has adjusted allowable usable ratings provided by resin producers. This provides you with a margin of safety – and the peace of mind knowing that your storage tank is designed and manufactured to withstand potential tank impacts, weight of the chemical stored and pressures from storage of the chemical.

Visit [www.polyprocessing.com/ASTM](http://www.polyprocessing.com/ASTM) for more information.



## OR-1000™

An inner-surface technology for four times the antioxidant power.



Poly Processing's exclusive OR-1000™ system was specifically designed to address the aggressive oxidation effects of sodium hypochlorite, sulfuric acid and hydrochloric acid by adding an additional chemical barrier between XLPE and the chemical. OR-1000™'s engineered inner surface is made of medium-density polyethylene, specifically formulated to resist oxidation. Its outer surface is made of XLPE for superior strength. The two surfaces are molecularly bound together during the rotomolding process, creating a truly seamless bond between the XLPE and the inner surface.

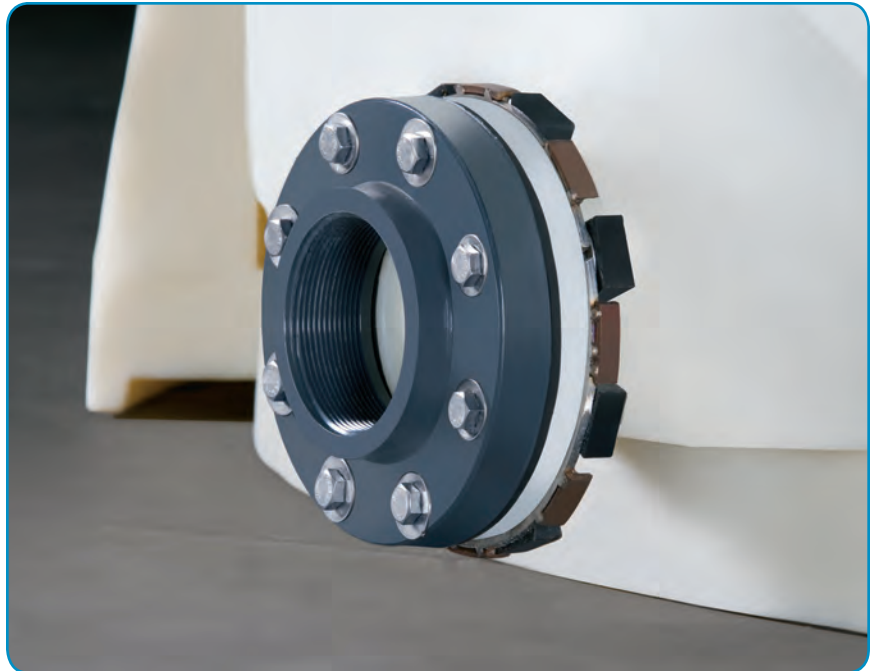
### The advantages of OR-1000™:

- The result gives you four times the antioxidant strength of any polyethylene on the market today!
- All wetted surfaces are covered by OR-1000™, eliminating the opportunity for a chemical attack on the structural portion of the tank
- OR-1000™ can be used on most of our tanks, including SAFE-Tank® and IMFO® tank systems

Visit [www.polyprocessing.com/or1000](http://www.polyprocessing.com/or1000) for more information.

## IMFO®

Integrally molded for major hazard control.



Traditional tank maintenance can be a challenge with many chemicals – so Poly Processing has developed a unique system that helps minimize the hazards associated with traditional vertical tank maintenance. With Poly's Integrally Molded Flanged Outlet, or IMFO® system, the flange is molded while the tank is processing, making it a stress-free part of the tank. The flange is created from the same material as the tank – it's not an insert introduced during or at post-production.

### **The IMFO's advantages are many:**

- Since the flange is at the bottom of the tank, full drainage is achieved below the tank knuckle radius, which can eliminate the need to enter the tank for cleaning
- One-piece construction enhances long-term performance of the tank, since it doesn't compromise the tank hoop's integrity or structural design
- In aggressive applications, the complete flange face is protected by the antioxidant OR-1000™ system
- The IMFO's design brings you the highest amount of static head pressure, which contributes to the highest net positive suction head (NPSH) of any vertical non-coned tank

Visit [www.polyprocessing.com/imfo](http://www.polyprocessing.com/imfo) for more information.

## SAFE-TANK® DOUBLE WALL TANK SYSTEM

A complete system for secondary containment.



Poly Processing's SAFE-Tank® is a tank-within-a-tank system that keeps contaminants from entering the interstitial area. These double wall tanks provide secondary containment to avoid the damaging of equipment or property, loss of chemical, or injury to employees in the event of a spill.

### The SAFE-Tank®:

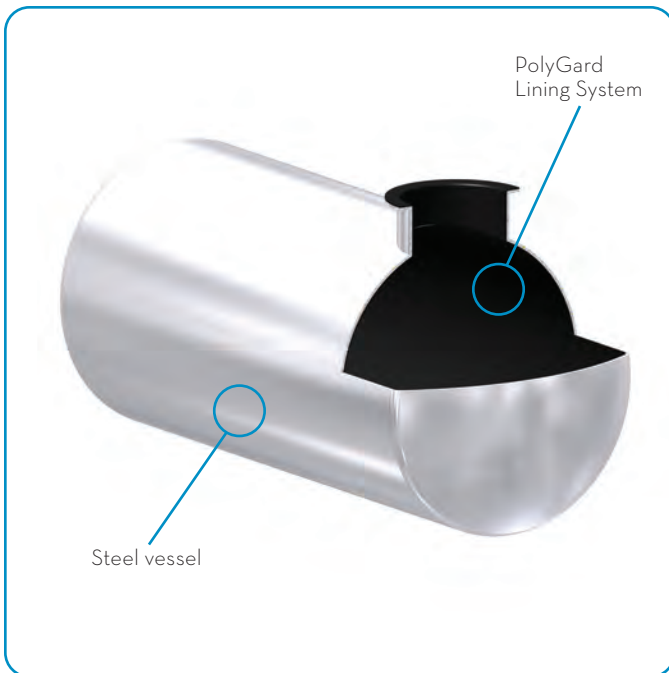
- Provides a minimum 110% secondary containment
- Will equalize the liquid and allow the chemical to be continually used until it is convenient to repair the tank
- Is ideal for chemicals like sulfuric acid that can have dangerous exothermic reactions to water
- Eliminates the expense, cost and maintenance of secondary concrete containment
- Minimizes the system's footprint by providing secondary containment in a more compact way
- Adding a bellows transition fitting will maximize your SAFE-Tank® system's performance and facilitate the connection of double wall piping when required

SAFE-Tank® double wall tank systems are also available with OR-1000™ for superior antioxidant resistance.

Visit [www.polyprocessing.com/safetank](http://www.polyprocessing.com/safetank) for more information.

## POLYGARD™

A seamless, corrosive-resistant liner for steel tanks and vessels.

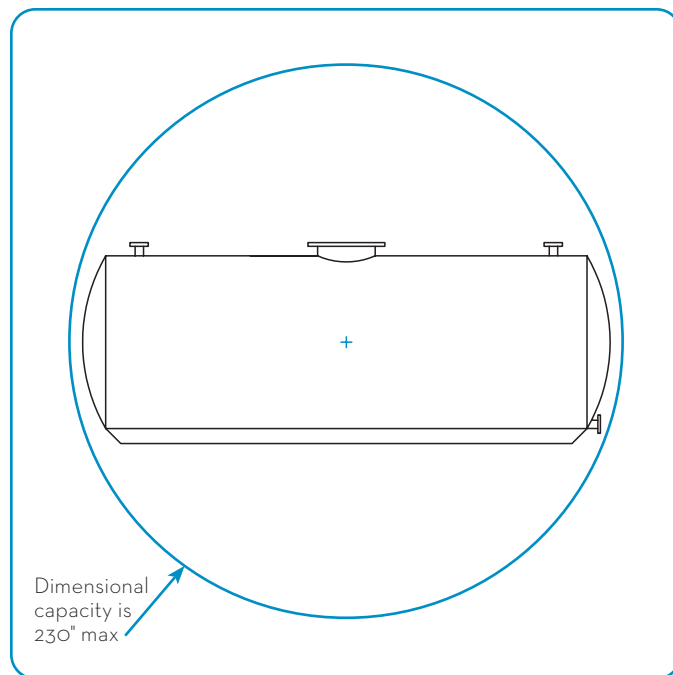


### NEED THE STRUCTURAL INTEGRITY OF STEEL AND THE CHEMICAL BARRIER PROPERTIES OF POLYETHYLENE?

Add a PolyGard™ lining system to your steel tank or vessel. PolyGard™ is a seamless, corrosive-resistant polyethylene lining system that serves as a barrier between the steel tank and the chemical it's storing - and it protects your vessel even in the harshest of conditions.

**HOW IT WORKS:** Bring your steel tank or vessel to Poly Processing, or contact us to discuss your specific needs. We'll use our proprietary rotational molding process to ionically bond the PolyGard™ system to the steel, creating a homogenous and consistent product. The robust, seamless lining system will prevent highly oxidizing chemicals such as sulfuric acid, hydrochloric acid, ammonia, and other compounds from attacking the steel surface, greatly extending the life of the tank.

The PolyGard™ medium-density high performance system is a cost-effective alternative to conventional liners like Tenemec, Phenolic and rubber spray-on systems. It's ideal for safeguarding tanks used in high-volume continuous applications, which can be very expensive to replace.



### The PolyGard™ system is ideal for:

- Storage vessels used in the gas and oil industry, where high-pressure and high-temperature substances are common
- Roll-off tanks for oilfield services
- Offshore vessels, Coast Guard-approved vessels and construction sites, to mitigate the risk of spills that could cause serious ecological damage
- D.O.T.-approved tanker trailers
- Lining of IBC's - Intermediate Bulk Containers
- The lining of pipes with larger diameters, to help maintain the integrity of the steel pipe

### POLYGARD™ PERFORMANCE PARAMETERS

**Temperature Threshold:** -40°F to 170°F

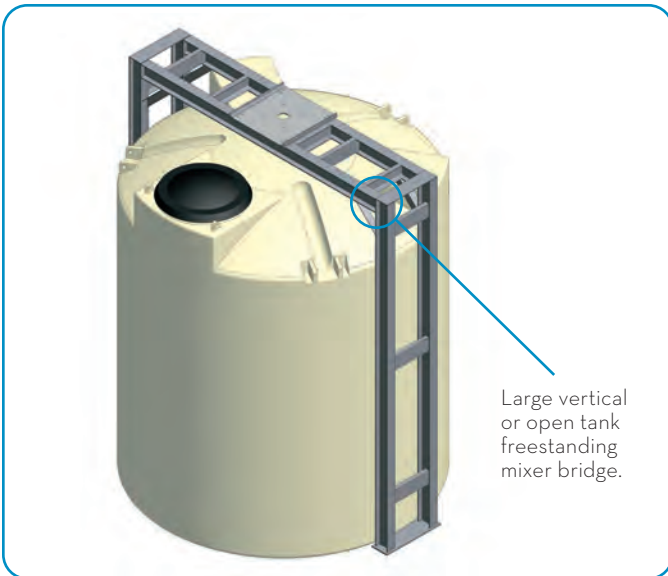
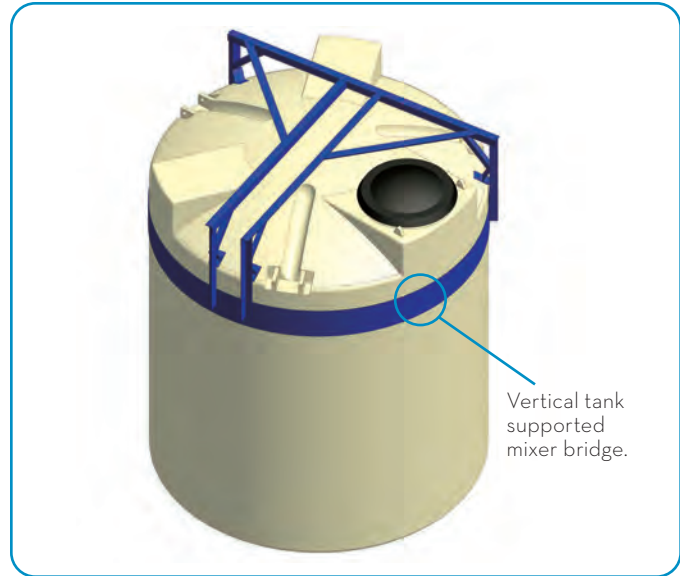
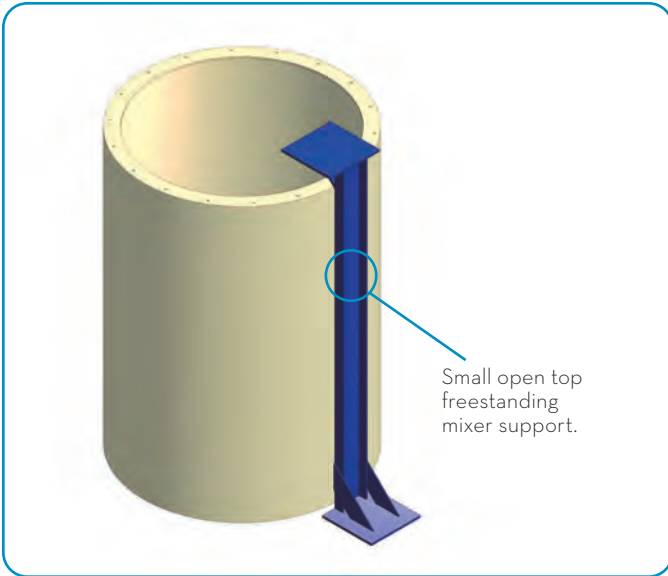
**Pressure Rating:** In accordance with the steel vessel rating

**Impact Resistance:** Exceeds 150 ftp/lb at -40°F

Visit [www.polyprocessing.com](http://www.polyprocessing.com) for complete chemical listings.

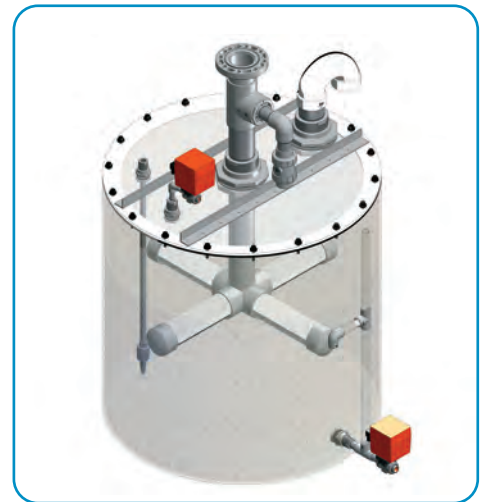
## TANK MIXING SYSTEMS

The ideal blend of quality machinery and movement.



Poly Processing offers an array of brackets for small to large tank mixing solutions - we can also custom design a mixing system to meet your specific needs. Our application engineers are ready to work with you to determine which solution is best for your installation. Just give them all the key details you can on weight, torque and bending moment, and they'll help you configure the ideal system for your storage situation.

## POLYSCRUB™ – A simple but effective fume scrubber.



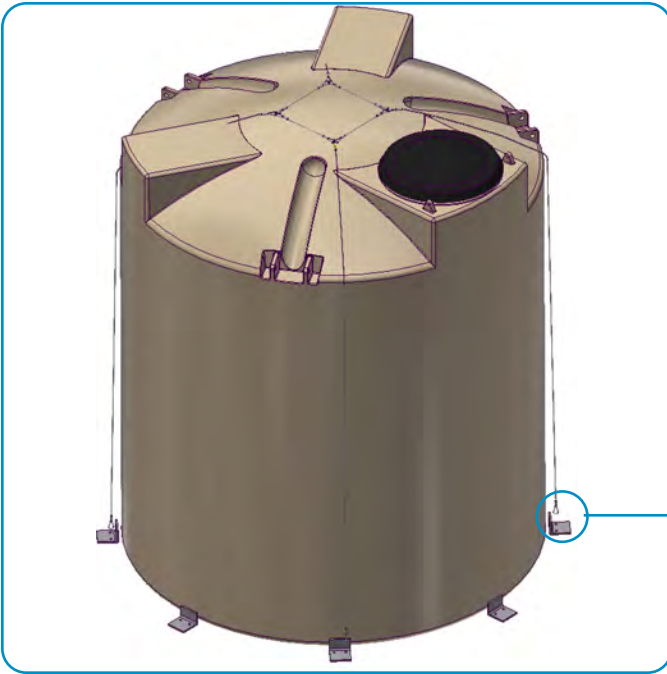
The PolyScrub™ and PolyScrub Plus™ are ideal solutions for customers in search of a cost-effective fume scrubber. The PolyScrub™ product line was designed to address discharging vapor from chemical tanks during operation and filling. Its clever design uses water to scrub harmful fumes before they evacuate the system. There is a manual scrubber system and an automated system called PolyScrub Plus™. Each PolyScrub™ system is designed by our application engineers to accommodate proper ACFM for a given system.



Visit [www.polyprocessing.com/scrubber](http://www.polyprocessing.com/scrubber) for more information on PolyScrub™.

## POLY'S SEISMIC SYSTEMS

How to prevent catastrophic storage tank failure in an earthquake.



Poly Processing offers cable systems to help stabilize tank systems that are challenged by wind.

One natural event that could potentially lead to catastrophic risk, resulting in a complete failure of a chemical storage tank system, is an earthquake. Earthquakes can happen in areas not even considered an earthquake zone. Just think of the August 2011 5.8 magnitude tremor that rocked Virginia.

Considering the impact of an earthquake on a chemical storage tank, a proper restraint system is essential. Let's explore steps to take to protect your chemical storage tank in the event of an earthquake.

