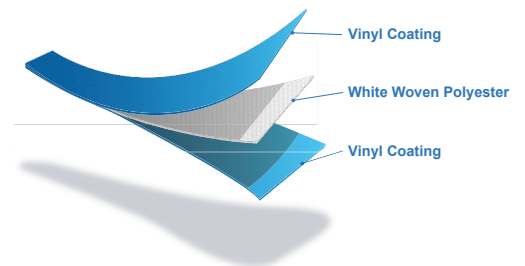
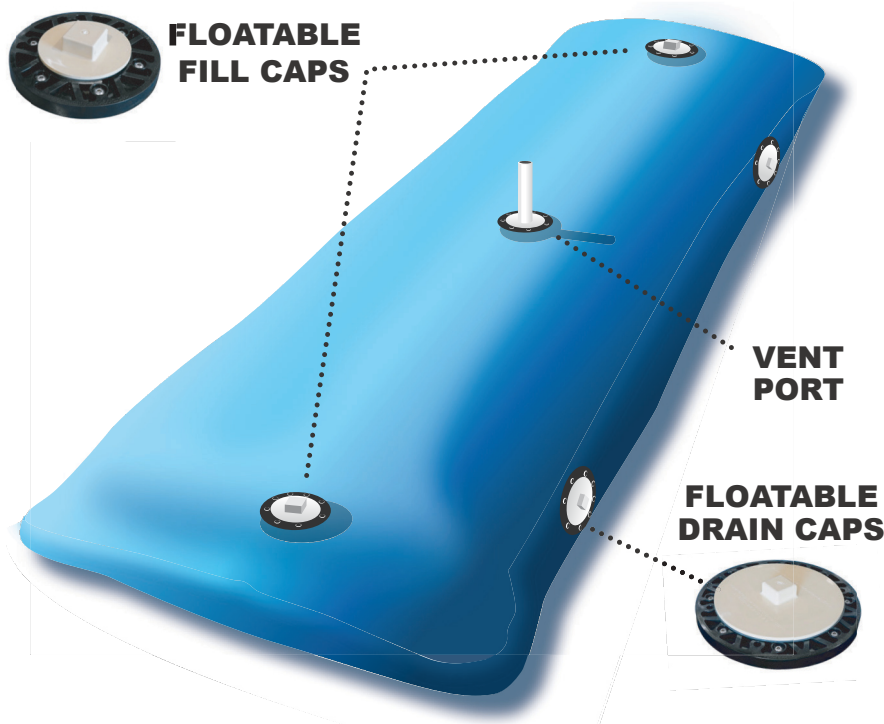


SITE TANKS

Liquid Storage Pillow Tank Instruction Manual



**COMPACT
FOR SHIPPING
& STORAGE**



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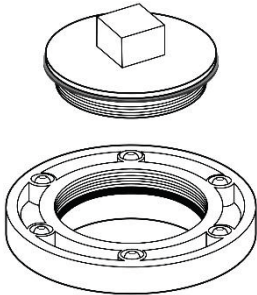
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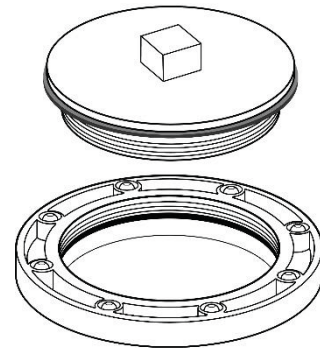
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STANDARD ACCESSORIES

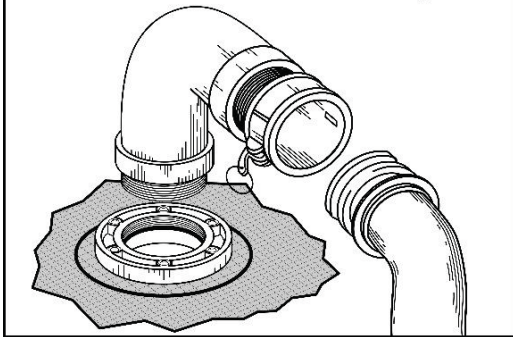
4" Fill/Drain Cap



8" Drain Cap

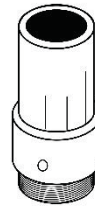


*4" Fill-Port Camlock Assembly

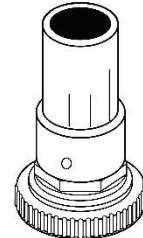


*4" Elbow Provided. 4" Camlock Assembly **NOT** Provided.

