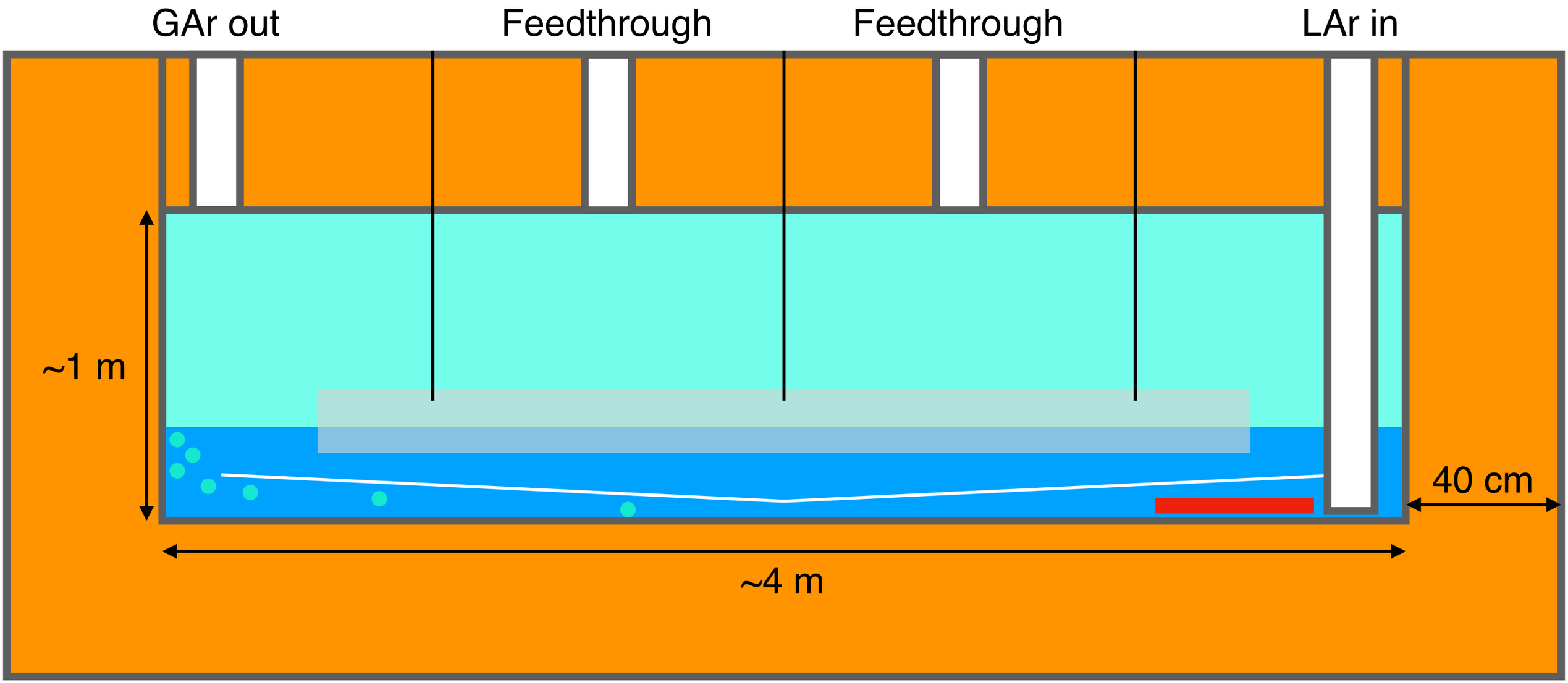
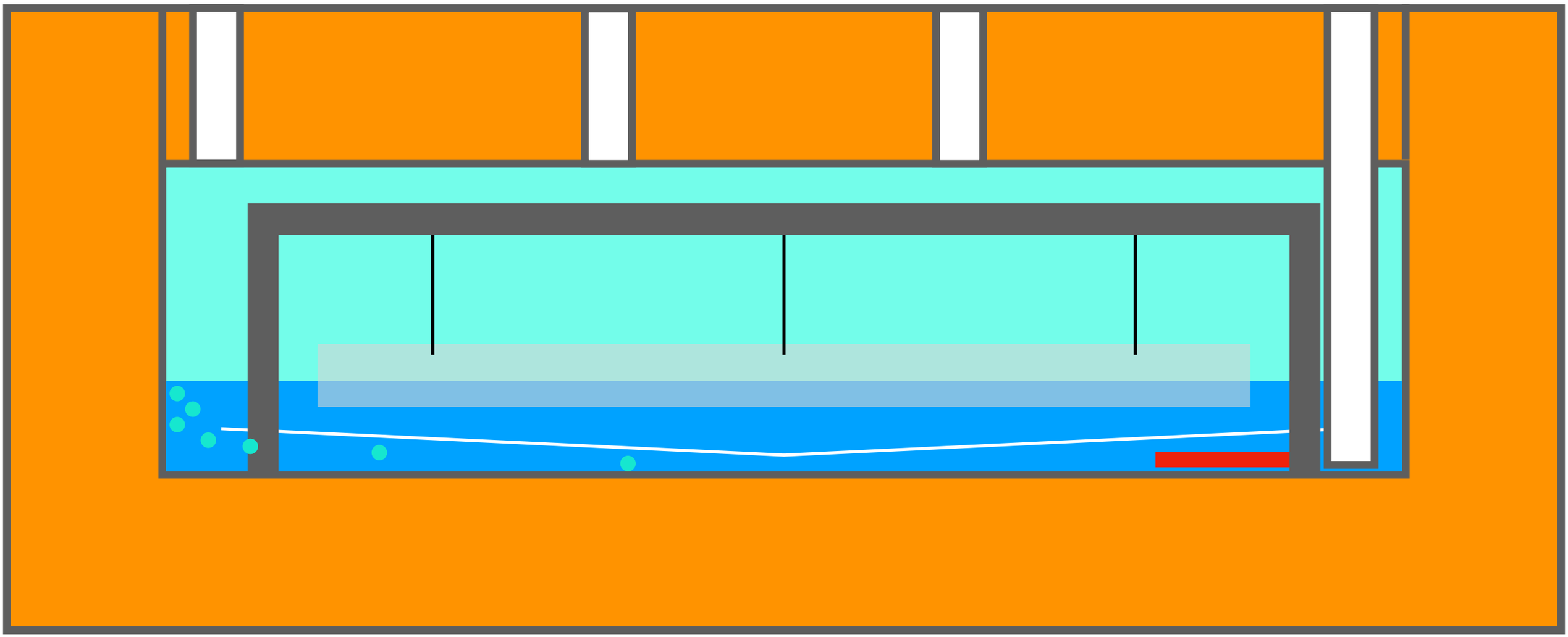
