

# INSTALLATION INSTRUCTIONS

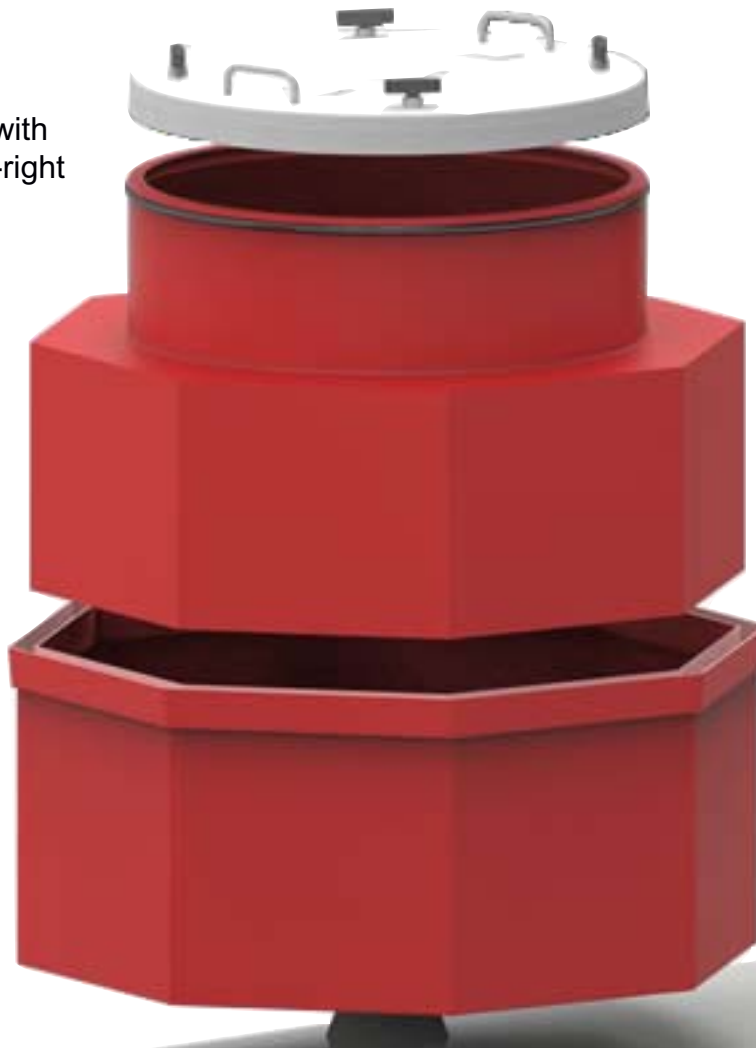
## B-407-RB SERIES

### SINGLEWALL RETROFIT TANK SUMP

#### NEW!

SNAP-LOCK cover with  
high-pressure water-right  
vertical o-ring seal

Pour-in Place  
channel joint  
sealed by  
new Epoxy  
Slurry mix



**Bravo B-TBF  
Tank Bung Fitting  
Instructions Included**

ii-B407-RB-14B

# MANDATORY

The B-407-RB Series Singlewall Sump from S. Bravo Systems, Inc. MUST be installed by a **Bravo Certified Installer**. Get Certified at [www.sbravo.com/cert](http://www.sbravo.com/cert)

**READ THESE INSTRUCTIONS - KEEP FOR FUTURE REFERENCE**

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**IN CALIFORNIA:** You must observe and satisfy the volume containment requirements found in the California Code of Regulations CCR Title 23, Article 3, section 2631(d)(1).

The regulation can be found at

[http://www.swrcb.ca.gov/water\\_issues/programs/ust/regulatory/](http://www.swrcb.ca.gov/water_issues/programs/ust/regulatory/)  
under California Regulations > UST Regulations

***- Warranty is void if there is any evidence of modification, abuse, negligence or improper installation.***

***- For assistance please call Bravo for technical support at (800) 28-BRAVO. Outside the U.S.A. please call (323) 888-4133.***

***SAFETY FIRST! S. Bravo Systems, Inc. urges you to carefully adhere to the normal safety procedures and precautions followed by your company. Please follow the mandates and compliances decreed by OSHA, local, State and federal regulations regarding the use of this product.***

## WARRANTY

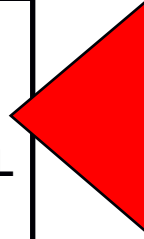
All containment systems sold by S. Bravo Systems, Inc. are warranted to be free from defects in material and workmanship for a period of one year from date of purchase. This warranty will be limited to the repair and replacement of Bravo parts only and will exclude all claims for labor or consequential damage. No other express warranties given and no affirmation of S. Bravo Systems, Inc., or its agents and/or representatives, by words or action, will constitute a warranty. IT IS EXPRESSLY AGREED THAT THIS WARRANTY WILL BE IN LIEU OF ALL WARRANTIES OF FITNESS AND IN LIEU OF THE WARRANTY OF MERCHANTABILITY.