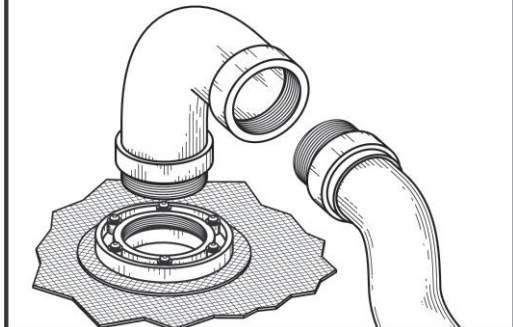
Stand Pipe
(Stand Alone)



Vent Fitting with
Stand-pipe Attached

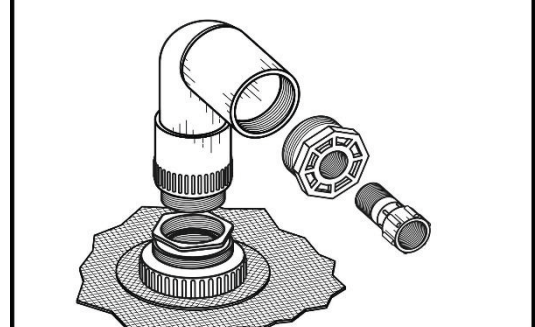


* 4 Inch Fill-Port Assembly



*4" Elbow Provided. Hose **NOT** Provided.

2 Inch to 3/4" Inch Adapter



GENERAL INFORMATION

MAINTENANCE:

To maintain the pillow tanks, simply repair worn and punctured areas with the available repair material. Repairing is best accomplished when the barrier surface has been cleaned. Follow the repair instructions provided in this manual or on the can of adhesive provided in your repair kit. If additional repair adhesive is needed, call One Clarion, Inc to locate the nearest distributor. It is recommended that the liquid storage bladders be inflated with air in order to inspect for problem areas and repair as needed. Always allow the barrier surface to dry before tightly rolling up for storage.

STORAGE:

Store pillow tanks in a covered area, away from harmful UV rays. Do not store where pillow tanks will be in contact with solvents, acids or rodents. Do not store in an area that experiences temperatures that fall below 32° F or above 150°F.

SAFETY INSTRUCTIONS – DEFINITION OF TERMS

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

NOTICE

Indicates a potential situation which, if not avoided, may result in an undesirable result or state, including property damage.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

SAFEGUARDS AND PRECAUTIONS

CAUTION

Read the safeguards and precautions prior to installing or removing the bladders/tanks. Follow instructions and heed all warnings in this manual. The below stated precautions are only a few of many. Each potential bladder installation location may require different precautions. It is recommended that a HSI Services, Inc. representative be contacted and consulted prior to installing or removing bladders.

