Universal Valve Installation Instruction

Model 47-20 Overfill Protection Valve

UNIVERSAL VALVE COMPANY, INC. 478 SCHILLER ST. ELIZABETH, NJ 07206 *(rev 4-15pm)*

The model valve 47-20 is pre-assembled for installation with a 12” x ¼-20 threaded rod. The threaded rod should be cut to determine a Length L as shown in Figure 1. This length L will determine the fill capacity for shut off as specified by the tank specification manual for 90% or 95% capacity.

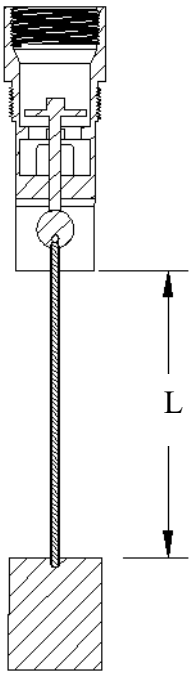

Fig 1
Pre-determined length

1. Measure the height H from the bottom of the tank as shown if Figure 2.

2. Determine whether a 90% or 95% capacity fill is require, and refer to the tank specification manual to locate the height of 90% or 95% capacity fill as shown in Figure 3.

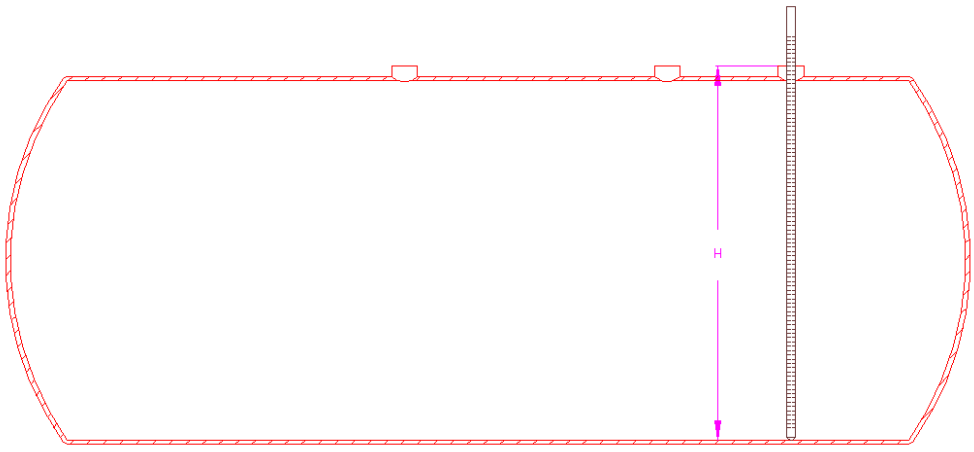

Figure 2 Tank Height Dimension

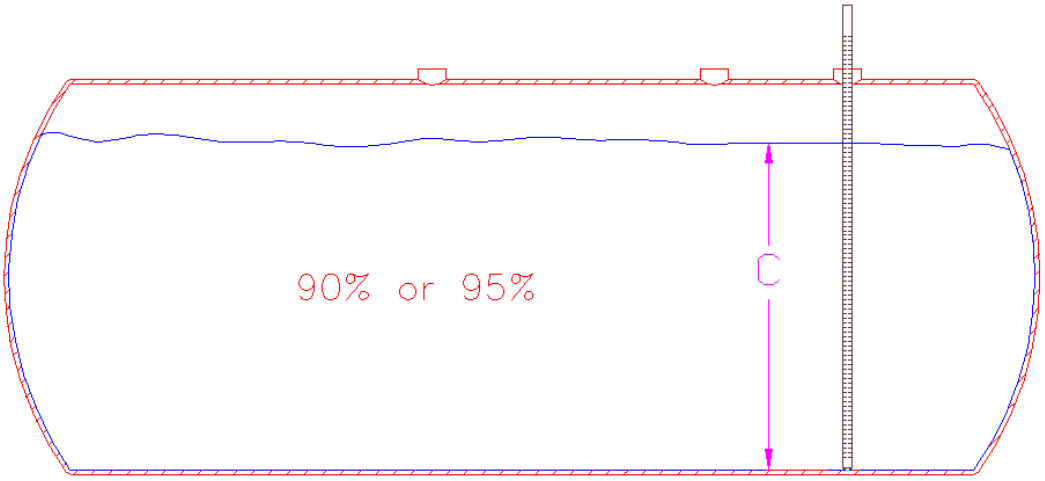

Figure 3 Height C for fill Capacity

3. Subtract 4.5” and the height “C” from the height “H” to determine a distance “Y” as shown in Figure 4. (H - C - 4.5”)
4. Divide the value obtained for “Y” by .866 to determine the distance “X” also shown in Figure 4.

