



Formula to Calculate Containment Capacity for Justrite® Barrier Boom and Geomembrane Liner Systems

KEY:

1 cubic foot = 7.50 gallons of capacity

1 cubic foot of stone = 3 gallons of capacity at 40% void

Step 1: Take amount of oil in largest vessel to be contained and multiply by 1.1 to get 110%, which allows for rain and snow events.

Step 2: Determine the depth of the containment, i.e., 6, 12, or 18 inches, based upon existing stone depth and physical layout of the site. Calculate the capacity of oil for one (1) square foot of surface area based upon depth of stone.

Step 3: Divide the 110% volume by the capacity of one (1) square foot of stone.

Step 4: Calculate the square foot of the transformer pad and any other piers in the containment area.

Step 5: Add the square foot of pads (Step 4) to the square foot required for containment (Step 3).

Step 6: Determine the length and width of sidewalls to encompass the length and width of the transformer pad.

EXAMPLE

Step 1: $600 \text{ gals} \times 1.1 = 660 \text{ gal. (110\%)}$

Step 2: Depth of containment = 12 inches (1 cubic foot of stone = 3 gal. at 40%)

Step 3: $660 \text{ divided by } 3 = 220 \text{ square foot capacity to hold oil}$

Step 4: Transformer pad is 8 ft. x 10 ft. = 80 square foot

Step 5: Add Step 3 figure of 220 square feet + Step 4 figure of 80 square feet = 300 square feet total capacity.

Step 6: Looking at your CAD or site drawings, define barriers (like a fence). You know you need 300 square foot (Step 5). If you have no barriers around your pad, what two numbers can you multiply to get close to 300? $20 \times 20 = 400$. $19 \times 19 = 361$. $18 \times 18 = 324$. $17 \times 17 = 289$. $17.5 \times 17.5 = 306.25$. Other combinations could be $24 \times 13 = 312$, $23 \times 14 = 322$, or $20 \times 15 = 300$. Just make sure they multiply out to be at least 300 square feet. Adjust your length and width numbers to compensate for any barriers.

