

- 19** A piston in a gas supply pump has an area of  $400 \text{ cm}^2$  and it moves a distance of  $25 \text{ cm}$  during one stroke.

The pump moves the gas against a fixed pressure of  $3000 \text{ Pa}$ .

How much work is done by the piston during one stroke?

- A**  $30 \text{ J}$                       **B**  $3.0 \times 10^3 \text{ J}$                       **C**  $3.0 \times 10^5 \text{ J}$                       **D**  $3.0 \times 10^7 \text{ J}$

- 20** A transformer has the following input and output