



3DEXPERIENCE®

INOVATYVŪS ANALIZĖS ĮRANKIAI

3DEXPERIENCE Works Portfolio Update

 **DASSAULT
SYSTEMES** | The **3DEXPERIENCE®** Company



SOLIDWORKS 2022 | TRUMPAI

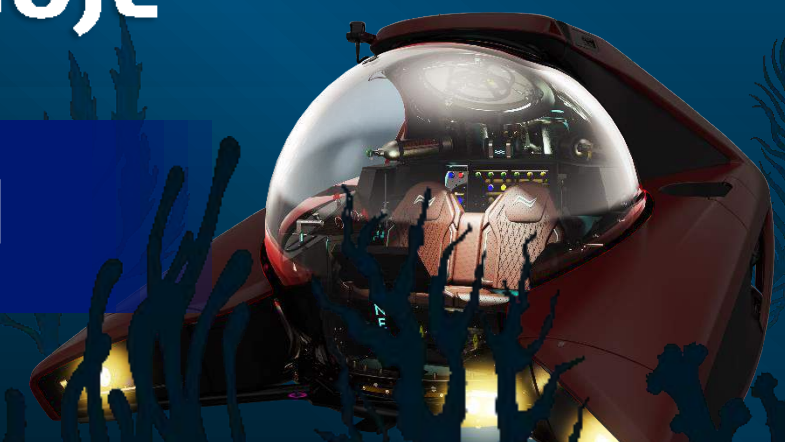
SOLIDWORKS 2022 | DETALIAI

3DEXPERIENCE Works | DEBESYSE

INŽINERINIS BENDRADARBIAVIMAS DEBESYJE

PROJEKTAVIMO ĮRANKIAI DEBESIJOJE

INOVATYVŪS ANALIZĖS ĮRANKIAI



INOVATYVŪS ANALIZĖS ĮRANKIAI





INOVATYVŪS ANALIZĖS ĮRANKIAI

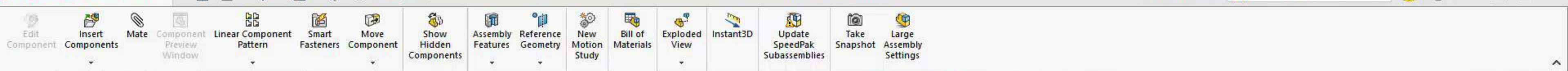


TECHNINIAI IR DIZAINO SPRENDIMAI

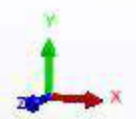
PATVARUMAS IR ILGAAMŽIŠKUMAS

BLOGIAUSIO ĮMANOMO SCENARIJAUS PATIKRA





- Assembly
 - Sketch
 - Markup
 - Evaluate
 - SOLIDWORKS Add-Ins
-
- UBW-21162-04724 "U-Boat Worx NEMO"
 - History
 - Sensors
 - Annotations
 - Front Plane
 - Top Plane
 - Right Plane
 - Origin
 - (f) UBW-21161-44582<1> "Exostruct"
 - (f) UBW-21162-01769<1> "Human P"
 - (f) UBW-21162-02921<1> "Battery S"
 - (f) UBW-21161-46599<1> "Interior"
 - (f) UBW-21161-66188<1> "Shape Ele"
 - (f) UBW-21162-03495<1> "Auto Cor"
 - Mates



0 Home

Extruded Boss/Base, Revolved Boss/Base, Swept Boss/Base, Swept Cut, Lofted Boss/Base, Boundary Boss/Base, Extruded Cut, Hole Wizard, Revolved Cut, Lofted Cut, Boundary Cut, Fillet, Linear Pattern, Rib, Draft, Intersect, Reference Geometry, Curves, Instant3D, Shell, Mirror

Features | Sketch | Sheet Metal | Weldments | Direct Editing | Markup | Evaluate | MBD Dimensions | SOLIDWORKS Add-Ins

