

- 15** A fixed mass of ideal gas undergoes a contraction in volume from $80 \times 10^{-3} \text{ m}^3$ to $40 \times 10^{-3} \text{ m}^3$ at a constant pressure of 25 kPa. During this contraction, 2500 J of heat is removed from the gas.

What is the change in internal energy of the gas?

A -3500 J

B -1500 J

C 1500 J

D 3500 J