★ BAILIFF ENTERPRISES, INC. ★

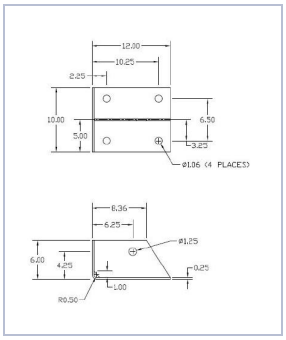
SS SEISMIC & WIND RESTRAINT SYSTEM

Our wind/seismic tie-down systems consist of:

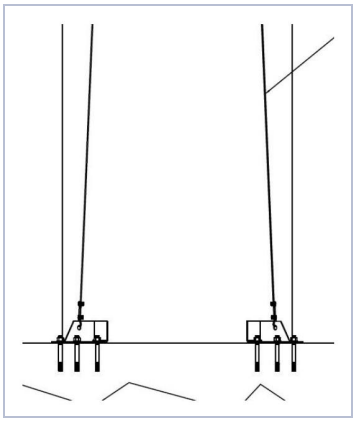
- Four heavy duty tie-down points molded in or bolted to the dome of the tank.
- 5/16" 304 stainless steel cable that is strong and flexible.



- The cable is rated at 9,000 pounds breaking strength. The cable is cut to length for each anchor point.
- 6" tall x 10" wide x 12" deep anchors made from 304 stainless steel connect with the cables and are bolted into the concrete base. The holes are designed for 1" bolts.



- The cables, anchors and cable clips are all included. The cable clips are 316 stainless steel cast wire rope clips.
- The restraints are rated for 155 mph winds. We offer site specific, stamped wind and seismic calculations at additional cost.



- Due to foundation variances, bolts are not included.

BAILIFF ENTERPRISES, INC. ◆ 305 E. Rogers Road ◆ Willis, TX 77378
Contact Dan Miller ◆ 936-228-1520 ◆ dmiller@plasticstoragetanks.com

SEISMIC/WIND RESTRAINTS

1) Space anchors at equal distances around the tank. They should line up below tie-down lugs. 2) For large tanks, leave a gap of 2-1/2” between the tank wall and the face of the anchor. This allows for the expansion of the tank. See the next page for more detail about 'the gap'. 3) Bolt the anchors in place. 4) Run the cable through the anchor and loop it back on itself. Use cable clips to secure the cable. The saddle of the clip should be against the ‘long line’ of the cable. 5) Run the cable through the lugs on the tank. If there are two sets of lugs, use the lower ones. Loop the cable back on itself and secure it using cable clips. 6) Leave enough slack in the cables to accommodate tank expansion at higher temperatures. Do not overtighten the cables. 7) Trim the cable to eliminate any extra length.

If additional cable clips are needed, use drop forged clips.

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WIND/SEISMIC ANCHOR INSTALLATION

The gap between the face of the tie-down anchor and the sidewall of the tank is a bit of a moving target and needs to take into account:

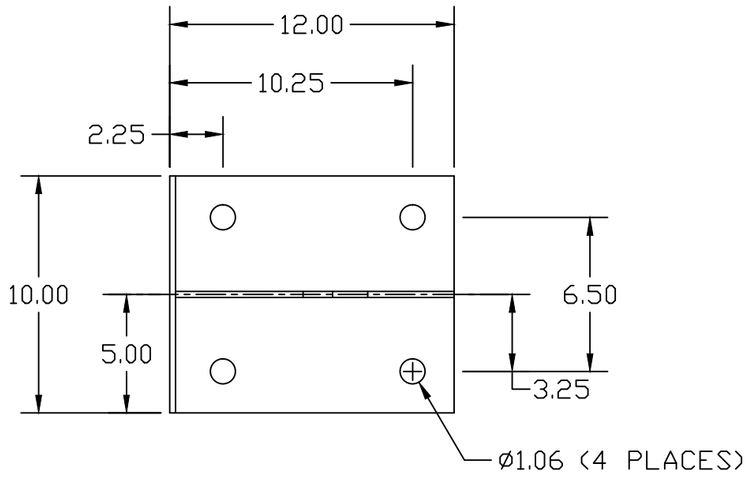
- the diameter of the tank.
- the ambient temperature.
- the fact that the tank may expand or contract by up to 3% due to temperature or pressure.