- Each individual involved in the installation of the liquid storage system is required to have a cutting tool (i.e. knife, razor blade, box cutter, etc.) readily accessible in the event of being trapped in some manner by a bladder.
- Every work site should have a deployment and recovery plan. Assistance can be provided regarding this plan by your local One Clarion, Inc. representative.
- The recommended safety space between workers and the inflated bladder is 10ft-12ft. A minimum operating distance of 10ft should be maintained between heavy equipment and the inflated bladder. When work requires excavating near the bladder and the excavation depth will exceed 1ft, you must allow an additional easement area of 1ft (in addition to the required 10ft) away from the barriers and excavation area for each additional foot excavated. The OSHA trench and excavation guidelines should be followed at all times when working with HSI Services' liquid storage bladders.
- Personnel should avoid walking on the bladders.
- Do not stack objects (i.e.: sandbags, bricks, or another liquid storage unit) on top of the bladder.
- It is recommended that you monitor the inflated bladders 24-hours a day. This will deter any vandalism and be a source of information if any problems occur.
- If the bladders are installed near major roads, overpasses, or recreational boating areas it is recommended a puncture resistant cover be placed over the barriers to protect against outside objects.

SITE PREPARATION AND INSTALLATION PRECAUTIONS

CAUTION

Installing the bladders in any type of environment requires thorough preparation. The following represents several general guidelines that need to be complied with when installing HSI Services' liquid storage bladders.

- All ground objects that could puncture the bladders (i.e. sharp rocks, broken glass) should be carefully removed or avoided when deploying. When the deployment site cannot be totally cleared of problem objects, it is recommended that a protective material be installed on the site (i.e. non-woven geo textile or other forms of puncture and abrasion resistant plastic sheeting) prior to deployment.
- Before setting up or operating equipment on any project:
EVALUATE THE WORK SITE FOR ELECTRICAL HAZARDS, including both overhead and underground, and if present **EXERCISE EXTREME CAUTION**.
- Identify the water source that will be used to inflate barriers and maintain clear access to it. Using the shortest length of hose to fill the bladders is preferred because less hose transmits more water volume.
- Do not drag the bladders on rough surfaces as this could cause permanent damage and affect bladder stability & integrity.
- Assessment of slopes and land contours is very important when evaluating an optimal area for installing the liquid storage bladders. A bladder will only fill to its expected inflated height at the lowest point it encounters along its length. It is recommended that you consult your local HSI Services Inc representative for assistance prior to deployment if faced with extreme land contours.
- It is required that the liquid storage bladders be installed on a flat surface.

SITE PREPARATION AND INSTALLATION PRECAUTIONS

CAUTION

Installing liquid storage bladders in any type of environment requires thorough preparation.

The following represents several general guidelines that need to be complied with when installing these bladders.

- It is required that all of the Safeguards and Precautions sections be carefully read prior to installing a liquid storage bladder system.
- The inflated height of the liquid storage bladder system is measured at the point of lowest elevation where the system is installed. The system must be monitored during the entire inflation process.
- Once the recommended inflation height is achieved, measured from the point of lowest elevation, the inflation process has been completed.
- Caution must be given never to over-inflate an liquid storage bladder system. It is recommended that you consult your local HSI Services Inc representative for assistance prior to deployment if faced with extreme land contours.
- Personnel involved in the installation and removal process should never position themselves beneath any elevated portion of a liquid storage bladder or piece of equipment.
- Locate vent fittings along the top prior to inflating the system. Screw on the provided stand pipe into the vent fitting. It's imperative that you don't over inflate the liquid storage bladder system. If the bladder tank is being overinflated water begins to flow out of the top of the vent pipe. Immediately stop the inflation process and reduce the volume to the recommended max fill height once this happens. If you continue to inflate your bladder tank after water has begun escaping from the stand pipe, you could cause the system to rupture. It's imperative that you don't over inflate your liquid storage bladder system beyond the maximum fill height.

INSTALLING IN FREEZING CONDITIONS

In freezing conditions, it is recommended that all ice and snow be removed prior to installation. Failure to do so may affect the pillow tank stability and integrity.

The liquid storage bladder material will hold down to -22°F. Anything below -22°F makes the material brittle. Typically, water inside the pillow tank is 10 degrees warmer than outside temperature.

