

DETERMINATION OF FLOW RATE BY ORIFICE PLATE

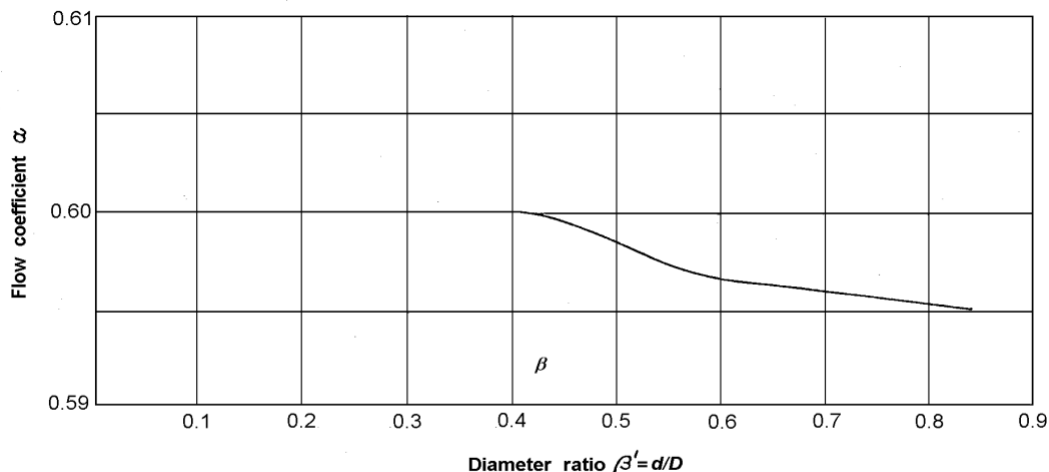
$$Q = a \epsilon \frac{p d^2}{4} \sqrt{\frac{2 \rho p}{\rho_u}}$$

Where: **a** = Flow coefficient for corner tap type of orifice plate can be found from BS 848 per graph I.

b = Ratio of orifice diameter to inlet pipe diameter.

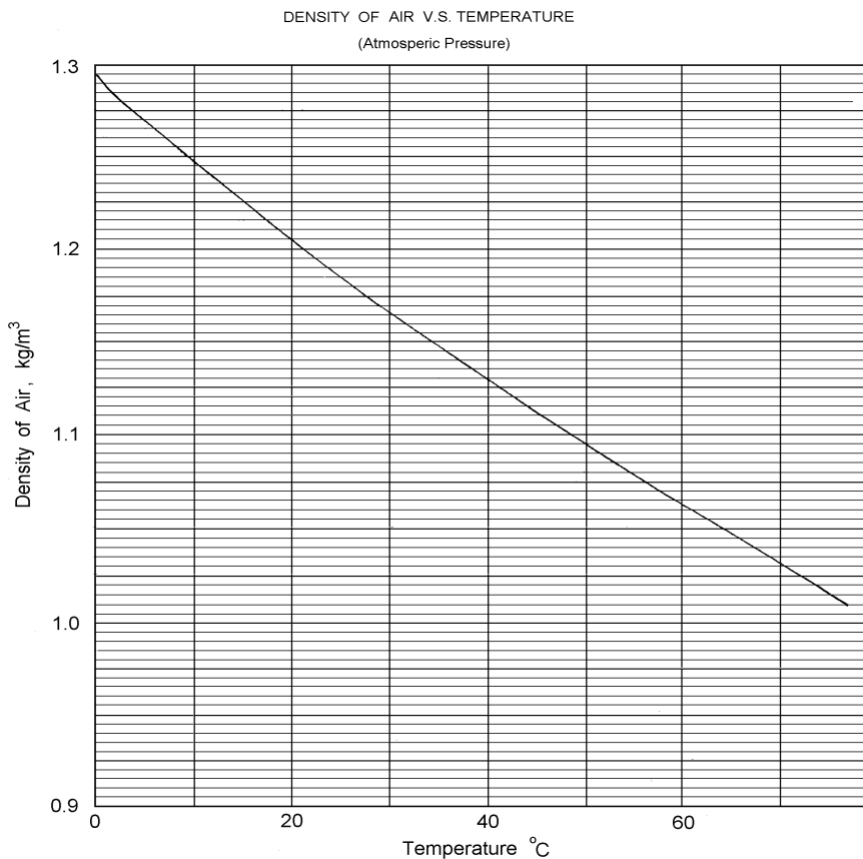
ϵ = Expansibility factor can be found from graph III

