

ANSYS - Thermal Stresses in a Bar

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Problem Specification

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Thermal Stresses in a Bar

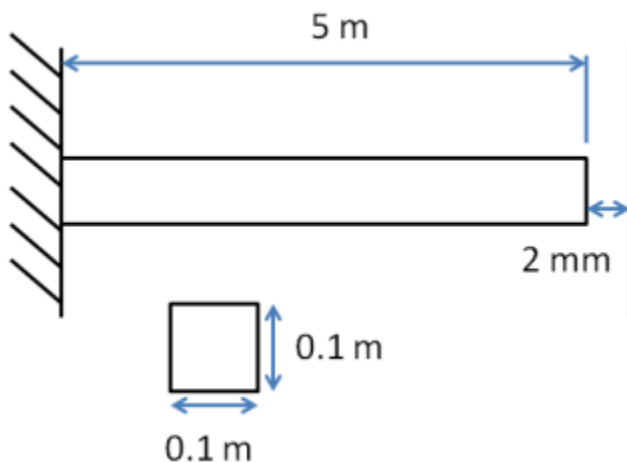
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Problem Specification

A steel bar ($E = 2.0 \times 10^{10}$ Pa, $\alpha = 0.3 \times 10^{-5}$ $1/^\circ\text{C}$) with the dimensions shown below is placed between two walls. On one side, the bar is rigidly fixed to the wall and on the other, there is a 2 mm gap between the wall and the bar. What is the stress in the bar after the temperature increases

by 100°C ?

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