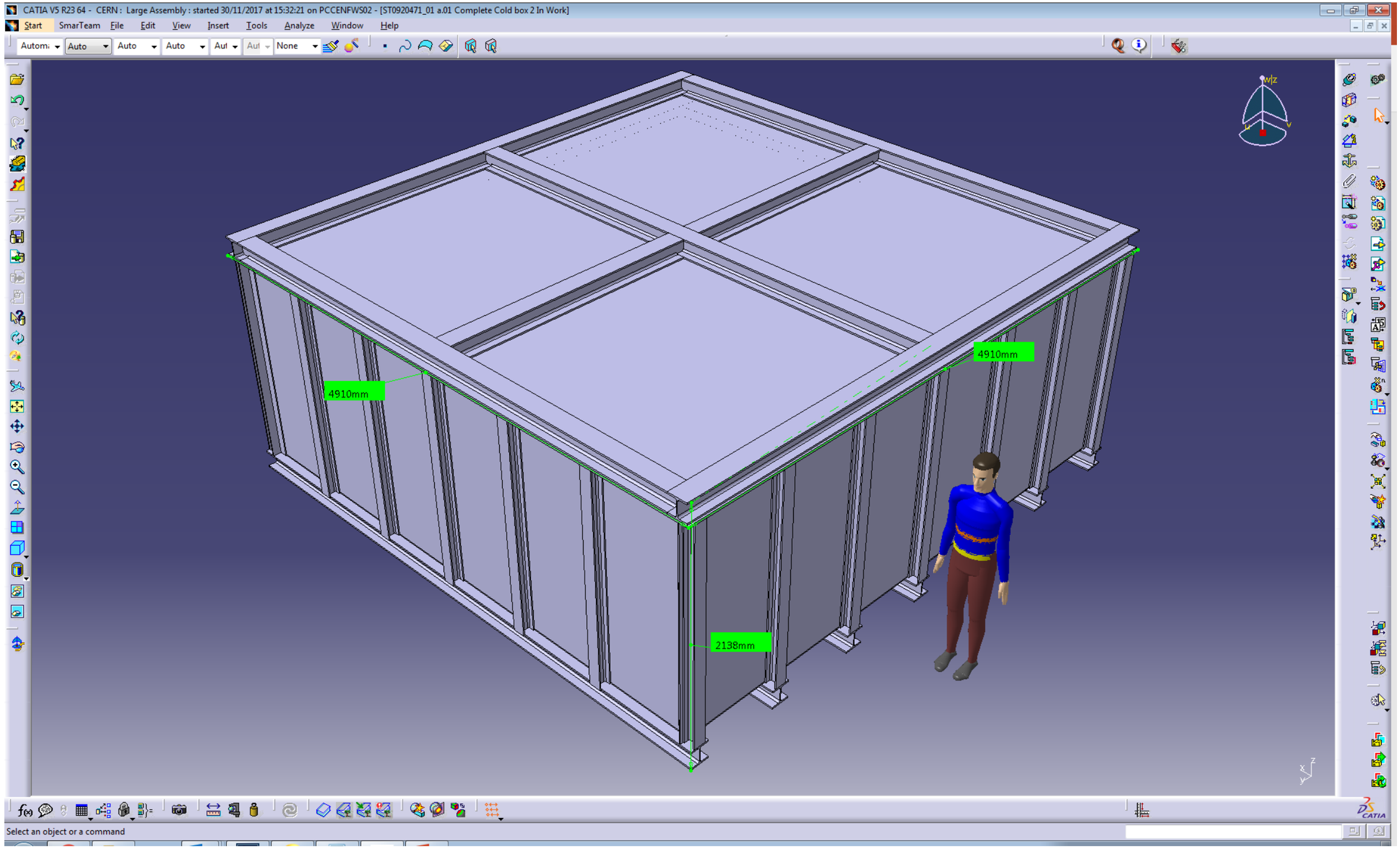
Baseline (1)



