Pump power

Water enters an ideal pump as a saturated liquid with a pressure of 50 kPa. It leaves with a pressure of 20 MPa. The water has a mass flow rate of 10 kg/s. How much work does this pump require?

Answer: C.

Explanation: $v \cdot (P_2 - P_1) \cdot = 0.00103 \cdot (20000 - 50) \cdot 10 = 205 kW$