

## OZONE CONTACT VESSEL

- A. The equipment described herein shall be products of a manufacturer regularly engaged in the fabrication of pressure vessels for at least 15 years.
- B. The contact vessel shall be no less than " diameter with a " side shell, suitable for 50 psi working pressure, hydrostatically tested to 75 psi (for six (6) hours) and designed with a 4:1 safety factor.
- C. Access to the tank shall be provided by a 14" x 18" manhole with a two bolt, 4 point spider yoke. Manhole seal shall be complete with one piece ¼" neoprene gasket and positioned so that internal pressure from the filter will augment the seal. No additional hardware or through bolts will be allowed.
- D. Drain out system shall consist of one (1) ¾" coupling mounted to the tank bottom.
- E. Off gas system shall consist of two (2) ¾" couplings, one (1) in the top head and one (1) in the side shell below the effluent header. Each shall be equipped with internal screens.
- F. Each tank shall be equipped with the necessary flanges and connections for the internal and external piping. Connections shall be comprised of fiberglass flanges with ANSI standard 150 lb. bolt pattern.
- G. The resin used shall be a commercial grade, premium corrosion resistant vinylester that has been evaluated in a laminate by test in accordance with ASTM C-581 in service comparable to the intended service and recommended for this service by the manufacturer.
- H. A thixo-tropic agent that does not interfere with visual inspection of laminate quality shall only be added for viscosity control in resins that are not to be used in the inner corrosion barrier, interior layers, interior secondary layers, and interior top coats.
- I. Resin pastes used to fill crevices may contain thixo-tropic agents provided that all such areas are subsequently covered with a full corrosion resistant barrier laminate.
- J. Ultraviolet absorbers shall be added to the exterior surface for improved exterior resistance.
- K. Chopped strand mat shall be constructed from commercial grade E-type glass strands bonded together using a binder. The strands shall be treated with a sizing that is chemically compatible with the resin system used.
- L. Continuous roving shall be commercial grade of E-type glass fiber with a sizing that is chemically compatible with the resin system used. Continuous roving for chipping in spray-up process shall be principally silane furnished with as little chrome compounds as practical to achieve chipper performance while maintaining visual laminate clarity requirements.

- M. Woven roving shall be in accordance with ASTM Specification D – 4357.
- N. The laminate comprising the structural tank (cylindrical shell) shall consist of a corrosion-resistant barrier of an inner 20 mil thick, resin-rich, C. Veil, surfacing veil of not less than two laminate layers followed by an interior 100 mil layer reinforced with chopped-strand mat fibers. The inner surface shall receive special attention to assure optimum performance of the finished laminate. Each vessel shall be heat cured immediately following the fabrication process. The post fabrication heat cure shall follow specific recommendations of the resin manufacturer for achieving complete cure for maximum corrosion resistance. The manufacturer shall provide a “Certificate of Compliance of Heat Curing” for each vessel.
- O. Contact Vessel shall carry a five (5) year non-prorated warranty.