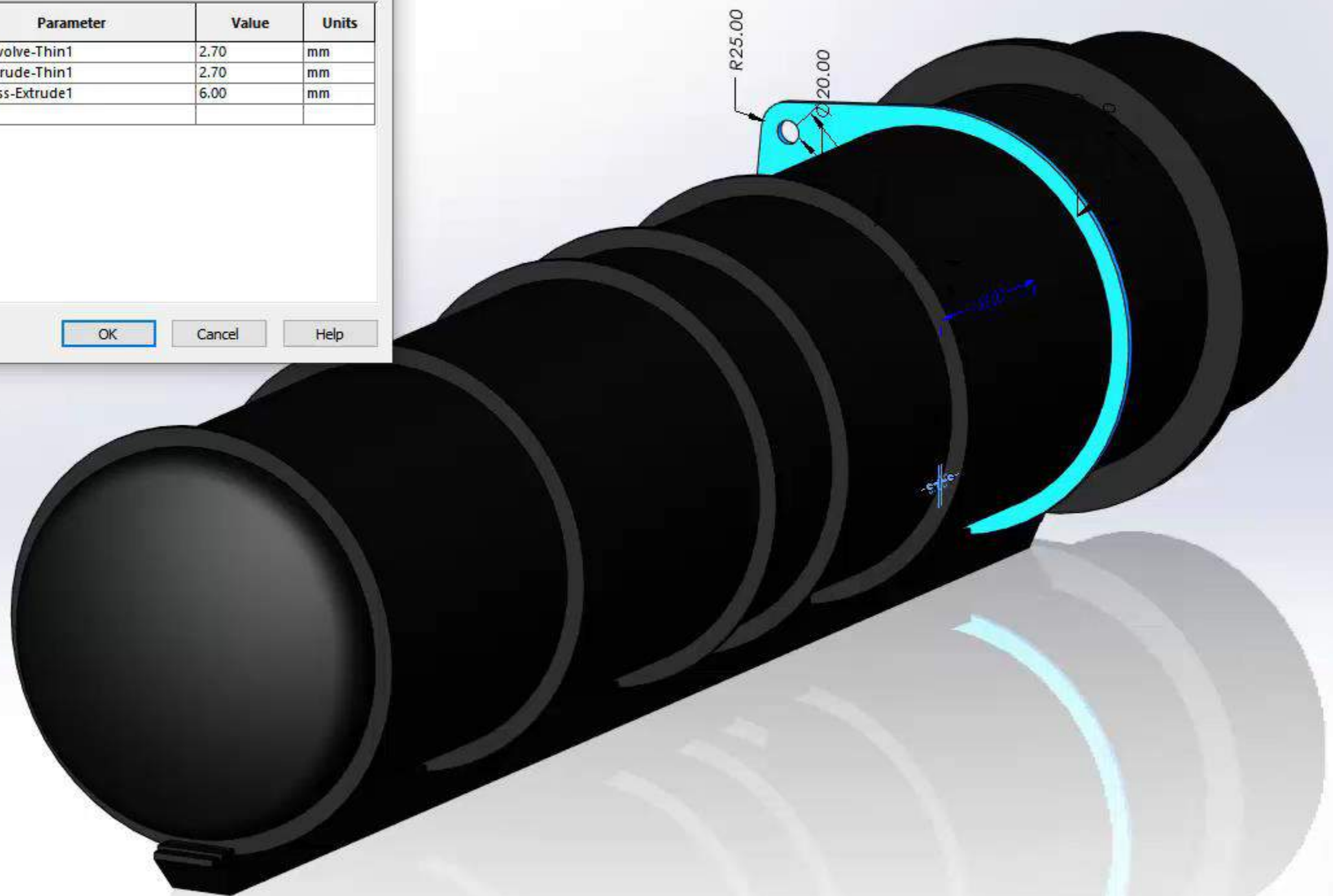
- UBW-21162-03191-S
- History
- Sensors
- Annotations
- Solid Bodies(18)
- Equations
- AISI 316 Stainless Steel Sheet (SS)
- XY Plane
- XZ Plane
- YZ Plane
- Origin
- Axis1
- Extrude-Thin1
- Revolve-Thin1
- Revolve1
- Revolve2
- Reference Geometry
- Boss-Extrude1
- Boss-Extrude2
- Boss-Extrude3
- Boss-Extrude4
- Boss-Extrude5
- Boss-Extrude6
- Boss-Extrude7
- Boss-Extrude8
- CirPattern1
- Cut-Extrude1
- CirPattern2
- Extrude-Thin2
- Chamfer1
- Body-Move/Copy1
- Combine2
- Boss-Extrude9
- Chamfer2
- Body-Move/Copy2

Parameters

Delete

	Name	Category	Parameter	Value	Units
1	Thickness_End	Model Dimension	D3@Revolve-Thin1	2.70	mm
2	Thickness_Tube	Model Dimension	D5@Extrude-Thin1	2.70	mm
3	Thickness_Stiffener	Model Dimension	D1@Boss-Extrude1	6.00	mm
4		Model Dimension			

OK Cancel Help



Extruded Boss/Base | Swept Boss/Base | Swept Cut | Fillet | Linear Pattern | Rib | Wrap | Reference Geometry | Curves | Instant3D
 Revolved Boss/Base | Lofted Boss/Base | Extruded Cut | Hole Wizard | Revolved Cut | Lofted Cut | Boundary Cut | Shell | Mirror
 Boundary Boss/Base | Boundary Cut

Features | Sketch | Sheet Metal | Weldments | Direct Editing | Markup | Evaluate | MBD Dimensions | SOLIDWORKS Add-Ins

- UBW-21162-03191-S
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- Revolve-Thin1
- Revolve1
- Revolve2
- Reference Geometry
- Boss-Extrude1
- Boss-Extrude2
- Boss-Extrude3
- Boss-Extrude4
- Boss-Extrude5
- Boss-Extrude6
- Boss-Extrude7
- Boss-Extrude8
- CirPattern1
- Cut-Extrude1
- CirPattern2
- Extrude-Thin2
- Chamfer1
- Body-Move/Copy1
- Combine2
- Boss-Extrude9
- Chamfer2
- Body-Move/Copy2



3DEXPERIENCE

ME | COMPANY | WORLD

As a System of Operations | As a Business Model

My Roles

My Favorite Apps

- SOLIDWORKS Connected
- Model Assembly Design
- Mechanical Scenario Creation
- Parametric Design Study

My Apps

- 3D Markup
- 3DDashboard
- 3DDrive
- 3DPlay
- 3DPlay
- 3DPlay
- 3DSearch
- 3DSketch
- 3DSpace
- 3DStory
- 3DSwym
- 3DSwym Analytics
- 3DSwym Content Assembly Design
- Bookmark Editor
- Bookmark Editor
- Calculator
- Change Action
- Change Action
- Classify & Reuse
- Collaboration & Approvals
- Collaboration for Microsoft
- Collaborative IP Management
- Collaborative Lifecycle
- Collaborative Lifecycle
- Collaborative Tasks
- Compare
- Converter for IGES

Launching Model Assembly Design

UBW-21162-03191-S(Default) A.1
UBW-21162-03191-S(Default) A.1



Automated FEM: Advanced

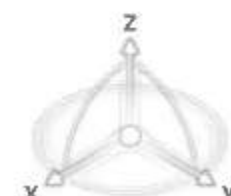
▼ Mesh and Properties

Procedure: Select a procedure Applied on: All Parts

- Surface Quad Mesh
- Surface Tria Mesh
- Connector
 - Rule Based Octree Tetrahedron Mesh
 - Rule Based Tetrahedron Mesh
 - Rule Based Sweep Mesh
 - Rule Based Midsurface Mesh
 - Octree Tetrahedron Mesh
 - Tetrahedron Mesh
 - Sweep Mesh
 - Midsurface Mesh

