

HOMEWORK #3

(DUE DATE: 01.06.2015)

The steel support shown in the figure is designed to carry 10 MPa surface load (green surface). It is fixed around the hole surfaces.

1. (40 %) Calculate and plot von Mises stress and displacement distributions.
2. (60 %) Redesign the part without changing boundary surfaces to reduce the weight (1.5 factor of safety is required for the steel having 800 MPa yield strength). Describe your new design and report von Mises stress and displacement distributions.

