

TOF Structure primary analysis 24.03.2022

General

Material: Aluminium alloy

Yield strength, Mpa: 280

Ultimate strength, MPa: 310

Young`s modulus, Gpa: 70

Mass

TOF Chamber, kg: 20

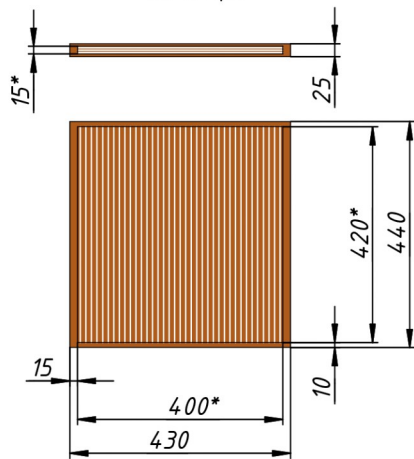
TOF Structure var.1.1 full, kg: 136,6

TOF Structure var.2.1 full, kg: 176,8

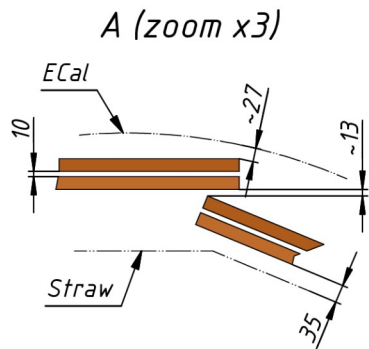
A. Korzenev, I. Moshkovskii

TOF scheme 01.02.2022

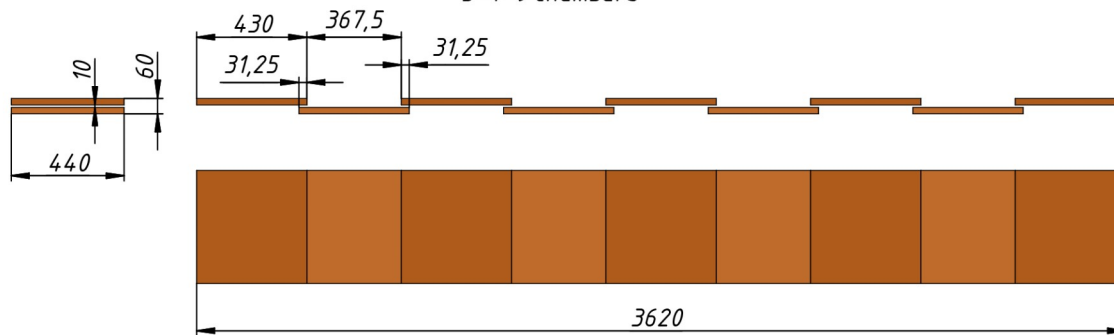
TOF Chamber (zoom x3)
32 strips



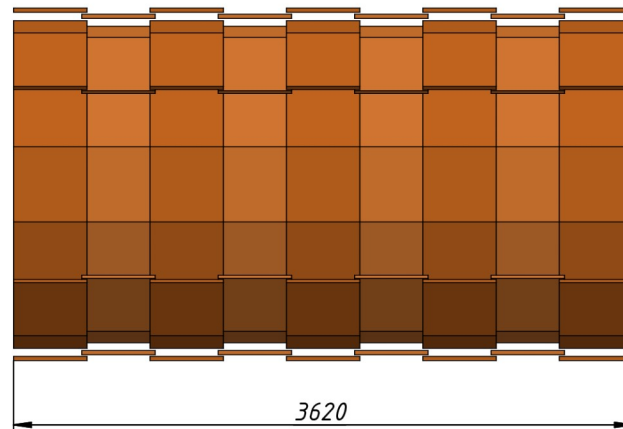
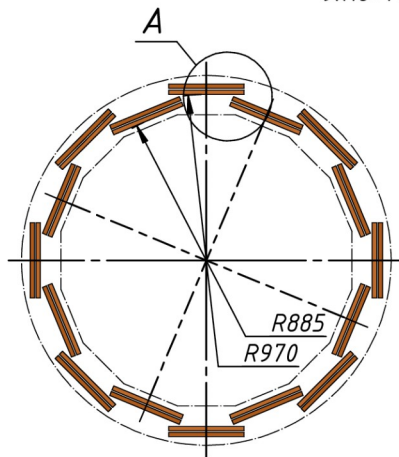
*Active area