### Evaluate the Earthquake Risk

It's vital to determine the possibility of a seismic event at the specific location of the polyethylene chemical storage tank. Poly Processing uses the latest International Building Code to design restraint systems for polyethylene plastic storage tanks. The actual location and seismic activity are evaluated to help ensure safety.

During the 1989 Loma Prieta earthquake in California, more than 100 Poly Processing polyethylene storage tanks were located in the earthquake zone. None of the tanks failed. However, while the tanks and seismic restraints held up to the quake, pipes fitted to the tanks cracked and were damaged due to the effect of tank movement on inflexible fittings. To help avoid this situation, consider flexible tank fittings, which can lead to reduced risk of failure in the complete chemical storage system.



## MANWAY COVERS

Innovations for tank access.



### SAFE-Surge® MANWAY COVERS

Poly Processing's SAFE-Surge® manway covers ensure that your tank maintains the proper ACFM at all times – even in the event of air surges that can't be handled by primary venting. This system was designed specifically for pneumatically filled tanks.

#### SAFE-Surge®:

- Is never to be considered part of your primary venting
- Releases at a 6-inch water column to prevent over-pressurization
- Features an easy inspection port
- Is available for 19- and 24-inch manways

This cover is **required** in pneumatic filling operations excluding scrubbers. For detailed venting requirements, please refer to the chart on page 79.



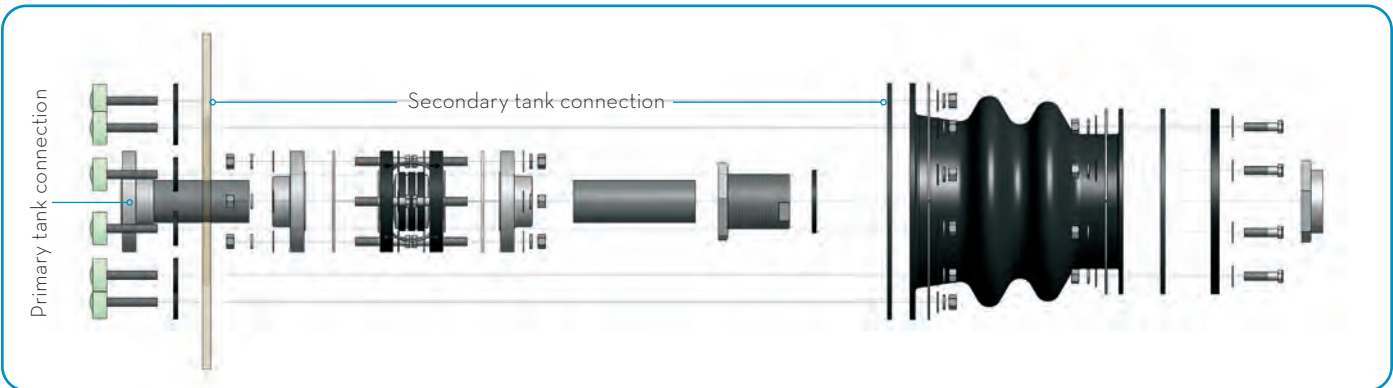
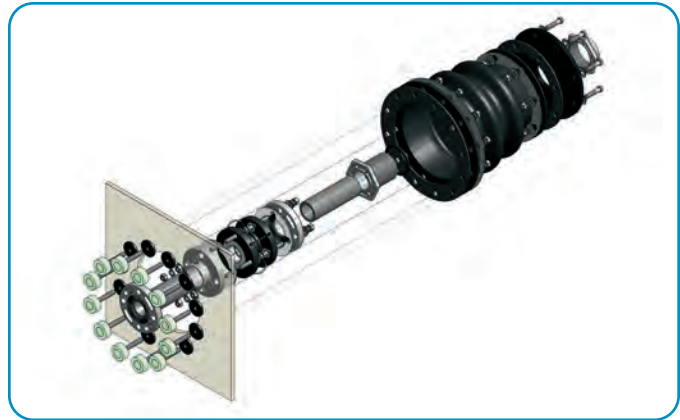
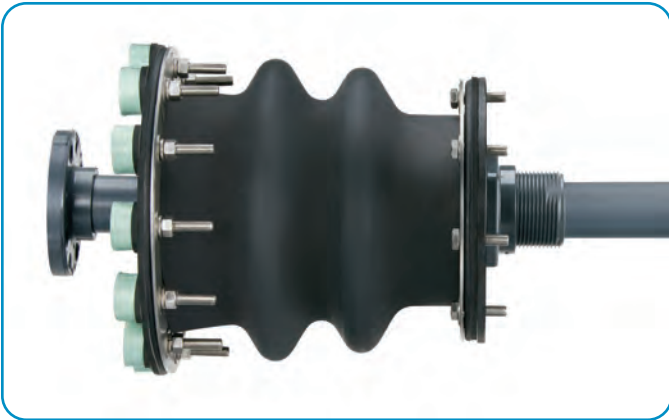
### F.S. 2650® MANWAY COVER

For chemical storage tanks located outdoors where fumes are not a concern, the F.S. 2650® manway cover is a less expensive option for safely handling any air pressure surges.

The F.S. 2650® combines a vent and manway cover into one engineered lid system that can evacuate air volumes up to 2650 ACFM, which is well within the calculated maximum potential pressure surges resulting from the use of both 2- and 3-inch fill lines (maximum ACFM from a 2-inch standard line is 910, and 1150 from a 3-inch line).

## ENHANCED BELLOWS TRANSITION FITTINGS

A secure yet flexible fully contained SAFE-Tank® bottom discharge.



By adding an expansion joint into the plumbing, the tank expands freely during loading and unloading, and it also virtually eliminates damage from piping vibrations caused by pumps. With this performance-maximizing fitting:

- Containment of the expansion joint eliminates the threat of uncontained chemical leaks and dangerous “spurts”
- Piping layouts can be fully contained by connecting a dual-wall piping system onto the fitting. This can mean a safer workplace and less threat to the environment.

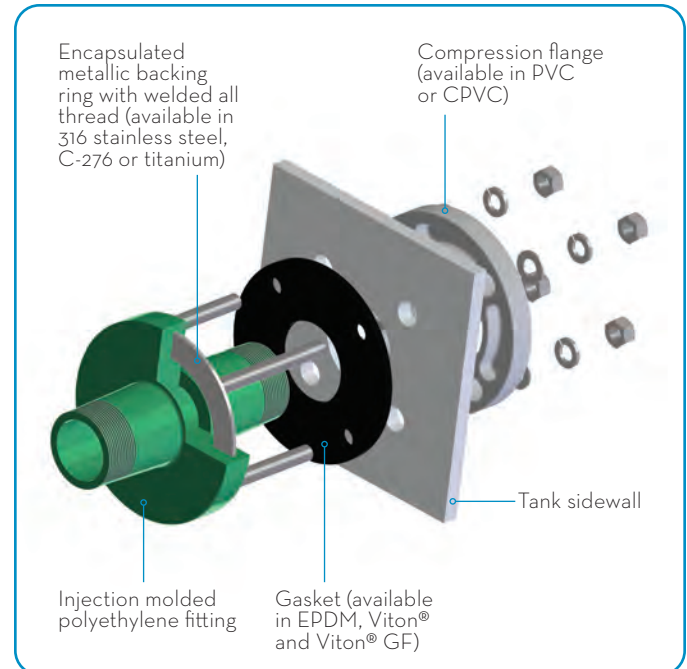
The pressure-tested internal components of the fitting come to you pre-assembled and ready to install.

It is the only bottom outlet to allow for true secondary containment of double wall polyethylene tanks.

Visit [www.polyprocessing.com/transitionfitting](http://www.polyprocessing.com/transitionfitting) for more information.

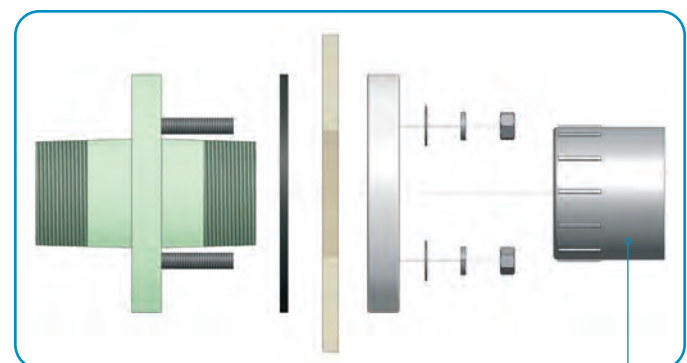
## THE B.O.S.S. FITTING®

A simple design for better leak protection.



With its streamlined one-piece design, the B.O.S.S. Fitting® (bolted one-piece sure seal) reduces the seal point to a single gasket to greatly reduce chances for leakage.

The B.O.S.S. Fitting® is available in three alloy options: 316 stainless steel, titanium and C-276. It comes fully assembled and pressure tested and can be installed through the tank wall as with any other standard bulkhead fitting. See page 62 to find out more.



PVC slip x thread coupling for socketed or threaded connection

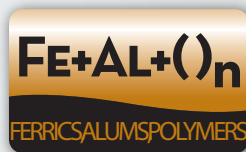
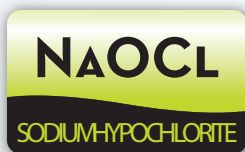
### This unique fitting:

- Is constructed of polyethylene for chemical compatibility with your tank
- Has an innovative backing ring design to reduce stress on the fitting and make it three times stronger than plastic fittings
- Is easy to maintain and troubleshoot since the pipe connection is extended beyond the sidewall of the tank
- Is available in 1-, 2- and 3-inch I.D. with PVC or CPVC socket connection

Visit [www.polyprocessing.com/boss](http://www.polyprocessing.com/boss) for more information.

# OUR TANK SYSTEMS

Poly Processing understands the very specific storage requirements for every chemical - so we have developed systems that meet the unique requirements of each product. The following systems have been designed to optimize your system's safety, longevity and compatibility, based on the properties of the stored chemical. Please note that each of these systems can be adapted to suit your particular needs.



## SODIUM HYPOCHLORITE.

An aggressive oxidizer that presents a major storage challenge.



Commonly known as bleach, sodium hypochlorite is used in a variety of applications, particularly for the disinfection of drinking water and wastewater. When it comes to storage of this chemical, three factors must be considered:

- UV can degrade sodium hypochlorite, so special precautions must be taken to reduce this effect
- Sodium hypochlorite typically contains transition metals such as nickel, iron and copper, which can build up in a storage tank, creating off-gassing
- “Hypo” is a potent oxidizer, so all materials in the chemical’s storage tank must be up to the task

By addressing all three of the issues stated above, this caustic chemical can be contained in a more secure and effective manner, with a tank system that meets NSF/ANSI 61 for chemical storage.



**NaOCl**  
SODIUMHYPOCHLORITE

## The Poly Processing Hypo System

Poly Processing's sodium hypochlorite storage systems are specifically designed for containment of this challenging chemical. By using carbon black, white or gray compound XLPE resin, **UV degradation of the chemical can be dramatically reduced.** Mastic coatings and insulation are other ways to reduce UV's effect on the chemical.

To **prevent the potential buildup of transition metals in the tank**, Poly processing has developed the IMFO® system. This special design allows for full drainage of the tank, which can greatly increase the half-life of the chemical\*.

\*Natural tanks are available for indoor use.

Poly Processing's OR-1000™ system is another key component of the hypo system. OR-1000™ is the result of our exclusive rotomolding process, which creates a seamless bond between an inner surface of medium-density polyethylene and an outer surface of high-density cross-linked polyethylene. OR-1000™ allows **four times the antioxidant strength** of a normal polyethylene. In any application where OR-1000™ is used, all wetted surfaces - including the face of the IMFO® drain - are completely covered by the material, eliminating any opportunity for a chemical attack on the structural portion of the tank.

CHEMICAL	RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
Sodium Hypochlorite 9%-15%	XLPE with OR-1000™	1.9	PVC	EPDM/Viton®	Titanium
Sodium Hypochlorite .8%	XLPE with OR-1000™	1.9	PVC	EPDM/Viton®	Titanium

» See our website for a complete Chemical Resistance Chart.

**NOTE:** To meet NSF-61 certification, use EPDM or Viton® GF. On-site generation (0.8%) max size: 4,000 gallons without engineering review.

## Tank Specifications

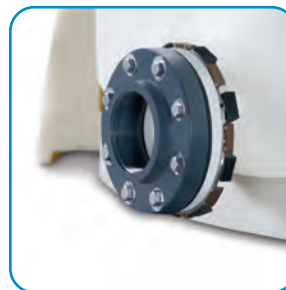


- **High-density cross-linked polyethylene (XLPE)** outer surface ensures maximum corrosion protection through molecular bonding
- **OR-1000™** molecularly bonds XLPE with an antioxidant inner surface that resists the heavily oxidizing nature of sodium hypochlorite
- **Integrally Molded Flanged Outlet (IMFO®)** constructed as part of tank ensures complete drainage. Non-IMFO® options also available.
- **UV protection** for the chemical is achieved by using compounded black, white or gray resin or insulation coating to help maximize the half-life of the chemical for outdoor applications

## Recommended System Components



**Secondary containment:**  
Recommended  
**Alternative:** PPC secondary containment basin of XLPE, or SAFE-Tank® if concrete containment is not available



**Fittings:**  
IMFO® to prevent transition metal buildup

**NOTE:** Do NOT use stainless steel or Alloy C-276 due to nickel content reaction



**Plumbing:**  
Requires flexible, Hypo-resistant connections [see page 80] to allow for lateral and vertical tank contraction and expansion, and to reduce vibration stress

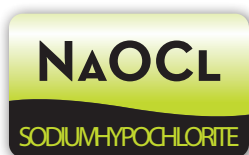


**Venting:**  
SAFE-Surge® manway cover is recommended on pneumatically loaded systems to support tank longevity

The above components are just a few of the many options offered by Poly Processing. For additional information and products, see pages 51-79, visit [www.polyprocessing.com/sodiumhypo](http://www.polyprocessing.com/sodiumhypo) or talk to your Poly Processing representative.

**CAUTION!** The life of a sodium hypochlorite storage system is greatly affected by the quality of the chemical itself. Tank owners are cautioned to use high-quality sodium hypo with low iron, nickel and copper content, to avoid decomposition of the chemical and acceleration of the oxidization and degradation of the tank.

## TECHNICAL OVERVIEW: Sodium Hypochlorite Storage Tanks



### TANK

#### IMFO® Vertical Flat Bottom of XLPE with OR-1000™:

- 1,000–13,650 gallons
- 1.9 spg rating

NOTE: 230–1,000 gallons do not require OR-1000™.

#### Non-IMFO® alternative\*:

##### Standard Vertical Flat Bottom XLPE with OR-1000™:

- 1,000–13,650 gallons
- 1.9 spg rating

NOTE: 30–1,000 gallons do not require OR-1000™.

\*Three-year warranty offered on Non-IMFO® alternatives.

##### SAFE-Tank® XLPE:

- 1,500–8,700 gallons
- 1.9 spg rating for primary tank with OR-1000™
- Spg ratings for secondary tanks  $\geq$  3,000 gallons may be equal to or 1 less spg than primary tank
- All other tank sizes must equal primary tank spg rating

NOTE: 55–1,000 gallons do not require OR-1000™.

Black, white or gray color or insulation with mastic coating required in outdoor applications to minimize bleach degradation and maximize chemical half-life.

### SECONDARY CONTAINMENT

Recommend **SAFE-Tank®** secondary XLPE as shown above.

#### Non-SAFE-Tank® Alternatives:

- PPC secondary containment basin
- Other secondary containment suitable for sodium hypochlorite, of adequate size for use

### FITTINGS

**Sidewall:** Recommend 3" maximum B.O.S.S. Fitting®

**Dome:** No restrictions

### PLUMBING TO THE TANK

- Required use of **flexible connections** with fittings on lower one-third of sidewall
  - » Allows for lateral and vertical expansion and contraction of the tank
  - » Reduces pump and piping vibration stress on the tank
- Expansion joints must meet the following minimum requirements:
  - » Axial Compression  $\geq$  0.67"
  - » Axial Extension  $\geq$  0.67"
  - » Lateral Deflection  $\geq$  0.51"
  - » Angular Deflection  $\geq$  14°
  - » Torsional Rotation  $\geq$  4°

### VENTING

Go to [www.polyprocessing.com/venting](http://www.polyprocessing.com/venting) for venting information.

### FOUNDATION AND RESTRAINTS

- PPC IMFO® tank pad or smooth concrete foundation designed to accommodate IMFO®, SAFE-Tank® or vertical tank
- No restraint or ladder attachment bands circumscribing the tank are allowed. Cable restraint systems must pass cables over the top of the tank.

### TEMPERATURE

Product should not exceed 100°F at delivery or during storage to reduce the decomposition of the chemical and maintain ASTM D 1998 design parameters.

### LID

SAFE-Surge® manway cover for pneumatically loaded tanks; bolted manway cover for all other applications.

### OPTIONS

Restraint systems for wind and seismic, level gauges, ladders, heating pads, insulation, fume-tight manway cover, NSF-61 certification and engineering stamp.

### ADDITIONAL SPECIAL REQUIREMENTS

On-site generation (0.8%) max size: 4,000 gallons without engineering review.



## SULFURIC ACID.

Challenging a storage tank's strength and design safety.



Sulfuric acid is used in a huge array of industrial applications, for everything from water and wastewater treatment to the manufacture of chemicals, fertilizer and car batteries. But this highly exothermic acid presents serious storage challenges, for a number of reasons.

- Sulfuric acid is an extremely heavy chemical that will test the mechanical integrity of any material and the foundation that supports the tank
- The addition of water to concentrated sulfuric acid leads to the dispersal of a sulfuric acid aerosol – or worse yet, an explosion
- If sulfuric acid is spilled on metals, it can create highly flammable hydrogen gas
- Skin and other bodily burns from sulfuric acid are potentially more serious than burns from other strong acids. Sulfuric acid dehydrates whatever it touches, and the heat caused by that reaction with water can create secondary thermal damage.