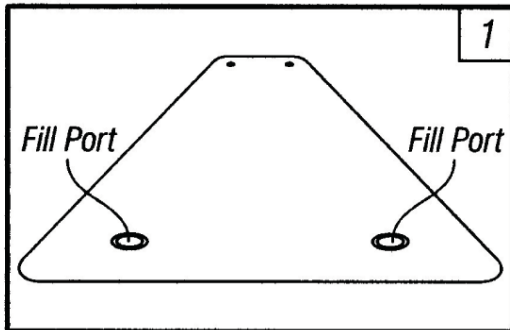
You can keep the water inside from freezing solid by using products such as glycol tubes. You can also use ground heaters to warm up blankets to cover the top may also be helpful.

If you think the barriers will freeze you need to leave the fill ports open and release a little water out of the barriers after you've inflated them completely. Water expands at a rate of 10% when it freezes so you will want to deflate the pillow tank to 90% capacity to allow for the water expansion, this may prevent internal rips in the material as water turns to ice.

If the body of water in which the barriers are installed starts to freeze you may risk damage from ice ramming the barriers. To minimize this damage, you can cover the barriers with a geo textile protective membrane or place something in front of them to "catch" chunks of ice. Concrete jersey barriers work well and sometimes PE construction fence has been used. One Clarion, Inc. also offers an additional protective membrane which can be installed over the barriers when working in freezing conditions.

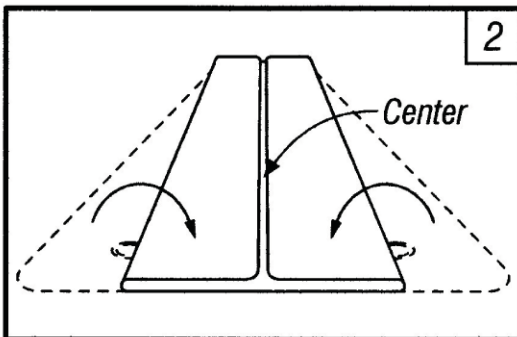
When it comes time to remove the barriers, they must be fully thawed and drained before you begin to pull them out of the water. Do not attempt to remove a barrier with ice inside as it could cause permanent damage.

FOLDING PROCEDURE



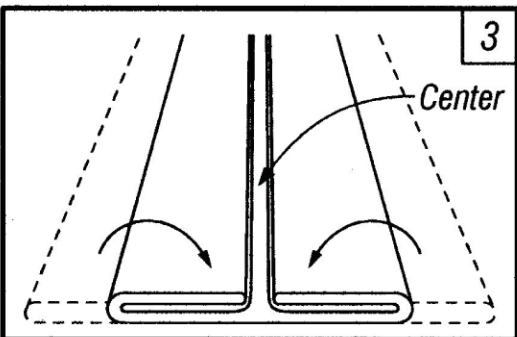
STEP ONE:

After all caps are attached to each fill and drain port, lay bladder out flat on dry land.



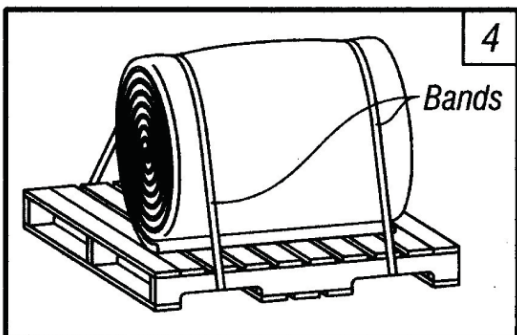
STEP TWO:

Fold one side to the center.
Then fold the other side to the center.



STEP THREE:

Take both sides and fold to center again.



