

Pressure Manifold Design

1. 5 Number of Taps = Number of trenches
2. 4 Manifold Diameter (in) (obtain from table 1)
3. ½" Tap Size (in) (obtain from table 1)
4. 12" Tap Length (in)
5. 72" Manifold Length (in) = # of Taps 5 X Tap Spacing 12 (in)
   + Tap Spacing 12 (in)
6. 7.11 Flow per Tap (gpm) (obtain from table 2)
7. 35.55 Total Flow of Taps (gpm) = Flow per Tap X # of Taps
8. 2" Supply Line Size (in)
9. 100 Supply Line Length (ft)
10. 2.41 Friction Loss per 100 ft of Supply Line (ft / 100 ft) (from table 3)
11. 2.41 Friction Head (ft) = Friction Loss (ft/ 100 ft) X Supply Length (ft)
12. 8 Elevation Head (ft)
13. 2.0 Pressure Head (ft)
14. 15 Total Head (ft) = Friction head + Elevation Head + Pressure Head
    3 8 2 13
15. _____ Pump required to supply total flow of 36 gpm
    against a total head of 15 ft

    (obtain from pump curve)