

HOW TO SIZE LEACH LINES, LEACHING CHAMBERS, BUNDLED EXPANDED POLYSTYRENE AND SEEPAGE PIT

Written Explanation – Use of sizing equations

Find how much *Absorption Area (A)* is needed:
 $A(\text{ft}^2) = \text{Tank Size (gal)} \times \text{Design Rate (ft}^2 \text{ per 100 gal)}$

- **Leach Lines (LL):**
Total Trench Length = $A \div \text{Trench Credit}$
- **Leaching Chambers – IAPMO PS 63:**
Total Trench Length = $(A \times 0.7) \div \text{Trench Credit (3ft)}$
- **Bundled Expanded Polystyrene – IAPMO IGC 276:**
Total Trench Length = $(A \times 0.7) \div \text{Trench Credit (Dependent on bundle configuration)}$
- **Seepage Pit (SP):**
Total Pit Depth = $A \div \text{Pit Diameter} \div 3.14$

Trench credit is how much area per linear foot of leach line is 'credited' line W x D:
credit:

- 3ft x 3ft: 7 ft² Trench Credit
- 3ft x 2ft: 5 ft² Trench Credit
- 3ft x 1ft: 3 ft² Trench Credit

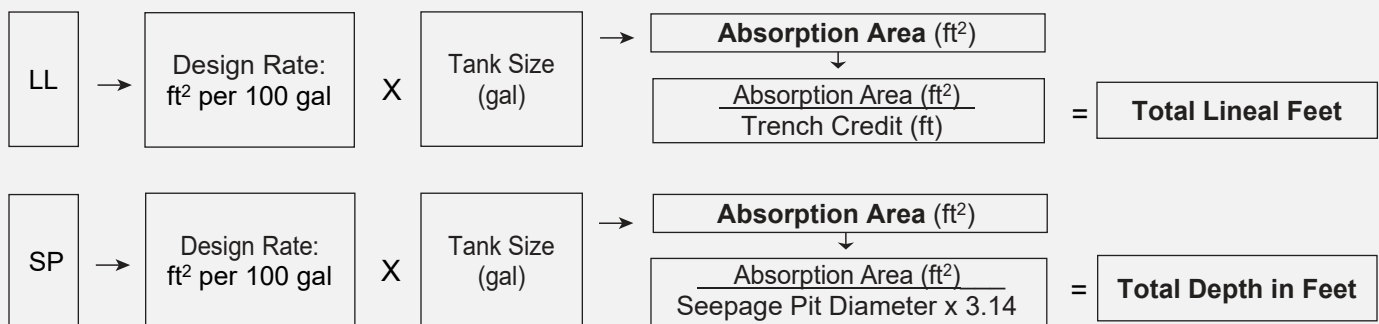
Minimum separation between multiple leach lines based on trench dimensions:

- 3ft x 3ft: 8 ft
- 3ft x 2ft: 6 ft
- 3ft x 1ft: 4 ft

Leach lines cannot exceed 100ft in length. If the system needs more than 100ft of trench, split the length as evenly as possible between two (2) or more trenches. For example, a system requiring 240ft of trench should have three (3) lines, each 80ft long.

A SP is typically no deeper than 30ft due to construction complexities. If the system needs more than 30ft of pit depth, split the depth as evenly as possible between two or more SPs. For example, a system that needs 75ft of SP should have three (3) pits, each 25ft deep. The minimum separation between SPs is 12ft.

Visual Explanation – Calculating for absorption area and total feet using design rates



Trench Area Sizing Credit – For leach lines, the maximum depth below the inlet is 3ft. When calculating usable area of trench, the first foot below the inlet will not be credited.

