

TOPIC

Thermodynamics – Section XII – Question 5

QUESTION

2 kg of air in a closed-rigid vessel at 1 bar and 25°C is heated until its temperature is 100°C . The heat added to the air (in kJ) most nearly is

- (A) 0
- (B) 108
- (C) 120
- (D) 150

HINT

- Apply the closed system energy balance
- Note that since the vessel is rigid, there is no work
- The constant volume heat capacity of air is 0.717 kJ/kg-K

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