This warranty is void if there is any evidence of modification, abuse, negligence, or improper installation. If any fittings or components, other than S. Bravo Systems approved fittings or components, are used in conjunction with any S. Bravo Systems product, the warranty pertaining to these products is immediately void.

# INSTALLATION COMPONENTS

## PROVIDED

1 SLURRY KIT FOR CHANNEL  
FOR 42"Ø (427) - EP-SLURRY-KIT-0.75GAL  
FOR 48"Ø (487) - EP-SLURRY-KIT-1GAL  
Slurry. Hardener. Gloves. Steel stator mixer. Bucket.



**CRITICAL !!**

**IN HOT WEATHER, KEEP  
SUMPS AND SLURRY  
SHADED.**

## NOT PROVIDED

### REQUIRED TOOLS

Air grinders and cutters. Acetone.  
Hole saws. Drill bits.

# EQUIPMENT DRY-FIT

## BEFORE INSTALLING PENETRATION FITTINGS

DO NOT PLACE FIBERGLASS SUMP ON THE BASE AND ATTEMPT TO SEAL THE CHANNEL. READ STEP-BY-STEP INSTRUCTIONS FIRST.

## **▲ CAUTION**

If using electric powered-tools move piping sump a safe distance from piping, tank and any other source of flammable liquids or vapors before trimming. Failure to do so may result in serious injury or death. When installing on existing tank(s), use a Vapor Detector around

# B-TBF COMPONENTS

## SOLD SEPARATELY

1 TANK BUNG FITTING (B-TBF)  
1 pair of gloves. 1 sheet sandpaper.  
1 Tube of White Vulkem Polyurethane Sealant.  
2 bags of milled fiberglass filler.

## NOT PROVIDED

Air Sanders & drills. Acetone.  
5-1/2" Hole saw. Manual caulk gun.  
Bravo Tools:  
**CLAMP-TBF & SAND-TBF**  
**Bravo Retrofit Epoxy**

# A - TANK BUNG FITTING INSTALL

**A.1** - Excavate backfill to expose the Tank Bung and remove riser pipe. Ensure that the threads of the Tank Bung are clean and undamaged. If it is a Fiberglass Tank, inspect the bung for damage or suspicious cracks, etc... Consult with Tank Manufacturer.

## IMPORTANT

**A.2** - To Install your Tank Bung Fitting to the Tank Bung, use a UL-Approved thread paste. Hand-thread until snug and then using 1-1/2" square tubing minimum 3' foot length, tighten down with a minimum torque of 200 ft-lbs to a maximum of 250 ft-lbs. (Fig. A.2)

**A.3** - COMPLETELY ENCAPSULATE THE EXPOSED METAL THREADS BY THICKLY COATING THE ENTIRE BASE CONNECTION FROM FITTING FLANGE TO THE TOP OF TANK WITH VULKEM 116 SEALANT. (FIG. A.3)