TOF 1/16 Barrel (zoom x1,5)
5+4=9 chambers

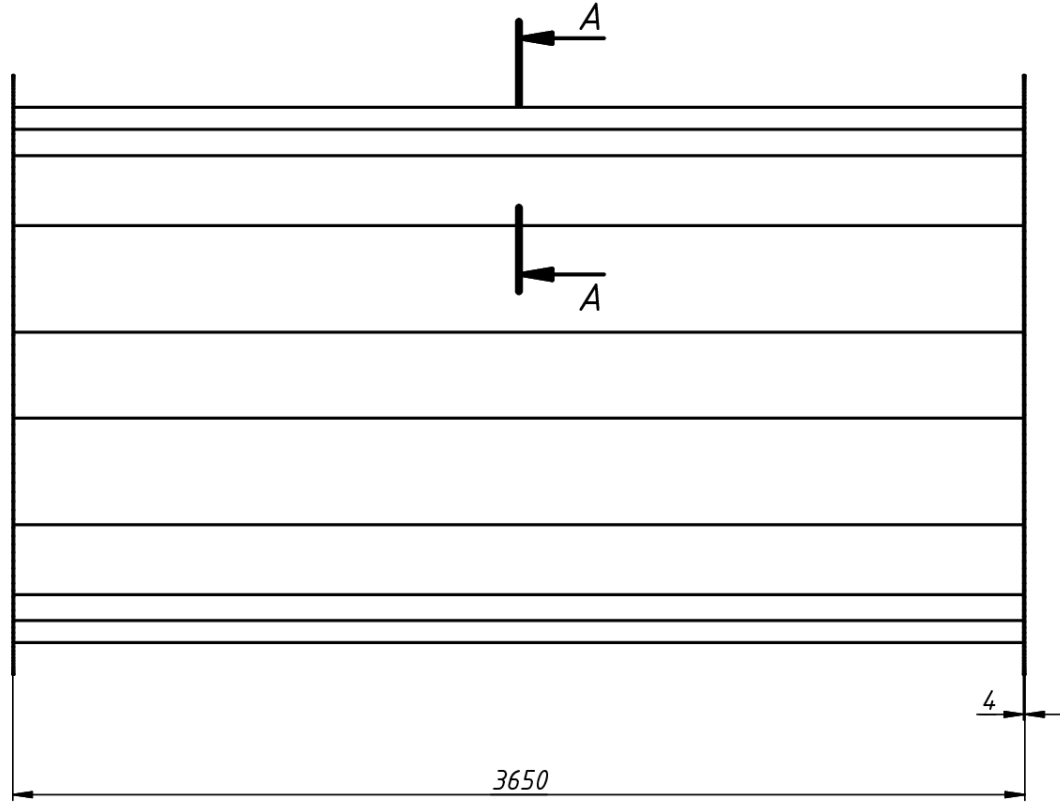
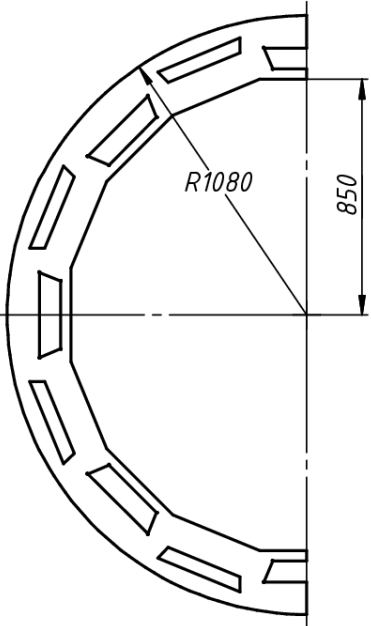