Create on Create aut

OK Cancel





Pressure

Name: Pressure.1

Support: 6 Faces

Pressure: 1e+006Pa

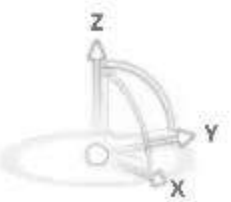
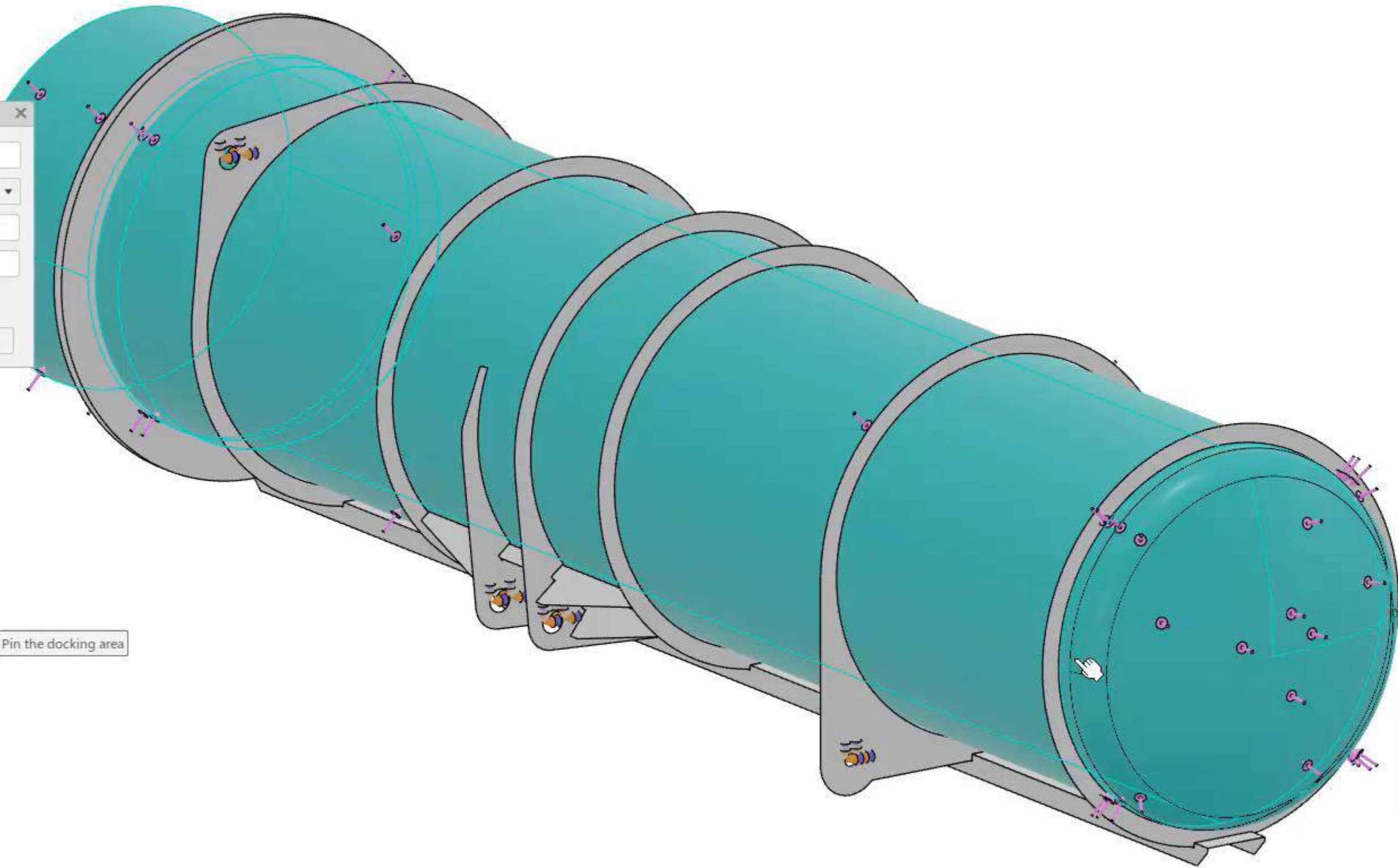
Scale factor: 1