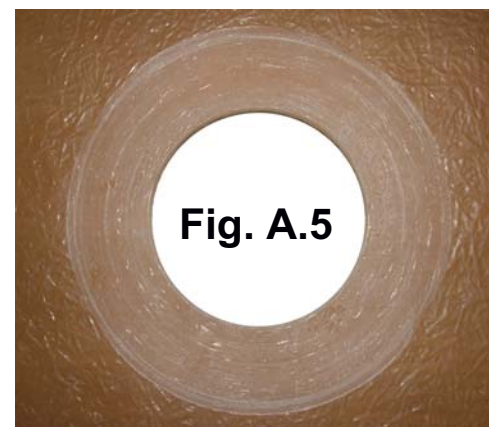
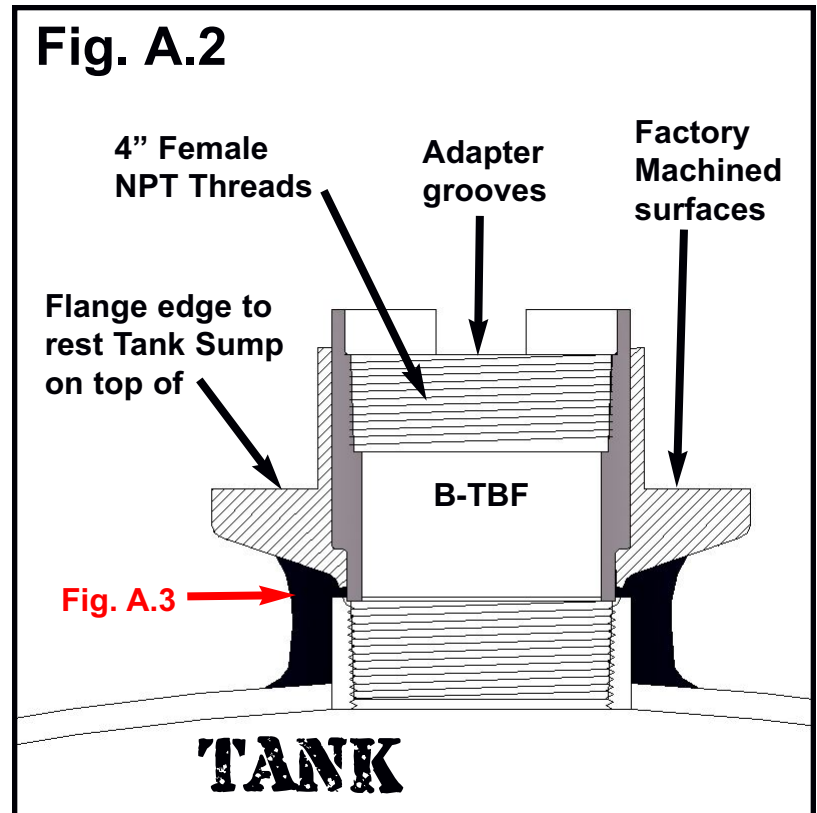
If leaving overnight, cap the coupler or cover unit well with plastic.

**A.4** - Locate the point of penetration where you require the Tank Bung Fitting to be installed on the tank sump and use a 5-1/2" hole saw to cut the hole for the fitting. Dust off and clean up. Hand sand any rough or uneven areas.

**A.5** - You must sand the surface of the Tank sump around the cut hole **inside and outside**. Use an air grinder to ensure that a **2" area away from the cut hole** is abraded and that all paint, coatings or resin gloss is removed so that exposed fiberglass can be seen clearly. (Fig. A.5)

To ensure a high-quality fitting installation, Bravo Systems has a tool to help you grind this area absolutely flat. "SAND-TBF" is the part number for a sanding tool that mounts to a 5/8" arbor (drill).

**DO NOT OVERGRIND!! MAINTAIN A MINIMUM WALL THICKNESS OF 1/4" INCH**



AREA AROUND HOLE SANDED ABSOLUTELY FLAT WITH SAND-TBF

**A.6** - Mix Bravo Retrofit Epoxy and apply to the exposed flange face and side walls. (Fig. A.6)

**A.7** - Place the prepared Tank Sump slowly and gently onto the Tank Bung Fitting flange and turn into position.

Support the underside of the Tank Sump fully with a bed of peagravel. Shovel backfill under the Tank Sump so that it will accommodate additional weight without tipping over.

**A.8** - Add more adhesive to the exposed fiberglass areas of the Tank Sump and fitting. (Fig. A.8)

**A.9** - Next fit the loose flange over the Tank Bung Fitting and press firmly.

**A.10** - Thread on the Bravo Tool "CLAMP-TBF" into the tank bung fitting, snug only. **KEEP THREADS OF BOLTS CLEAN SINCE THIS CLAMP MUST BE REMOVED AFTER CURE.** Thread down each bolt so that they press firmly and evenly against the loose flange (Fig. A.10a). Adhesive should ooze from the joints. Apply extra adhesive around these areas and make sure to build it up against all joints. Also bead adhesive against the seam below. (Fig. A.10b)