Poly Processing's tanks and fittings can be combined specifically to contain sulfuric acid, reducing the risks presented by this highly acidic chemical.



**H<sub>2</sub>SO<sub>4</sub>**

**SULFURIC ACID**

## The Poly Processing Sulfuric Acid System

Through a combination of innovative features, Poly Processing created the ideal system for sulfuric acid storage. With our **robust load tolerance**, cross-linked polyethylene tanks can more than handle the chemical's heavy weight. The molecular bonding of XLPE and tank wall thickness is particularly important in the bottom third of the tank, where high levels of load are concentrated.

If secondary containment is not present, the Poly Processing SAFE-Tank® is a smart choice. Along with containing the chemical from its surrounding environment, this double-walled tank

**greatly lowers the risk for hazardous contact of sulfuric acid with water.** SAFE-Tank® systems are designed with OR-1000™.

If secondary containment\* is present, the IMFO® tank is recommended. With the use of an IMFO® system instead of mechanical fittings, the tank's **structural integrity is maximized**. Combine this tank design with the OR-1000™ system, and **oxidation is reduced dramatically**.

All of these features lead to a safer tank - designed to **reduce safety risks** and **improve the longevity of the system**.

\*Containment is required with this chemical in all applications.

Tank Specifications



- **11/15 Rule** Sulfuric Acid can be stored in tanks less than 11,000 gallons and less than 15 feet tall.
- **High-density cross-linked polyethylene (XLPE)** accommodates the heavy weight of sulfuric acid
- **OR-1000™** bonds the XLPE with an antioxidant inner surface, minimizing oxidation, reducing the potential for fault and maximizing life span
- **SAFE-Tank® design** creates a tank-within-a-tank, ensuring that water will not enter the containment area. (Recommended where secondary containment is not available.)
- **IMFO® tank** is molded as a single unit. This maintains hoop stress rating, adding to the strength of the tank. (Recommended for situations with existing secondary containment.)
- **B.O.S.S. Fitting®** provides bolted one-piece sure-seal design, limiting the seal point to a single gasket for major leak prevention

Recommended System Components



**Venting:**  
SAFE-Surge® manway cover is recommended on pneumatically loaded systems to support tank longevity



**Fittings:**  
Recommend bellows transition fitting for bottom sidewall discharge



**Fittings:**  
B.O.S.S. Fitting® recommended to prevent leaks and over tightening

**NOTE:** For concentrations less than 93%, DO NOT use stainless steel



**Plumbing:**  
Reverse float level gauge recommended to know proper chemical level

The above components are just a few of the many options offered by Poly Processing. For additional information and products, visit [www.polyprocessing.com/sulfuricacid](http://www.polyprocessing.com/sulfuricacid) or talk to your Poly Processing representative.

# TECHNICAL OVERVIEW:

## Sulfuric Acid Storage Tanks



### TANKS

#### 11/15 Rule:

#### Less Than 11,000 Gallons and Less Than 15' Tall

- Sulfuric Acid may be stored in any tank less than 11,000 gallons and less than 15 feet tall. This includes the Vertical, IMFO®, Sloped IMFO®, And SAFE-Tank®

### SECONDARY CONTAINMENT

#### ✓ SAFE-Tank® (recommended)

#### Non-SAFE-Tank® alternatives:

- PPC secondary containment basin
- Other secondary containment suitable for sulfuric acid, of adequate size for use

### FITTINGS

**SAFE-Tank® sidewall:** Recommend Transition Fitting®

**Single Wall Sidewall:** Recommend BOSS Fitting®

**Dome:** No restrictions

### PLUMBING TO THE TANK

- Required use of **flexible connections** with fittings on lower one-third 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 the tank sidewall or dome
- Expansion joints must meet the following minimum requirements:
  - Axial Compression  $\geq 0.67''$
  - Axial Extension  $\geq 0.67''$
  - Lateral Deflection  $\geq 0.51''$
  - Angular Deflection  $\geq 14^\circ$
  - Torsional Rotation  $\geq 4^\circ$

### TEMPERATURE

Product should not exceed 100°F at delivery or during storage to maintain ASTM D 1998 design parameters.

### VENTING

Go to [www.polyprocessing.com/venting](http://www.polyprocessing.com/venting) for venting information.

### FOUNDATION AND RESTRAINTS

- Smooth concrete foundation or Poly Processing foam pad rated to accommodate weight of acid in IMFO®, SAFE-Tank® or vertical tank
- Cable restraint systems (when called for) must pass cables over the top of the tank.

### LID

SAFE-Surge® manway cover for pneumatically loaded tanks; bolted manway cover for all other applications.

### OPTIONS

- Restraint systems for wind and seismic
- Reverse Float Level Gauge
- Ladders
- Heating pads and insulation
- Fume-tight manway cover
- NSF-61 chemical certification
- Third party engineering stamp for seismic

CHEMICAL	RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
Sulfuric Acid $\geq 93\%$	XLPE with OR-1000™	2.2	PVC	Viton®	316SS
Sulfuric Acid 80% to $\leq 92\%$	XLPE with OR-1000™	2.2	PVC	Viton®	C-276
Sulfuric Acid $< 80\%$	XLPE with OR-1000™	2.2	PVC	Viton®	C-276

» See our website for a complete Chemical Resistance Chart.

**NOTE:** To meet NSF-61 certification, use Viton® GF.

## HYDROCHLORIC ACID.

Controlling a chemical – and its fumes.



Also known as muriatic acid, hydrochloric acid is used to acidize petroleum wells, remove scales from boilers, aid in ore reduction and serve as a chemical intermediate, among other applications. This pungent liquid is a strong, highly corrosive acid, and it presents serious storage challenges.

- Hydrochloric acid has an extremely low pH, making it highly corrosive
- The chemical creates toxic fumes that can deteriorate equipment – and these fumes can be fatal to employees. To control the chemical's fumes, the tank's venting system must be exact.
- Tank maintenance can also be an issue because of fuming. Entering the tank must be avoided at all costs, and part replacement must be minimized.

By creating a strong, corrosion-resistant tank system that ties into a scrubber system, all of these issues can be addressed.



**HCL**  
HYDROCHLORICACID

## The Poly Processing Hydrochloric Acid System

Storing a chemical as corrosive and fuming as HCL takes a truly specialized system. Poly Processing resolves these issues with its tank, venting and fittings solutions. An Integrally Molded Flanged Outlet, or IMFO®, allows for complete drainage of the tank, **which eliminates the need to enter the tank for cleaning.** This is imperative when dealing with such a strongly fuming chemical. The IMFO® design also reduces chances of having to replace parts, as the drainage system is part of the tank's mold.

Poly Processing's OR-1000™ surface is ideal for HCL storage. OR-1000™ has proven so effective in containing HCL that systems using it have a **5-year warranty.** These tanks bring you the strength of high-density cross-linked polyethylene with an **antioxidant surface.**

Poly also incorporates **airtight lids** and **customized scrubbers** to accommodate the fuming of HCL.

CHEMICAL	RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
Hydrochloric Acid ≤ 37%	XLPE with OR-1000™	1.9	PVC	EPDM	C-276
Hydrochloric Acid ≤ 37%	XLPE	1.9	PVC	EPDM	C-276

XLPE with OR-1000™ = 5 Year Warranty

XLPE = 3 Year Warranty

»» See our website for a complete Chemical Resistance Chart.

## Tank Specifications



- **OR-1000™** An engineered resin system for increased tank life in oxidizing environments. XLPE with OR-1000 carries a 5 year warranty
- **IMFO® construction** eliminates the need to enter the tank for cleaning, helping employees avoid HCL's toxic fumes
- **High-density cross-linked polyethylene (XLPE)** ensures the strength of the tank

The above components are just a few of the many options offered by Poly Processing. For additional information and products, visit our website at [www.polyprocessing.com](http://www.polyprocessing.com) or talk to your Poly Processing representative.

## Recommended System Components



**Secondary containment:**  
SAFE-Tank® is recommended where secondary containment is not available



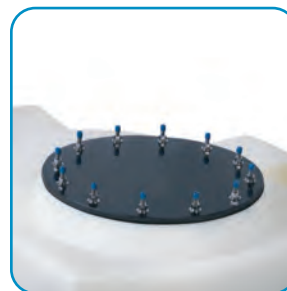
**Fittings:**  
IMFO® system is recommended



**Fittings:**  
B.O.S.S. Fitting® is also recommended to prevent leaks



**Plumbing:**  
Requires flexible connections with fittings on lower third of sidewall to accommodate expansion and contraction and reduce vibration stress on the tank



**Fume-tight manway cover:**  
17", 19" or 24" with EPDM gaskets



**Scrubbers:**  
Individually designed to support the reduction of dangerous fumes into the environment

# TECHNICAL OVERVIEW:

## Hydrochloric Acid Storage Tanks



### TANK

#### IMFO® Vertical Flat Bottom:

- 200-13,650 gallons
- 1.9 spg rating

NOTE: XLPE with OR-1000™ = 5 year warranty  
XLPE = 3 year warranty.

#### Non-IMFO® alternative:

##### Standard Vertical Flat Bottom:

- 30-13,650 gallons
- 1.9 spg rating

NOTE: XLPE with OR-1000™ = 5 year warranty  
XLPE = 3 year warranty.

##### SAFE-Tank® Double Wall Tank:

- 55-8,700 gallons
- 1.9 spg rating for primary tank
- Spg ratings for secondary tanks  $\geq$  3,000 gallons may be equal to or 1 less spg than primary tank
- All other tank sizes must equal primary tank spg rating

NOTE: XLPE with OR-1000™ = 5 year warranty  
XLPE = 3 year warranty.

### SECONDARY CONTAINMENT

Recommend **SAFE-Tank®** secondary as shown above.

#### Non-SAFE-Tank® Alternatives:

- PPC secondary containment basin
- Other secondary containment suitable for hydrochloric acid, of adequate size for use

### FITTINGS

**Sidewall:** Recommend 3" maximum B.O.S.S. Fitting®

**Dome:** No restrictions

### PLUMBING TO THE TANK

- Required use of **flexible connections** with fittings on lower one-third of sidewall
  - » Allows for lateral and vertical expansion and contraction of the tank
  - » Reduces pump and piping vibration stress on the tank
- Expansion joints must meet the following minimum requirements:
  - » Axial Compression  $\geq$  0.67"
  - » Axial Extension  $\geq$  0.67"
  - » Lateral Deflection  $\geq$  0.51"
  - » Angular Deflection  $\geq$  14°
  - » Torsional Rotation  $\geq$  4°

### VENTING

Go to [www.polyprocessing.com/venting](http://www.polyprocessing.com/venting) for venting information.

### FOUNDATION AND RESTRAINTS

- PPC IMFO® tank pad or smooth concrete foundation designed to accommodate IMFO®, SAFE-Tank® or vertical tank
- No restraint or ladder attachment bands circumscribing the tank are allowed. Cable restraint systems must pass cables over the top of the tank.

### TEMPERATURE

Product should not exceed 100°F at delivery or during storage to maintain ASTM D 1998 design parameters.

### LID

Fume-tight manway cover to manage release of chemical gases.

### OPTIONS

Restraint systems for wind and seismic, level gauges, ladders, heating pads, insulation and engineering stamp.



## ADDITIONAL SOLUTIONS

Effective options for storing other chemicals and materials.

Each product has its own specific properties, so Poly Processing makes it easy to adapt our tanks with the type of gaskets, venting, fittings and other features necessary for that chemical or material. The following are just a few of the many products that can be stored safely with a Poly Processing tank system. For details on those items not listed here, talk to your Poly Processing representative.





## The Poly Processing SYSTEM RECOMMENDATION.

### Tank Specifications



#### Tank options include:

- **High-density cross-linked polyethylene (XLPE)** construction for maximum strength
- **OR-1000™** antioxidant inner surface
- **Integrally Molded Flanged Outlet (IMFO®)** for complete drainage
- **SAFE-Tank®** design for tank-within-a-tank protection

### Recommended System Components



**Secondary containment:**  
SAFE-Tank® if concrete containment is not available  
**Alternative:** PPC secondary containment basin or other secondary containment suitable for chemical, of adequate size for use



**Fittings:**  
IMFO® eliminates the need for confined space entry



**Plumbing:**  
Requires flexible connections [see page 80] to allow for lateral and vertical tank contraction and expansion and to reduce vibration stress



**Venting:**  
SAFE-Surge® manway cover is recommended on pneumatically loaded systems to support tank longevity

## SODIUM HYDROXIDE.

Defying a chemical that “finds” leaks.



Also known as caustic soda or liquid lye, sodium hydroxide is used to adjust pH in water and wastewater treatment and in the manufacture of chemicals, rayon, cellophane, pulp and paper, aluminum, detergents, soaps and a wide range of other products. As for storage:

- Sodium hydroxide is a “slippery” chemical that tries to find leak paths
- This chemical is extremely corrosive to tissue. It is also highly toxic if ingested.
- If sodium hydroxide is not kept at a specific temperature, it will crystallize and go solid

A tank system and proper fittings from Poly Processing can reduce your risk with this hazardous chemical.



# The Poly Processing SODIUM HYDROXIDE SYSTEM.

The key to storing sodium hydroxide properly is strong, safe containment. Since the chemical is so corrosive, secondary containment is an absolute.

If secondary containment is already available, the IMFO® tank is recommended. IMFO® systems are ideal for sodium hydroxide systems, since their flange is actually a molded part of the tank, not an insert that could leak or fail. The IMFO® also **ensures long-term performance of the overall system**, since it eliminates the need to drill into the sidewall of the tank and install a mechanical fitting, which can create a maintenance issue with this chemical.

When secondary containment is not available, a SAFE-Tank® can meet this requirement. This tank-within-a-tank extends the margin of safety by providing a system with **110% secondary containment**.

The tank's high-density cross-linked polyethylene construction means greater strength. It is so strong, in fact, that Poly offers a **warranty of five full years** on all tanks.

CHEMICAL	RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
Sodium Hydroxide 50%	XLPE	1.65	PVC	EPDM	316SS

» See our website for a complete Chemical Resistance Chart.

**NOTE:** To meet NSF-61 certification, use EPDM or Viton® GF.

## Tank Specifications & Technical Overview

### IMFO® VERTICAL FLAT BOTTOM OF XLPE:

- 230-13,650 gallons
- 1.65 spg rating

### NON-IMFO® ALTERNATIVES:

#### SAFE-Tank® XLPE:

- 55-8,700 gallons
- 1.65 spg rating for primary tank
- Spg ratings for secondary tanks must be equal to primary tank
- All other tank sizes must equal primary tank spg rating

#### Standard Vertical Flat Bottom XLPE:

- 30-13,650 gallons
- 1.65 spg rating

**NOTE:** Heating pad and insulation are highly recommended to prevent crystallization of the chemical.

**Alternative secondary containment:** PPC secondary containment basin or other secondary containment suitable for sodium hydroxide, of adequate size for use.

**Plumbing:** Requires use of flexible connections with fittings on lower one-third of sidewall. See page 80 for flexible connections options.

**Venting:** Go to [www.polyprocessing.com/venting](http://www.polyprocessing.com/venting) for venting information.

**Foundation:** PPC IMFO® tank pad or smooth concrete foundation designed to accommodate IMFO®, SAFE-Tank® or vertical tank.

**Temperature:** Product should not exceed 100°F at delivery or during storage or drop below 50°F to prevent damage to the chemical. Contact Customer Support if chemical is to exceed 100°F.

**Lid:** SAFE-Surge® manway cover for pneumatically loaded tanks; bolted manway cover for all other applications.

**Options:** Restraint systems for wind and seismic, level gauges, ladders, heating pads, insulation, mixer mounts

The above components are just a few of the many options offered by Poly Processing. For additional information and products, see pages 51-79, visit [www.polyprocessing.com/sodiumhydroxide](http://www.polyprocessing.com/sodiumhydroxide) or talk to your Poly Processing representative.

## HYDROFLUORIC ACID.

Reducing the risk of human exposure.



Used in the production of aluminum, fluorocarbons and gasoline and for applications like glass etching and uranium processing, hydrofluoric acid is an extremely dangerous chemical that must be handled with the utmost care.

- This corrosive liquid penetrates tissue more quickly than typical acids. Toxicity can occur through dermal, ocular, inhalation and oral routes.
- Since HF alters nerve function, accidental exposure can go unnoticed by the victim, delaying treatment and increasing the extent of injury
- It can also be absorbed by the blood through the skin, reacting with blood calcium and potentially causing a heart attack

The extreme nature of this chemical calls for superior structural integrity - the level of integrity Poly Processing is known for.



# The Poly Processing HYDROFLUORIC ACID SYSTEM.

When people's lives are at risk, you can take no chances. You need a system that goes above and beyond to prevent contact with this corrosive acid. That system starts with a cross-linked polyethylene tank. XLPE is a thermoset resin that gives customers **20 times the environmental stress-crack resistance, 10 times the molecular weight and 5 times the impact and tensile strength of HDPE.** This system carries a warranty for a full five years.

A SAFE-Tank® can help **reduce health and environmental concerns** due to closed containment of hydrofluoric acid. If a SAFE-Tank® is not a possibility, an IMFO® tank can be used to **reduce hands-on maintenance**, thereby reducing the risk to your employees.

CHEMICAL	RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
Hydrofluoric Acid	XLPE	1.9	PP	Viton®	C-276

» See our website for a complete Chemical Resistance Chart.

