



INSTALLATION GUIDE

Single Wall Transition Sumps B933, B944, B955 Series

WALKOVER LID - **PEDESTRIAN TRAFFIC ONLY**

Part #'s

933 Series - 33" x 33" 36"

944 Series - 44" x 44" 48"

955 Series - 57" x 57" 60"



Safety First. S. Bravo Systems, Inc. recommends adherence to standard safety procedures and precautions provided by your company and to follow the regulations and compliances by OSHA, local, state and federal regulations regarding the use of this product.



Step by step installation

- Step 1 – Positioning and Leveling to Grade
- Step 2 – Underground Pipe Penetration
- Step 3 – Above Ground Piping Application
- Step 4 – Fitting Integrity Test
- Step 5 – Install Drainage Lines
- Step 6 – Backfill and Concrete
- Step 7 – Trouble Shooting and Repair

Epoxy cure cycle. Full cure cycles vary depending on site conditions. Note that epoxy will not cure at temperatures below 40°F. See epoxy jar for more details.

UL2447 is the standard for secondary containment and covers sumps and lids, sump fittings and sump accessories. Products are tested in accelerated conditions that have long term use in environments with extreme heat and cold, aggressive biofuel and ethanol blends, and extreme soil environments.

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HOW TO INSTALL TRANSITION SUMPS SERIES B933, B944, B955 - SINGLEWALL

STEP 1 – POSITIONING AND LEVELING TO GRADE

1. Before placing the transition sump in position, shovel a wide bed of pea gravel (at least 2" to 3") under each transition sump to support the weight and help prevent movement / shifting during installation of piping and other components. **Do not set this sump on top of rigid material such as concrete footer or foundation. The sump must be only be placed on pea gravel.**
2. Transition sump frame should be a minimum 1" above grade; the transition sump should not be installed so water will collect around the lid.
3. Secure/pin the transition sump in place after setting in position per the stie plan so it does not shift or move.

Ensure vent box is level so that it allows vertical pipes to be installed correctly.

The B900 Series Transition Sump has a updated lid and frame design. It now comes equipped with a improve D-Shaped Gasket and drainage tube system for superior water ingress resistance

STEP 2 – UNDERGROUND PIPE PENETRATION

1. When installing a transition sump, use the front wall to bring in pipes which need to align with the above ground fittings installed on the platform of the transition sump. Plan the interior space so the transition from underground piping to above ground piping is smooth.
2. Determine piping centerlines and mark sump walls for entry fitting locations. Plan the fittings layout so that the O.D.'s of any fitting are at least 1" away from any edge.
3. Preparation of the fiberglass surface is key to a successful installation, follow manufacturers' fitting installation instructions. After preparing the fiberglass wall, wipe it with an acetone rag to remove any loose debris.
4. Bravo secondary containment does not have a gel coat but should be abraded to expose raw fibers so the adhesive will bond properly.



When using and installing Bravo products, please consult local, state and federal regulations. **Installers of Bravo products must be Bravo-certified.**



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STEP 3 – ABOVE GROUND PIPING APPLICATION

1. The above ground piping should follow the site plans and be secured per site specifications.
2. Follow pipe manufacturers' installation instructions to install the primary piping and/or vent lines. The long vertical pipes should not be installed until the transition sump has been secured in concrete.
3. The above ground compression AST pre-installed on the transition sump have gaskets that have been greased. The compression gaskets will need to slide over top of the vertical piping. Double check they are debris-free and grease remains on the gasket to assist with ease of installation.
4. The compression nut needs to be slid down the pipe similar to the compression gasket. The compression nut needs to be secured to the compression fitting and secured by hand tightening. To torque down, use the Bravo compression nut only, take 1/2 to 1 complete turn beyond hand-tight. There is not a need to over-tighten the compression nut, compression will be achieved with the turn amount specified above.