Baseline (2)




CATIA V5 R23 64 - CERN : Large Assembly : started 30/11/2017 at 15:32:21 on PCCENFWS02 - [ST0920471_01 a.01 Complete Cold box 2 In Work]
Start
SmarTeam
File
Edit
View
Insert
Tools
Analyze
Window
Help
4910mm
4910mm
2138mm
Select an object or a command

No convection included

87 K on all the inner surfaces (not realistic)

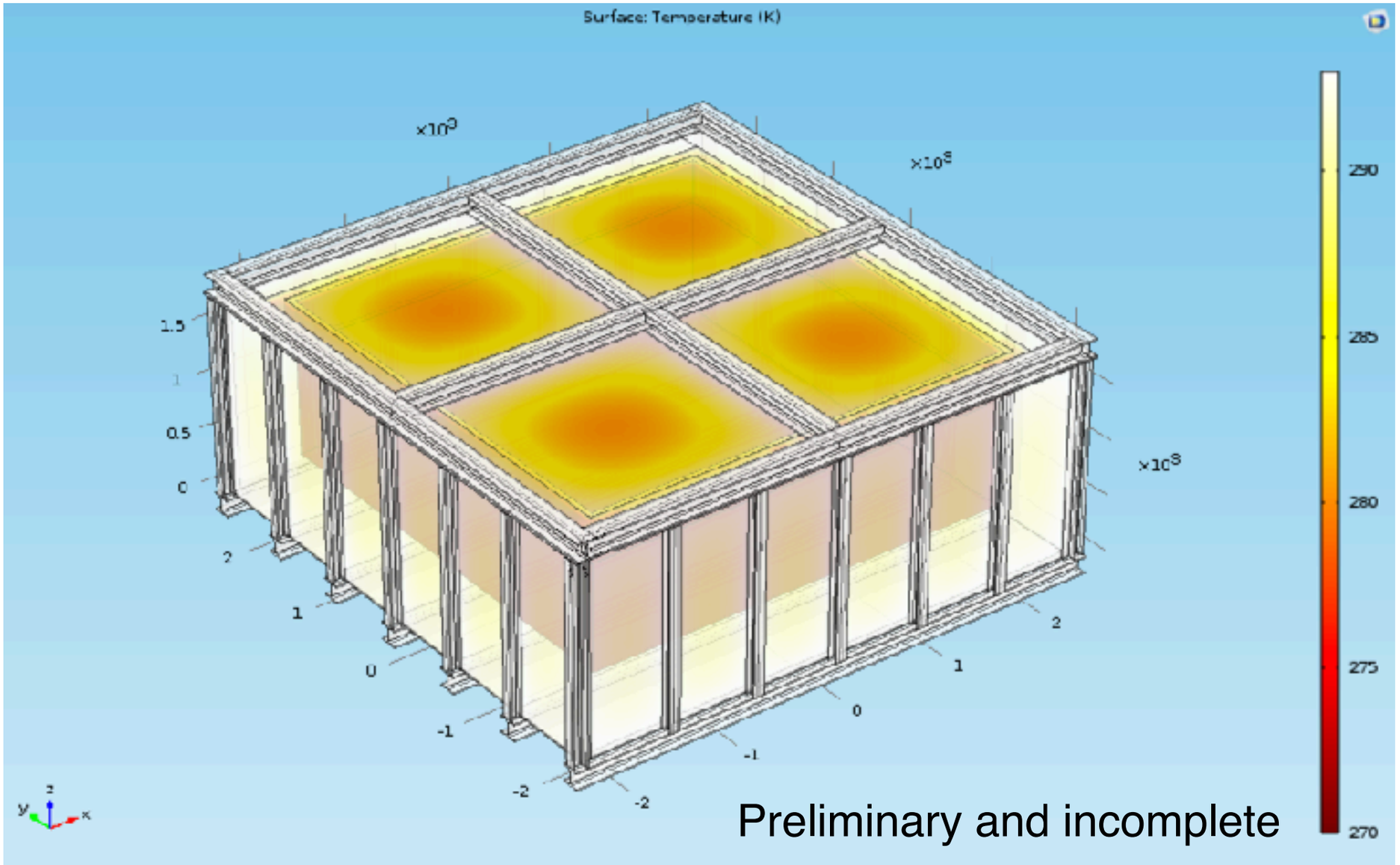
40 cm of insulation 0.05 W/(K m)