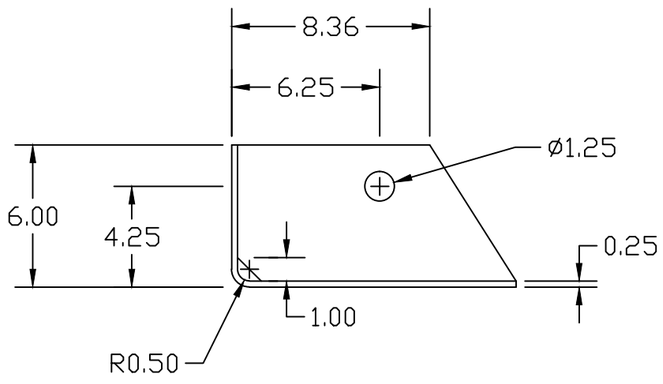
Tank Diameter	Potential Expansion/Contraction	Gap between Tank and Anchor face
84”	2.5”	1-1/2”
95”	2.9”	1-1/2”
102”	3.1”	2”
120”	3.6”	2”
142”	4.3”	2-1/2”

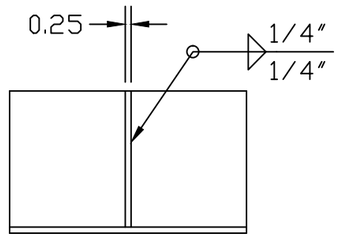
The tank will be at its largest in the heat of summer and it’s smallest in cold weather. If the anchors are being installed in hot weather, the gap can be nearly eliminated. For cold weather installation the full gap should be used.

The thickness of the tank walls are another influence on the degree of expansion and contraction on your tank. Since there are so many variables, these figures are offered as a guideline for you to use. Just be sure that you allow room for your tank to expand. Restricted expansion can cause tank failure.

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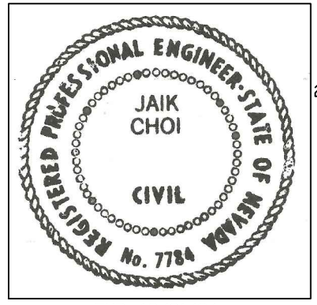






NOTES:

1. MATERIAL: ASTM A-36 (SS 304) OR EQUAL. PLATE 1/4" THICK.
2. HOT DIP GALVANIZE THE PART AS PER ASTM A-123-89. ALTERNATE FINISH TO BE BLACK EMANEL PAINT AS PER S11 PAINTING STANDARDS. DATED 7/13/98. HOT DIP GALVANIZE IS THE PREFERRED FINISH.
3. THE PART SHOWN IS MADE WITH A BENT PLATE. THE BEND MUST BE PERPENDICULAR TO THE PLATE GRAIN.
4. WELDED FABRICATION CAN BE SUBSTITUTED FOR THE BEND; HOWEVER, THE WELD MUST BE FULL PENETRATION FROM BOTH SIDES AND GROUND SMOOTH ON THE BOTTOM OF THE PLATE.
5. DEBUR ALL EDGES. HEAVILY DEBUR AROUND ALL HOLES ON THE VERTICAL PLATE. A SMALL RADIUS IS PREFERRED.



2/28/24

EXP. 12/31/24

Rev.	Date	File Name
BAILIFF ENTERPRISES, INC. 305 E. ROGERS ROAD, WILLIS, TX 77378 (713) 203-4650 Fax: ( )	Date: 02/28/24 Drawn By: J. D.	Scale: NONE Cust. Rep.
TITLE: SEISMIC ANCHOR PLATE - 4-1" DIA. BOLT VERSION		
Part #: 4D4	Dwg. #: BEI-1W200G	