

A fluid of density 2 into 10 raise to power cube kg/m cube is flowing in horizontal pipe .the speed of water at point A is 4cm/s ,what is its speed at point B (Height=2.5mm)

Bernoulli's principle can be expressed as a mathematical equation:

$$\frac{v^2}{2} + gh + \frac{p}{\rho} = const$$

where v is the fluid flow speed, g is the acceleration due to gravity, h is the height, p is the pressure, and ρ is the density of the fluid.

In our case:

$$\frac{v_A^2}{2} + gh = \frac{v_B^2}{2} + 0$$
$$v_B = \sqrt{v_A^2 + gh} = 22.5 \frac{cm}{s}$$

Answer: $22.5 \frac{cm}{s}$