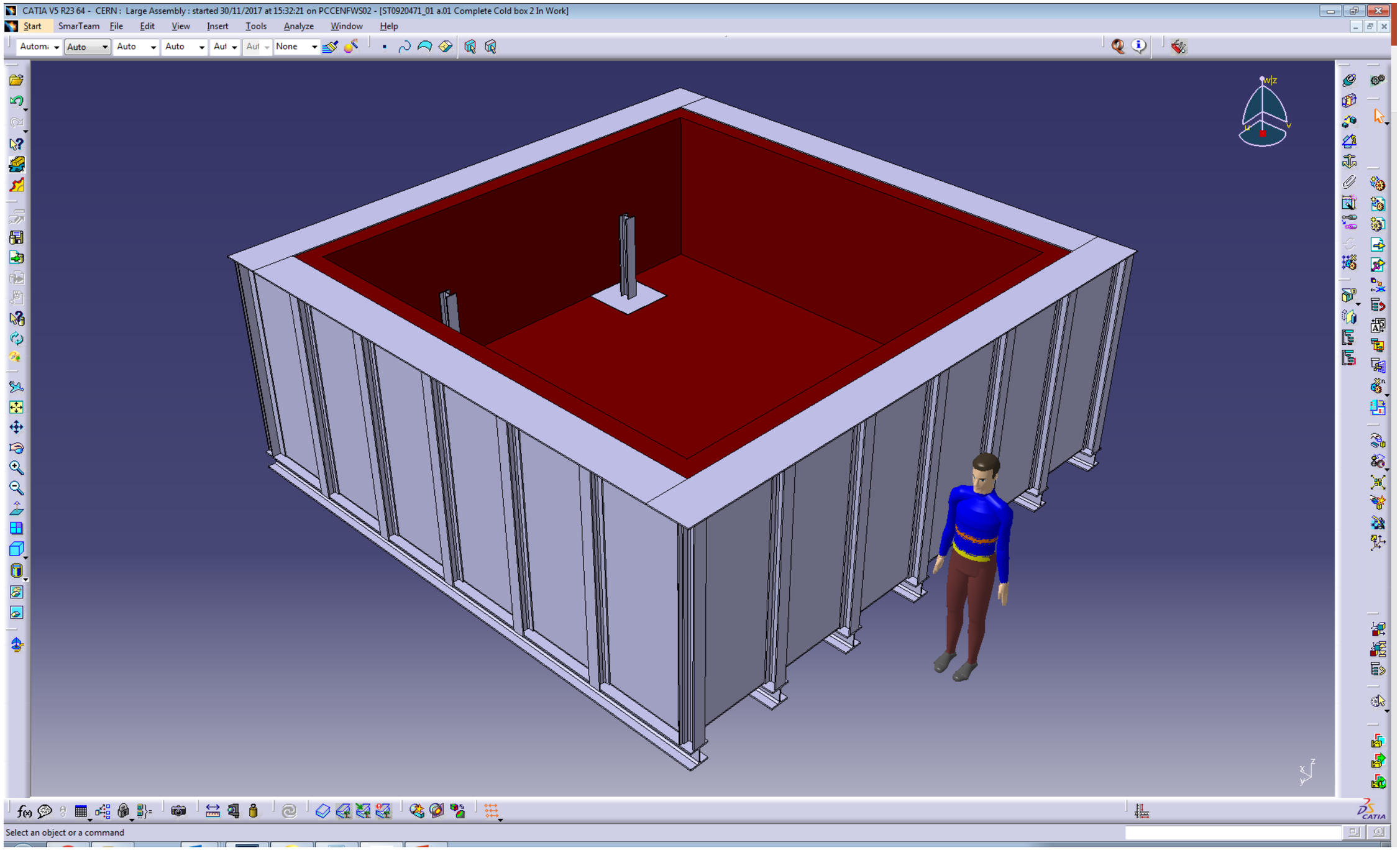
Modest temperature decrease on the wall

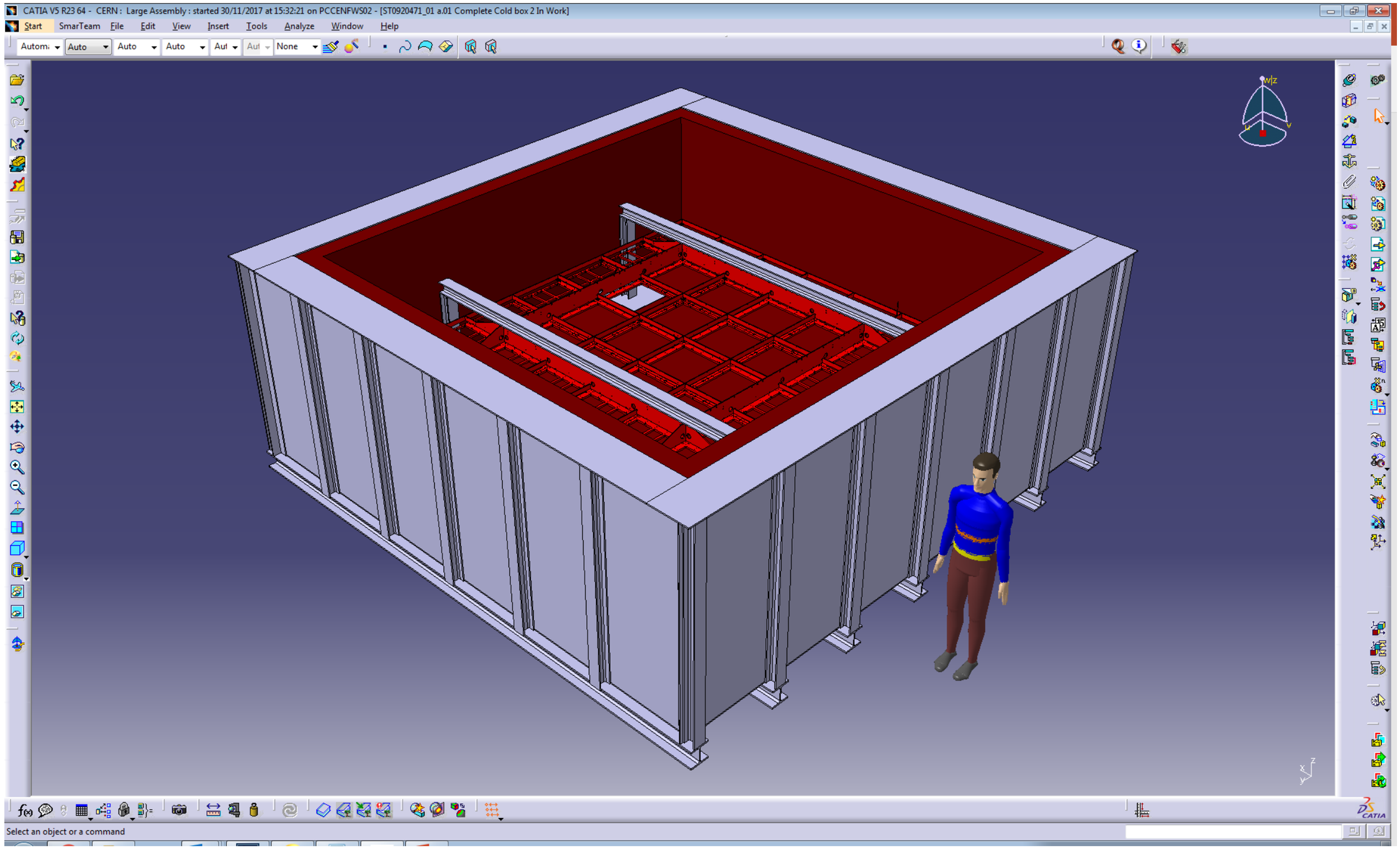
Total heat input: 1.3 kW (evaporation ~8 g/s) -> ~1.3 mm/h of evaporation

