

## Square Feet of Area and Gallon Capacity

### Per Foot of Depth in Cylindrical Tanks

Diameter (feet)	Circumference (feet)	Cross Section Area (ft. <sup>2</sup> )	Gallons Feet of Depth
5.00	15.708	19.635	146.88
5.5	17.279	23.759	177.72
6.0	18.850	28.274	211.51
6.5	20.420	33.183	248.23
7.0	21.991	38.485	287.88
7.5	23.562	44.179	330.48
8.0	25.133	50.265	376.01
8.5	26.704	56.745	424.48
9.0	28.274	63.617	475.89
9.5	29.845	70.882	530.24
10.0	31.416	78.540	587.52
10.5	32.987	86.590	647.74
11.0	34.558	95.033	710.90
11.5	36.128	103.87	776.99
12.0	37.699	113.10	846.03
12.5	39.270	122.72	918.00
13.0	40.841	132.73	992.91
13.5	42.412	143.14	1070.8
14.0	43.982	153.94	1151.5
14.5	45.553	165.13	1235.3
15.0	47.124	176.71	1321.9
15.5	48.695	188.69	1411.5
16.0	50.265	201.06	1504.1
16.5	51.836	213.82	1599.5
17.0	53.407	226.98	1697.9
17.5	54.978	240.53	1799.3
18.0	56.549	254.47	1903.6
18.5	58.119	268.80	2010.8
19.0	59.690	283.53	2120.9
19.5	61.261	298.65	2234.0
20.0	62.832	314.16	2350.1
20.5	64.403	330.06	2469.1
21.0	65.973	346.46	2591.0

21.5	67.544	363.05	2715.8
22.0	69.115	380.13	2843.6
22.5	70.686	397.61	2974.3
23.0	72.257	415.48	3108.0
23.5	73.827	433.74	3244.6
24.0	75.398	452.39	3384.1
24.5	76.969	471.44	3526.6
25.0	78.540	490.87	3672.0
25.5	80.111	510.71	3820.3
26.0	81.681	530.93	3971.6
26.5	83.252	551.55	4125.9
27.0	84.823	572.56	4283.0
27.5	86.394	593.96	4443.1
28.0	87.965	615.75	4606.2
28.5	89.535	637.94	4772.1
29.0	91.106	660.52	4941.0
29.5	92.677	683.49	5112.9
30.0	94.248	706.86	5287.7
30.5	95.819	730.62	5465.4

Formula: Total area = circumference x length + area of two ends. (Use area of one end for open top tanks).

Examples:

1.) Horizontal tank (or vertical tank with closed top), 20.0 ft. diameter and 12.0 ft. long or high.

$$\begin{array}{rcl}
 \text{Shell of Tank} & = 62.832 \times 12.0 & = 753.98 \text{ sq. ft.} \\
 \text{Top and Bottom} & = 314.16 \text{ sq. ft.} \times 2 & = \underline{628.32 \text{ sq. ft.}} \\
 \text{Total} & & 1382.30 \text{ sq. ft.}
 \end{array}$$

2.) Vertical tank 20.0 ft. diameter, 12.0 ft. high with open top.

$$\begin{array}{rcl}
 \text{Shell of Tank} & = 62.832 \times 12.0 & = 753.98 \text{ sq. ft.} \\
 \text{Bottom of Tank} & = & = \underline{314.16 \text{ sq. ft.}} \\
 \text{Total} & & 1068.14 \text{ sq. ft.}
 \end{array}$$

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