



H-HOM antenna transport evaluation

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Initial results - HHOM

- Mesh refinement performed
- Several modes below 500 Hz
- 2 models:
 - Chamfer in the welding region: thickness of 1.5 mm
 - No chamfer? Thickness of 2.45 mm
- Modes shifted

Mode	f [Hz]
1	57
2	69
3	332
4	343
5	389

Mode	f [Hz]
1	65
2	69
3	338
4	349
5	424

Geometry
24/05/2019 18:03

■ Niobium (Nb)

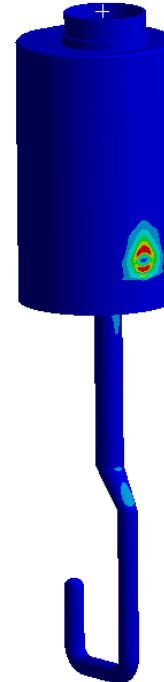
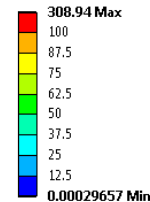


Geometry
24/05/2019 18:10

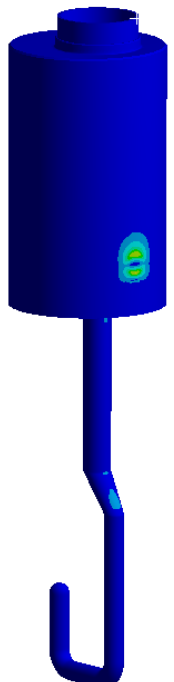
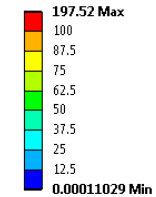
■ Niobium (Nb)



K: Response Spectrum
Equivalent Stress
Type: Equivalent Stress
Unit: MPa
Time: 0
24/05/2019 18:00

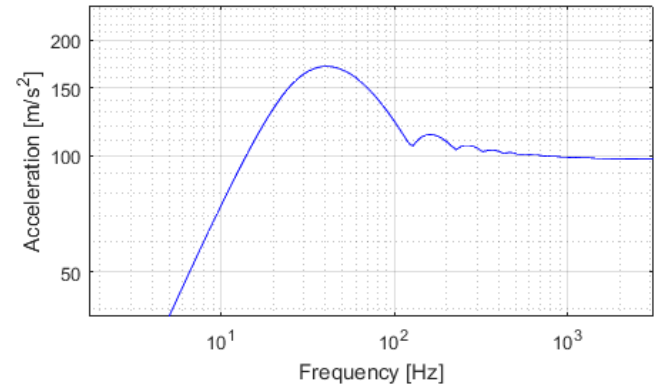


P: Response Spectrum
Equivalent Stress
Type: Equivalent Stress
Unit: MPa
Time: 0
24/05/2019 18:00



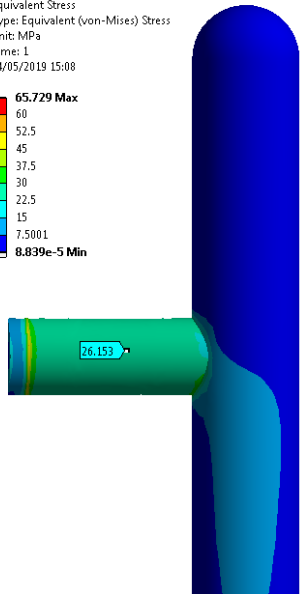
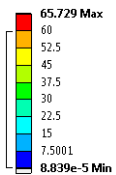
New results - HHOM

- Comparison between static and response spectrum calculations
- Can we substitute shock analysis by static simulations?
 - Depends on the frequency spectrum of the component.

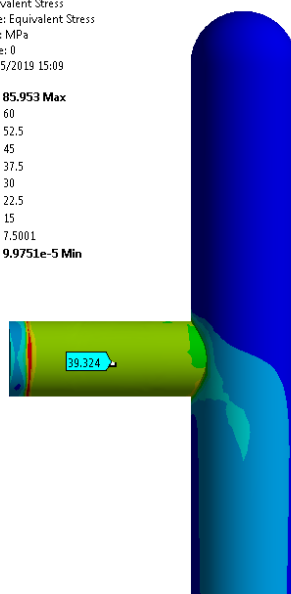
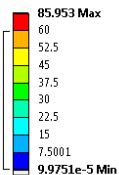


Static vs. response spectrum – 10 G Perpendicular to the hook

R: Static Structural
Equivalent Stress
Type: Equivalent (von-Mises) Stress
Unit: MPa
Time: 1
24/05/2019 15:08

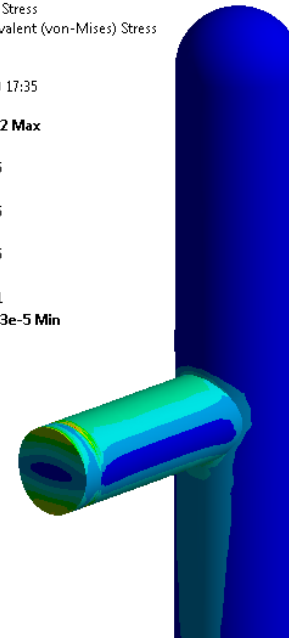
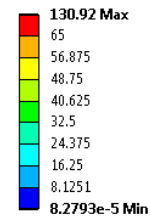


P: Response Spectrum
Equivalent Stress
Type: Equivalent Stress
Unit: MPa
Time: 0
24/05/2019 15:09

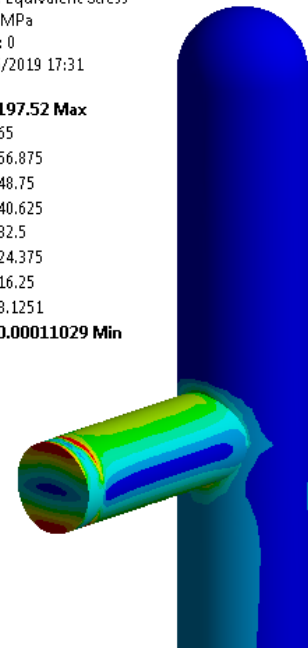
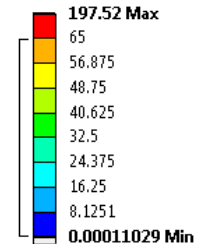


Static vs. response spectrum – 10 G Parallel to the hook

R: Static Structural
Equivalent Stress
Type: Equivalent (von-Mises) Stress
Unit: MPa
Time: 1
24/05/2019 17:35



P: Response Spectrum
Equivalent Stress
Type: Equivalent Stress
Unit: MPa
Time: 0
24/05/2019 17:31





Thank you for your attention!