## Tank Specifications & Technical Overview

### IMFO® VERTICAL FLAT BOTTOM OF XLPE:

- 230-15,500 gallons
- 1.9 spg rating

### NON-IMFO® ALTERNATIVES:

#### SAFE-Tank® XLPE:

- 55-8,700 gallons
- 1.9 spg rating for primary tank
- Spg ratings for secondary tanks ≥ 3,000 gallons may be equal to or 1 less spg than primary tank
- All other tank sizes must equal primary tank spg rating

#### Standard Vertical Flat Bottom XLPE:

- 30-15,500 gallons
- 1.9 spg rating

**Alternative secondary containment:** PPC secondary containment basin or other secondary containment suitable for hydrofluoric acid, of adequate size for use.

**Plumbing:** Requires use of flexible connections with fittings on lower one-third of sidewall. See page 80 for flexible connections options.

**Venting:** Go to [www.polyprocessing.com/venting](http://www.polyprocessing.com/venting) for venting information.

**Foundation:** PPC IMFO® tank pad or smooth concrete foundation designed to accommodate IMFO®, SAFE-Tank® or vertical tank.

**Temperature:** Product should not exceed 100°F at delivery or during storage to maintain ASTM D 1998 design parameters.

**Lid:** Fume-tight manway cover to manage release of chemical gases.

**Options:** Restraint systems for wind and seismic, level gauges, ladders, heating pads, insulation, mixer mounts and engineering stamp.

## HYDROFLUOSILICIC ACID.

Controlling heat to avoid hazardous reactions.



Hydrofluosilicic acid is used in water fluoridation, ceramic production, electroplating, bottle sterilizing, brewing and many other applications. This colorless, fuming liquid presents a host of challenges in storage:

- It decomposes in heat, giving off toxic fluoride compounds, which may react violently with alkaline materials
- Hydrofluosilicic acid is corrosive to most metals - and it attacks glass and stoneware
- Like lye and sodium hypo, hydrofluosilicic acid has a tendency to find leak paths
- The chemical is incompatible with strong alkalis and strong concentrated acids. It reacts with oxidizing agents, combustible solids and organic peroxides.
- Its reaction with metals produces flammable hydrogen gas

A complete system equipped with specialized features can reduce the risks associated with this toxic chemical.



# The Poly Processing HYDROFLUOSILICIC ACID SYSTEM.

Hydrofluosilicic acid is an extremely dangerous chemical. Human contact with it can result in severe injury or fatality. But when the chemical is controlled in a stable environment, risk can be dramatically reduced. XLPE tanks are ideal in this situation. **The thermosetting of XLPE's polymer chains acts as a netting to prevent permeation, leakage or seepage.**

With its full drain design, a built-in IMFO® flange can help eliminate any buildup of sediment, **lessening the potential for lead and arsenic deposits** over time. The IMFO® system's design also **keeps the tank intact**, which is important for chemicals that try to find leak paths. If an IMFO® isn't an option, wetted fittings should be kept to an absolute minimum to avoid failure.

If secondary containment is not available, a SAFE-Tank® is recommended instead of an IMFO® tank. This tank-within-a-tank greatly reduces the chance for leaks.

CHEMICAL	RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
Hydrofluosilicic Acid	XLPE	1.9	PVC	EPDM	C-276

» See our website for a complete Chemical Resistance Chart.

**NOTE:** To meet NSF-61 certification, use EPDM or Viton® GF.

## Tank Specifications & Technical Overview

### IMFO® VERTICAL FLAT BOTTOM OF XLPE:

- 230-13,650 gallons
- 1.9 spg rating

### NON-IMFO® ALTERNATIVES:

#### SAFE-Tank® XLPE:

- 55-8,700 gallons
- 1.9 spg rating for primary tank
- Spg ratings for secondary tanks ≥ 3,000 gallons may be equal to or 1 less spg than primary tank
- All other tank sizes must equal primary tank spg rating

#### Standard Vertical Flat Bottom XLPE:

- 30-13,650 gallons
- 1.9 spg rating

**NOTE:** We recommend always venting this chemical outside a confined environment due to health risks from the fumes and to the damage it will cause to glass and metals.

**Alternative secondary containment:** PPC secondary containment basin or other secondary containment suitable for hydrofluosilicic acid, of adequate size for use.

**Plumbing:** Requires use of flexible connections with fittings on lower one-third of sidewall. See page 80 for flexible connections options.

**Venting:** Go to [www.polyprocessing.com/venting](http://www.polyprocessing.com/venting) for venting information.

**Foundation:** PPC IMFO® tank pad or smooth concrete foundation designed to accommodate IMFO®, SAFE-Tank® or vertical tank.

**Temperature:** Product should not exceed 100°F at delivery or during storage to maintain ASTM D 1998 design parameters.

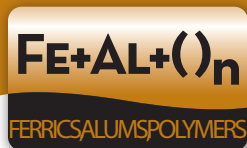
**Lid:** Fume-tight manway cover to manage release of chemical gases.

**Options:** Restraint systems for wind and seismic, level gauges, ladders, heating pads, insulation, mixer mounts and engineering stamp.



## FERRICS, ALUMS AND POLYMERS.

Containing chemicals that react to their environment.



Ferrics, alums and polymers are commonly used to treat water and wastewater. There are several reasons why these substances require specialized storage:

- Separation, settling and coagulation are major issues with these chemicals - and those conditions can be compounded by temperature variations
- Settling and separation issues can lead to difficulty in pumping the chemicals
- The chemicals are often delivered at elevated temperatures, testing the expansion and contraction capabilities of a tank
- Ferrics create fumes that can defoliate surrounding trees and plants
- Polymers can act as an environmental stress-cracking agent

By providing the right kind of storage for these chemicals, safety can be maintained - and the integrity of the product can be preserved.



# The Poly Processing System FOR FERRICS, ALUMS AND POLYMERS.

Several of Poly Processing's features can make your storage system work for handling ferrics, alums and polymers. An IMFO® system is ideal for **sludge control and ease of cleaning**, since the tank drains at its true bottom. Heat pads and insulation can help keep the chemicals at the optimal temperature, **greatly reducing the chance of separation and settling**.

A mixing system can also be installed to **keep the chemicals from separating** - and a scrubber can help **reduce the effects on foliage** if you're venting outdoors. As for handling elevated temperatures - this is where the strength of the XLPE tank comes in. The cross-linked construction of these tanks allows for **greater expansion and contraction**, while maintaining structural integrity, lessening your risk for tank failure.

CHEMICAL	RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
Aluminum Sulfate	XLPE	1.65	PVC	EPDM	316SS
Ferric Chloride	XLPE	1.65	PVC	EPDM	Titanium
Ferric Sulfate	XLPE	1.65	PVC	EPDM	Titanium
Ferrous Chloride	XLPE	1.9	PVC	EPDM	Titanium
Ferrous Sulfate	XLPE	1.65	PVC	EPDM	Titanium
Polymers	XLPE	1.35-1.9*	PVC	EPDM	316SS

\*Based on type of polymer, amount of solids, etc., specific gravities can vary. Consult the specific MSDS for correct weight.  
» See our website for a complete Chemical Resistance Chart.

**NOTE:** To meet NSF-61 certification, use EPDM or Viton® GF.

## Tank Specifications & Technical Overview

### IMFO® VERTICAL FLAT BOTTOM OF XLPE:

- 230-13,650 gallons
- Appropriate spg rating for chemical as shown in Chemical Resistance Chart

### NON-IMFO® ALTERNATIVES:

#### Standard Vertical Flat Bottom XLPE:

- 30-13,650 gallons
- Appropriate spg rating for chemical as shown in Chemical Resistance Chart

#### SAFE-Tank® XLPE:

- 55-8,700 gallons
- Appropriate spg rating for chemical as shown in Chemical Resistance Chart
- Spg ratings for secondary tanks ≥ 3,000 gallons may be equal to or 1 less spg than primary tank
- All other tank sizes must equal primary tank spg rating

**Alternative secondary containment:** PPC secondary containment basin or other secondary containment suitable for ferrics, alums and polymers, of adequate size for use.

**Plumbing:** Requires use of flexible connections with fittings on lower one-third of sidewall. See page 80 for flexible connections options.

**Venting:** Go to [www.polyprocessing.com/venting](http://www.polyprocessing.com/venting) for venting information.

**Foundation:** PPC IMFO® tank pad or smooth concrete foundation designed to accommodate IMFO®, SAFE-Tank® or vertical tank.

**Temperature:** Product should not exceed 100°F at delivery or during storage to maintain ASTM D 1998 design parameters. Contact Customer Support if chemical is to exceed 100°F.

**Lid:** SAFE-Surge® manway cover for pneumatically loaded tanks; bolted manway cover for all other applications.

**Options:** Restraint systems for wind and seismic, level gauges, ladders, heating pads, insulation, fume-tight manway cover, mixer mount and engineering stamp.

## HYDROGEN PEROXIDE.

Accommodating a potentially explosive chemical.



Available in a variety of concentrations, hydrogen peroxide is used as an oxidizing agent in textile, paper and fur processing. It is also used as a plasticizer, a polymerization catalyst and a water and sewage treatment chemical. It poses a number of challenges when it comes to storage:

- Concentrated solutions are highly toxic and are strong irritants
- Hydrogen peroxide is relatively unstable and decomposes into water and oxygen when exposed to the environment. The primary danger of this composition is fire and/or explosion.

For concentrations of hydrogen peroxide that are below 50%, high-density cross-linked polyethylene is a smart option.



# The Poly Processing HYDROGEN PEROXIDE SYSTEM.



If there is a chance that hydrogen peroxide has escaped from its storage system, evacuation is mandatory, since explosion could occur. Therefore, it's imperative that an environment be made as leak-free as possible. Poly Processing's cross-linked polyethylene helps ensure that, by providing a **high-strength storage option** for hydrogen peroxide. The SAFE-Tank® system offers **tank-within-a-tank protection** for secondary containment. And if secondary containment is already provided for the tank, Poly Processing recommends the IMFO® tank system to provide complete drainage without entering the vessel shell, **helping personnel avoid contact** with this strong irritant.

CHEMICAL	RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
Hydrogen Peroxide	XLPE	1.9	PVC	Viton®	316SS

»» See our website for complete Chemical Resistance Chart.

## Tank Specifications & Technical Overview

### IMFO® VERTICAL FLAT BOTTOM OF XLPE:

- 230-13,650 gallons
- 1.9 spg rating

### NON-IMFO® ALTERNATIVES:

#### SAFE-Tank® XLPE:

- 55-8,700 gallons
- 1.9 spg rating for primary tank
- Spg ratings for secondary tanks ≥ 3,000 gallons may be equal to or 1 less spg than primary tank
- All other tank sizes must equal primary tank spg rating

#### Standard Vertical Flat Bottom XLPE:

- 30-13,650 gallons
- 1.9 spg rating

**NOTE:** Use only flanged connections with hydrogen peroxide. Threaded fittings should be avoided!

**Alternative secondary containment:** PPC secondary containment basin or other secondary containment suitable for hydrogen peroxide, of adequate size for use.

**Plumbing:** Requires use of flexible connections with fittings on lower one-third of sidewall. See flexible connection options in accessories.

**Venting:** Go to [www.polyprocessing.com/venting](http://www.polyprocessing.com/venting) for venting information.

**Foundation:** PPC IMFO® tank pad or smooth concrete foundation designed to accommodate IMFO®, SAFE-Tank® or vertical tank.

**Temperature:** Product should not exceed 100°F at delivery or during storage to maintain ASTM D 1998 design parameters.

**Lid:** A hinged, weighted manway to prevent over-pressurization due to rapid decomposition.

**Options:** Restraint systems for wind and seismic, level gauges, ladders, heating pads, insulation, mixer mounts, OR-1000™

## FAT, OIL AND GREASE (FOG).

Eliminating treatment challenges through engineered systems.

### FOG

FAT, OIL & GREASE

Fat, oil and grease (FOG) management is an ever-growing concern for both solid waste facilities and wastewater treatment plant operators. The handling of these materials presents a number of challenges.

- When not disposed of properly, FOG builds up in the sewer system and constricts flow, which can cause sewer backups into homes and overflow discharges onto streets
- Sewer backups into homes create a health hazard - as well as an unpleasant mess that can cost thousands of dollars to mitigate
- In certain cities, FOG can enter storm drains that flow directly into water bodies and onto beaches, creating serious environmental and health conditions

An engineered tank system with the proper fittings and ancillary equipment from Poly Processing can greatly simplify working with FOG.

**CAUTION!** Heating pads and insulation are highly recommended to prevent coagulation of FOG.

## TECHNICAL OVERVIEW: Fat, Oil and Grease (FOG) Storage Tanks



### TANK

#### IMFO® Vertical Flat Bottom of XLPE:

- 230-13,650 gallons
- 1.35 spg rating

#### IMFO® Vertical Sloped Bottom:

- 3,950 - 11,800 gallons
- 1.35 spg rating

#### Non-IMFO® alternatives:

##### SAFE-Tank® XLPE:

- 55-8,700 gallons
- 1.35 spg rating for primary tank
- Spg ratings for secondary tanks must be equal to primary tank
- All other tank sizes must equal primary tank spg rating

##### Standard Vertical Flat Bottom XLPE:

- 30-13,650 gallons
- 1.35 spg rating

### SECONDARY CONTAINMENT

Recommend **SAFE-Tank®** secondary XLPE as shown above.

#### Non-SAFE-Tank® alternatives:

- PPC secondary containment basin
- Other secondary containment suitable for FOG of adequate size for use

RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
XLPE	1.35	316SS	EPDM	316SS

» See our website for complete Chemical Resistance Chart.

### PLUMBING TO THE TANK

- Required use of **flexible connections** with fittings on lower one-third of sidewall
  - » Allows for lateral and vertical expansion and contraction of the tank
  - » Reduces pump and piping vibration stress on the tank
- Expansion joints must meet the following minimum requirements:
  - » Axial Compression  $\geq 0.67''$
  - » Axial Extension  $\geq 0.67''$
  - » Lateral Deflection  $\geq 0.51''$
  - » Angular Deflection  $\geq 14^\circ$
  - » Torsional Rotation  $\geq 4^\circ$

### VENTING

Go to [www.polyprocessing.com/venting](http://www.polyprocessing.com/venting) for venting information.

### FOUNDATION AND RESTRAINTS

- PPC IMFO® tank pad or smooth concrete foundation designed to accommodate IMFO®, SAFE-Tank® or vertical tank
- No restraint or ladder attachment bands circumscribing the tank are allowed. Cable restraint systems must pass cables over the top of the tank.

### TEMPERATURE

Product should not exceed 100°F at delivery to prevent damage to tank.

### OPTIONS

Side manways for easy cleaning (as shown), restraint systems for wind and seismic, level gauges, ladders, heating pads, insulation, mixer mounts and engineering stamp.

## LEACHATE & CONDENSATE COLLECTION AND TREATMENT TANKS.

Tank designs to meet the lifecycle cost of a landfill.



Leachate and condensate from landfills can contain hazardous constituents, either as a direct result of the waste disposed in the facility (e.g., household hazardous wastes) or from the breakdown of chemical compounds found in waste (e.g., leachate-derived constituents). Poly Processing's cross-linked polyethylene (XLPE) tanks will perform under almost any circumstance, protecting landfills from risk.

- Our tanks are chemically compatible with almost every dissolved and solid material found in landfill leachate and condensate, including acids, aldehydes, ammonia, pathogens and metals
- Poly Processing's XLPE offers 20 times the environmental stress crack resistance of high-density linear polyethylene tanks
- The seamless construction of our tanks eliminates the potential for the development of chemical attack points, such as the bad welds and joints found in steel and fiberglass tanks
- XLPE tanks are not affected by the unpredictable composition of leachate and condensate and never need maintenance. By comparison, leachate and condensate will severely damage epoxy, concrete and powder-coated tanks, leading to costly maintenance.

Poly Processing has installed tank systems in typical landfills as well as hazardous waste landfills for more than 25 years with no issues. That's a track record you can trust.

## TECHNICAL OVERVIEW:

# Leachate & Condensate Collection and Treatment Tanks



### TANK

#### IMFO® Vertical Flat Bottom of XLPE:

- 230-13,650 gallons
- 1.35-1.9 spg rating

#### Non-IMFO® alternatives:

##### SAFE-Tank® XLPE:

- 55-8,700 gallons
- 1.35-1.9 spg rating for primary tank
- Spg ratings for secondary tanks must be equal to primary tank
- All other tank sizes must equal primary tank spg rating

##### Standard Vertical Flat Bottom XLPE:

- 30-13,650 gallons
- 1.35-1.9 spg rating

### SECONDARY CONTAINMENT

Recommend **SAFE-Tank®** secondary XLPE as shown above.

#### Non-SAFE-Tank® Alternatives:

- PPC secondary containment basin
- Other secondary containment suitable for leachate or condensate of adequate size for use

RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
XLPE	1.35	316SS	EPDM	316SS

» See our website for complete Chemical Resistance Chart.

### PLUMBING TO THE TANK

- Required use of **flexible connections** with fittings on lower one-third of sidewall
  - » Allows for lateral and vertical expansion and contraction of the tank
  - » Reduces pump and piping vibration stress on the tank
- Expansion joints must meet the following minimum requirements:
  - » Axial Compression  $\geq 0.67''$
  - » Axial Extension  $\geq 0.67''$
  - » Lateral Deflection  $\geq 0.51''$
  - » Angular Deflection  $\geq 14^\circ$
  - » Torsional Rotation  $\geq 4^\circ$

### VENTING

Go to [www.polyprocessing.com/venting](http://www.polyprocessing.com/venting) for venting information.

### FOUNDATION AND RESTRAINTS

- PPC IMFO® tank pad or smooth concrete foundation designed to accommodate IMFO®, SAFE-Tank® or vertical tank
- No restraint or ladder attachment bands circumscribing the tank are allowed. Cable restraint systems must pass cables over the top of the tank.