TOF Barrel
9x16=144 chambers

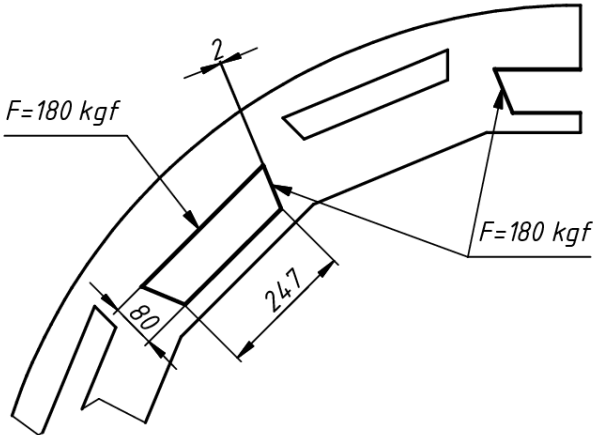


TOF Structure var.1.1

TOF Structure var.1.1

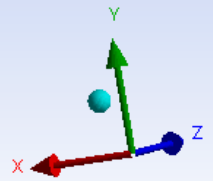
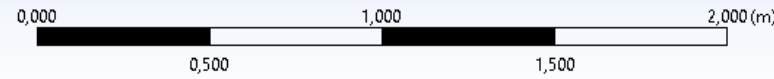
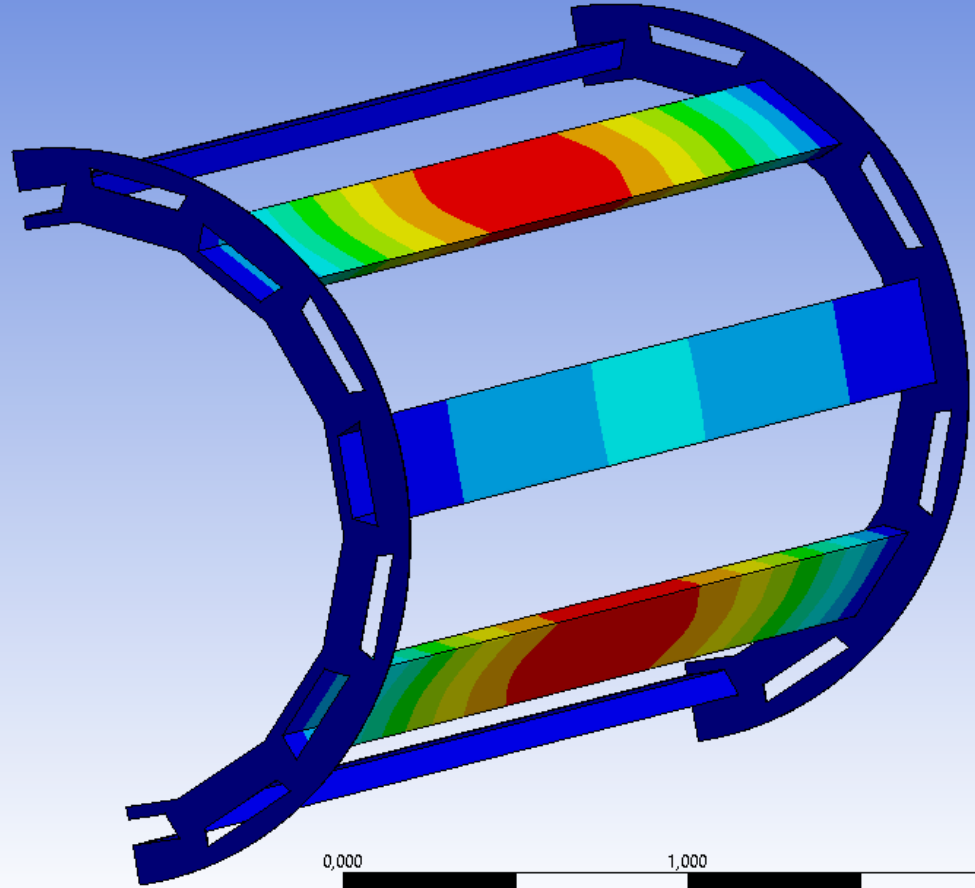
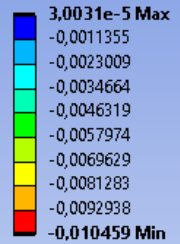


