5 In a factory, identical boxes are placed onto the start of a conveyor belt at an average rate of 2.5 kg s^{-1} and removed at the end of the belt at the same rate.

In order to keep the belt moving at a constant speed of 0.80 m s^{-1}, what is the horizontal force that must be applied to the belt?

A 0 N **B** 1.0 N **C** 1.6 N **D** 2.0 N