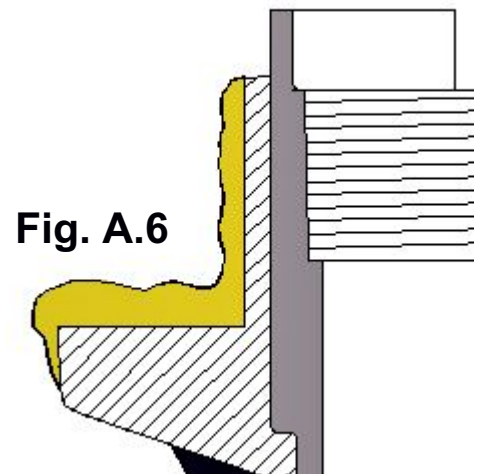


Fig. A.6

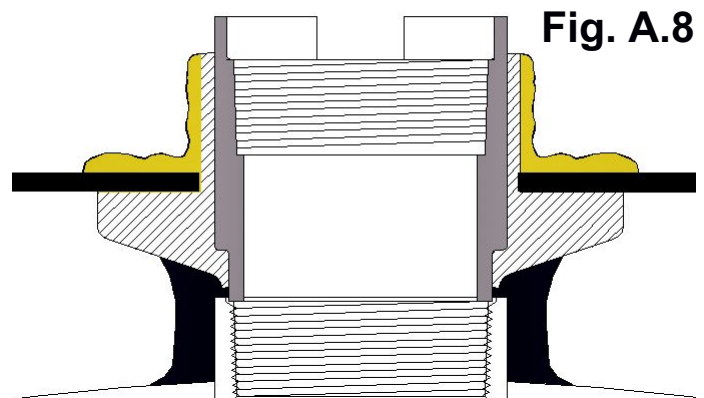


Fig. A.8

Allow for the maximum cure time at or above 75°F. Refer to adhesive manufacturers instructions.

**DO NOT DISTURB THE SUMP OR FITTING DURING THIS TIME**

Fig. A.10a

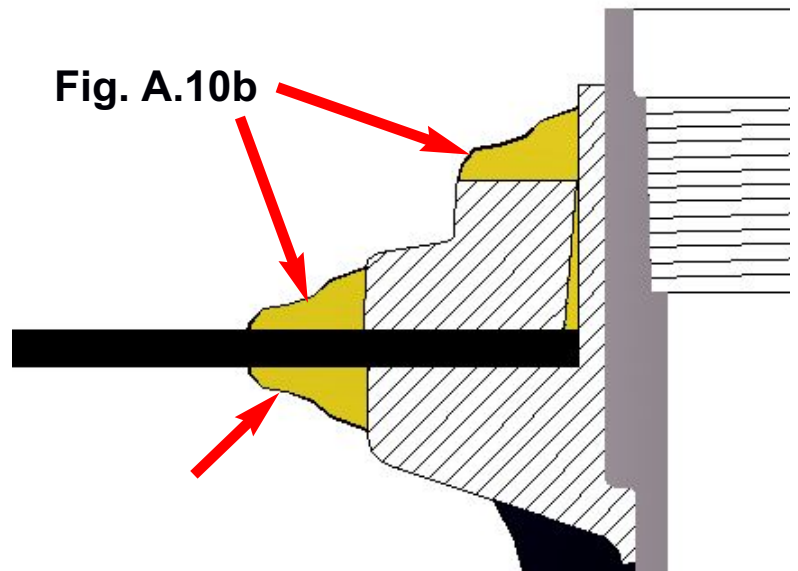
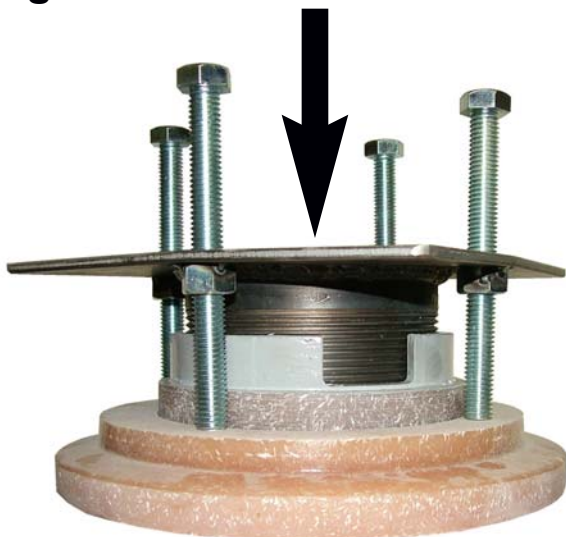
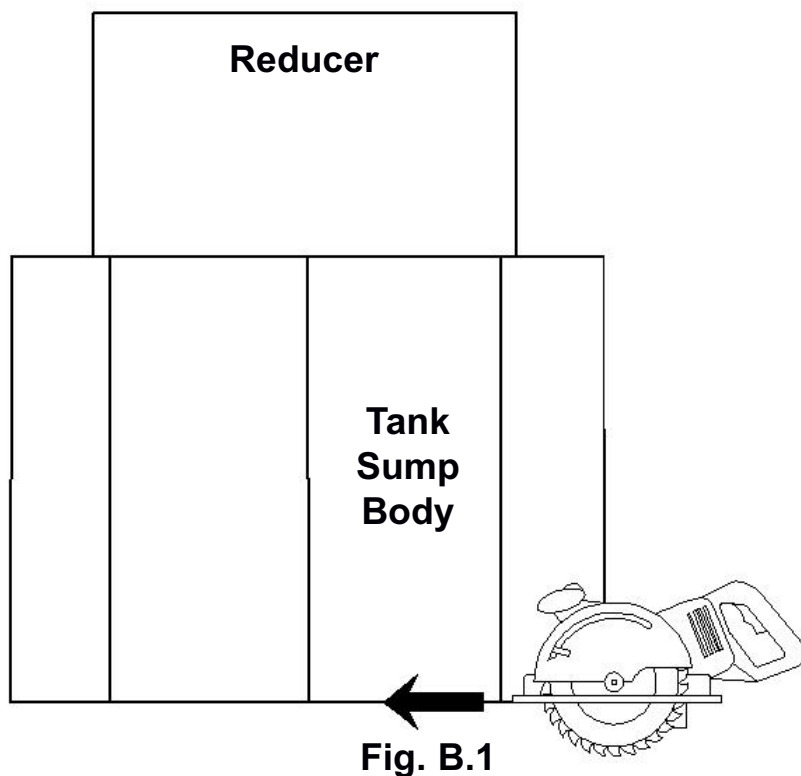