LAr level: 50 cm -> 10.6 ton

LAr level: 30 cm -> 6.4 ton




CATIA V5 R23 64 - CERN : Large Assembly : started 30/11/2017 at 15:32:21 on PCCENFWS02 - [ST0920471_01 a.01 Complete Cold box 2 In Work]
Start
SmarTeam
File
Edit
View
Insert
Tools
Analyze
Window
Help
Select an object or a command


CATIA V5 R23 64 - CERN : Large Assembly : started 30/11/2017 at 15:32:21 on PCCENFWS02 - [ST0920471_01 a.01 Complete Cold box 2 In Work]
Start
SmarTeam
File
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Tools
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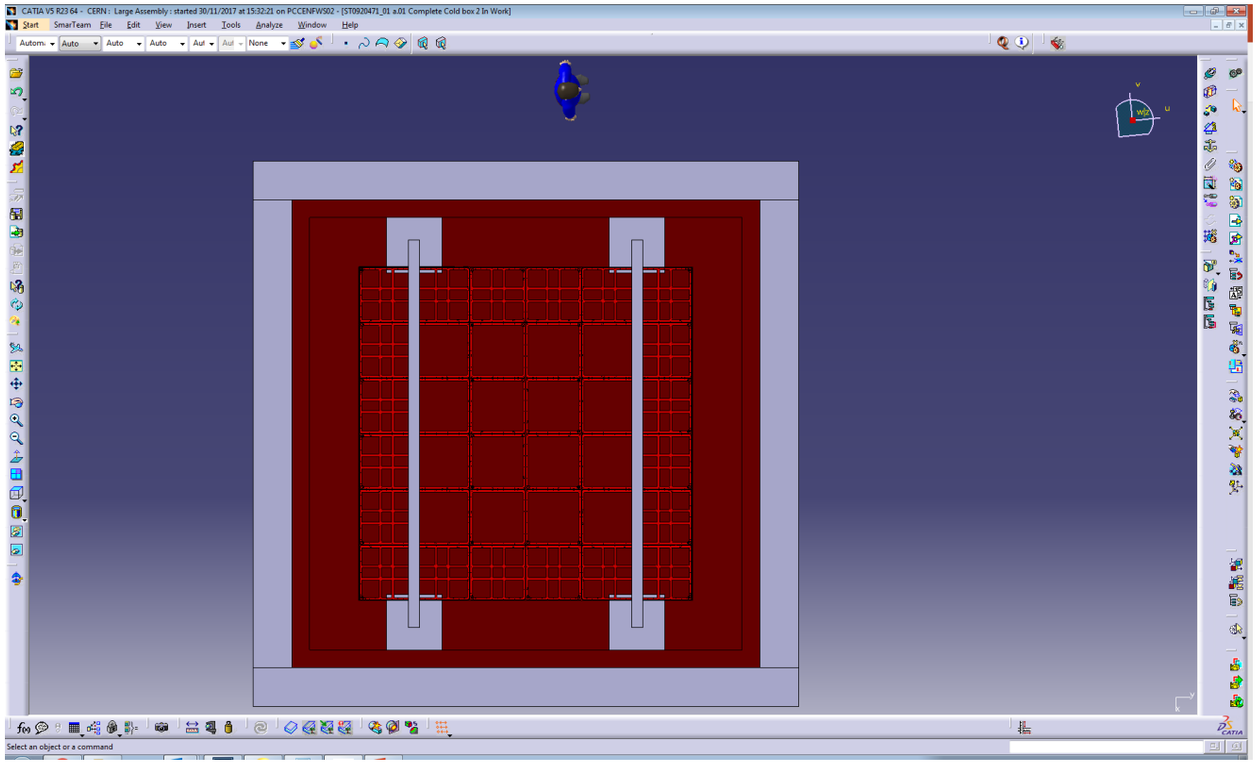
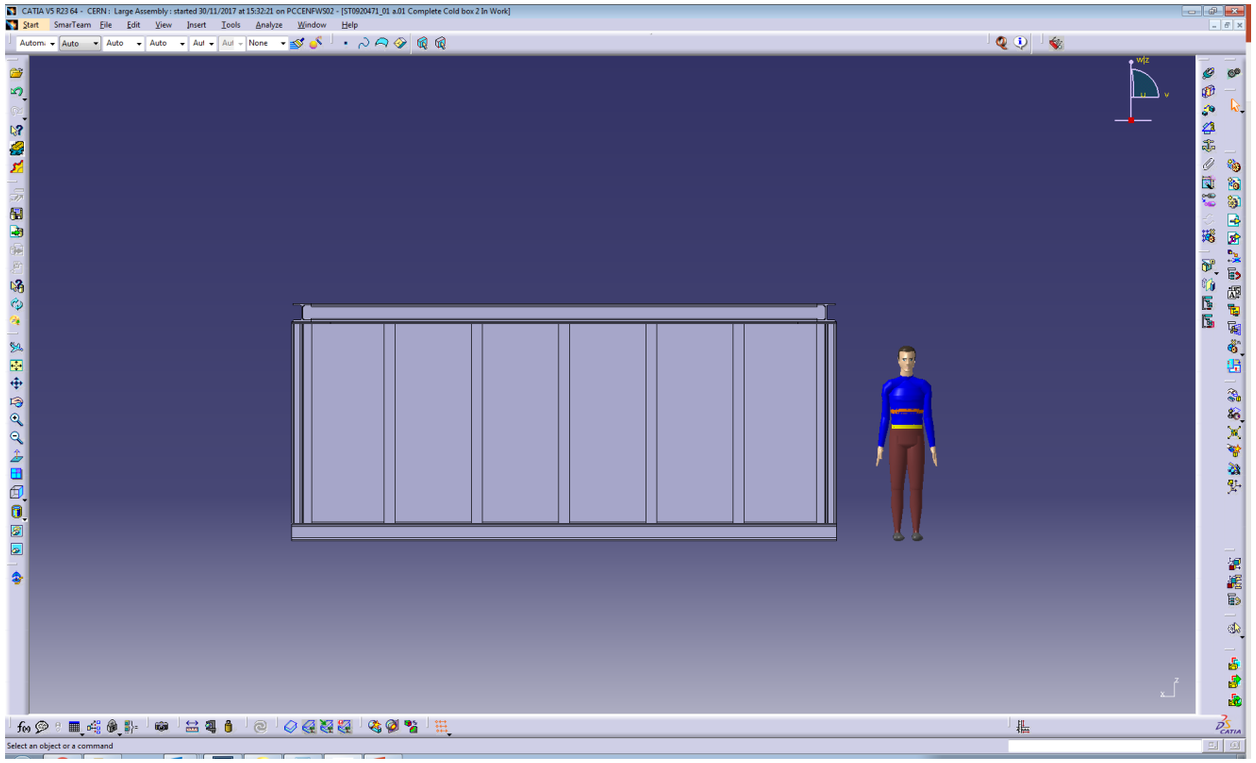
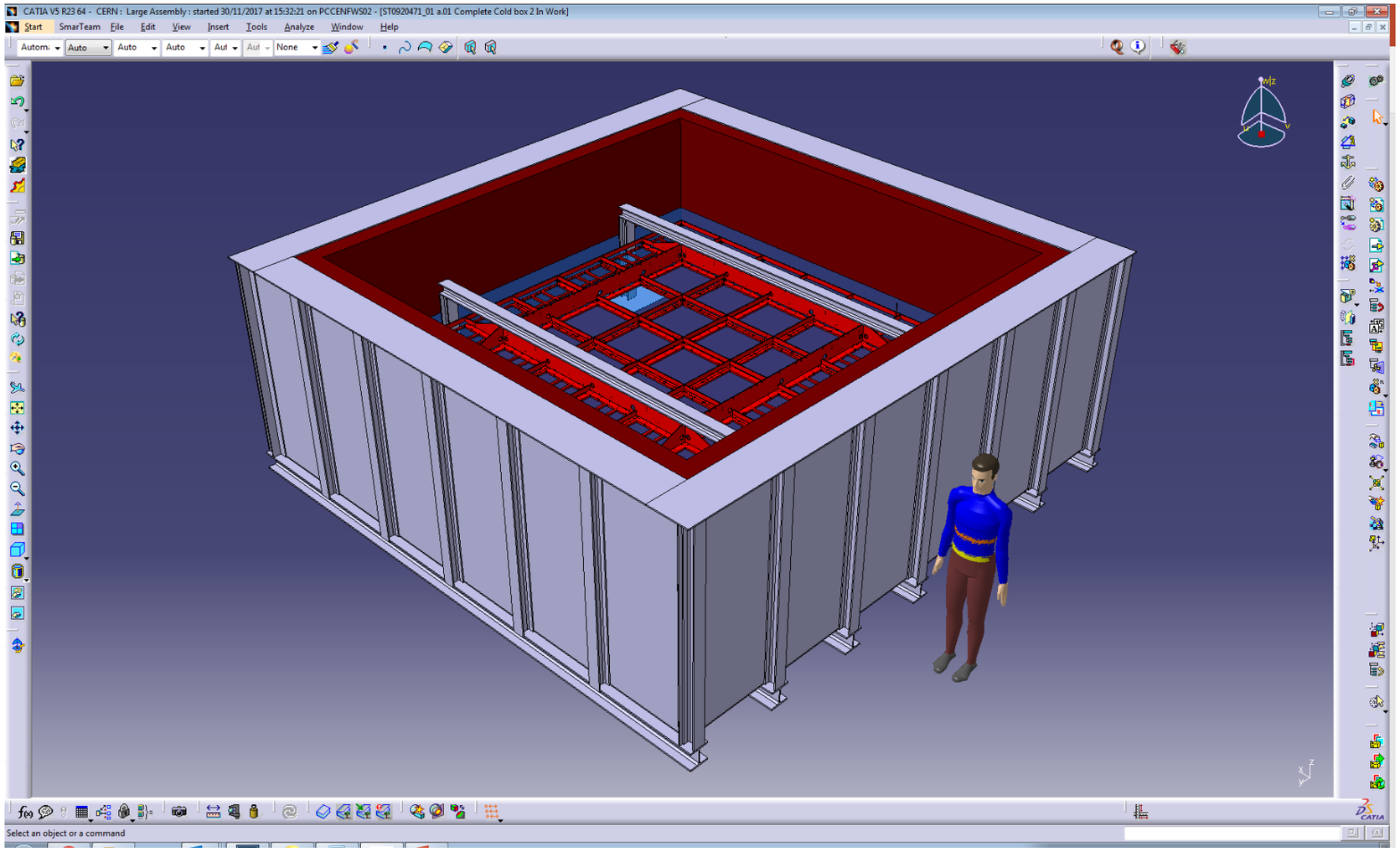
Window
Help
Select an object or a command

