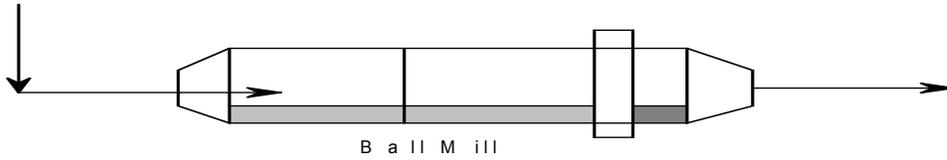


Cement Mill Output at Different Finenesses



Cap Current mill output

$$\text{Cap} := 100 \quad \text{tph}$$

B₁ Current fineness of cement acc. to Blaine

$$B_1 := 3000 \quad \text{cm}^2 / \text{gm}$$

B₂ Desired fineness of cement acc. to Blaine

$$B_2 := 3500 \quad \text{cm}^2 / \text{gm}$$

Cap_{new} To find what would be new capacity of mill (tph)

$$k := 10 \left(\frac{B_2 - B_1}{1000} \right)^{0.213}$$

$$k = 1.278$$

$$\text{Cap}_{\text{new}} := \text{round} \left(\frac{\text{Cap}}{k}, 0 \right)$$

$$\text{Cap}_{\text{new}} = 78 \quad \text{tonne/hr}$$

Alternate formula

Cap_{new} new capacity of mill

$$k := e^{\frac{B_2 - B_1}{1000} \cdot 0.49}$$

$$k = 1.28$$

$$\text{Cap}_{\text{new}} = 78 \quad \text{tonne/hr}$$