Questions? Contact us:
Ph 707.523.2050, sales@westernfg.com

INSTALLATION INSTRUCTIONS
Tank Sumps

Prior to installation, installers must study this tutorial and submit testing exam to Western Fiberglass. Upon completion, a training certificate will be issued to certify you have successfully passed the exam.

SUMP ATTACHMENT METHOD:

CONTAINMENT COLLARS FOR FRP SUMPS
Sumps without bottoms are used on tanks with containment collars. Collars are typically attached by the tank manufacturer. Slip the sump tube inside or outside of the containment collar ring. Use a bond kit (Part # AC8007) to bond sump tube to tank collar. See bonding instructions below.

DIRECT ATTACHMENT FOR FRP TANKS
FRP sumps may be attached directly to FRP or FRP clad tanks without collars. Sump tube is cut to radius of tank diameter and is direct bonded using a bond kit (Part # TA8009 for 42" sumps, TA8010 for 48" sumps). See bonding instructions below.

DIRECT ATTACHMENT FOR STEEL TANKS
For steel tank direct attachment, a primer (Part # AC8107) is required in conjunction with a sump bond kit (AC8007). For installation information, please contact Western Fiberglass.

FRP MANWAYS OR HDPE POLYCON
Sumps that are to be attached to manways require a bottom and may be ordered pre-drilled for the manway cover bolt pattern and/or cut to manway size. After removing the manway lid, use it as a template for cutting and drilling the sump bottom if necessary. Caulk manway riser, set sump into position, caulk around holes set lid inside sump and bolt together. This "sandwiches" the sump between the riser and lid assembly of the tank. Use a tank/man-way gasket. We suggest the gasket kit from your tank supplier.

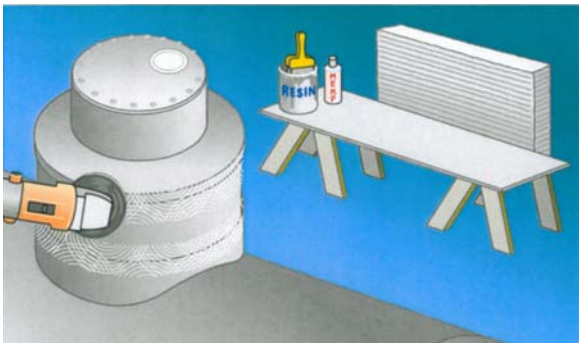
BUNG FITTING INSTALLATION
For bung fitting installation, please refer to manufacturer's installation instructions.

BONDING INSTRUCTIONS:

To prevent leakage and to insure unit integrity, all FRP sump reducers must be slip fitted over the sump body or tube, bonded and sealed.

Be sure to have the following on hand before bonding your sump: Resin, Catalyst, Mat, Putty, Roller, Squeegee, Acetone, 36 grit sandpaper, 64 oz bucket, 4" paint brush, rags, wet out board, latex gloves and dust mask.

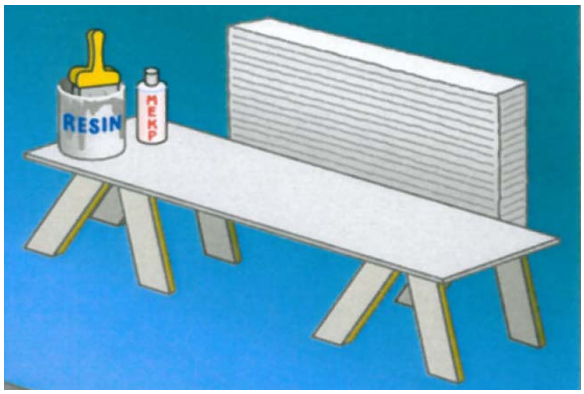
PRE-BONDING SURFACE PREPARATION



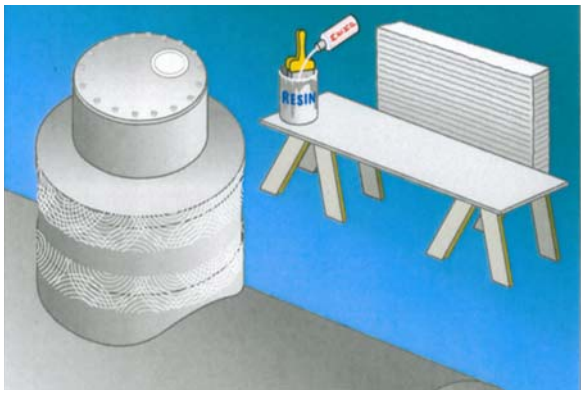
BE SURE TO WEAR A DUST MASK! Using a disc sander, with medium to heavy grit sand paper, scuff up all seam areas a minimum of 4" to each side of the point where the components will be bonded. It is very important that this be done fully, as the bonding materials will not adhere to any surface that has not been sanded. Brush sanding dust from seam areas.