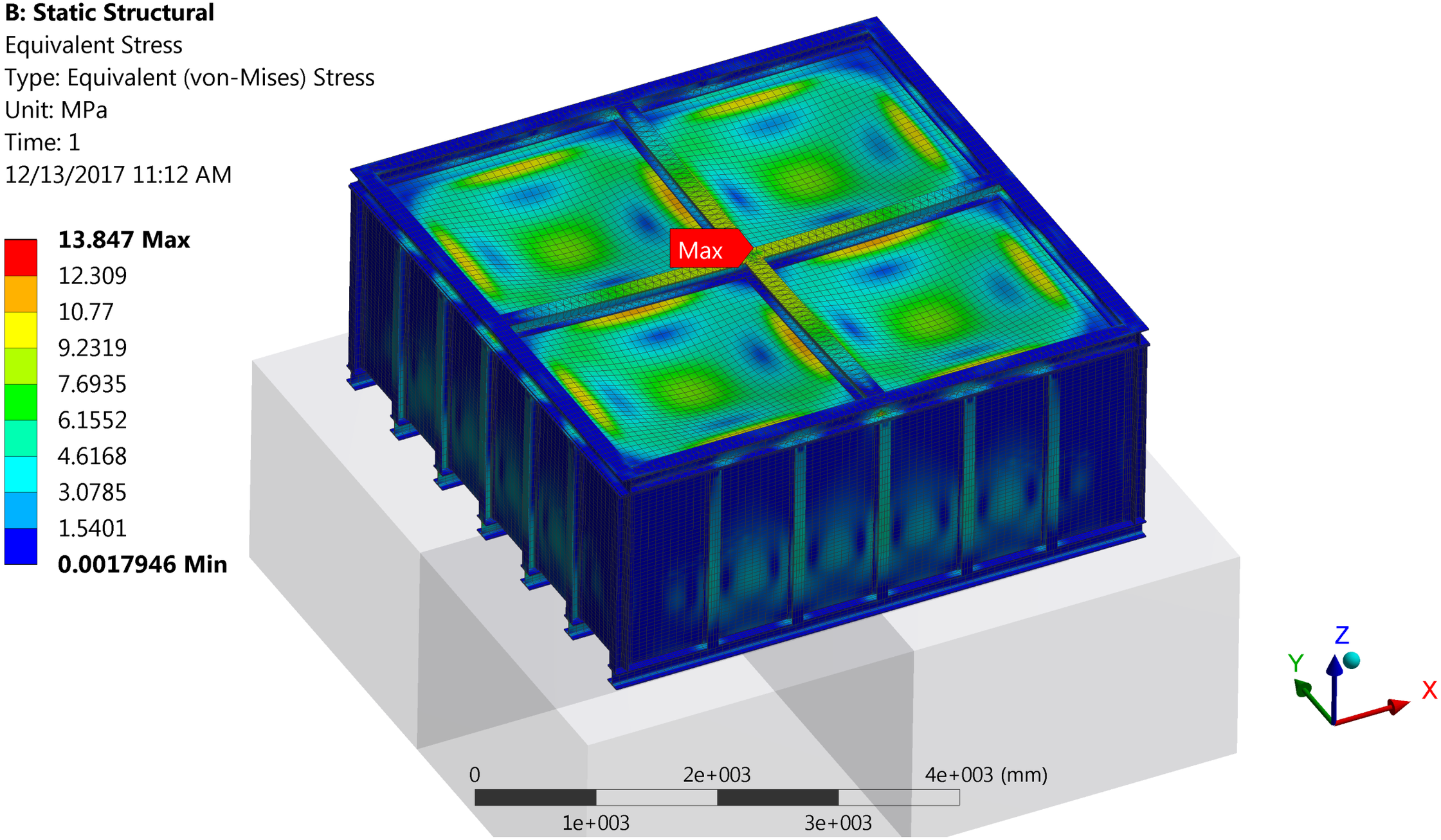

CATIA V5 R23 64 - CERN : Large Assembly : started 30/11/2017 at 15:32:21 on PCCENFWS02 - [ST0920471_01 a.01 Complete Cold box 2 In Work]
Start SmarTeam File Edit View Insert Tools Analyze Window Help
Select an object or a command


CATIA V5 R23 64 - CERN : Large Assembly : started 30/11/2017 at 15:32:21 on PCCENFWS02 - [ST0920471_01 a.01 Complete Cold box 2 In Work]
Start SmarTeam File Edit View Insert Tools Analyze Window Help
Select an object or a command


CATIA V5 R23 64 - CERN : Large Assembly : started 30/11/2017 at 15:32:21 on PCCENFWS02 - [ST0920471_01 a.01 Complete Cold box 2 In Work]
Start SmarTeam File Edit View Insert Tools Analyze Window Help
Select an object or a command