A-A zoom x2



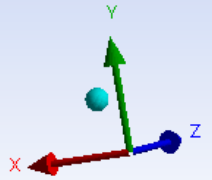
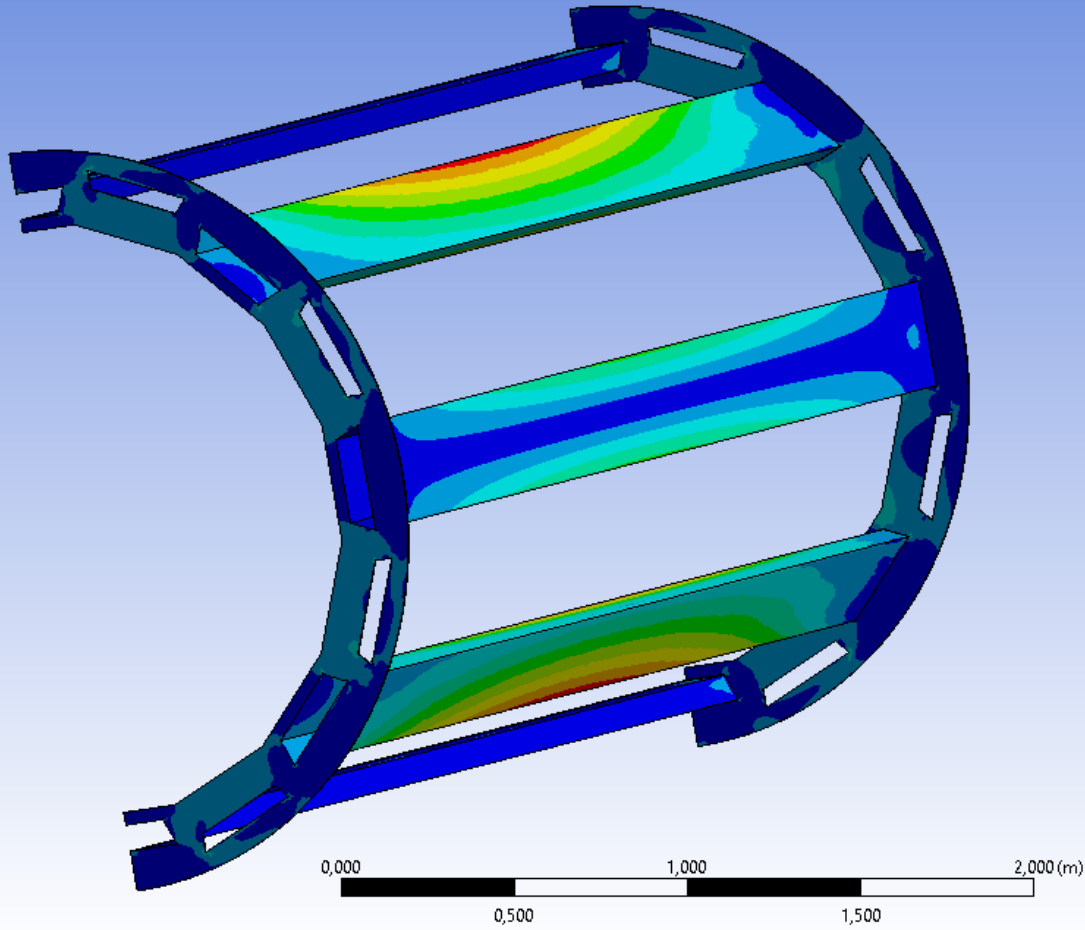
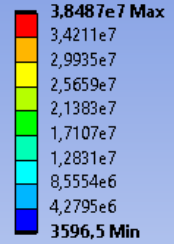
TOF Structure var.1.1