### TEMPERATURE

Product should not exceed 100°F at delivery to prevent damage to tank.

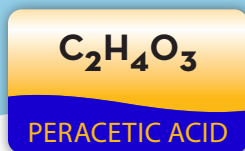
### OPTIONS

Side manways for easy cleaning (as shown), restraint systems for wind and seismic, level gauges, ladders, heating pads, insulation, mixer mounts and engineering stamp.

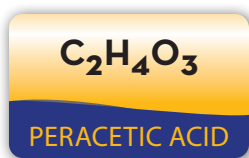


## PERACETIC ACID

One of the top oxidizing chemicals used today



- Peracetic Acid also known as PAA is an organic chemical compound that is formed by blending hydrogen peroxide and acetic acid (the primary component in vinegar). It is colorless and has a pungent vinegar odor. PAA is a highly reactive antimicrobial agent that breaks down to acetic acid, oxygen, and water leaving no harmful residue. PAA also removes surface contaminants, such as bacteria, fungi, and viruses.
- PAA is a widely used chemical in healthcare, produce processing, beef and poultry processing, aseptic packaging & filling and water treatment because it is a highly effective antimicrobial agent that decreases the incidents of pathogenic organisms in or on food and helps reduce the number of decay or food spoilage organisms normally present in the processing of meat, dairy, poultry, seafood and vegetable food items.
- The most effective ways to prevent over-exposure to PAA is to minimize the amount of vapor, mist or droplets that come into direct contact with employees by providing adequate storage, containment, ventilation, and process controls.
- Poly Processing's tanks and fitting systems can be combined specifically to safely contain PAA, reducing the risks presented by this highly oxidizing chemical.



## The Poly Processing Peracetic Acid System

Working with our chemical manufacturing partners over the past few decades, Poly Processing has developed the ideal system for peracetic acid storage. Our **Vertical Tanks with IMFO® (Integrally Molded Flanged Outlet)** or our **Sloped Bottom Tanks with IMFO®** combined with our state of the art **crosslinked polyethylene** and our **OR-1000™ an-oxidant system**, these PAA tank systems are second to none.

If secondary containment is not present, the **Poly Processing SAFE-Tank® is a smart choice**. Along with containing the chemical from its surrounding environment, this double-walled tank greatly lowers the risk of employees contacting the PAA.

SAFE-Tank® systems are designed with OR-1000™.

If secondary containment\* is present, the IMFO® tank or Sloped Bottom IMFO® tank are recommended. With the use of an IMFO® system instead of mechanical fittings, the tank's **structural integrity is maximized**. Combine this tank design with the OR-1000™ system, and **oxidation is reduced dramatically**.

All of these features lead to a safer tank – designed to **reduce safety risks** and **improve the longevity of the system**.

\*Containment is highly recommended with this chemical in all applications.



PERACETIC ACID

# Peracetic Acid Storage Tanks

## Tank Specifications



- **High-density cross-linked polyethylene (XLPE)** ensures maximum corrosion protection through molecular bonding and greater useful life of the tank system
- **OR-1000™** bonds the XLPE with an industry leading antioxidant system inner surface, minimizing oxidation, reducing the potential for fault and maximizing life span
- **IMFO® tank** is molded as a single unit. This maintains hoop stress rating, adding to the strength of the tank. (Recommended for situations with existing secondary containment.)
- **SAFE-Tank® design** produces a tank-within-a-tank, ensuring that water will not enter the containment area and allows the operator to decide when they tank the tank out of service for repair. (Recommended where secondary containment is not available.)
- **B.O.S.S. Fitting®** provides bolted one-piece sure-seal design, limiting the seal point to a

## Recommended System Components



### Venting:

SAFE-Surge® manway cover is recommended on pneumatically loaded systems to support tank longevity



### Full Drain Fittings:

Recommend Integrally Molded Flanged Outlet (IMFO)



### Fittings:

B.O.S.S. Fitting® recommended to prevent leaks and over tightening

**NOTE:** 316 SS bulkhead fittings are also recommended for PAA storage.



### Scrubber:

PolyScrub is available in a passive model which the operator checks manually (PolyScrub) or an actively monitored system which automates PH to ensure maximum performance and ease of use (PolyScrub Plus).

# PERACETIC ACID SYSTEM REQUIREMENTS

## TANKS

Vertical Tanks with IMFO® or Sloped Bottom Tanks with IMFO® of XLPE with OR-1000™:

- 200-15,500 gallons (Vert IMFO®)
- 3,950 -15,000 gallons (Sloped IMFO®)
- 1.65 spg rating

Non-IMFO® alternative\*:

Standard Vertical Flat Bottom XLPE with OR-1000™:

- 30-15,500 gallons
- 1.65 spg rating

\*Three-year warranty offered on Non-IMFO® tank alternatives.

SAFE-Tank® XLPE with OR-1000™:

- 55-8,700 gallons
- 1.65 spg rating for primary tank with OR-1000™
- Spg ratings for secondary tanks  $\geq$  3,000 gallons may be equal to or 1 less spg than primary tank
- All other tank sizes must equal primary tank spg rating

## SECONDARY CONTAINMENT

Recommend SAFE-Tank® secondary XLPE as shown above.

Non-SAFE-Tank® Alternatives:

- PPC secondary containment basin
- Other secondary containment suitable for peracetic acid, of adequate size for use

## FITTINGS

Sidewall and Dome: Recommend 3" maximum B.O.S.S.

Fitting® or 316 SS bulkhead fittings or flanges.

IMFO - 316 SS Flange with 316 SS Bolts

## PLUMBING TO THE TANK

- Required use of **flexible connections** with fittings on lower one-third of sidewall
  - » Allows for lateral and vertical expansion and contraction of the tank
  - » Reduces pump and piping vibration stress on the tank
- Expansion joints must meet the following minimum requirements:
  - » Axial Compression  $\geq$  0.67"
  - » Axial Extension  $\geq$  0.67"
  - » Lateral Deflection  $\geq$  0.51"
  - » Angular Deflection  $\geq$  14°
  - » Torsional Rotation  $\geq$  4°

## VENTING

Go to [www.polyprocessing.com/venting](http://www.polyprocessing.com/venting) for venting information.

## FOUNDATION AND RESTRAINTS

- PPC IMFO® tank pad or smooth concrete foundation designed to accommodate IMFO®, SAFE-Tank® or vertical tank
- No restraint or ladder attachment bands circumscribing the tank are allowed. Cable restraint systems must pass cables over the top of the tank.

## TEMPERATURE

Product should not exceed 86°F at delivery or during storage to reduce the decomposition of the chemical.

## LID

SAFE-Surge® manway cover for pneumatically loaded tanks; bolted manway cover for all other applications.

## OPTIONS

Restraint systems for wind and seismic, scrubbers, level gauges, ladders, heating pads, insulation, fume-tight manway cover, NSF-61 certification and engineering stamp.

CHEMICAL	RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
Peracetic Acid	XLPE with OR-1000™	1.65	316 SS	EPDM / PTFE	316SS

» See our website for a complete Chemical Resistance Chart

**NOTE:** To meet NSF-61 certification, use EPDM

# PRE-PURCHASE GUIDE

## Before Ordering:

1. Determine capacity and location restrictions: gallons, maximum height and diameter, and indoor or outdoor installation.
2. Conduct a chemical review: name, concentration, specific gravity and temperature.
3. See the Chemical Resistance Guide for tank and fittings materials, specific gravity rating, pneumatic or mechanical fill, and full-drain and secondary containment requirements.
4. Use the complete 8-digit stock number when placing orders. Note: the first digit of each stock number indicates the manufacturing location: 4 = Monroe, LA; 7 = Winchester, VA; 1 = French Camp, CA.
5. Download a tank schematic from [www.polyprocessing.com](http://www.polyprocessing.com) and use this drawing to specify the fitting locations.
6. Contact Poly Processing Company for details.

## Operating Parameters

### TEMPERATURE

- Tank specific gravity ratings are based on a product temperature of 100°F
- For tank designs for temperatures above 100°F, contact Customer Service

### PRESSURE

Atmospheric pressure must be maintained in the tank at all times; vacuum must equal zero.

### VENTING

Go to [www.polyprocessing.com/venting](http://www.polyprocessing.com/venting) for the latest venting information.

### PLUMBING

Requires use of flexible connections with fittings on lower one-third of sidewall.

### HEAT MAINTENANCE CONTROLS

Two thermostats are furnished, one for control and one for redundancy; heating requirements vary depending on maintenance temperature, ambient temperature and wind conditions.

### POLYURETHANE INSULATION WITH MASTIC COATING

- 2" nominal thickness
- R-value = 6.5/inch
- Density = 2 lbs./cubic foot

- Mastic coating is white acrylic vinyl

### TANK COLOR

- High-density cross-linked polyethylene (XLPE) - natural, black, white, gray
- Linear polyethylene (HDPE) - natural, black

**NOTE:** For additional colors, contact Customer Service.

### TANK DOME SAFETY LOAD RATING

DO NOT stand or work on tank domes. The surface is flexible and slippery. There is no weight or load rating for the dome.

### GENERAL INFORMATION

- Nominal capacity = Calculated tank capacity to top of straight sidewall
- All vertical, IMFO® and SAFE-Tank® systems greater than 500 gallons are manufactured in accordance with ASTM D 1998 standards
- Gallonage markers are approximate; not for precise measuring or metering

### LOGISTICS

Delivery and shipping information is provided on page 80.

# CHEMICAL RESISTANCE GUIDE

CHEMICAL	CONCENTRATION	RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
Alum (All Types)		HDPE/XLPE	1.65	PVC	EPDM	316SS
Aluminum Chlorohydrate	≤ 50%	HDPE/XLPE	1.65	PVC	EPDM	C-276
Ammonium Hydroxide	≤ 26%	HDPE/XLPE	1.35	PVC	EPDM	316SS
Ammonium Sulfate		XLPE	1.35	PVC	EPDM	316SS
Aqueous Amonia	≤ 26%	HDPE/XLPE	1.35	PVC	EPDM	316SS
Brine Solution		HDPE/XLPE	1.35	PVC	EPDM	316SS
Calcium Chloride	Dilute	HDPE/XLPE	1.65	PVC	EPDM	316SS
Calcium Nitrate	≤ 50%	HDPE/XLPE	1.65	PVC	EPDM	316SS
Citric Acid	Concentrated	XLPE	1.65	PVC	EPDM	316SS
Chlorine Dioxide	≤ 38%	XLPE/OR-1000	1.90	PVC	Viton	Titanium
Diesel Exhaust Fluid		HDPE/XLPE	1.35	PP	EPDM	316SS
Ethylene Glycol		XLPE	1.35	PVC	EPDM	316SS
Fats, Oils, and Grease (FOG)		XLPE	1.35	316SS	Viton	316SS
Ferric Chloride	≤ 96%	HDPE/XLPE	1.65	PVC	EPDM	Titanium
Ferric Sulfate		HDPE/XLPE	1.65	PVC	EPDM	316SS
Ferrous Sulfate		HDPE/XLPE	1.65	PVC	EPDM	C-276
Fertilizer	32%	HDPE/XLPE	1.35	PVC	EPDM	316SS
Fire Foam		HDPE/XLPE	1.35	PVC	EPDM	316SS
Hydrochloric Acid	35-38%	See Position Statement	1.90	PVC	EPDM	C-276
Hydrochloric Acid	20%	See Position Statement	1.90	PVC	EPDM	C-276
Hydrofluoric Acid	≤ 52%	XLPE	1.90	PP	Viton	C-276
Hydrofluoric Acid	53 -70%	XLPE	1.90	PP	Viton	C-276
Hydrofluorosilicic Acid		HDPE/XLPE	1.90	PVC	EPDM	C-276
Hydrofluosilicic Acid		HDPE/XLPE	1.90	PVC	EPDM	C-276
Hydrogen Peroxide	≤ 50%	HDPE/XLPE	1.90	PVC	Viton	316SS
Hydrogen Peroxide	10-30%	HDPE/XLPE	1.35	PVC	Viton	316SS
Lysine (Liquid)		HDPE/XLPE	1.65	PVC	EPDM	316SS
Magnesium Hydroxide		HDPE/XLPE	1.90	PVC	EPDM	316SS
Mineral Oil		XLPE	1.65	PVC	Viton	316SS
Nitric Acid	30-49%	XLPE	1.90	PVC	Viton	316SS
Nitric Acid	≤ 29%	HDPE/XLPE	1.90	PVC	Viton	316SS

**Temperature:** Product temperature is limited to 100°F. For temperatures greater than 100°F, contact Customer Service.

## MATERIAL DESCRIPTIONS

### Fitting materials:

- PP (polypropylene) – light, durable pipe or fitting material with outstanding chemical resistance
- PVC (polyvinyl chloride) – stronger, more rigid pipe or fitting material with excellent chemical resistance
- CPVC (chlorinated polyvinyl chloride) – stronger, more rigid pipe or fitting material with higher temperature rating

CHEMICAL	CONCENTRATION	RESIN TYPE	SPECIFIC GRAVITY RATING	FITTING MATERIAL	GASKET MATERIAL	BOLT MATERIAL
Peracetic Acid	0 - 25%	XLPE/OR-1000	1.65	316SS	EPDM / PTFE	316SS
Phosphate		XLPE	1.65	PVC	EPDM	C-276
Phosphoric Acid	≤ 49%	HDPE/XLPE	1.90	PVC	EPDM	316SS
Phosphoric Acid	50-75%	HDPE/XLPE	2.20	PVC	EPDM	C-276
Poly Aluminum Chloride		HDPE/XLPE	1.65	PVC	EPDM	C-276
Polyphosphate		HDPE/XLPE	1.65	PVC	EPDM	316SS
Potassium Hydroxide	50%	XLPE	1.65	PVC	EPDM	316SS
Potassium Permanganate		XLPE	1.35	PVC	EPDM	316SS
Propylene Glycol		HDPE/XLPE	1.35	PP	EPDM	316SS
Soap Solution		HDPE/XLPE	1.65	PVC	EPDM	316SS
Sodium Aluminate		HDPE/XLPE	1.65	PVC	EPDM	316SS
Sodium Bisulfate		HDPE/XLPE	1.65	PVC	EPDM	316SS
Sodium Bisulfite		HDPE/XLPE	1.65	PVC	EPDM	316SS
Sodium Chloride		HDPE/XLPE	1.35	PVC	EPDM	316SS
Sodium Chlorite	25%	HDPE/XLPE	1.35	PVC	EPDM	316SS
Sodium Hydroxide	≤ 50%	HDPE/XLPE	1.65	PVC	EPDM	316SS
Sodium Hypochlorite	9-15%	XLPE/OR-1000	1.90	PVC	EPDM	Titanium
Sodium Hypochlorite	.8%	XLPE/OR-1000	1.65	PVC	EPDM	Titanium
Sodium Permanganate		XLPE	1.65	PVC	EPDM	316SS
Sulfuric Acid	93-98%	XLPE/OR-1000	2.20	PVC	Viton	316SS
Sulfuric Acid	81-92%	XLPE/OR-1000	2.20	PVC	Viton	C-276
Sulfuric Acid	≤ 80%	XLPE/OR-1000	2.20	PVC	Viton	C-276
Urea		HDPE/XLPE	1.65	PVC	EPDM	316SS
Water, Deionized		HDPE/XLPE	1.00	PVC	EPDM	316SS
Water, Non-Potable		HDPE/XLPE	1.00	PVC	EPDM	316SS
Water, Potable		HDPE/XLPE	1.00	PVC	EPDM	316SS
Water, Reverse Osmosis		HDPE/XLPE	1.00	PVC	EPDM	316SS
Water, Waste		HDPE/XLPE	1.00	PVC	EPDM	316SS
Wine		HDPE	1.35	PVC	EPDM	316SS
Zinc Orthophosphate		HDPE/XLPE	1.90	PVC	EPDM	316SS

#### Gasket materials:

- EPDM (ethylene propylene diene monomer) – good abrasion and tear resistance with excellent chemical resistance
- Viton® (fluorocarbon) – broader temperature and chemical resistance
- Viton® GF/GORE-TEX® – highest temperature resistance

#### Bolt materials:

- 316SS (stainless steel type 316) – common alloy used in many storage applications
- Titanium – strong as steel, but half the weight
- C-276 (Alloy C-276) – broader chemical resistance for more difficult storage applications

# PPC TANK OFFERINGS





## OUR TANK OFFERINGS



### SAFE-Tank® SYSTEMS

A tank-within-a-tank that creates secondary containment with a minimal footprint. Available with or without OR-1000™ surfacing.



### SLOPED BOTTOM IMFO TANKS

Sloped Bottom IMFO tanks with the industry leading molded-in full drain technology.



### VERTICAL TANKS WITH IMFO®

Tanks with drainage at the true base, allowing for minimal sludge buildup and easier maintenance.



### VERTICAL TANKS

Standard-sized chemical storage tanks in cross-linked polyethylene for superior strength. Available with OR-1000™ antioxidant surface.

## OUR TANK OFFERINGS



### OPEN-TOP TANKS

Process-oriented tanks that are typically used for blending or for containment. Open-top tanks often incorporate the use of mixer bridges.



### CONE-BOTTOM TANKS

Generally used in a process environment, where the tank has to be 100% drained, and to address concerns about vortexing.



### SECONDARY CONTAINMENT BASINS

Used for the nesting of traditional vertical or vertical IMFO® tanks to meet secondary containment requirements.



### HORIZONTAL TANKS

Primarily used in the agricultural industry for application processes.

