Determining Vertical Lift From Pressure

There are two measurements needed to determine the head or lift in a pipeline, the static head and the dynamic head. Static head determines the actual vertical lift and is measured with the pipeline full and the pump not running. (Static Pressure)

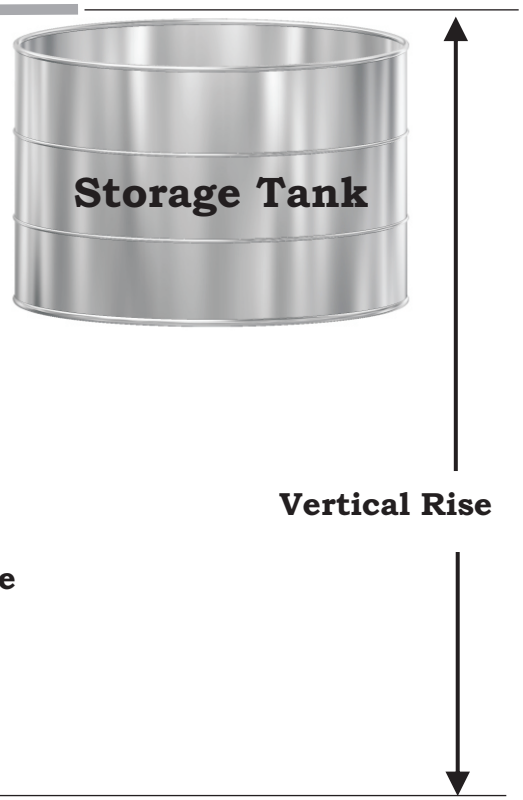
The dynamic head is measured while the pump is running and water is flowing out of the end of the pipe. This measures the dynamic head which includes the friction loss in the pipeline. (Dynamic Pressure)

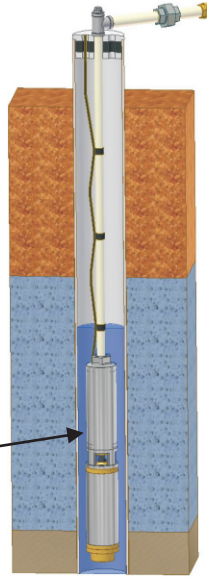
1. **Install a pressure gauge in the pipeline at the well head.**
2. **Run the pump until water is flowing out of the end of the pipe.**
3. **Record the pressure while the pump is running _____. DP**
4. **Stop the pump and record the static pressure_____. SP**
5. **Subtract the dynamic PSI from the static PSI _____. FL**
6. **Convert pressure to head feet by multiplying PSI X 2.31.**

Vertical Lift = SP X 2.31 _____ VL Feet

Dynamic Lift = DP X 2.31 _____ DL Feet

Friction Loss = DP-SP X 2.31_____ FL Feet





See Well Specification Sheet for the well information form.

Note:
To choose the correct pressure gauge for your test, start by estimating the vertical lift in feet and then dividing by 2.31. This pressure should be around the mid range of the gauge.

For example if you estimate a vertical rise of 120 feet, divide this number by 2.31 = 52 PSI.

Choose a 100 PSI full scale pressure gauge.