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STEP 4 – FITTING INTEGRITY TEST

1. Sump must be supported from the bottom, 2"-3" (2" min.) of pea gravel and should be verified prior to testing.
2. Before hydrostatic testing, remove debris from interior of the sump; make sure the full cure cycle has occurred for all adhesives.
3. Fill with water to 4" above the highest penetration or side wall seam.
4. Visually check all fittings, focus on the 6 O'clock position prior to testing; follow local regulations and state guidelines.
5. Perform hydrostatic test, fill and observe all bonded areas, observe for full test observation period.
6. New installation look for leaks at the sealed joint, fittings, and all edges and corners; monitor for one hour; if the change is more than a 1/8", the integrity test has failed, and further investigation is required.

STEP 5 – INSTALL DRAINAGE LINES

1. For the PVC drainage kit to be installed onsite, Drain tubes need to extend to the pea gravel which should be 6" to assist with water drainage.
2. With the B900 series, the drain, the drain kit can also be installed to have drainage through the walkway and into the planter. The drain line will extend flush to the curb. Pipes drain to either the sidewalk or the ground on both sides of the transition sump. Be careful not to clog or otherwise seal the perforated PVC drainpipes with the concrete pour or other construction materials.



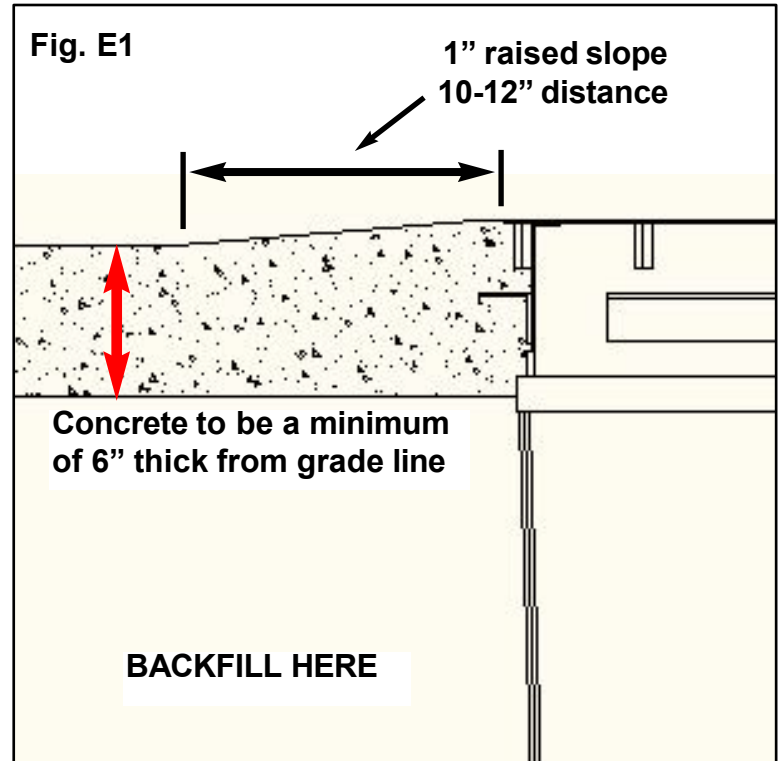
HOW TO INSTALL TRANSITION SUMPS SERIES B933, B944, B955 - SINGLEWALL

STEP 6 – BACKFILL AND CONCRETE

1. Prepare site for concrete pouring. Backfill with pea gravel around transition sump. Place your pea gravel in such a way that the concrete poured around the sump is even and within the dimensions shown in **Fig. E.1**