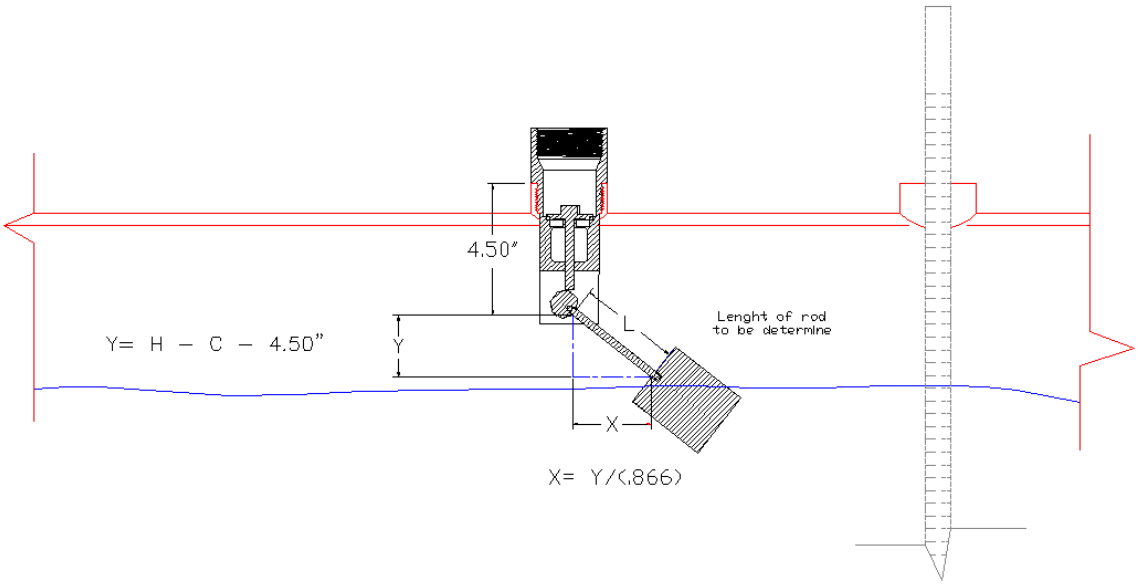

Figure 4 Calculating values for “Y” and “X”

5. To determine the Length L, add the square of “Y” (Y * Y) and the square of “X” (X * X) and take the square root of the sum.

$$L = \sqrt{(Y^2 + X^2)}$$

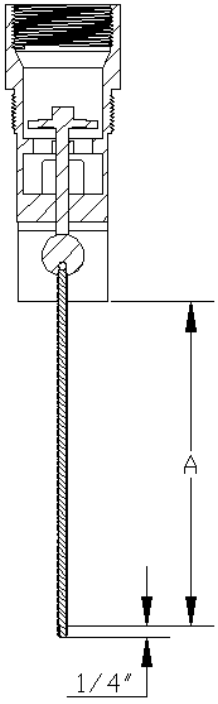

Figure 5 Length of Rod to be Cut

6. The threaded rod will screw into the poppet cam to a depth of ¼”. Add ¼” to the length L previously calculated to determine the total length for cut.

7. Apply thread sealant to ¼” at the end of the rod to be screw onto the poppet cam. Screw on the float rod into the poppet cam ¼”. Do not over thread. When installed properly the float rod should swing back and forth freely.

8. Apply pipe dope to NPT thread and install the valve with the float hanging in the vertical position.

9. Note: There is a marked line on the valve as shown in Fig 6 to indication the direction of swing for the float. Be sure to install so that there is no obstruction to the swing of the float. The float will swing to the right or left of the marked line for shut off.

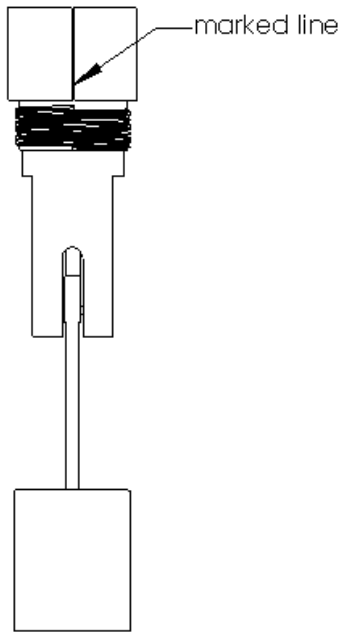

Figure 6 Marked Line showing Direction of Float