ρ_u = Density of air, can be found from graph II



Flow coefficient of inlet orifices with corner taps

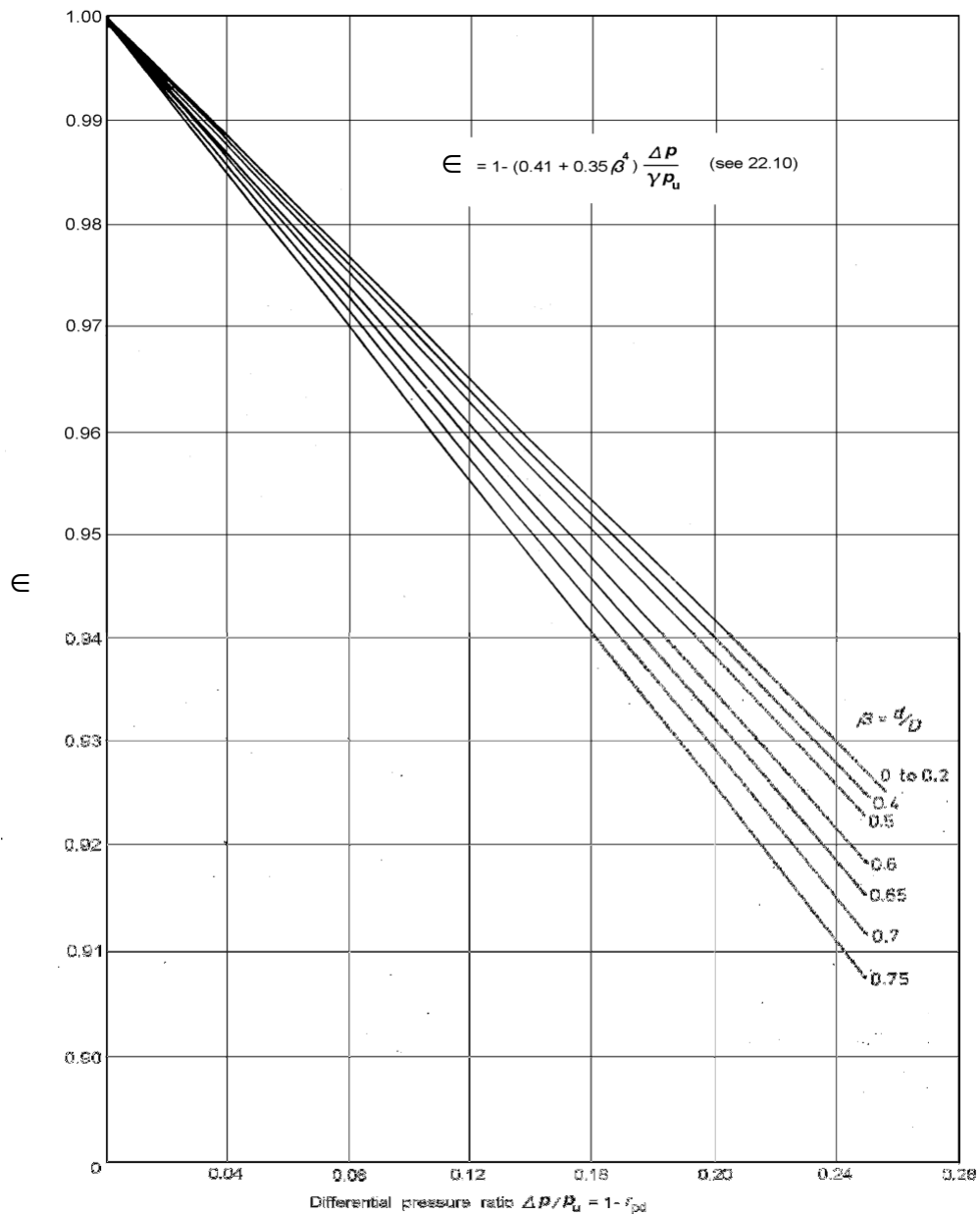
Graph 1 Flow coefficient and diameter ratio



Graph II Density of Air and Temperature



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Graph III Expansibility factor ϵ for orifice plates