Appendix 6 - Calculating Tank Volume

Cylindrical Tanks

Method A

3.14 x radius squared (feet) x depth (feet) equals cubic capacity.
7.5 x cubic capacity equals capacity in gallons.

Example: 60" dia. tank, 48" liquid depth
3.14 x (2.5 x 2.5) x 4 = 78.5 cu. capacity
78.5 x 7.5 = 588.75 gal.

Method B

Diameter squared (inches) divided by 292.5 equals gallons per inch of liquid depth in tank. Depth (inches) x gallons per inch.

Example: 60" dia. tank, 48" liquid depth
60 x 60 ÷ 292.5 = 12.31 gal. per inch
12.31 gal. per inch x 48 = 590.88 gal.

Method C

Diameter squared (in inches) x depth (in inches) times .0034 equals total gallons.

Example: 60" dia. tank, 48" liquid depth
(60" x 60") x 48" x.0034 = 587.52 gal.

Square or Rectangular Tanks

Method A

Length (feet) x depth (feet) x width (feet) equals cubic ft.
Cubic ft. x 7.5 equals gallons.

Example: 96" = length, 48" = width, 60" = depth
8 x 5 x 4 =160 cu. ft.
160 x 7.5 = 1200 gal.

Method B

Length (inches) x width (inches) divided by 231 equals gallons in each inch of liquid depth. Tank depth (inches) x gallons per inch equals total gallons.

Example: 96" = length, 48" = width, 60" = depth
96" x 48" = 4608/231 = 19.95 gal. per inch
19.95 x 60" = 1,197 gal.