SEAM LAMINATIONS

ALWAYS WEAR GLOVES WHEN HANDLING FIBERGLASS BONDING MATERIALS! Use one plastic bucket with acetone to clean roller, brushes and squeegee. Return tools to this bucket between use to prevent bonding materials from drying on them. BE SURE TO SHAKE THE ACETONE OUT OF TOOLS BEFORE RE-USE!

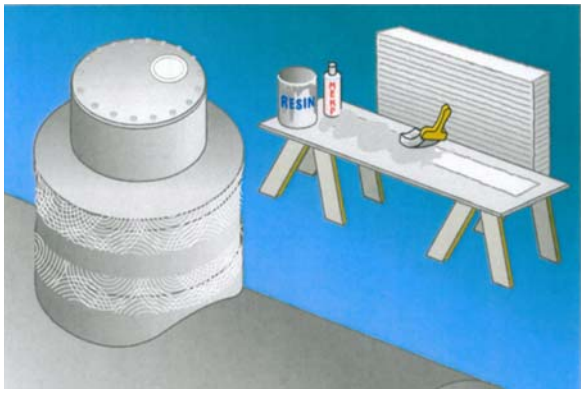


Using 1 layer of 3 oz FRP mat, lay out fiberglass mat for each seam to be bonded.

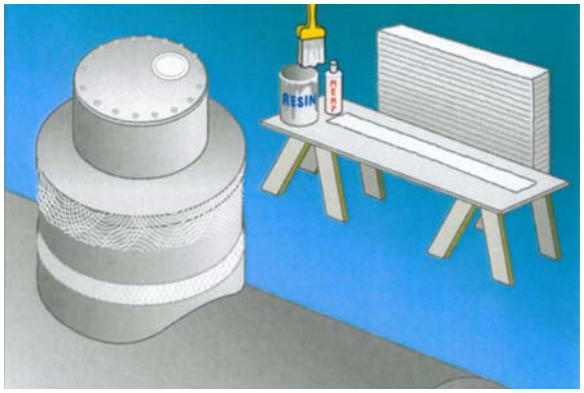


Add hardener, MEKP, to resin & putty. Hardener ratio at 70 degrees F. & 30% humidity is two (2) ounces per gallon for resin and one (1) ounce per gallon for putty. This will vary with temperature and direct sunlight. If used in direct sunlight or in temperatures above 80 degrees, reduce hardener as per instructions from supervisor or Western Fiberglass personnel. Mix thoroughly, scraping the sides of the buckets with the stir stick.

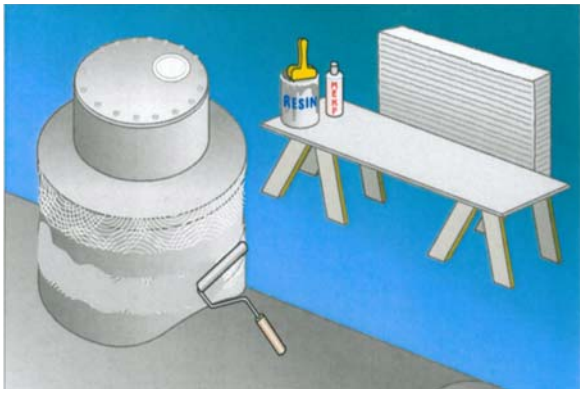
Using squeegee, apply putty liberally to area of first seam, being sure to completely cover all fasteners and fill all gaps. The putty will provide a smooth transition for the fiberglass material to cover.



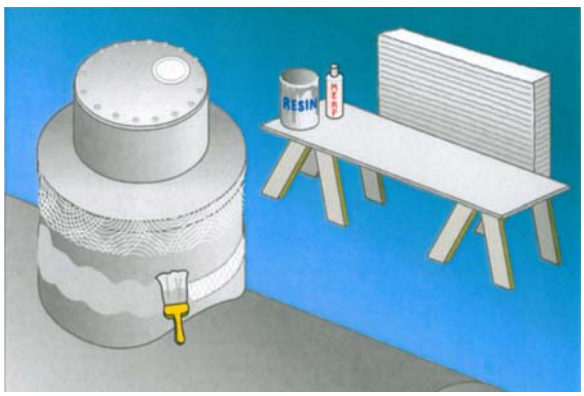
Wet-out or soak, with brush, liquid resin over fiberglass mat. Mat will go clear when fully saturated. If additional resin is required, use only resin from Western Fiberglass, Inc. The resin used in construction of all Western Fiberglass, Inc. components is corrosion resistant resin, made for use in fuel and chemical applications.



Apply presoaked mat to sump seam.



Use roller tool to “roll-out” air bubbles gently, so as not to displace putty. Remove all bubbles. Your laminate should appear clear, with no air bubbles or pockets in view and all fasteners covered.

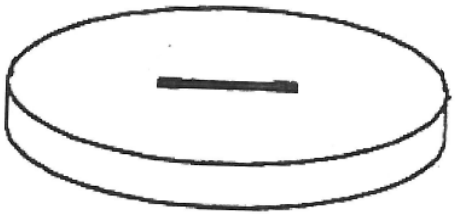


Apply additional coat of resin solution to seal sump surface.

