

SimOps Structural Report

Component: Cylinder

PASSED

Date: 2025-12-28 19:25

Analysis Metrics

Strategy:	Default
Load Case:	1.0G Z-Load
Max Von Mises Stress:	3.7682E-02 MPa
Max Displacement:	62.36 μm
Safety Factor:	7324.51
Elements:	620
Nodes:	1,288

Physics Validation

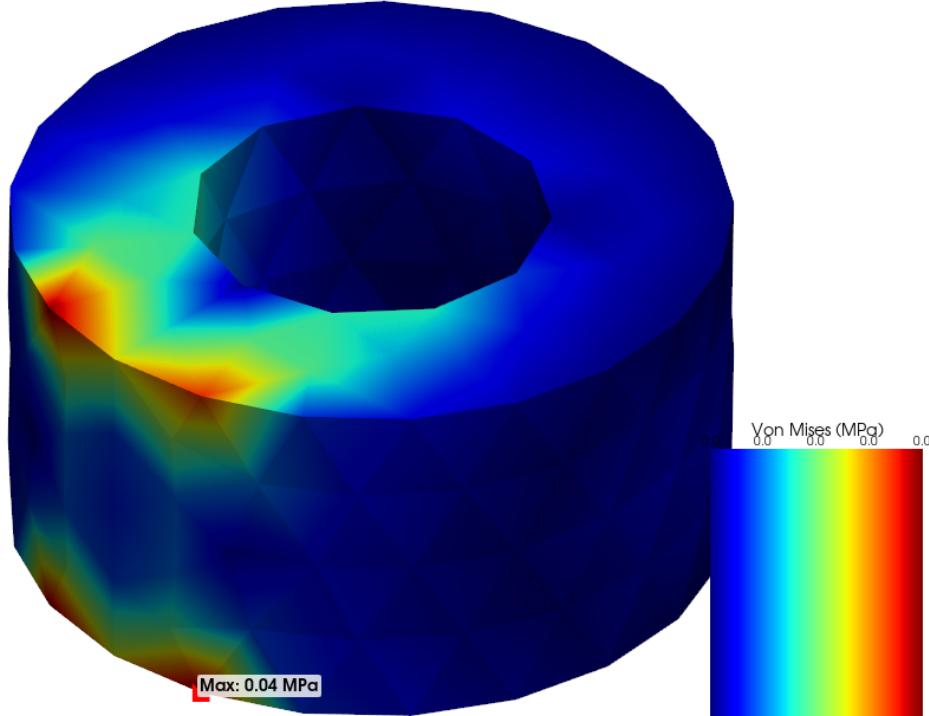
Stress Margin: ✓ PASS ($0.04 < 184.0$ MPa)
Displacement: ✓ PASS ($62.36 \mu\text{m} < 50.00 \mu\text{m}$)

Material: Al6061-T6

Yield Strength: 276 MPa

Static Structural: 1G Z-Load (Iso View)

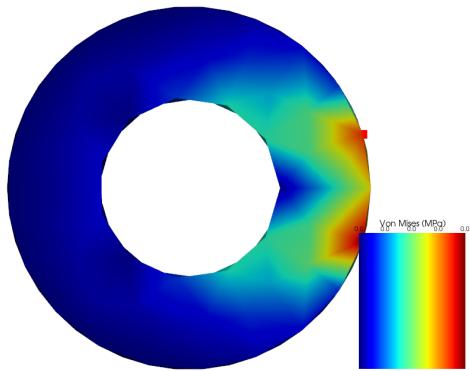
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Additional Views

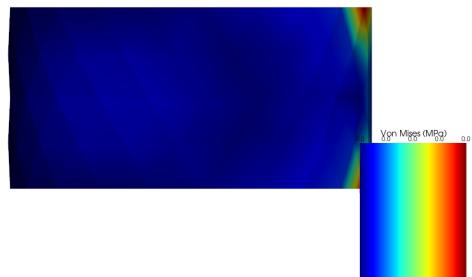
Top

Static Structural: 1G Z-Load (Top View)



Front

Static Structural: 1G Z-Load (Front View)



Side

Static Structural: 1G Z-Load (Side View)