Amplitude: Default

OK Cancel

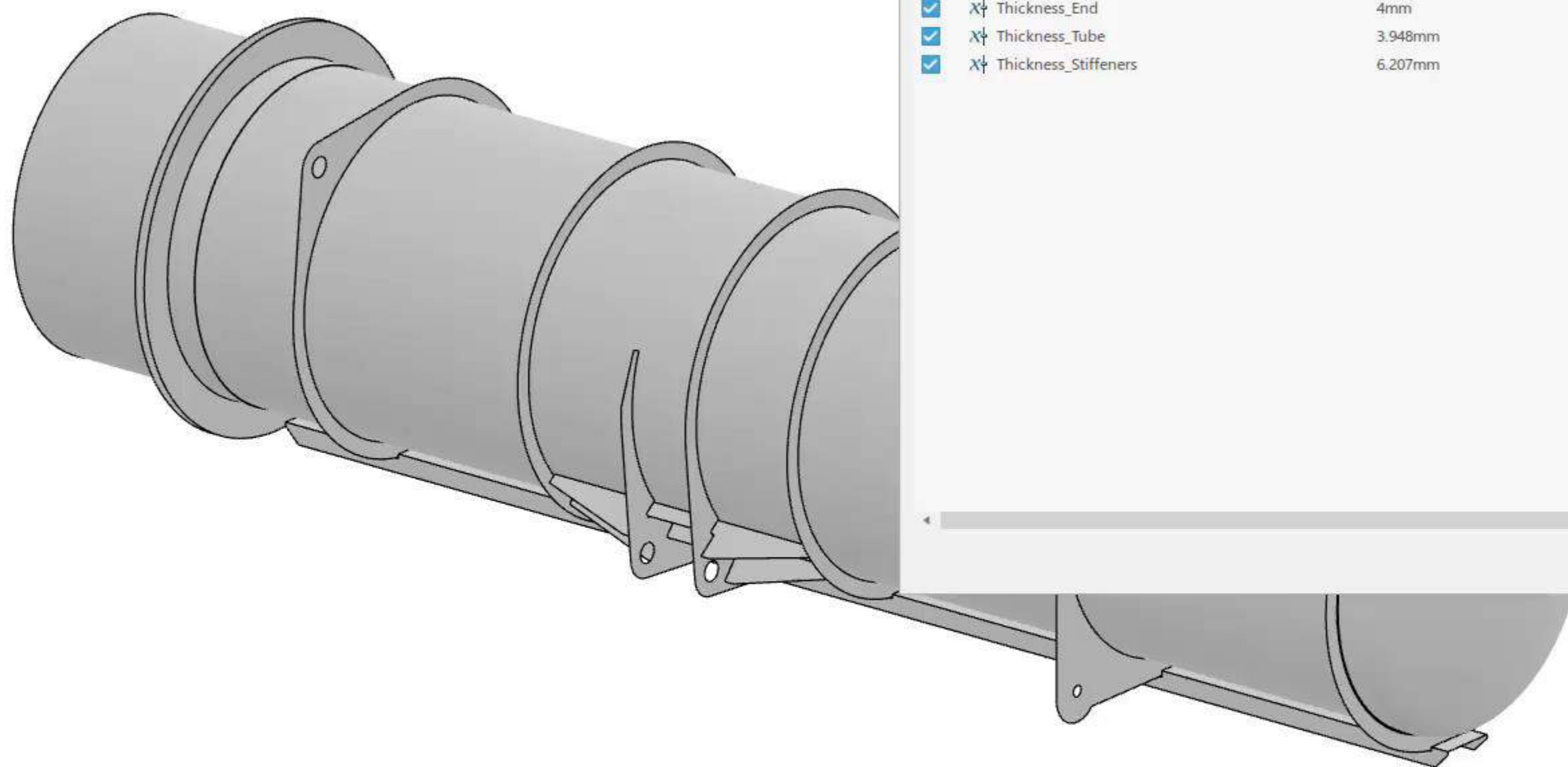


Pin the docking area



Structural Analysis Case.1 Pressure

Standard Setup Procedures Initial Conditions Interactions Restraints Loads Durability Simulate Display View AR-VR Tools Touch



Sel	Name	Value	Minimum	Maximum	S
<input checked="" type="checkbox"/>	Thickness_End	4mm	2.5mm	5mm	
<input checked="" type="checkbox"/>	Thickness_Tube	3.948mm	2.5mm	5mm	
<input checked="" type="checkbox"/>	Thickness_Stiffeners	6.207mm	3mm	8mm	

Assistant

- Setup
- Design Variables
- Response Variables
- Objectives & Constraints
- Simulate
- Results

Commands

- At least one design variable has been defined.

Design variables refer to the parameters that you want to vary within a study. You must define at least one design variable.

Design Variables Manager
Creates and edits design variables.

Parameter Design Variable
Creates a design variable that references a Knowledgeware parameter that can be varied during the study.

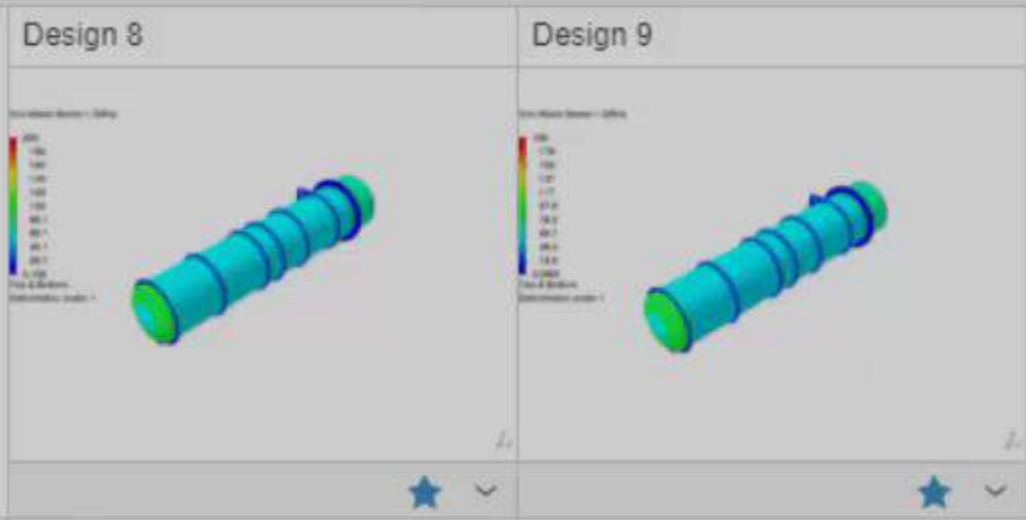
Parametric Design Improvement Study.1

Study Results for Parametric Design Improvement Study.1

Completed: 30/30 Active: 30 Selected: 8/8 Favorites: 2

X Actual values

FP_Von Mises Stress.1_Result Of Structural Analysis Case.1_s1_lc0.jpg



		Design 8	Design 9
Feasibility		Best	Feasible
Rank		1	4
Response Variables			
Mass_Mass Sensor_1	kg	60.44	62.27
Maximum_Von Mises Stress_1	MPa	200.1	195
Design Variables			
Thickness_End	mm	2.862	2.9
Thickness_Stiffeners	mm	4.552	4.6
Thickness_Tube	mm	2.603	2.75
Others			
AnalysisTime	sec	137.3	138
Run_ID		8	
Time	sec	1105	1247

Generate Alternatives... ✕

Design points selected for alternative generation : 1

Prefix

Alternative generation might take a while.

i Study Information dialog can be used to review its status.

