

# SimOps Structural Report

Component: Cylinder

PASSED

Date: 2025-12-28 00:03

## Analysis Metrics

Strategy:	Default
Load Case:	1.0G Z-Load
Max Von Mises Stress:	3.5481E-02 MPa
Max Displacement:	61.92 µm
Safety Factor:	7778.73
Elements:	639
Nodes:	1,311

## Physics Validation

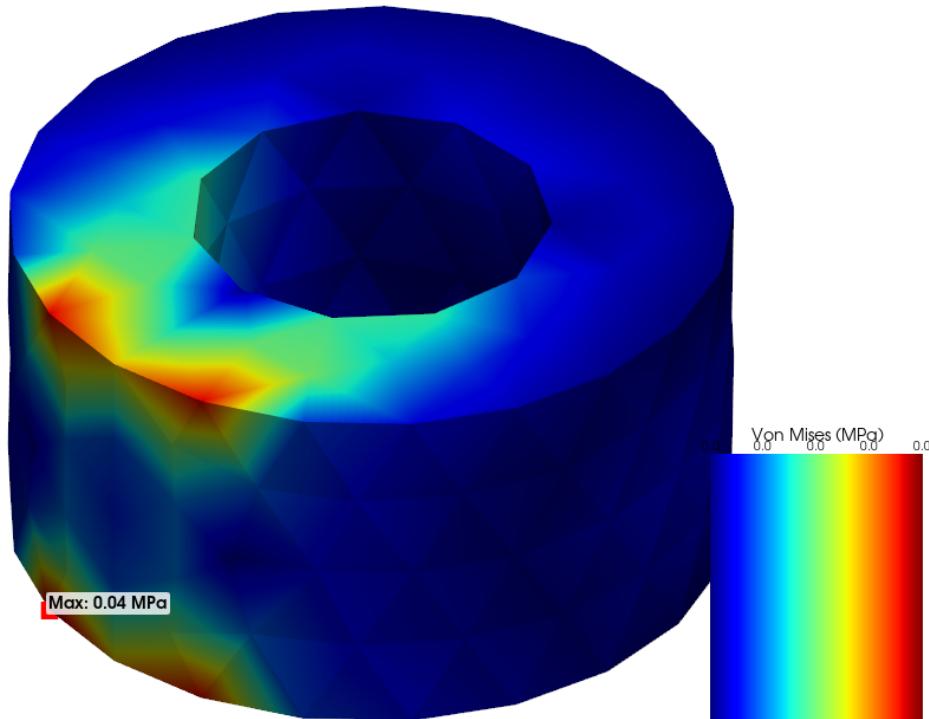
Stress Margin: ✓ PASS (0.04 < 184.0 MPa)  
Displacement: ✓ PASS (61.92 µm < 50.00 µm)

## Material: Al6061-T6

Yield Strength: 276 MPa

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

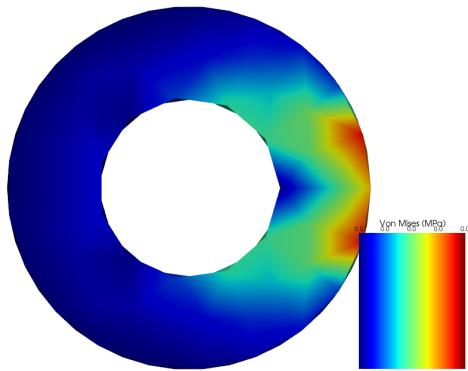
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## Additional Views

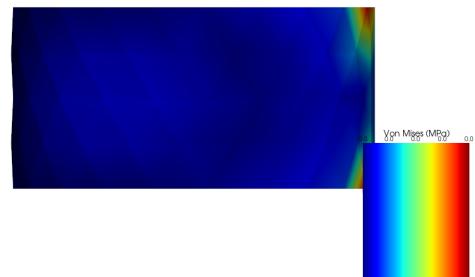
### Top

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



### Front

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



### Side

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