# SAFE-TANK® DOUBLE WALL TANK SYSTEM



## SAFE-Tank® SYSTEMS – STORAGE & CONTAINMENT

		Stock Number	F.O.B	Nominal Capacity	Approx. O.D.	Approx. Overall Height	Lid Size	Ladder Height
		2008700	LA					
		2110150	LA					
L	•	Assembly	LA	8,700	11'-11"	14'-10 1/2"	24"	15'
		2006650	CA, LA					
		2107450	CA, LA					
L	•	Assembly	CA, LA	6,650	10'-2"	14'-9 1/2"	24"	14'
		2005400	LA					
		2106300	LA					
L	•	Assembly	LA	5,400	11'-11"	10'-1/2"	24"	10'
		2004400	VA					
		2104950	VA					
L	•	Assembly	VA	4,400	10'-3"	10'-4 1/4"	24"	10'
		2004350	CA					
		2104950	CA					
L	•	Assembly	CA	4,350	10'-3"	10'-4 1/4"	24"	10'
		2003150	LA					
		2103550	LA					
L	•	Assembly	LA	3,150	10'-2"	8'-1 1/2"	24"	7'
		2002500	LA					
		2103100	LA					
L	•	Assembly	LA	2,500	8'-0"	10'-5 3/4"	17"	10'
		2001550	VA					
		2101950	VA					
	•	Assembly	VA	1,550	8'-0"	7'-5 3/4"	17"	7'
		2001015	CA					
		2101200	CA					
	•	Assembly	CA	1,015	6'-5"	7'-1/2"	17"	6'
		2001000	VA					
		2101200	VA					
	•	Assembly	VA	1,000	6'-5"	7'-1/2"	17"	6'
		2000750	CA, VA					
		2100940	CA, VA					
	•	Assembly	CA, VA	750	5'-0"	8'-2 1/2"	17"	7'
		2000540	LA					
		2100655	LA					
	•	Assembly	LA	540	6'-5"	4'-5 3/4"	17"	
		2000410	CA					
		2000440	CA					
		Assembly	CA	400	4'-0"	6'-1/2"	10"	
		2000405	CA, VA					
		2100445	CA, VA					
		Assembly	CA, VA	405	4'-0"	6'-1/2"	7"	
		2000250	CA, VA					
		2100295	CA, VA					
		Assembly	CA, VA	250	3'-11"	4'-5 1/4"	7"	
		2000160	CA, LA, VA					
		2100220	CA, LA, VA					
		Assembly	CA, LA, VA	160	3'-0"	5'-3"	7"	
		2000105	CA, LA, VA					
		2100150	CA, LA, VA					
		Assembly	CA, LA, VA	105	3'-0"	3'-10 3/4"	7"	
		2000055	LA					
		2100085	LA					
		Assembly	LA	55	3'-0"	2'-8"	7"	

• = Molded-in lifting lugs  
L = Molded-in ladder attachment lugs

## SLOPED BOTTOM TANKS WITH IMFO®

SLOPED BOTTOM VERTICAL TANK WITH IMFO*									
		Stock Number	F.O.B.	Nominal Capacity	Approx. O.D.	Approx. Overall Height	Lid Size	IMFO* Size	Ladder Height
L	•	1215000	LA	15,000	13'-9"	16'-5"	24"	4"	16'
L	•	1213200	LA	13,200	13'-9"	14'-7"	24"	4"	15'
	•	1211800	CA	11,800	12'-0"	16'-4"	24"	4"	15'
L	•	1209850	CA	9,850	12'	14'-1 1/2"	24"	4"	14'
	•	1208500	CA	8,500	12'-0"	12'-7"	24"	4"	13'
L	•	1206350	LA	6,350	10'-2"	12'-10 3/4"	24"	4"	13'
L	•	1206250	CA	6,250	10'-0"	13'-0"	24"	4"	13'
L	•	1204200	CA	4,200	8'-2"	13'-5"	24"	3"	12'
L	•	1204100	VA	4,100	8'-6"	12'-7 3/4"	24"	3"	13'
L	•	1203950	CA	3,950	10'-0"	9'-1"	24"	4"	8'



## VERTICAL TANKS WITH IMFO®

VERTICAL TANKS WITH IMFO*									
		Stock Number	F.O.B.	Nominal Capacity	Approx. O.D.	Approx. Overall Height	Lid Size	IMFO* Size	Ladder Height
L	•	1115500	LA	15,500	13'-9"	16'-5"	24"	4"	16'
L	•	1113650	CA	13,650	13'-9"	14'-7"	24"	4"	14'
	•	1112200	CA	12,200	12'-0"	16'-7 3/4"	24"	4"D	17'
	•	1112150	LA	12,150	12'-0"	17'-3/4"	24"	4"	17'
	•	1110300	CA	10,300	12'-0"	14'-5 1/4"	24"	4"	14'
L	•	1110150	CA	10,150	11'-11"	14'-4 3/4"	24"	4"	14'
L	•	1108500	LA	8,500	10'-0"	16'-8 1/2"	24"	4"	17'
L	•	1108100	LA	8,100	11'-11"	11'-10"	24"	4"	12'
L	•	1108050	CA	8,050	10'-0"	16'-1"	24"	4"	15'
L	•	1107300	LA	7,300	10'-2"	14'-1 3/4"	24"	4"	14'
L	•	1106650	LA	6,650	11'-11"	10'-1/2"	24"	4"	13'
L	•	1106600	CA	6,600	10'-0"	13'-6 1/2"	24"	4"	13'
L	•	1106150	LA, VA	6,150	10'-2"	12'-4 3/4"	24"	4"	12'
L	•	1106115	LA	6,115	8'-6"	16'-3 3/4"	24"	4"D	16'
L	•	1106100	CA	6,100	10'-0"	12'-7 1/2"	24"	4"	12'
L	•	1105050	LA	5,050	7'-10"	16'-1/4"	24"	4"D	16'
L	•	1104600	CA	4,600	10'-2"	9'-6 3/4"	24"	4"	9'
L	•	1104300	LA	4,300	11'-11"	7'-1 1/4"	24"	4"	7'
L	•	1104150	VA	4,150	8'-6"	12'-6 1/4"	24"	3"	12'
L	•	1104050	CA	4,050	8'-2"	12'-8 3/4"	24"	3"	12'
L	•	1103900	LA	3,900	7'-10"	12'-8 1/4"	24"	4"D	12'
L	•	1103000	LA, VA	3,000	7'-1"	11'-11 3/4"	24"	3"	12'
L	•	1102750	CA	2,750	8'-2"	9'-2 1/2"	24"	3"	9'
L	•	1102560	LA	2,560	7'-1"	10'-3 1/2"	24"	3"	10'
L	•	1102550	VA	2,550	7'-1"	10'-3 1/2"	24"	3"	10'
L	•	1102050	LA	2,050	7'-1"	8'-5 3/4"	24"	3"	8'
L	•	1102000	VA	2,000	7'-1"	8'-5 3/4"	24"	3"	8'
		1101600	CA	1,600	6'-1"	9'-1"	17"	3"	9'
		1101400	LA, VA	1,400	5'-4"	10'-1 1/2"	17"	3"	
		1101250	CA	1,250	5'-0"	9'-11 1/2"	17"	3"	
		1101150	VA	1,150	5'-4"	8'-6"	17"	3"	8'
		1100905	VA	905	5'-4"	6'-11 1/2"	17"	2"	6'
		1100850	VA	850	4'-0"	10'-5 1/2"	17"	3"	10'
		1100545	CA, LA	545	4'-0"	7'-1 1/2"	17"	2"	
		1100475	VA	475	4'-0"	6'-3 1/4"	17"	3"	
		1100325	VA	325	4'-0"	4'-7 1/2"	17"	3"	
		1100230	VA	230	3'-2"	4'-10 3/4"	17"	3"	
		1100200	VA	200	2'-7"	6'-3"	7"	2"	



### POLYBASE™ TANK SYSTEM

PolyBase IMFO and Sloped Bottom IMFO support systems are available for all Vertical Tanks with IMFO and Sloped Bottom Tanks with IMFO. Please go to [www.polyprocessing.com/polybase](http://www.polyprocessing.com/polybase) or contact Poly Processing Company for your PolyBase needs.

**NOTE:** PolyBase® system to be used with IMFO tanks storing chemicals < 1.65 spg.

- = Molded-in lifting lugs
- L = Molded-in ladder attachment lugs
- D = Double IMFO® available

Visit [www.polyprocessing.com](http://www.polyprocessing.com) or contact your Poly Processing representative for a complete and up-to-date listing of tanks.

# VERTICAL TANKS



VERTICAL TANKS							
	Stock Number	F.O.B.	Nominal Capacity	Approx. O.D.	Approx. Overall Height	Lid Size	Ladder Height
L •	1015500	LA	15,500	13'-9"	16'-5"	24"	16'
L •	1013650	CA, LA	13,650	13'-9"	14'-7"	24"	14'
L •	1012250	LA	12,250	11'-11"	17'-3/4"	24"	17'
•	1012150	CA	12,150	12'-0"	16'-7 3/4"	24"	16'
L •	1010305	LA	10,305	11'-11"	14'-4 3/4"	24"	14'
L •	1010300	CA	10,300	11'-11"	14'-5 3/4"	24"	14'
•	1009100	CA	9,100	12'-0"	12'-10 1/4"	24"	12'
L •	1008500	LA	8,500	10'-0"	16'-8 1/2"	24"	17'
L •	1008100	LA	8,100	11'-11"	11'-9 3/4"	24"	12'
L •	1008050	CA	8,050	10'-0"	16'-1"	24"	15'
L •	1008000	LA	8,000	9'-2"	18'-5 3/4"	24"	18'
L •	1007300	CA, LA	7,300	10'-2"	14'-1 3/4"	24"	14'
L •	1006650	LA	6,650	11'-11"	10'-3/4"	24"	10'
L •	1006600	CA	6,600	10'-0"	13'-6 1/2"	24"	13'
L •	1006150	LA, VA	6,150	10'-2"	12'-3 3/4"	24"	12'
L •	1006115	LA	6,115	8'-6"	16'-3 3/4"	24"	16'
L •	1006100	CA	6,100	10'-0"	12'-8"	24"	12'
L •	1005300	LA, VA	5,300	9'-2"	12'-9 3/4"	24"	13'
L •	1005100	CA	5,100	10'-2"	10'-6 1/2"	24"	10'
L •	1005050	LA	5,050	7'-10"	16'-1/4"	24"	16'
L •	1004925	CA	4,925	9'-0"	12'-2 3/4"	24"	12'
•	1004900	CA	4,900	12'-0"	7'-9 1/2"	24"	6'
L •	1004600	CA	4,600	10'-2"	9'-6 1/4"	24"	9'
L •	1004250	LA	4,250	11'-11"	7'-1 3/4"	24"	7'
L •	1004150	VA	4,150	8'-6"	12'-6 1/4"	24"	12'
L •	1004050	CA	4,050	8'-2"	12'-9 1/2"	24"	12'
L •	1003900	LA, VA	3,900	7'-10"	12'-8 3/4"	24"	12'
L •	1003850	VA	3,850	10'-2"	8'-5 3/4"	24"	8'
•	1003650	CA	3,650	10'-2"	8'-3 3/4"	24"	6'
L •	1003000	LA	3,000	7'-1"	11'-11 3/4"	24"	12'
L •	1002750	CA	2,750	8'-2"	9'-4"	24"	9'
L •	1002650	LA, VA	2,650	8'-0"	8'-9 1/4"	24"	8'
L •	1002560	LA	2,560	7'-1"	10'-3 1/2"	24"	10'
L •	1002550	VA	2,550	7'-1"	10'-3 1/2"	24"	10'
•	1002500	CA	2,500	8'-0"	8'-2"	24"	8'
L •	1002250	LA, VA	2,250	8'-0"	7'-9 1/4"	24"	7'
L •	1002050	LA	2,050	7'-1"	8'-5 3/4"	24"	8'
L •	1002000	VA	2,000	7'-5"	7'-9"	24"	8'
•	1001950	VA	1,950	5'-4"	13'-8"	17"	13'
•	1001715	CA	1,715	6'-1"	9'-6 1/2"	17"	9'
•	1001700	VA	1,700	8'-0"	6'-1 3/4"	24"	6'
•	1001550	CA	1,550	5'-1"	11'-9"	17"	11'
•	1001450	LA	1,450	7'-2"	6'-5 1/2"	17"	6'
•	1001400	LA, VA	1,400	5'-4"	10'-2 1/2"	17"	10'
•	1001300	VA	1,300	7'-1"	5'-10 3/4"	10"	6'
•	1001250	CA	1,250	7'-0"	6'-0"	17"	5'
•	1001160	VA	1,160	5'-4"	8'-6"	17"	8'
•	1001150	LA	1,150	5'-4"	8'-6"	17"	8'
•	1001090	CA	1,090	5'-1"	8'-6"	17"	8'
•	1001050	VA	1,050	5'-1"	8'-6"	17"	6'
•	1001000	LA	1,000	7'-2"	5'-0"	17"	17"
•	1000905	LA, VA	905	5'-4"	7'-0"	17"	7'
•	1000805	VA	805	4'-0"	9'-10 1/2"	17"	9'
•	1000755	LA	755	5'-4"	5'-9 11/16"	19"	19"
•	1000685	CA	685	5'-1"	5'-9 1/2"	17"	17"
•	1000680	CA	680	4'-0"	8'-6"	17"	17"
•	1000615	CA	615	4'-0"	7'-5"	17"	17"
•	1000585	VA	585	4'-0"	7'-5"	17"	17"
•	1000546	VA	546	4'-0"	7'-2 1/2"	17"	17"

• = Molded-in lifting lugs  
L = Molded-in ladder attachment lugs

## VERTICAL TANKS (continued)

VERTICAL TANKS (continued)						
Stock Number	F.O.B.	Nominal Capacity	Approx. O.D.	Approx. Overall Height	Lid Size	Ladder Height
1000545	LA	545	4'-0"	7'-0"	17"	
1000540	CA	540	4'-0"	6'-11 1/2"	17"	
1000495	LA	495	5'-4"	4'-4 1/2"	17"	
1000475	CA	475	4'-0"	6'-3"	17"	
1000450	LA, CA	450	3'-10"	6'-1"	7"	
1000400	VA	400	3'-9"	5'-3"	7"	
1000325	CA	325	4'-0"	4'-7 1/2"	17"	
1000300	CA	300	3'-6"	4'-8 1/2"	7"	
1000295	LA	295	3'-10"	4'-6 3/4"	7"	
1000285	VA	285	2'-10"	7'-0"	7"	
1000280	CA	280	2'-10"	7'-1/2"	7"	
1000232	CA	232	2'-6"	7'-0"	7"	
1000230	CA	230	3'-2"	4'-10 3/4"	17"	
1000205	LA, VA	205	2'-7"	6'-1 1/2"	7"	
1000155	LA, VA	155	2'-7"	4'-8 1/2"	7"	
1000115	CA, LA	115	2'-6"	3'-11 1/4"	7" or 12"	
1000110	VA	110	2'-9"	2'-11"	12"	
1000100	LA, VA	100	1'-11"	5'-6 1/2"	7"	
1000070	LA, CA	70	1'-11"	4'-1"	12"	
1000060	LA, VA	60	1'-11"	3'-6 1/4"	7"	
1000030	CA, LA	30	1'-1"	2'-1 1/4"	12"	

## CONE-BOTTOM TANKS



CONE-BOTTOM TANKS (METAL STANDS)							
Stock Number	F.O.B.	Nominal Capacity	Slope Degrees	Approx. O.D.	Overall Height with Stand	Lid Size	Ladder Height
4110950	CA	10,950	30	12'	19'-3"	24"	19'
4109050	CA	9,050	30	12'	16'-10 3/4"	24"	17'
4107100	CA	7,100	30	12'	14'-5 3/4"	24"	15'
4006850	CA	6,850	60	10'-1"	20'-3"	24"	19'
4006500	LA	6,500	45	9'-3"	19'-3"	24"	19'
4105550	CA	5,550	30	10'-0"	15'-4"	24"	15'
4005350	LA	5,350	45	9'-3"	16'-11"	24"	16'
4004100	CA	4,100	30	7'-11"	13'-10"	24"	14'
4103650	CA	3,650	30	8'-2"	14'-8"	24"	15'
4002850	LA	2,850	30	7'-11"	11'	16"/24"	11'
4002350	LA	2,350	30	7'-11"	9'-9"	16"/24"	9'
4002300	CA	2,300	30	7'-11"	9'-9"	16"/24"	9'
4001400	CA	1,400	30	7'-11"	7'-2"	16"/24"	7'
4001070	CA	1,070	45	5'-1"	11'-2"	17"	10'
4000735	CA	735	48	5'-1"	8'-11"	17"	8'
4000615	CA	615	44	4'-0"	9'-9"	17"	9'
4000510	LA	510	15	3'-10"	8'-6"	10"	9'
4000480	CA	480	44	4'-0"	7'-9"	17"	8'
4000335	CA	335	44	4'-0"	6'-9"	17"	6'
4000220	LA	220	15	2'-7"	8'-2"	10"	8'
4000195	CA	195	44	4'-0"	4'-9"	17"	5'
4000105	LA	105	15	1'-11"	7'-9"	10"	7'

ALL PLASTIC CONE-BOTTOM TANKS							
Stock Number	F.O.B.	Nominal Capacity	Slope Degrees	Approx. O.D.	Overall Height with Stand	Lid Size	Ladder Height
4000250	VA	250	20	3'-6"	5'-7"	7"	
4000100	VA	100	20	2'-8"	4'-4"	7"	
4000055	VA	55	20	2'-0"	4'-4"	7"	

**NOTE:** Tanks can be supplied as an open top, open top with flat polyethylene bolted cover or molded top with threaded lid.