Generate
Close

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TECHNINIAI IR DIZAINO SPRENDIMAI

Automatiškai optimizuojami modelio parametrai



PATVARUMAS IR ILGAAMŽIŠKUMAS

BLOGIAUSIO ĮMANOMO SCENARIJAUS PATIKRA

INOVATYVŪS ANALIZĖS ĮRANKIAI



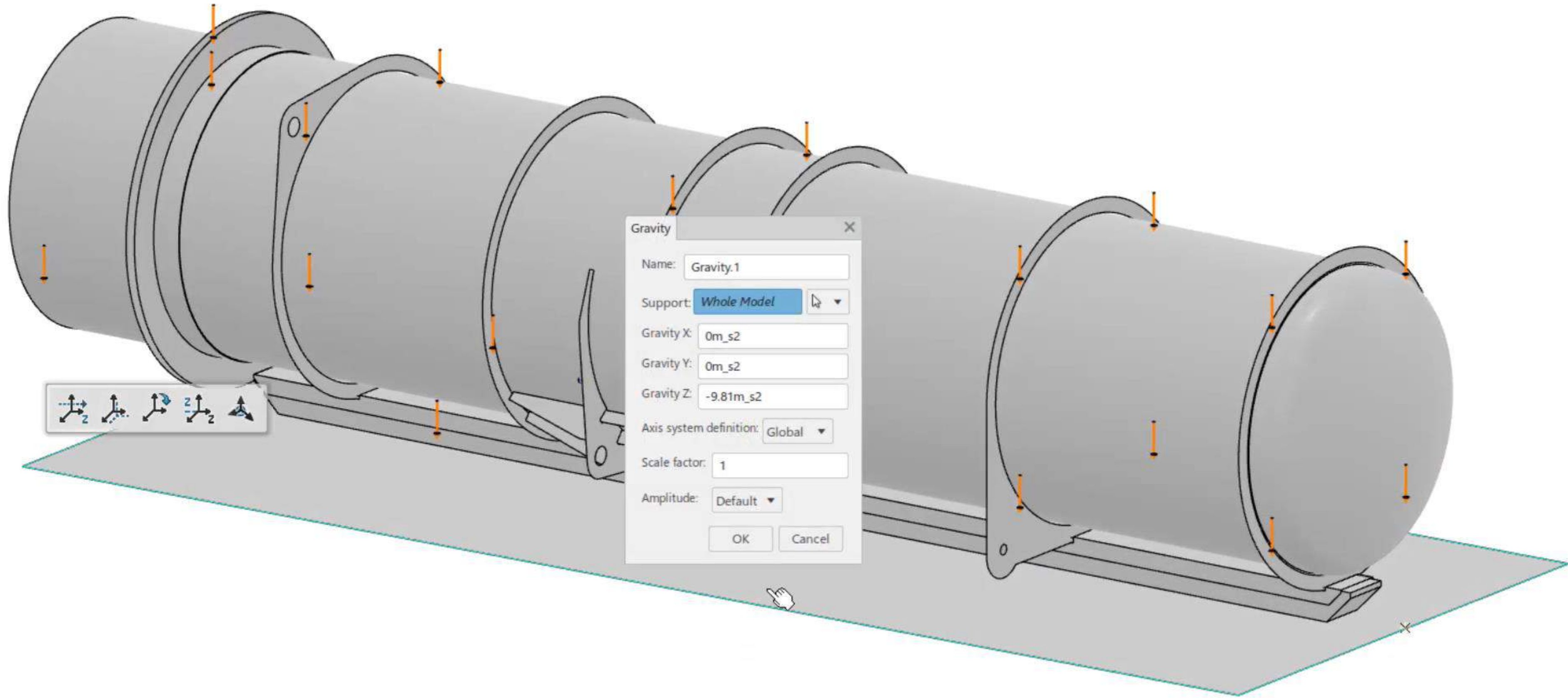
TECHNINIAI IR DIZAINO SPRENDIMAI

Automatiškai optimizuojami modelio parametrai

PATVARUMAS IR ILGAAMŽIŠKUMAS