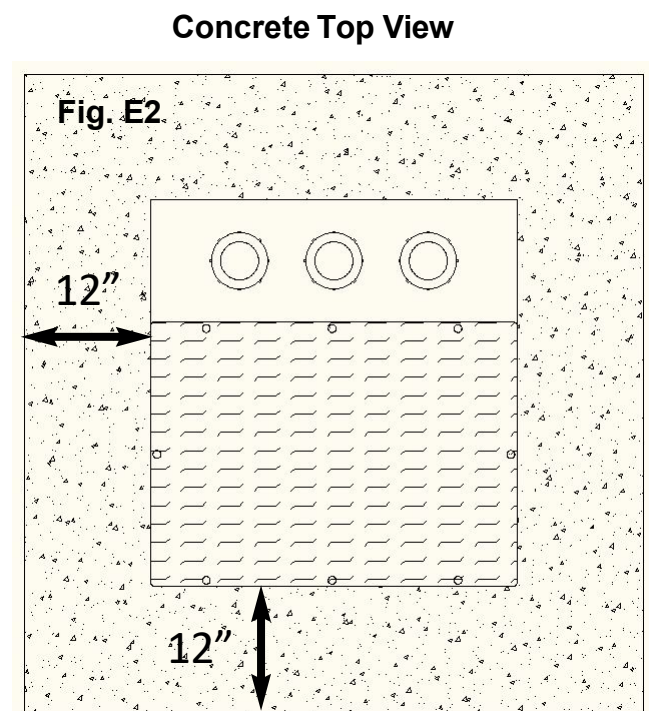
A concrete pad must be set 360° around the transition sump a minimum of 6" thick from the grade line. Do not forget the 1" slope from the raised transition sump to mitigate water travel over the top of the sump. Fig. E1.

Do not set this sump on top of a Rigid material such as concrete.
The sump may only be placed on pea gravel.



2. The concrete should wrap 360° around the transition sump a minimum of 12" away in each direction. **Fig. E2.**

EXISTING SITES: When attempting to set your transition sump as close to a structural wall or other barrier as possible, the minimum requirement between a fiberglass wall and barrier is two (2") inches of pea-gravel. This rule applies to all vertical walls and the bottom of Bravo transition sumps. When there is concern of lateral load or possible crushing force from a wall, you can substitute the pea gravel between the sump and the wall with sand or low-density styrofoam planks. When installed next to a load-bearing wall or structure, you should maintain a gap between the concrete encasing the Bravo Transition Sump and the wall. This gap should be sealed with backerrod and sikaflex to keep the sump independent of the wall.





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STEP 7 – TROUBLE SHOOTING AND REPAIR

Leak around a fitting (flange to wall, flange to fitting body).

1. Inspect the identified leaking location; define the area to repair.
2. Abrade repair location per manufacturers' specification, this area should extend outside the identified leak by 1" on all directions.
3. Remove loose dust with acetone rag leaving the repair area free of debris.
4. Apply Bravo Epoxy EP100RF beveling epoxy from the wall to the installed fitting; use a rag with acetone to remove and smooth epoxy leaving a clean repair that can be inspected.

Leak at the fitting to the primary pipe and/or secondary pipe of the fitting.

1. Follow the steps in the repair above "leak around the fitting", except at step 6, pull vacuum from the secondary port of the fitting; ensure that the other end of the secondary pipe is closed
2. Connect the Venturi to the Schrader valve and allow vacuum to build; do not exceed the pipe manufacturers' vacuum limits; achieve 4" – 6"Hg on the secondary to assist in the repair adhesion to the fiberglass area.
3. Once the full cure cycle has occurred, the repair can be tested; ensure the repair has been successful by performing a positive pressure test.



WARRANTY

All Bravo products **MUST** be installed by a Bravo Certified contractor. Information contained in all Bravo literature is subject to change without notice. Bravo does not assume responsibility for liability for loss, damage or expenses resulting from installation, operation use or maintenance from this manual. By installing this product, you agree to S. Bravo Systems warranty terms.

LIMITED 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.

UL Sump Containment Rating: Secondary

UL 2447 LISTED

Sump Type: **Transition Sump**

SINGLE WALL

Maximum Burial Depth: 60"

Liquid Rating: Automotive Fuels

- Must be installed by an S.Bravo Systems, Inc. Certified installer. Installation by Non-Certified personnel will void the warranty and may result in damage or leaks.
- Install in accordance with S. Bravo Systems, Inc. Installation guides.
- Use only OEM recommended fittings and accessories.
- Failure to use recommended accompanying sump products in the complete assembly may cause damage or leaks.

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