

WATER SUPPLY PRESSURE FROM ELVATED TANKS

Water flows from higher level to lower level without any external input. The main reasons why the water tanks are placed at the rooftop or usually at elevated height is as follows:

- *Water flows towards gravitational force.
- ** Greater the height, greater is the pressure.

Due to increasing density with increasing depth of water due to gravity pull, the pressure in the supply pipes increases due to highly elevated tanks in a locality.

Also, due to the same reason, the lower floors of a tall tower (residential flats), get water in more pressure than the top or upper floors when common tanks are placed at the rooftops.



Numerical on Liquid Pressure:

A Municipality tank elevated at a height of 25 meter from ground level. There is a tap connected to a pipe of the tank which runs from the bottom of the tank almost up to ground level. Find the pressure of water when the tap is opened fully.

(Density of water = 1000 kg/m^3 , $g = 10 \text{ m/s}^2$)