STEP FOUR:

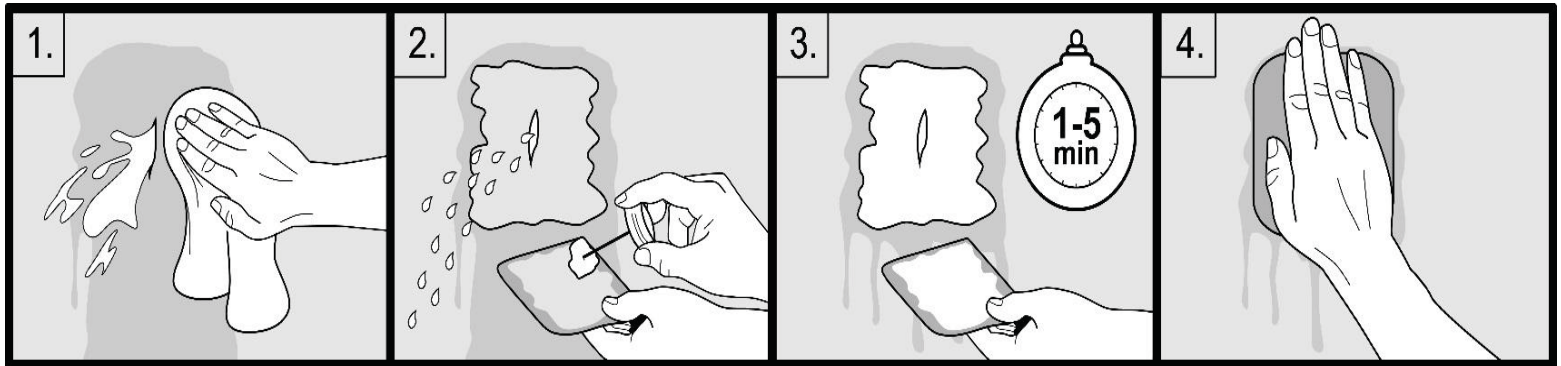
Roll and place on pallet (it is recommended to use a protective covering on the pallet).
Secure the bladder to the pallet using rope or plastic banding strap and ensure there is no overhang.

REPAIR INSTRUCTIONS

FOR NON POTABLE BLADDERS ONLY

1. Locate the puncture, cut, tear or abrasion on the barrier's surface. Locate the patch material and cut a generous sized repair patch. Clean and remove all debris from the damaged area.
2. Apply a generous layer of the HH66 vinyl adhesive on the **smooth** side of the patch material, make sure to cover the patch entirely with adhesive. Apply a generous layer of the vinyl adhesive on both the damaged area and the surrounding area. The covered surrounding area should be slightly larger than the repair patch's size.
3. Allow a few minutes for the adhesive to dry until it exhibits a frosty marble white color and is tacky to the touch. This can take anywhere from 1 minute to 5+ minutes depending on weather and temperature variables.
4. Apply the patch material centered over the damaged area. You will need to firmly press on the center of the patch while working your way around its entirety to prevent water from escaping the damaged area. Apply a good amount of pressure on the entirety of the patch from the center out to bond the patch and barrier surface together securely, be sure to not to trap any air bubbles during this process. You may need to keep pressure on the patch for a few minutes depending on the size of the damaged area; the larger the damaged area, the longer you may want to keep pressure on the patch.

Disclaimer:
The HH66 vinyl-coated adhesive loses adhesion properties when applied in temperatures below 40° F. It is recommended that the adhesive be stored in an area where temperatures do not fall below 40° F.



See HH66 MSDS for additional safety precautions and recommendations.

HH66 adhesive is for non-potable storage bladders ONLY. Please contact your representative to determine what adhesive is designed for your bladder.

Statement of Limited Warranty Page 1

- A. General. This warranty is intended solely for the benefit of the original (retail) purchaser (“Purchaser”) of the products (“the Products”) supplied by HSI Services, Inc. This warranty is effective only in the United States of America.
- B. Limited Warranty. HSI Services, Inc. warrants its products against manufacturing defects for 90 days from the date of the original purchase of the Products. The liquid storage bladders and all parts and accessories associated with them are warranted for only the purchaser’s first installation, which is the inflation, draining, and repositioning, or site removal, of the liquid storage bladders. After a liquid storage bladder has been partially or completely drained, repositioned, or removed from the initial installation location, no stated or implied warranty or product protection shall apply. The Company’s responsibility for defects in the Products is limited to the Company’s choice of repair, or replacement. This warranty gives purchasers of the Products specific rights, and such purchasers may also have other rights that vary from state to state. This warranty shall be effective only if the Products manufactured by the Company have not been subjected to negligent use, misuse, or abuse (including any usage not in accordance with the Product instructions, or failure to perform the required preventive maintenance). This warranty is limited to the cost of the manufactured Products that are found to be defective. No agent, employee, or officer of the Company, or any other person, is authorized to give any other warranty, or to assume any other liability on behalf of the Company.