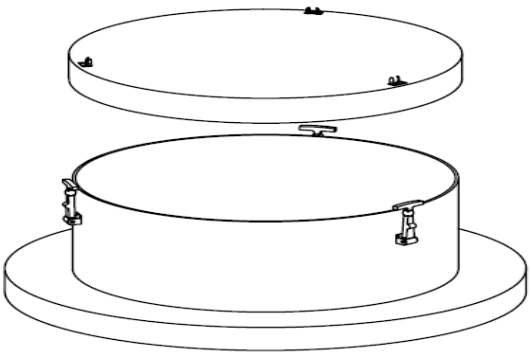
If bonding a double wall sump, repeat process on inside of sump.

Depending on temperature, the seam should harden in approximately ½ hour.

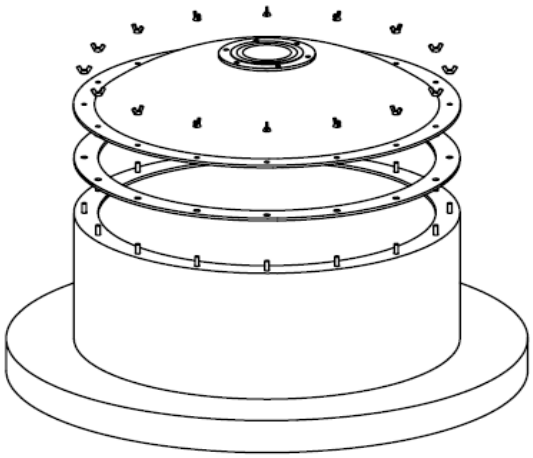
REDUCER LIDS:



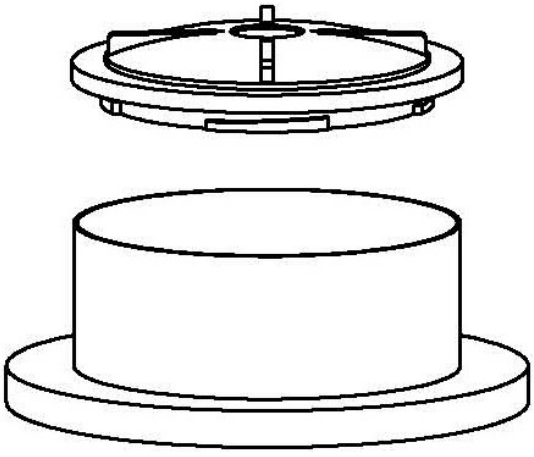
Friction fit, “TC” Lids simply slip over the reducer top.



Water-resistant lids, “Type B” systems utilize pull downs latches to hold the lid securely against the sealing gasket on the reducer rim.



Water-proof lids, “Type A” systems are gasketed and secured in place with wing nuts, lock and flat washers.



Water-proof “Twist-Seal” lids should be lubricated using white lithium grease. Align the arrows on lid with arrows on the side of the reducer. Turn clockwise until lid is firmly seated. Inflate gasket to 5-10 psi. To remove lid, deflate and unscrew.

SUMP PENETRATIONS:

Piping and electrical conduit penetrations are made using only a Listed/Approved penetration, sealing device. Use care when drilling through filament wound sump riser tubes. Do not force hole saw, for FRP sumps, cut hole slowly, half way through from both sides (inside and out) to prevent fraying of filament strands. Always use correct size hole saw or drill. Do not fiberglass bond piping or conduit directly to FRP sumps as this will not allow any movement, due to ground settling, back-fill, etc.

BACKFILL REQUIREMENTS:

Sufficient backfill must be used below and along the sump side to provide support and protection against ground movement.

TEST PROCEDURES FOR SINGLE WALL:

After the sump to tank fitting is completed, you shall test the integrity of your seal. This is important to insure that the sump riser tube / tank bond will not allow any contained fluid to leak. Check with local regulations for required testing procedures. A common test procedure is to fill the sump with water after the sump / tank bond has completely cured, usually overnight, and observe bond seam for any leaks.

ADDITIONAL INSTALLATION REQUIREMENTS – STATE OF FLORIDA ONLY:

Leak Test Requirement:

1) a. Fill entire sump within 4 to 6 inches of top.
   b. Observe water level for a minimum of 3 hours.
   c. Water level shall not decrease more than allowable for normal evaporation.
2) a. Fill interstitial space of sump within 4 to 6 inches of top.
   b. Observe water level.
   c. Water level shall not decrease more than allowable for normal evaporation.

Interstitial space shall be tested by vacuum (5 bars) or pressure (2 psi) for a minimum of 10 minutes.

TEST PROCEDURES FOR DOUBLE WALL:

After completion of the sump body test as described above, you may test the sump body interstitial space by applying no more than 2 psi to the port(s) installed within the sump body. The annular space may also be tested using liquid or vacuum. For test times or other requirements, always follow local regulations and restrictions.

PLEASE NOTE: U.L. Listed sumps require a listed, approved, electronic monitor/alarm system to be installed for operator notification in the event of product leakage within sump area.