

# ANSYS AIM - Plate with Hole

Author(s): Sebastian Vecchi, ANSYS Inc.

## [Problem Specification](#)

- [1. Pre-Analysis & Start-Up](#)
- [2. Geometry](#)
- [3. Mesh](#)
- [4. Physics Setup](#)
- [5. Results](#)
- [6. Verification & Validation](#)

## Problem Specification

Consider the classic example of a circular hole in a rectangular plate of constant thickness. The plate is A514 steel with a modulus of elasticity of 29e6 psi and a Poisson ratio of 0.3. The thickness of the plate is 0.2 in., the diameter of the hole is 0.5 in., the length of the plate is 10 in. and the width of the plate 5 in., as the figure below indicates.

This tutorial will show you how to use ANSYS AIM to find the displacement and the stresses in the plate.

[Go to Step 1: Pre-Analysis & Start-Up](#)

[Go to all ANSYS AIM Learning Modules](#)