THE COMPANY SHALL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER, WHETHER TO THE PURCHASER OF THE PRODUCTS, OR TO THIRD PARTIES, IN TORT, CONTRACT, OR OTHERWISE (some States do not allow the exclusion or limitation of incidental or consequential damages, so the preceding limitation or exclusion may not apply to all Purchasers).

THE COMPANY ASSUMES NO RESPONSIBILITY OR LIABILITY, WHETHER EXPRESSED OR IMPLIED, WHETHER IN TORT OR IN CONTRACT, AS TO THE CAPACITY OF ITS MANUFACTURED PRODUCTS TO SATISFY THE REQUIREMENT OF ANY LAW, RULE, SPECIFICATION, OR CONTRACT PERTAINING THERETO, INCLUDING, BUT NOT LIMITED TO, ANY CONTRACT BETWEEN ANY PURCHASER OF ITS PRODUCTS AND CONTRACTING PARTIES WITH WHOM SUCH PURCHASER HAS CONTRACTED. THE WARRANTIES EXPRESSED HEREIN ARE IN LIEU OF ALL TORT LIABILITY AND ALL OTHER WARRANTIES OR REPRESENTATIONS, WHETHER EXPRESSED OR IMPLIED, BY LAW OR BY CONTACT. THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESSED, OR IMPLIED INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR PURPOSE, AND OF ANY OTHER OBLIGATION OR LIABILITY ON THE PART OF THE COMPANY (SOME STATES DO NOT ALLOW CERTAIN LIMITATIONS ON IMPLIED WARRANTIES, SO THE PRECEDING LIMITATION MAY NOT APPLY TO ALL PURCHASERS).

Statement of Limited Warranty Page 2

C. Repair and Replacement. As a condition precedent to any remedy described herein or otherwise available to Purchaser. Purchaser shall seek and accept the Company's reasonable effort to repair or replace the allegedly defective or nonconforming Products (hereinafter "Affected Products: In furtherance of such undertaking, if Purchaser reasonably believes that (1) any Product contains a defect or nonconformity for which the Company is responsible; or (2) the Purchaser otherwise has a claim pursuant to the warranties contained herein, Purchaser shall inform the Company (in writing by completing a customer complaint form), of the nature of such defect, nonconformity, or claim in reasonable detail and shall request authorization from the Company to return the Affected Products to the Company for repair or replacement. All Products authorized for return shall be shipped prepaid to the Company's facility or authorized service center

HSI Services, Inc.
20581 FM 362
Waller, TX 77484
1-800-245-0199

If the Company repairs or replaces the Affected Products within a reasonable time (normally six to eight weeks) after Purchaser has so returned them to the Company, Purchaser shall be entitled to no further remedy at law or equity.

D. Certain Hazards Related to Products. Purchaser acknowledges that there are hazards associated with the use and storage of the Product(s) delivered hereunder, and Purchaser acknowledges that Purchaser understands and accepts such hazards. Purchaser shall be responsible for warning and protecting Purchaser's employees and others who may be exposed to such hazards due to Purchaser's storage and/or use of Product(s). Purchaser assumes all liability for loss, damage, or injury to persons or to property of Purchaser or others arising out of the delivery, presence or use of the Products whether used singly or in combination with other Products.

Questions or Comments? Call 863-261-8388

Or visit www.clarionmunicipal.com