E: Static Structural
Directional Deformation
Type: Directional Deformation(Y Axis)
Unit: m
Global Coordinate System
Time: 1 s
24.03.2022 7:27

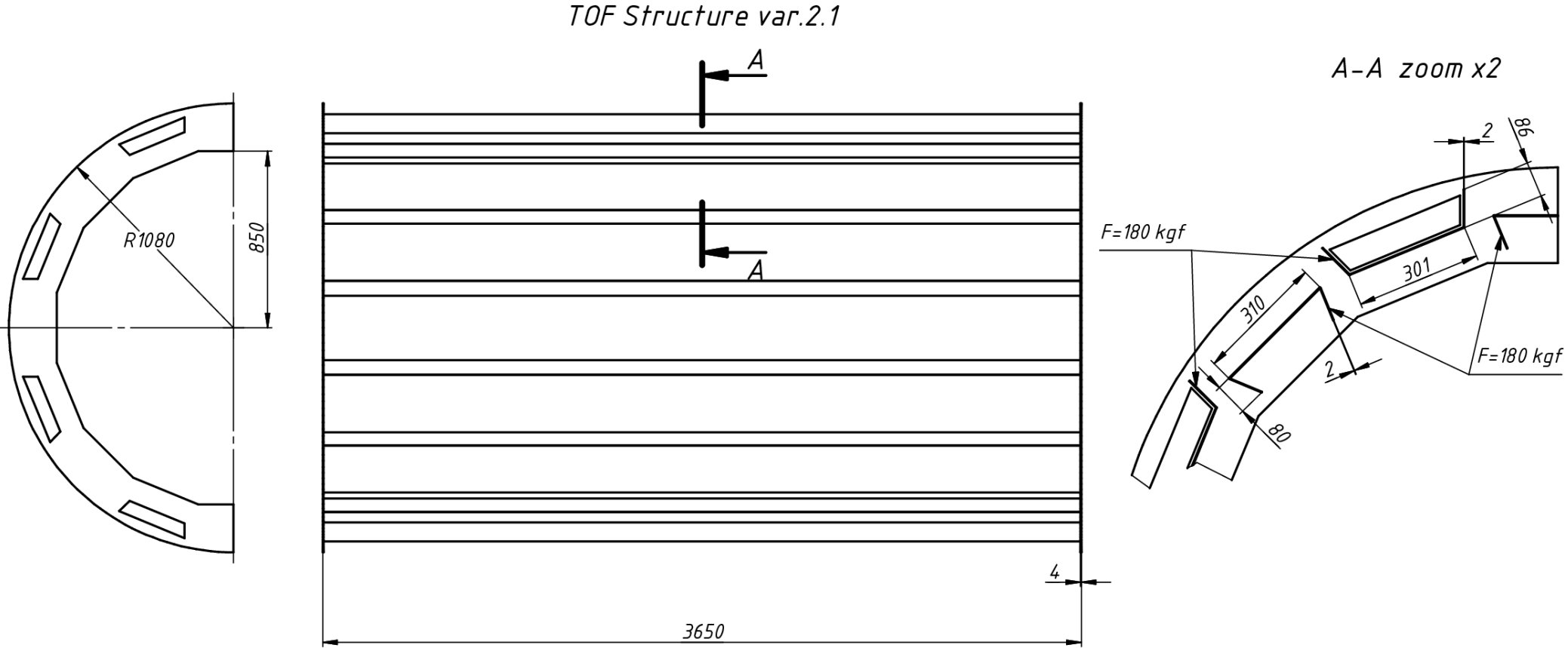


TOF Structure var.1.1

E: Static Structural
Equivalent Stress
Type: Equivalent (von-Mises) Stress
Unit: Pa
Time: 1 s
24.03.2022 7:27

