

## INSTALLATION AND WELD GUIDELINES SANITARY TANK SPUD

The purpose of this guide is to ensure proper installation of a REOTEMP Sanitary Tank Spud. It is meant to provide general guidance only. A properly trained welder with experience in sanitary tank fabrication should perform this assembly in order to achieve desired results.

### Select Location

There are two primary factors to consider when selecting a location for the tank spud.

- 1) For ideal level measurement the tank spud should be located low enough on the tank to where it is at least 50% submerged in process fluid at the lowest measurement level.
- 2) Select an area about 10" in diameter where it is a free and clear of any obstructions. See Fig. 1 Location.

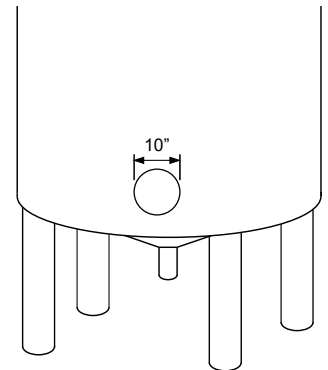


Fig. 1 Location



### Drill Hole

When cutting the hole for the tank spud, the goal is to minimize the gap between the OD of the spud and the tank wall. The OD of the tank spud is 5.98" +/- .010 .



**Warning:** A hole larger than 6.02" could increase the amount of spud distortion. Torch cutting is not recommended; one should attempt to cut the hole as smooth as possible.

## Welding

The diaphragm seal that fits into the weld spud requires a smooth and circular sealing surface in order to function properly.

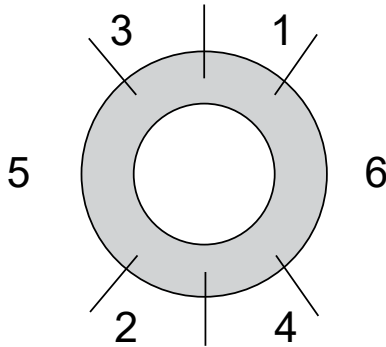
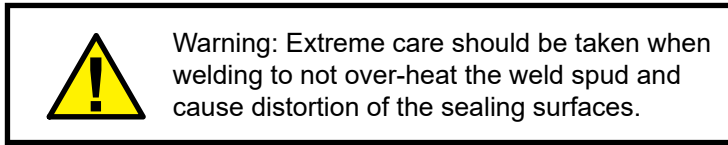


Fig. 2 Recommended weld order.

Step 1. When ready to weld, center the spud in the tank hole and assure that the spud is flush with the inner surface of the tank.

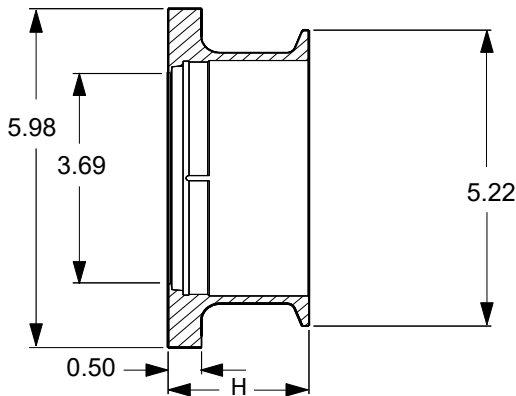
Step 2. There is a weep hole (leak detection hole) located on the instrument end of the spud. Be sure that it is facing downward.

Step 3. Tack the spud into place using 4 welds, 90° apart.

Step 4. Starting on the INSIDE of the vessel, cross weld in six or eight sections similar to the graphic Fig. 2.

Step 5. Ideally weld should be cool to the touch following each pass before the next pass is initiated. The weld can be cooled with water or air if desired.

Step 6. Once the inside of the tank is complete, follow the same steps on the outside of the tank.



All dimensions are in inches.



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