

ANSYS AIM - Thermal Stresses in a Bar

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Problem Specification

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A steel bar ($E=2.0E10$ Pa, $\nu=0.3$, $\alpha=1.2E-5$) 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 maximum stress in the bar after the temperature increases 100 degrees Celsius?

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