BLOGIAUSIO ĮMANOMO SCENARIJAUS PATIKRA





Gravity

Name: Gravity.1

Support: Whole Model

Gravity X: 0m_s2

Gravity Y: 0m_s2

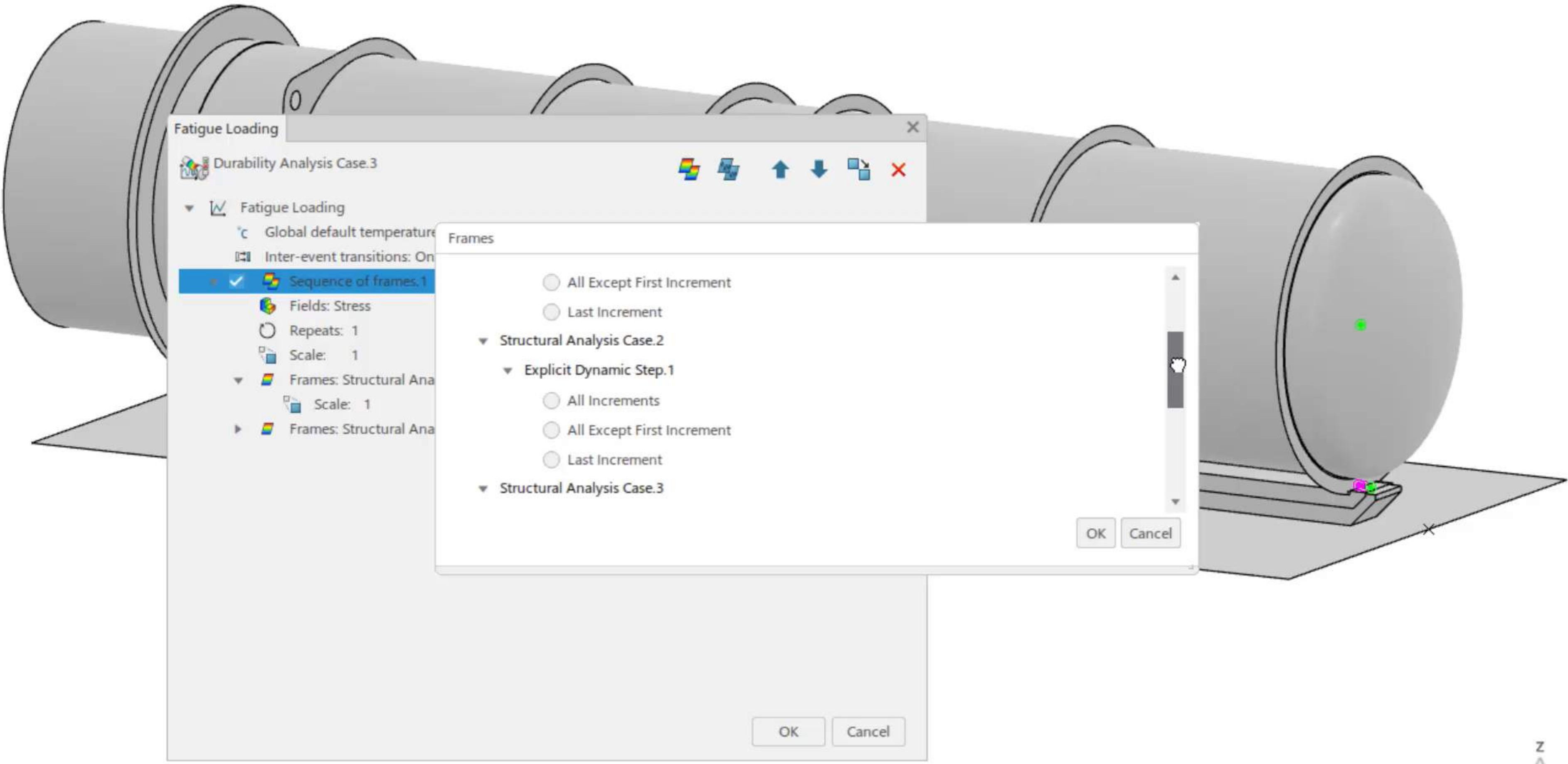
Gravity Z: -9.81m_s2

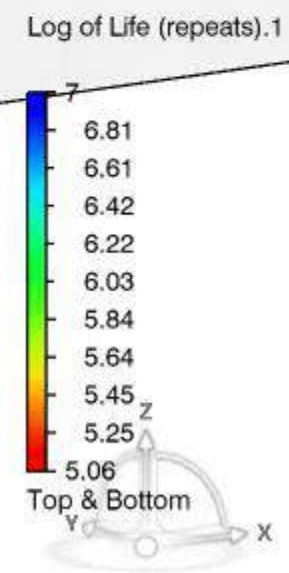
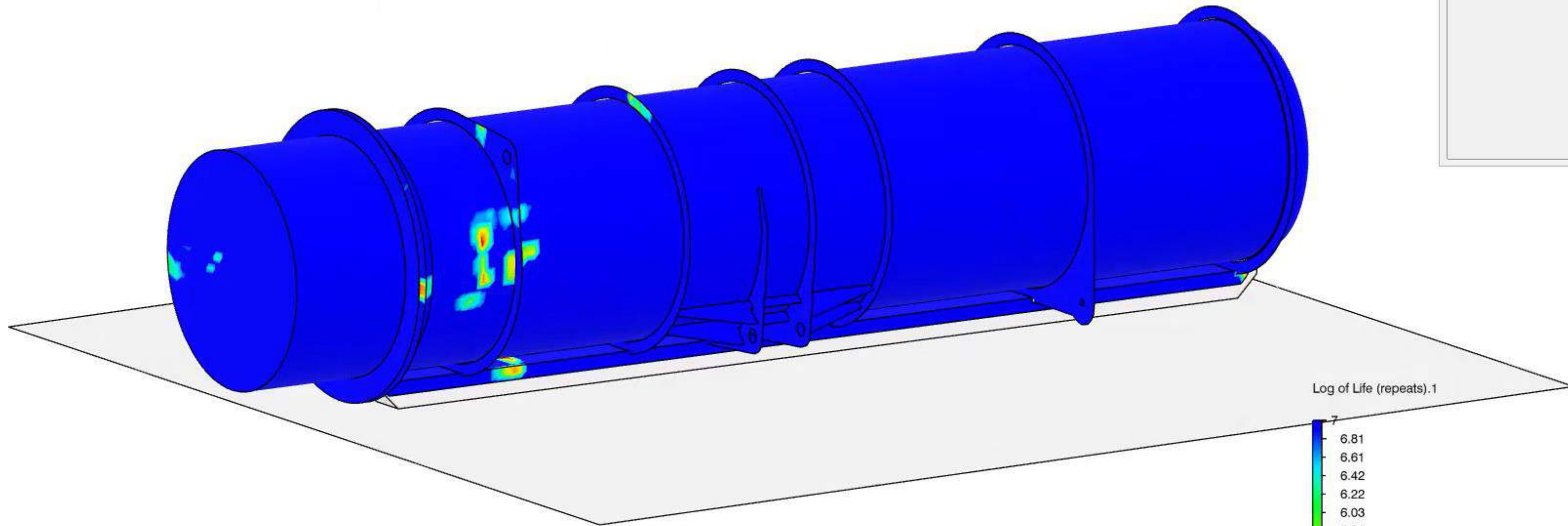
Axis system definition: Global

Scale factor: 1

Amplitude: Default

OK Cancel





Plots

Case: Result Of Durability Analysis...

