

10 Steel pellets, each with a mass of 0.60 g , fall vertically onto a horizontal plate at a rate of 100 pellets per minute. They strike the plate with a velocity of 5.0 m s^{-1} and rebound with a velocity of 4.0 m s^{-1} .

What is the average force exerted on the plate by the pellets?

A 0.0010 N

B 0.0054 N

C 0.0090 N

D 0.54 N