# OPEN-TOP TANKS



## OPEN-TOP / CONTAINMENT TANKS

Stock Number	F.O.B.	Nominal Capacity	Approx. O.D.	Approx. Overall Height	Flange Type	Cover Type
1514650	CA	14,650	13'-9"	13'-1"	Internal	
1512300	CA	12,300	12'-0"	15'-0"	Internal	
1510350	CA	10,350	12'-0"	12'-7"	Internal	
1508400	CA	8,400	12'-0"	10'-2"	Internal	
1506900	CA	6,900	12'-0"	8'-4"	Internal	
1505000	CA	5,000	12'-0"	6'-0"	Internal	
1504500	LA	4,500	11'-11"	6'-3"	Internal	
1504200	CA	4,200	8'-0"	11'-5"	Internal	
1504000	CA	4,000	10'-0"	6'-11"	Internal	
1503650	VA	3,650	8'-6"	9'-0"	Internal	
1503050	LA	3,050	8'-0"	8'-5"	External	Domed Cover
1502900	CA	2,900	8'-0"	7'-11"	Internal	
1502890	CA	2,890	10'-0"	5'-0"	Internal	
1502650	LA	2,650	8'-0"	7'-3"	External	Domed Cover
1502000	LA	2,000	8'-0"	5'-7"	External	Domed Cover
1501800	VA	1,800	6'-1"	8'-6"	Internal	
1501800	CA	1,800	6'-1"	8'-7"	Internal	
1501750	VA	1,750	7'-9"	5'-1"	Internal	
1501600	CA	1,600	5'-1"	10'-10"	Internal	
1501200	VA	1,200	7'-8"	3'-8"	Internal	
1501200	CA	1,200	6'-1"	5'-7"	Internal	
1501150	VA	1,150	6'-1"	5'-7"	Internal	
1500960	VA	960	5'-4"	6'-0"	Internal	
1500760	CA	760	6'-1"	3'-7"	Internal	
1500715	VA	715	6'-1"	3'-6"	Internal	
1500710	CA	710	5'-1"	4'-9"	Internal	
1500700	VA	700	5'-1"	4'-9"	Internal	
1500515	CA	515	4'-0"	5'-7"	Internal	
1500470	LA	470	3'-10"	5'-8"	External	Mod. Shoe Box
1500370	CA	370	4'-0"	4'-0"	Internal	
1500360	VA	360	4'-0"	4'-0"	Internal	
1500330	LA	330	3'-10"	4'-0"	External	Mod. Shoe Box
1500160	LA	160	2'-7"	4'-4"	External	Mod. Shoe Box
1500160	CA	160	3'-1"	3'-0"	Internal	
1500155	VA	155	3'-1"	3'-0"	Internal	
1800150	CA	150	2'-7"	4'-2"	External	Round Cover
1500110	LA	110	1'-11 1/2"	4'-11"	Internal	
1800100	CA	100	2'-4"	3'-6"	External	Round Cover
1500055	CA	55	1'-11"	2'-10 1/2"	Internal	
1800050	CA	50	1'-10"	3'-0"	External	Round Cover

Visit [www.polyprocessing.com](http://www.polyprocessing.com) or contact your Poly Processing representative for a complete and up-to-date listing of tanks.



## SECONDARY CONTAINMENT BASINS

SECONDARY CONTAINMENT						
Stock Number	F.O.B.	Nominal Capacity	Approx. O.D. Top/ I.D. Length	Approx. O.D. Bottom/ I.D. Width	Approx. Overall Height	Flange Width
<b>CYLINDRICAL - NESTABLE*</b>						
1500935	VA	935	6'-7"	6'-3"	4'-0"	2"
1500570	VA	570	6'-6"	6'-4"	2'-7"	2"
<b>RECTANGULAR BASINS</b>						
5101850	LA	1,850	9'-11"	8'-11"	2'-11"	3"
5101500	LA	1,500	6'-3"	5'-3"	7'-2"	4"
5101150	LA	1,150	5'-9"	4'-9"	6'-2"	3"
5101000	CA	1,000	12'-7"	7'-7"	2'-4"	N/A
5100730	CA	730	8'-0"	4'-4"	2'-8"	N/A
5100700	LA	700	8'-0"	6'-0"	2'-1"	3"
5100635	LA	635	9'-2"	3'-1"	3'-2"	4"
5100555	CA	555	6'-6"	4'-10"	3'-0"	N/A
5100440	LA, VA	440**	5'-8"	4'-8"	2'-6"	2"
5100385	LA	385	5'-6"	3'-7"	2'-10"	2"
5100320	VA	320	5'-6"	3'-5"	2'-8"	3"
5100225	LA	225**	4'-10"	3'-2"	2'-1"	4"
5300175	CA	175	10'-5"	5'-0"	8"	3"
5300135	CA, LA	135	3'-5"	3'-5"	2'-2"	N/A
5100080	LA	80	3'-1"	2'-1"	2'-1"	2"

\* Diameter does not include flange. \*\* Support stand with grating is available.

**NOTE:** External support is required to maintain calculated volume on rectangular tanks.

## HORIZONTAL TANKS



HORIZONTAL TANKS								
Stock Number	F.O.B.	Nominal Capacity	Approx. O.D.	Approx. Length	Lid Size	Saddle/Skid Stock #	4' Stand Stock #	6' Stand Stock #
3002600	CA	2,600	5'-10"	13'-8"	16"	6319		
3001950	LA	1,950	5'-4"	13'-2"	19"	3464	3475	3486
3001050	CA	1,050	4'-0"	11'-11"	17"	6316		
3001000	LA	1,000	5'-4"	7'-3"	10"/19"	3459	3472	3483
3000610	CA	610	3'-11"	7'-9"	7"	6678		
3000520	LA	520	4'-0"	6'-4"	10"	3456	3470	3481
3000400	CA	400	3'-6"	6'-0"	17"	6312		
3000170	CA	170	2'-8"	4'-7"	12"	6306		

HORIZONTAL LEG TANKS						
Stock Number	F.O.B.	Nominal Capacity	Approx. O.D.	Approx. Length	Lid Size	Stock # for Metalwork
3402500	CA	2,500	5'-10"	14'-11"	17"	6329
3401750	CA	1,750	5'-0"	12'-11"	17"	6328
3401600	LA	1,600	4'-8"	13'-3"	22"	5303
3401060	CA	1,060	5'-4"	7'-3"	17"	6327
3401030	CA	1,030	4'-0"	11'-11"	17"	6326
3400700	LA	700	4'-6"	6'-9"	16"	7614
3400515	CA, LA	515	4'-0"	6'-4"	12"	6325
3400410	LA	410	3'-7"	5'-11"	12"	6324
3400330	LA	330	3'-3"	6'-2"	12"	6323
3400220	CA, LA	220	3'-3"	4'-2"	12"	6322
3400135	CA, LA	135	2'-7"	3'-10"	12"	6321
3400065	LA	65	1'-11"	3'-6"	7"	



# FITTINGS AND ACCESSORIES

Poly Processing carries hundreds of fittings and accessories for chemical storage. The following pages give an overview of our more popular products. For a complete list of our inventory, with prices, please contact your Poly Processing representative. This representative can also help you determine which products are most suitable for the chemical you are storing.



# STYLE AND LOCATION PLACEMENT GUIDE

### TOP DEAD CENTER (TDC)

Includes universal ball domes, both flange and bulkhead style, as well as made-vertical fittings, bulkhead and standard flanges.<sup>2</sup>

### CURVED SECTION

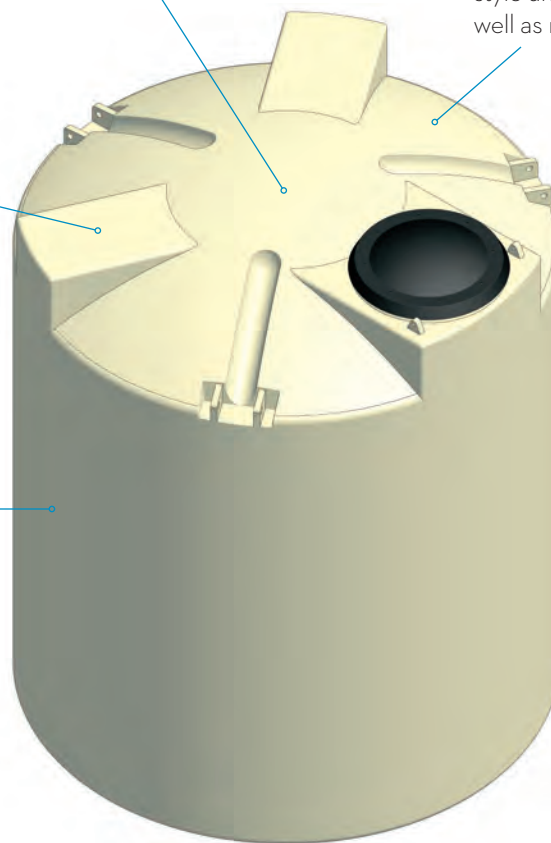
Includes flange and bulkhead style universal ball domes as well as made-vertical fittings.

### FLAT SECTIONS

All dome fittings including flanges, bulkheads, spooling fittings, universal ball domes and made-verticals.

### SIDEWALL

These can include bolted flange, bolted spool, the B.O.S.S. Fitting<sup>®</sup> and bulkhead fittings.<sup>1</sup>



### NOTE

1. Non-overflow bulkhead fittings on sidewall are limited to tanks holding 2,000 gallons or less.
2. For TDC - in some cases, a standard flange or bulkhead may be used top dead center. Contact your Poly sales rep to confirm.

For the most accurate fitting selection and placement guidance, find your specific tank drawing at [www.polyprocessing.com](http://www.polyprocessing.com).

FLANGE GUIDE									
Tank Diameter	FLG 1"	FLG 1½"	FLG 2"	FLG 3"	FLG 4"	FLG 6"	FLG 8"	FLG 10"	FLG 12"
<= 36"	ok	ok	ok	n/a	n/a	n/a	n/a	n/a	n/a
>= 37" - 60"	ok	ok	ok	ok	curve to diameter	n/a	n/a	n/a	n/a
>= 61" - 144"	ok	ok	ok	ok	curve to diameter	curve to diameter	curve to diameter	curve to diameter	curve to diameter
Bulkhead (wetted connections)	BHF ½"	BHF ¾"	BHF 1"	BHF 1½"	BHF 2"	BHF 3"	BHF 4"	Please contact the factory for your specific application	
<= 48"	ok	ok	ok	ok	ok	n/a	n/a		
>= 49" < 3,000 gallons	ok	ok	ok	ok	ok	ok	overflow		
> 3,000 gallons	overflow	overflow	overflow	overflow	overflow	overflow	overflow		

# FITTINGS



## THE B.O.S.S. FITTING®

This one-piece sure-seal fitting prevents leaks and adds value to your tank installation. Available in PVC and CPVC back ring, its one-piece design reduces the seal point to a single gasket, and its polyethylene construction ensures chemical compatibility. Its back ring design reduces stress on the fitting and makes it three times stronger than similar plastic fittings.

**Bolts:** 316 stainless steel, titanium and C-276

**Body:** Polyethylene

**Connections:** socketed

**Size:** 1", 2" and 3"

**Gaskets:** EPDM, Viton® and Viton® GF

**Options:** flange adapter, siphon leg



## BOLTED FLANGE FITTINGS

Available in PVC and CPVC. With these fittings, all aspects of fitting maintenance can be done externally, with no tank entry required. These can be installed on sidewall or dome. Bolt heads are encapsulated in polyethylene, providing chemical resistance.

**Bolts:** 316 stainless steel, titanium, C-276 and Alloy 400

**Body:** standard PVC and CPVC

**Connections:** socketed or threaded

**Sizes:** 1", 1½", 2", 3" and 4" threaded;  
1", 1½", 2", 3", 4" and 6" socketed

**Gaskets:** EPDM, Viton® and Viton® GF

**Options:** flange adapter, siphon leg

B.O.S.S. Fitting - Visit [www.polyprocessing.com/boss](http://www.polyprocessing.com/boss) to learn more about this fitting

## FITTINGS



### BOLTED SPOOL FITTINGS

The bolted spool fitting is fabricated per the customer's requirements and is typically used for larger dome and sidewall connections. Use a van stone flange to connect piping. Bolted spool fittings 8 inches or greater are manufactured with gussets.

**Bolts:** 316 stainless steel, titanium, C-276 and Alloy 400

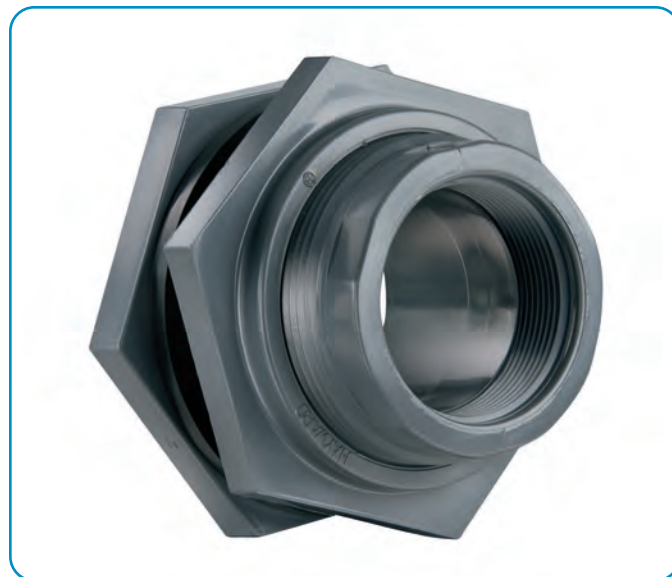
**Body:** standard PVC, CPVC and polypropylene

**Connections:** flanged

**Size:** 1" to 12"

**Gaskets:** EPDM, Viton® and Viton® GF

**Options:** siphon leg



### BULKHEAD FITTINGS

An economical fitting best used on small tanks in mild applications. Can be installed on sidewall, overflow or dome. May be used as a overflow fitting with all chemicals, since it's non-wetted. Bulkhead fittings must be installed from the inside of the tank, requiring tank entry for repairs and maintenance. They should not be used on sidewall of tanks greater than 2,000 gallons or tanks greater than 6 feet in height.

**Body:** standard PVC, CPVC and polypropylene

**Connections:** socketed or threaded

**Size:** 1/2" to 6"

**Gaskets:** EPDM, Viton® and Viton® GF

**Options:** flange adapter, siphon leg

NOTE: Over time, the bulkhead fittings have a tendency to creep causing the nut to loosen. Regular monitoring for drips is critical.

## FITTINGS



### UNIVERSAL BALL DOME FLANGES

These flanges are “self-aligning,” which allows for vertical plumbing on the dome of the tank up to 22 degrees. The fitting can be repaired and maintained externally without tank entry. Available with Ryton® bolts, an economical alternative to titanium, C-276 and Alloy 400.

**Bolts:** 316 stainless steel, titanium, C-276, Alloy 400, Ryton®

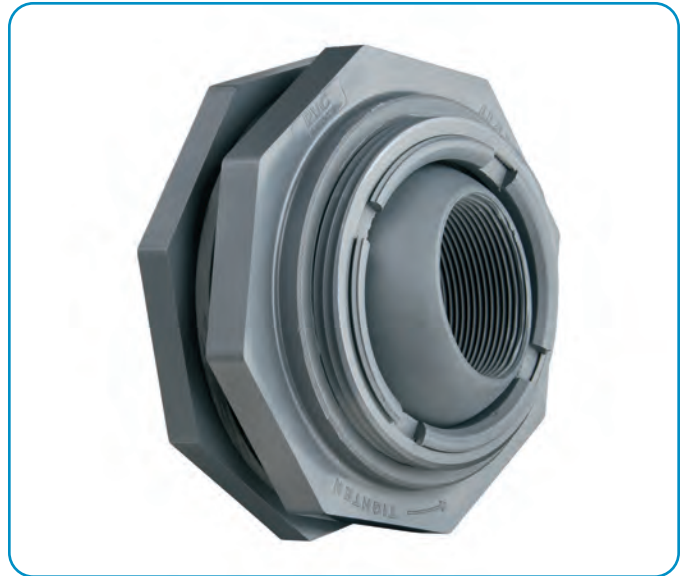
**Body:** standard PVC or CPVC

**Connections:** threaded

**Size:** 1" to 4"

**Gaskets:** EPDM, Viton® and Viton® GF

**Options:** flange adapter



### UNIVERSAL BALL DOME BULKHEADS

Our universal ball dome bulkheads are also “self-aligning,” which allows for vertical plumbing on the dome of the tank. An economical alternative to UBD flange-style bulkheads, since no additional bolts are required.

**Body:** standard PVC or CPVC

**Connections:** threaded

**Size:** 1" to 3"

**Gaskets:** EPDM, Viton® and Viton® GF

**Options:** flange adapter

## FITTINGS



### MADE-VERTICAL FITTINGS

Made-vertical fittings are fabricated per the customer's requirements. They are typically used for larger domes that require a fitting to be above 4 inches and in those few cases where our domes are extremely steep. They may need to be supported independently of the tank. For optimal support, install it on a tank runway or as close to the edge as possible.

**Bolts:** 316 stainless steel, titanium, C-276, Alloy 400, Ryton®

**Body:** standard PVC or CPVC

**Size:** 1" to 12" (dependent on the size of the tank). Please contact our inside sales to confirm the maximum size.

**Gaskets:** EPDM, Viton® and Viton® GF

**Options:** flange adapter socketed or threaded



### FLANGE ADAPTERS

Includes a nipple and flange for connection to plumbing system.

**Body:** standard PVC and CPVC

**Connections:** socketed or threaded

**Sizes:** 1", 1½", 2", 3" and 4" threaded;  
1", 1½", 2", 3", 4" and 6" socketed



### STAINLESS STEEL FITTINGS

Complete 316 stainless steel fittings. One-piece reduces seal point to a single surface like the B.O.S.S. Ffitting®. These can be installed on sidewall or dome.