Step: Durability Step

Plot: Log of Life (repeats).1

Frame	Event
1	Overall

Standard Setup Plots Sensors Calculations Explore View Display AR-VR Tools Touch

INOVATYVŪS ANALIZĖS ĮRANKIAI



TECHNINIAI IR DIZAINO SPRENDIMAI

Automatiškai optimizuojami modelio parametrai

PATVARUMAS IR ILGAAMŽIŠKUMAS

Pilnavertė nuovargio analizė

BLOGIAUSIO ĮMANOMO SCENARIJAUS PATIKRA



TECHNINIAI IR DIZAINO SPRENDIMAI

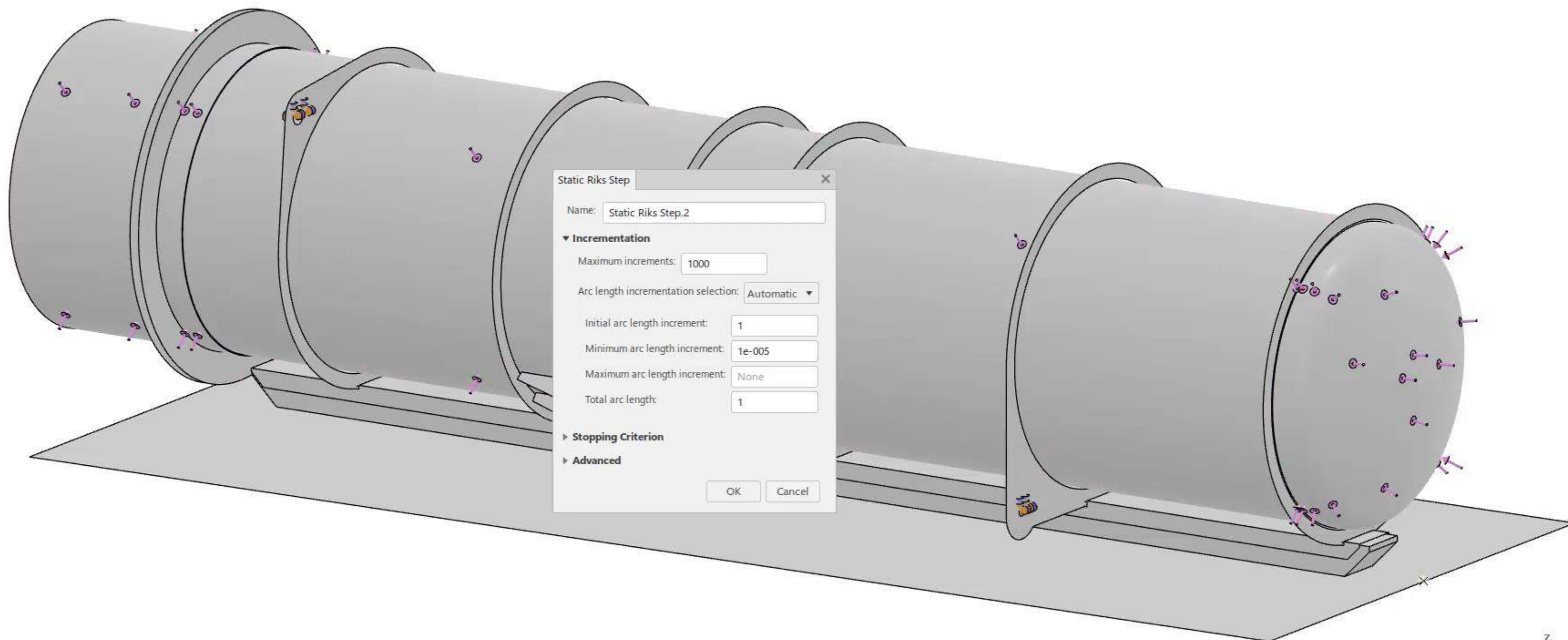
Automatiškai optimizuojami modelio parametrai