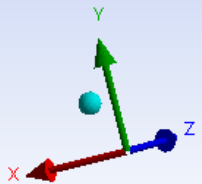
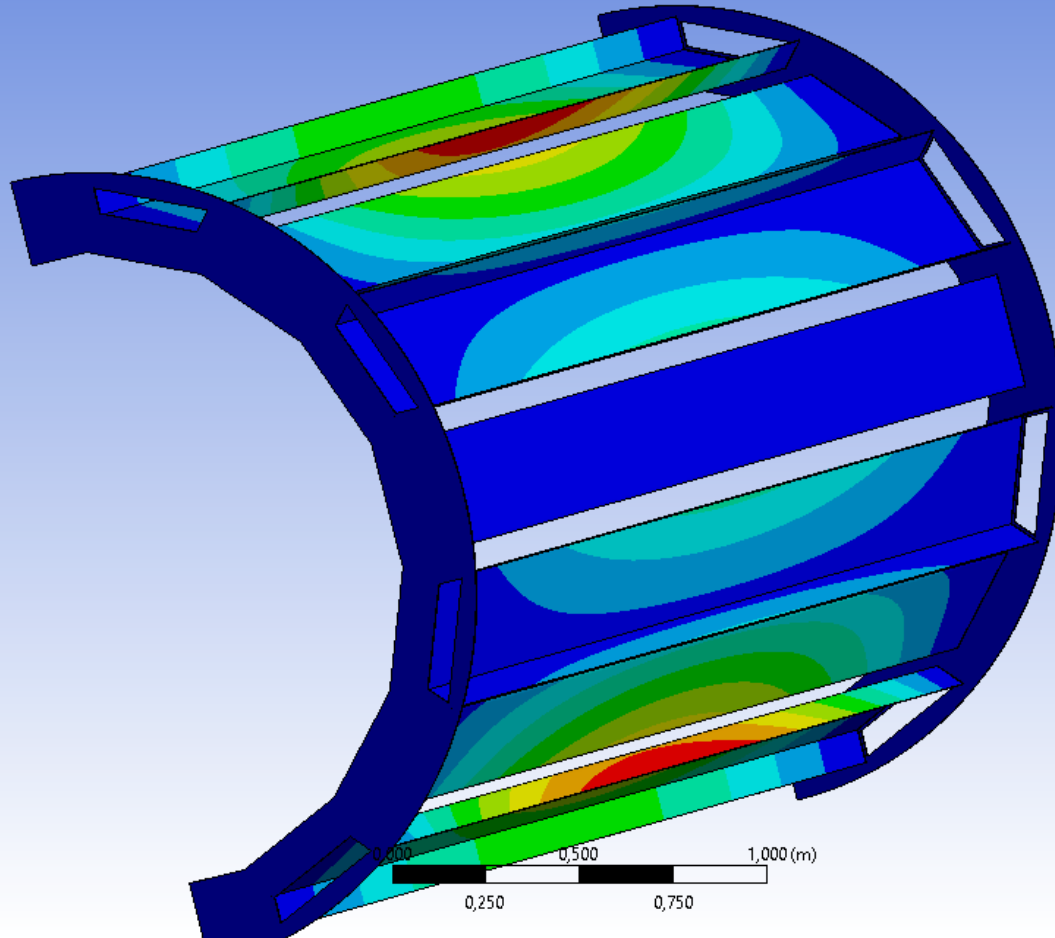
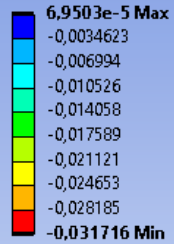


TOF Structure var.2.1



TOF Structure var.2.1

D: V 1.1
Directional Deformation
Type: Directional Deformation(Y Axis)
Unit: m
Global Coordinate System
Time: 1 s
24.03.2022 7:15



TOF Structure var.2.1

D: V 1.1
Equivalent Stress
Type: Equivalent (von-Mises) Stress
Unit: Pa
Time: 1 s
24.03.2022 7:08