Fig. A.10b

# B - PREPARING SUMP BODY (top)

**B.1** - Determine where your planned grade is. Following the illustration shown on **Page 8**, allow a minimum 1-1/2" space between the top of your dry-fit sump cover and the lowest point of the installed manhole lid. After these measurements have been verified, cut the required material from the **BOTTOM** edge of the Tank Sump Body using a carbide tipped blade or masonry saw (**Fig. B.1**). Material must be cut square with a 1/4" +/- tolerance 360° around sump.

**B.2** - Abrade the fiberglass walls with sandpaper or air-driven sander (**Fig. B.2**) 2 inches up from the bottom edge on Tank Sump Body that will sit in the fiberglass channel. Dust off with shop brush and keep clean.



**IMPORTANT**

**Double Check all calculations according to site plans and verify with team members**



# C - PENETRATION FITTING INSTALL

Install any penetration fittings and piping to the Tank Sump Base. If any penetration fittings must be installed to the top half, wait until the top is Sealed to the base before locating and cutting holes.

# D - EPOXY SLURRY POUR

Follow the SLURRY INSTRUCTIONS manual affixed to your slurry can.

**⚠ CRITICAL** DURING HOT WEATHER - KEEP ALL SUMPS, SLURRY AND RESIN SHADED AND OUT OF DIRECT SUNLIGHT UNTIL TIME OF INSTALLATION. AM (MORNING) INSTALLATION IS RECOMMENDED.

**⚠ CRITICAL** DO NOT DISTURB THE SUMP OR IT'S PIPING UNTIL AFTER THE FULL SPECIFIED CURE TIME

## E - TESTING SUMPS

- Conduct a water test **ONLY AFTER** all lamination joints and slurry pour joints are sealed and entry fittings are fully installed and all materials have fully cured. Follow all local, State or Federal regulations regarding testing protocols.

## F - REPAIRING SUMPS

If tank sumps either arrive damaged or are damaged in the field, contact the factory.

## G - BRAVO SNAP-LOCK COVER

The most current cover that is included with Bravo 407 Series tank sumps is the SNAP-LOCK.

To install:

- X) Remove protective wrapper from o-ring seal. It is pre-greased. Keep it clean of dirt / debris.
- 1) Unlock cams.
- 2) Step-to-seal.
- 3) Lock cams.

If you are unfamiliar with this new cover, read all about it at:

[sbravo.com/snap](http://sbravo.com/snap)



You can also see a video at:  
[sbravo.com/videos](http://sbravo.com/videos)



**SNAP-LOCK Cover (SL32)**

# H - Concrete and Backfill Guidelines.

To ensure that no immediate or future damage is done to your Bravo Tank Sump Reducer components, make sure that your manhole skirt **DOES NOT TOUCH OR REST ON THE TANK SUMP SHOULDER**. The Manhole Skirt should be kept at minimum of 4" away from the tank sump shoulder. Follow the manhole manufacturers instructions for installing the manhole. Also follow other details provided by tank and/or engineering firm for tank driveway pad installation.

Backfill your peagravel around the sump maintaining a minimum of 1' foot all the way around (if your site backfill is not entirely peagravel) and 4" minimum distance from the top edge of sump reducer.

When peagravel is in place, use a 3mil or thicker plastic sheet to cover the surface of the peagravel no less than 2 feet away from the sump reducer wall.

Secure this plastic barrier to the **EXTERIOR OF THE MANHOLE SKIRT** using tape or other temporary means. Do not staple or tek-screw it in place. This prevents concrete from seeping too far down into the peagravel while it is setting.