PATVARUMAS IR ILGAAMŽIŠKUMAS

Pilnavertė nuovargio analizė

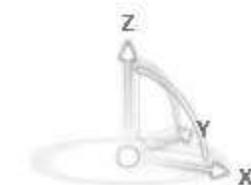
BLOGIAUSIO ĮMANOMO SCENARIJAUS PATIKRA

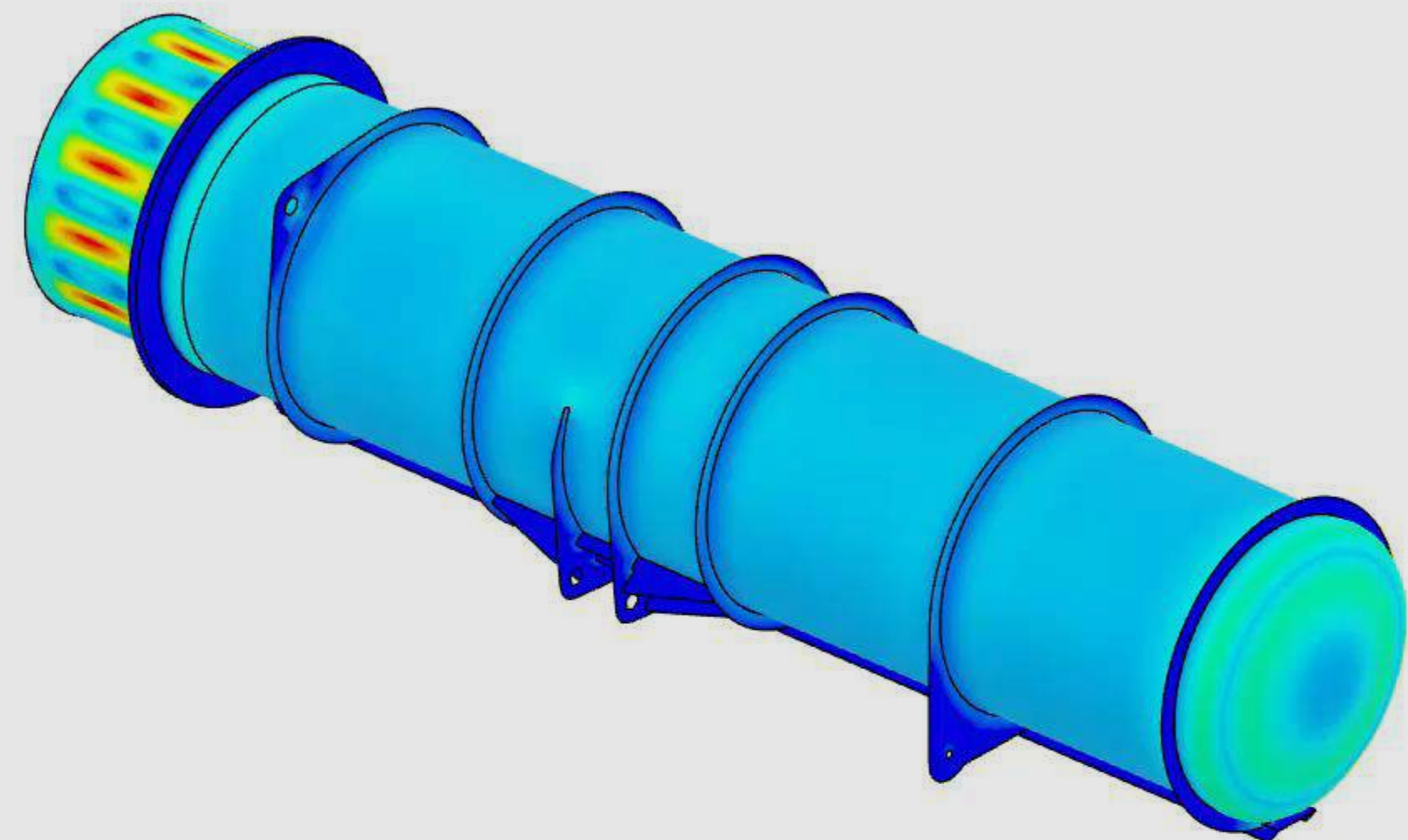
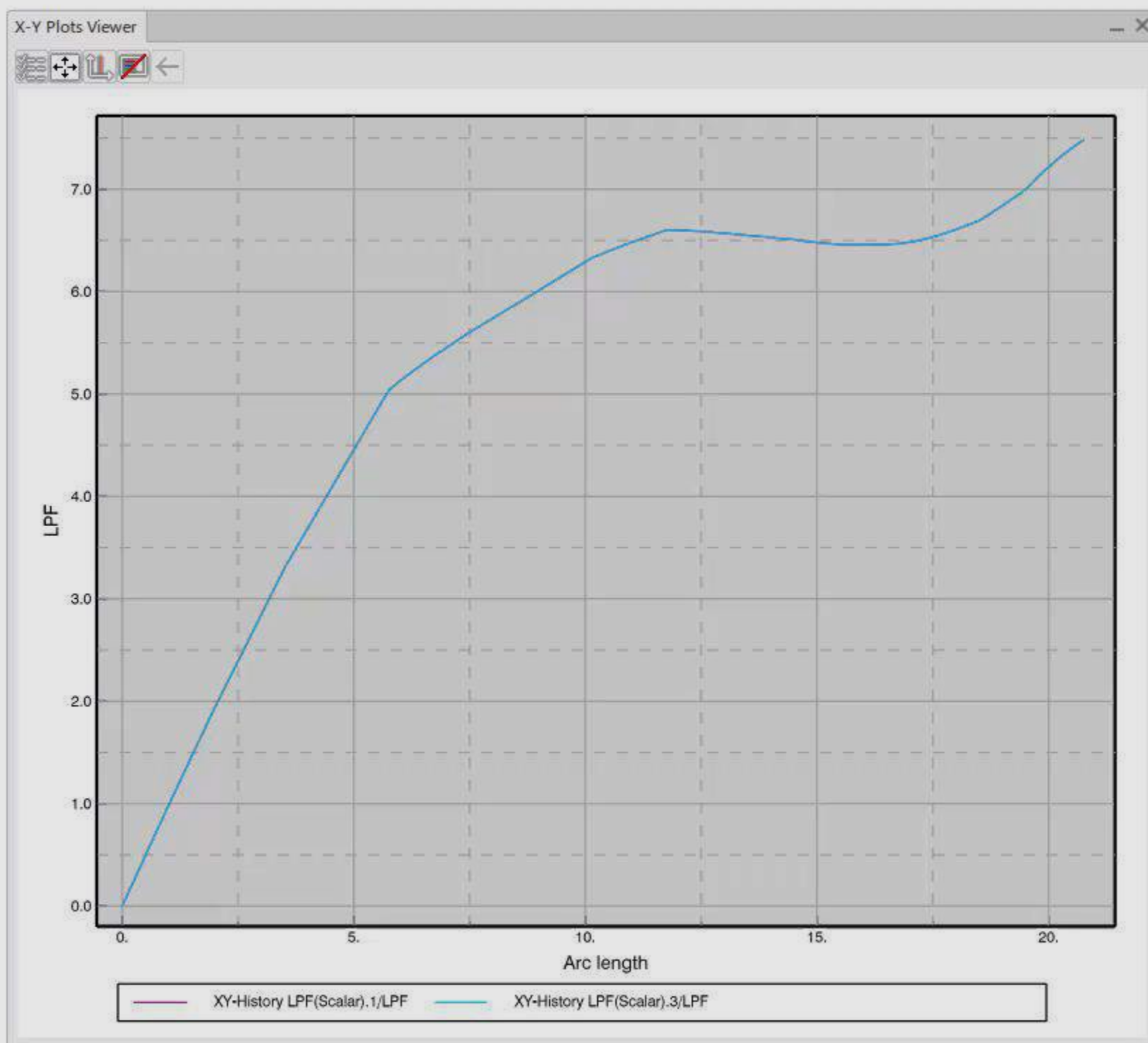




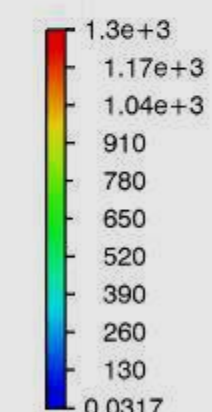
Structural Analysis Case.5

Static Riks Step.2

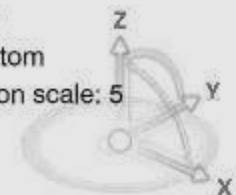




Von Mises Stress.1 (MPa)



Top & Bottom
Deformation scale: 5



TECHNINIAI IR DIZAINO SPRENDIMAI

Automatiškai optimizuojami modelio parametrai

PATVARUMAS IR ILGAAMŽIŠKUMAS

Pilnavertė nuovargio analizė

BLOGIAUSIO ĮMANOMO SCENARIJAUS PATIKRA

Išsamus klupumo įvertinimas