**Bolts:** 316 stainless steel

**Body:** 316 stainless steel

**Connections:** threaded coupler, half nipple and full nipple

**Sizes:** ½", ¾", 1", 1½", 2", 3" and 4"

**Gaskets:** EPDM, Viton® and Viton® GF

**Options:** flange adapter, siphon leg

# PLUMBING



## BUTTERFLY VALVES

Being slim and lightweight yet robust makes this the ideal shutoff valve for IMFO® drain.

**Bolts:** 316 stainless steel, titanium, C-276, Alloy 400

**Body:** standard PVC, CPVC and polypropylene

**Size:** 2" to 6"

**Seals:** EPDM, Viton® and Viton® GF

**Options:** flange adapter

Note: Installing a butterfly valve on the IMFO fitting may require a spool assembly for a proper seal. Contact PPC before ordering your fitting assembly.



## BALL VALVES

Complete line of high-performance ball valves to meet varying needs.

**Body:** standard PVC, CPVC and polypropylene

**Connections:** socketed, threaded or true union

**Size:** 1/2" to 6"

**Seals:** EPDM, Viton® and Teflon®

**Options:** flange adapter

NOTE: Can also be used on mechanical fittings by using a flange adapter.

## PLUMBING



### PVC LIQUID LEVEL GAUGES

PVC liquid level gauges are made from  $\frac{3}{4}$  inches of clear PVC tubing for a level indicator with up to three optional valves. Please note that one pipe support should be used for every 6 feet of sidewall height to maintain alignment.

NOTE: Check chemical compatibility with PVC 40 before specifying a site tube.



### REVERSE FLOAT LEVEL GAUGES

The reverse float level gauges offer a safe and reliable means of determining the chemical level in your tank and especially in the SAFE-Tank®. Available in PVC as standard.

#### Advantages:

- No sidewall tank penetrations or chemical exposure
- All joints are dry fit for easier part replacement
- Internal float weighted to chemical specific gravity
- Polypropylene rope used for indicator
- Calibration tape can be added for tank capacity
- Standard or freestanding pipe supports available for clear pipe

NOTE: These gauges are NOT intended to be used for metering purposes.

NOTE: Level system supplied without internal pipe or pipe support.

Visit [www.polyprocessing.com/reversefloat](http://www.polyprocessing.com/reversefloat) for more information.



# PLUMBING



## COMBINATION INTERNAL & EXTERNAL FILL/DISCHARGE DROP PIPES

Fill Line assemblies are available in PVC and CPVC with sizes ranging from 1 to 3 inches and include a true union for quick assembly. When choosing a fitting, be sure to consider if the fill will be placed on the flat of the dome; otherwise it will require a self-leveling fitting.

For dome fittings installed +/- 12 inches from the sidewall, standard pipe supports can be used. If the dome fitting is more than 12 inches from the sidewall or if the fitting size is greater than 4 inches, you must use a non-invasive internal pipe support to support the internal piping. Customer installation of the internal drop pipe assembly is required. Use a universal ball dome fitting for easier installation. Pipe supports should be used one for every 6 feet of sidewall height.

**Optional fittings:** ball valve, quick adapter and cap (as shown)



## FILL EXTERNAL DROP PIPES

Fill line assemblies are available in PVC and CPVC with sizes ranging from 1 to 3 inches and include a true union connection for easy assembly. When choosing a fitting, be sure to consider if the fill will be placed on the flat of the dome; otherwise it will require a self-leveling fitting.

**Optional fittings:** ball valve, quick adapter and cap (as shown)

## PLUMBING



### FILL/DISCHARGE INTERNAL DROP PIPES

Fill line assemblies are available in PVC and CPVC with sizes ranging from 1 to 3 inches and include a true union for quick assembly. For dome fittings installed +/- 12 inches from the sidewall, standard pipe supports can be used. If the dome fitting is more than 12 inches from the sidewall or if the fitting size is greater than 4 inches, you must use a non-invasive internal pipe support to support the internal piping. Customer installation of the internal drop pipe assembly is required. Use a universal ball dome fitting for easier installation. Pipe supports should be used one for every 6 feet of sidewall height.

## MANWAY COVERS



### SAFE-Surge® MANWAY COVER

Designed specifically for pneumatic-filled tanks. Releases at a 6-inch water column to prevent over-pressurization, ensuring that the tank maintains proper ACFM at all times - even in the event of air surges that cannot be handled by primary venting. Available in 19 and 24 inches. For detailed venting requirements, please refer to the chart on page 79.



### F.S. 2650® MANWAY COVER

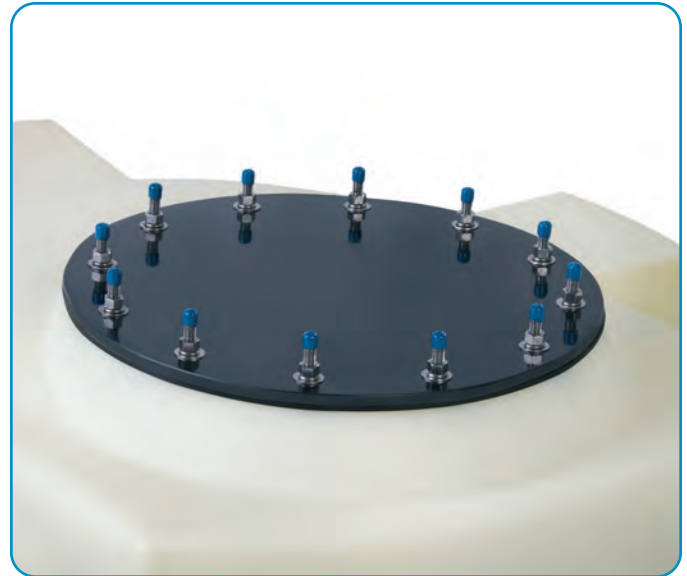
For plastic chemical storage tanks located outdoors where fumes are not a concern, the F.S. 2650® manway cover is a less expensive option for safely handling any air pressure surges. This combines a vent and manway cover into one engineered lid system that can evacuate air volumes up to 2650 ACFM, which is well within the calculated maximum potential pressure surges resulting using both 2- and 3-inch fill lines (maximum ACFM from a 2-inch standard line is 910, and 1150 from a 3-inch line).

## MANWAY COVERS



### BOLTED (8/16) MANWAY COVER

These are the most popular covers we provide. They are available in 24 inches. Please note that if you plan on visually inspecting the interior of the tank with some frequency, our SAFE-Surge® manway cover may be a better alternative.



### FUME-TIGHT MANWAY COVER

Available in two sizes, 17 and 24 inches, with bolts of stainless steel, Alloy C-276 and titanium. Gasket materials available include EPDM, Viton®, Viton® GF, XLPE or Buna. The 17-inch model is often used on 19-inch manways as well. Fume-tight manway cover is required for HCL applications.

## LIDS



### THREADED LID

Available in three sizes, 7, 12 and 17 inches, coarse threaded. Gasket materials available include EPDM, Viton®, Viton® GF, XLPE or Buna.



### 10" FUME -TIGHT SMALL TANK LID

Available in one size, and designed for tanks less than 2,000 gallons that require a fume-tight lid. The design consists of a male threaded lid and special tooling that allows us to mold female threads into the tank. The lid includes a PE spacer to compress the gasket. Gasket materials available include EPDM, Viton®, Viton® GF or XLPE.

## ACCESSORIES



### LADDER ASSEMBLIES

Poly Processing's tank ladders are available in heights from 6 to 20 feet, depending on the tank application. To determine height, ladder height equals height to top of manway rounded to the nearest foot. If height of ladder exceeds the height of the manway, subtract 1 foot.

- Ladders are available in mild steel as well as FRP construction
- All ladders meet OSHA requirements
- Ladders are not offered on all tanks due to safety requirements. Approved systems are noted with the appropriate ladder height in the distributor price list.
- Cages range from 7 to 8 feet and extend 4 feet above the top rung of the ladder



### HEAT PADS AND INSULATION

Poly Processing's tank heating systems are specifically designed for temperature maintenance of polyethylene tanks. Tank heating systems maintain a desired product temperature, not to exceed 100°F.

- Each heating system consists of tank heating pad(s) and a temperature controller. The quantity and type of tank heating pads required is determined by the size of the tank, the desired temperature maintenance and environmental conditions.
- Tanks are available with standard heating systems with a Delta T of 30, 60 and 100°F
- Tanks are typically supplied with the heating panels and a controller installed by Poly Processing. The only field connection required is a power supply to the heating system.

Please contact our Customer Support staff if HT & I is required on a 13'-9" diameter tank.

## ACCESSORIES



### OPTIC LEAK DETECTION SWITCH

This switch is an excellent choice for leak detection in secondary containment tanks. The submersible sensor is mounted in the interstitial space of the tank. The internal 1A relay provides a reliable switch interface with indicators, PLCs, SCADAs and alarms.

- Fail-safe leak sensor inverts wet to alert user for maintenance
- Rugged PP or PFA Teflon® probe and cable rated NEMA 6
- 1A relay selectable NO or NC via power supply wiring polarity
- Compatible with MicroPoint™ multi-channel indicator



### ULTRASONIC LEVEL SWITCH

This CSA-approved switch is intrinsically safe for use in hazardous-area locations. The ultrasonic level switch is broadly used in chemical liquids. Its 1A relay provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm. This submersible sensor is universally mounted through the wall inside the tank.

- CSA-approved intrinsically safe for use in hazardous-area locations
- Rugged PP or PFA Teflon® probe and cable rated NEMA 6
- 1A relay selectable NO or NC via power supply wiring polarity
- Compatible with MicroPoint™ multi-channel indicator

## RESTRAINTS



### SEISMIC RESTRAINTS

Used to protect against seismic events, these lateral restraint systems are available for location- and site-specific information areas.

- PE stamps will be provided for a fee by request. Contact Poly Processing's customer support staff.
- If the tank will be placed on a concrete pad, it is critical to allow adequate space between the tank and the edge of the pad to accommodate the proper anchoring of the clips
- Available in stainless steel, carbon steel galvanized and epoxy coated carbon steel

For all other design considerations, please contact our Customer Support team and ask to talk to our engineering department. For Monroe, LA, call 866.945.9283; for French Camp, CA, call 877.325.3142.



### WIND RESTRAINTS

Poly Processing offers cable systems to prevent tank systems from overturning when challenged by wind.

- Standard systems are designed for wind speeds of 130 mph
- Custom systems available for higher wind speeds
- PE stamps will be provided for a fee by request
- Available in stainless steel and carbon steel galvanized

For all other design considerations, please contact our Customer Support team and ask to talk to our engineering department. For Monroe, LA, call 866.945.9283; for French Camp, CA, call 877.325.3142.



## FLEXIBLE CONNECTIONS:

### Solutions for accommodating change.

Chemical storage tanks expand and contract due to seasonal temperature variations, pressure changes from loading and unloading the contents within the tank, and vibrations from pumps during filling and discharge from the storage tank. A flexible expansion joint can help. This special performance-maximizing plumbing component can be installed on any polyethylene tank to maximize tank performance and longevity. The expansion joints cannot be installed directly onto a tank wall or IMFO. A full face flange must be installed on the tank first. The expansion joint enables safe operation of the storage tank in fluctuating seasonal temperatures and can protect against damage caused by pressure changes. It also expands freely during loading and unloading of the tank.

The flexibility of the expansion joint also helps you avoid damage from piping vibrations caused by pumps or hard piping. Hard piping creates a fulcrum that can damage the fitting or crack the tank, and the expansion joint virtually eliminates that threat.



#### PTFE EXPANSION JOINT

These flexible PTFE connectors and tremor barriers are designed to absorb expansion and contraction, and isolate the vibration and shock that could damage a tank. Their low spring rate protects stress-sensitive connections. Can be installed directly to the dome of the tank only to overcome piping misalignment.

- Made of pure 100% virgin PTFE resin
- Exclusive Fluorforming™ process guarantees multiple convolution walls of consistently uniform thickness for any size
- Features T-Band™ root and sidewall support and protection from over-compression
- LimitLinks™ stainless steel cables protect from over-extension

**Bolts:** 316 stainless steel, titanium, C-276, Alloy 400

**Gaskets:** EPDM, Viton® and Viton® GF

**Flange Type:** threaded or socketed

**Flange Material:** PVC or CPVC

**Performance specifications:**

- » Axial Compression  $\geq 0.67$ "
- » Axial Extension  $\geq 0.67$ "
- » Lateral Deflection  $\geq 0.51$ "
- » Angular Deflection  $\geq 14^\circ$
- » Torsional Rotation  $\geq 4^\circ$

## FLEXIBLE CONNECTIONS



### FLEXIBLE HOSE CONNECTIONS

Flexible hose connections isolate the tank from the stresses and forces associated with pumps and piping. This connection is manufactured from ultra-high molecular weight hose, which offers tremendous chemical resistance; two King nipples (barbed); and mechanically attached stainless steel bands securing the hose to the nipple. These connections are also a great solution for transitioning through secondary containment.

**Connections:** threaded

**Nipples Option:** PVC or SS

**Sizes:** 1" to 3"



### EPDM EXPANSION JOINT

Manages / Mitigates / Absorbs Expansion, Deflection, Contraction, Vibration and Shock

- Low Spring Rates
- 100% EPDM (No separation issues with liners)
- PVC Backing Rings (No metal)
- Self-Cleaning

**Bolts:** 316 stainless steel, titanium, C-276, Alloy 400

**Gaskets:** EPDM, Viton® and Viton® GF

**Flange Type:** threaded or socketed

**Flange Material:** PVC or CPVC

**Performance specifications:** (≤6" Expansion Joint)

- » Axial Compression  $\geq 0.67"$
- » Axial Extension  $\geq 0.625"$
- » Lateral Deflection  $\geq 0.51"$
- » Angular Deflection  $\geq 12^\circ$
- » Torsional Rotation  $\geq 4^\circ$

# VENTS



## MUSHROOM VENT

For day tanks, an economical alternative to traditional U-vents or fittings. Made of polypropylene, in sizes 1 to 3 inches.



## U-VENT

Standard venting for outdoor tanks. Comes in PVC, in sizes 2 to 6 inches.



## 8" MUSHROOM VENT

The 8" mushroom vent is manufactured out of HDPE and is available as a complete assembly in the standalone version or as a spigot insert into an 8" socket.

## VENTING REQUIREMENTS

While vents add to the initial cost of the tank system, proper venting could help avoid far more expensive occurrences like premature tank failure or even catastrophic failure.

For your specific polyethylene chemical storage system’s proper venting requirements, it’s best to consult with our engineering department. For instance, scrubber applications for chemicals like hydrochloric acid or acetic acid demand an elaborate design to prevent over-pressurization.

Technical information and guidance regarding tank pressurization and proper venting for polyethylene tanks are available in the third-party study, available online at [www.polyprocessing.com](http://www.polyprocessing.com) or from your Poly Processing rep. The tank venting matrix below offers basic vent size requirements for most applications. Contact our customer support team for alternate engineered venting design needs.

Mechanical Pump Fill		Pneumatic Fill								
IF ≤ 1,000 gallons		IF – Vent length ≤ 3'			IF – Vent length > 3' and ≤ 30'			IF – Scrubber or fume tight application		
✓ Vent size should equal size of largest fill or discharge fitting	IF > 1,000 gallons	✓ Maintain vent screen mesh size ≥ ¼" or no screen used			✓ 3 or less 90° elbows with no other restrictions or reduction in pipe size			✓ Vent pipe size throughout scrubber system CANNOT be reduced!		
		✓ Emergency Pressure Relief Cover Required IF > 1,000 gallons			✓ Emergency Pressure Relief Cover Required IF > 1,000 gallons			✓ Centerline of dispersion pipe not to be submersed > 6"		
✓ Vent size should exceed the largest fill or discharge fitting by 1"	Tanker Discharge			Tanker Discharge			Tanker Discharge			
	Inlet/Fitting Size			Inlet/Fitting Size			Inlet/Fitting Size			
	Minimum Vent Size			Minimum Vent 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"		

» See our website for Detailed Venting Guidelines.

» Venting chart based on recommendation and criteria from Venting Design for ACFM Technical Paper



## DELIVERY

Getting it to you at the right time, in the right condition.

At Poly Processing, we do our best to keep you informed and on track. **We'll give you 24 to 48 hours' notice of tank delivery** as well. We'll gladly work with you to accommodate special needs, coordinating with issues such as crane delivery.

**Your order will ship directly from one of our three strategically located plant sites:** Louisiana, California or Virginia. We make all the arrangements for wide loads, escort-permitted loads, flatbeds, vans, less-than-truckloads, and common carriers and hot shots. We also ship via UPS and Fed Ex, when it makes sense to do so. We have the ability to handle overseas shipments, too.

All of our tanks are washed, cleaned, protective-wrapped and final inspected before shipment, and common carrier shipments are wrapped and palletized.

For extra security, fitting and thread protectors are added, and all loose parts are boxed and labeled.

## **SALES TERRITORIES**

At Poly Processing, we have designed our tank systems so you can easily select and specify a solution for any application. Our tanks are often used for water and wastewater treatment applications, and in industries such as food service, oil and gas, pharmaceuticals, mining, plating and high-tech.

Our sales reps are knowledgeable in all of these industries, and since they are located across the country, they can help customers configure and specify custom installations and problem-solve storage challenges on-site. Please contact Poly Processing at 866.765.9957 to find a sales representative near you.



#### SMARTER STORAGE MEANS A SAFER ENVIRONMENT

At Poly Processing, we know that chemical storage isn't just about business processes. It's about protecting our environment from harm. So our company constantly strives to create smarter, safer ways to contain, maintain and transfer chemicals. By bringing new and better ideas to the industry, we're safeguarding our planet. It is part of our commitment to continually seek better solutions to chemical storage challenges.

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For the most up-to-date, detailed information, please visit our website at [www.polyprocessing.com/catalog](http://www.polyprocessing.com/catalog). All information subject to change.