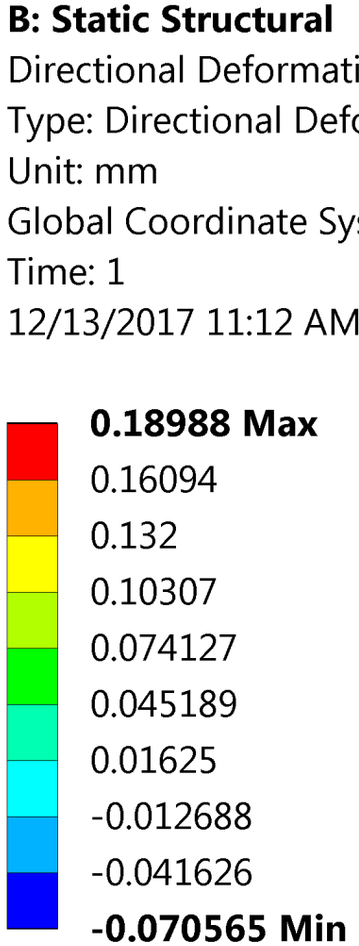
Stress

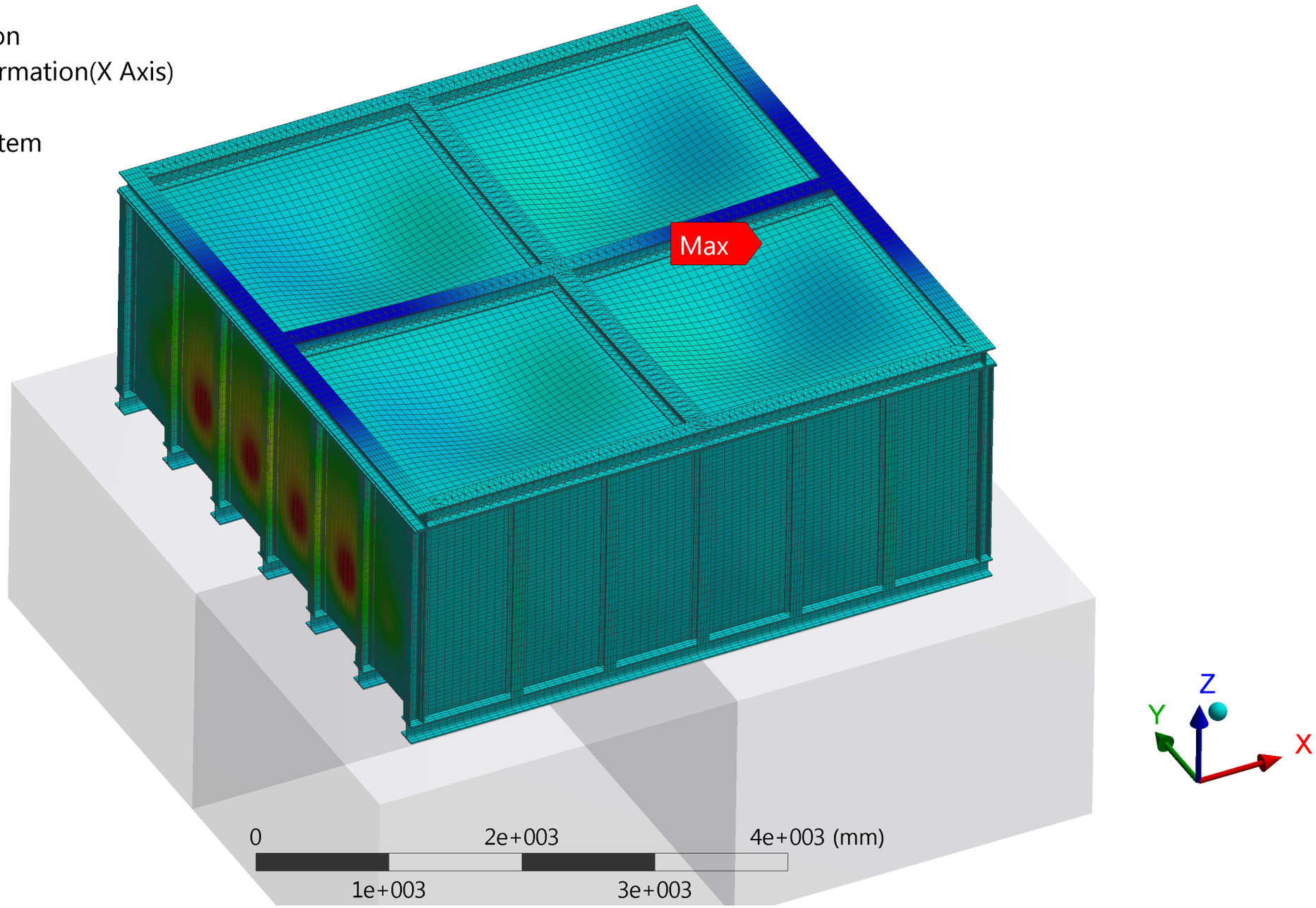
B: Static Structural
Equivalent Stress
Type: Equivalent (von-Mises) Stress
Unit: MPa
Time: 1
12/13/2017 11:12 AM



Deformation X

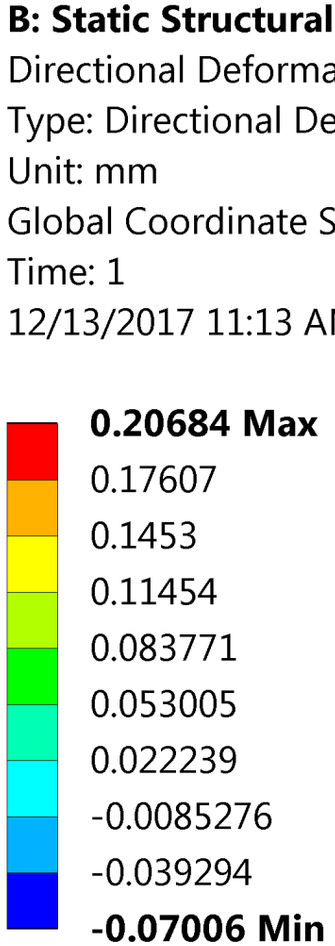
B: Static Structural
Directional Deformation
Type: Directional Deformation(X Axis)
Unit: mm
Global Coordinate System
Time: 1
12/13/2017 11:12 AM

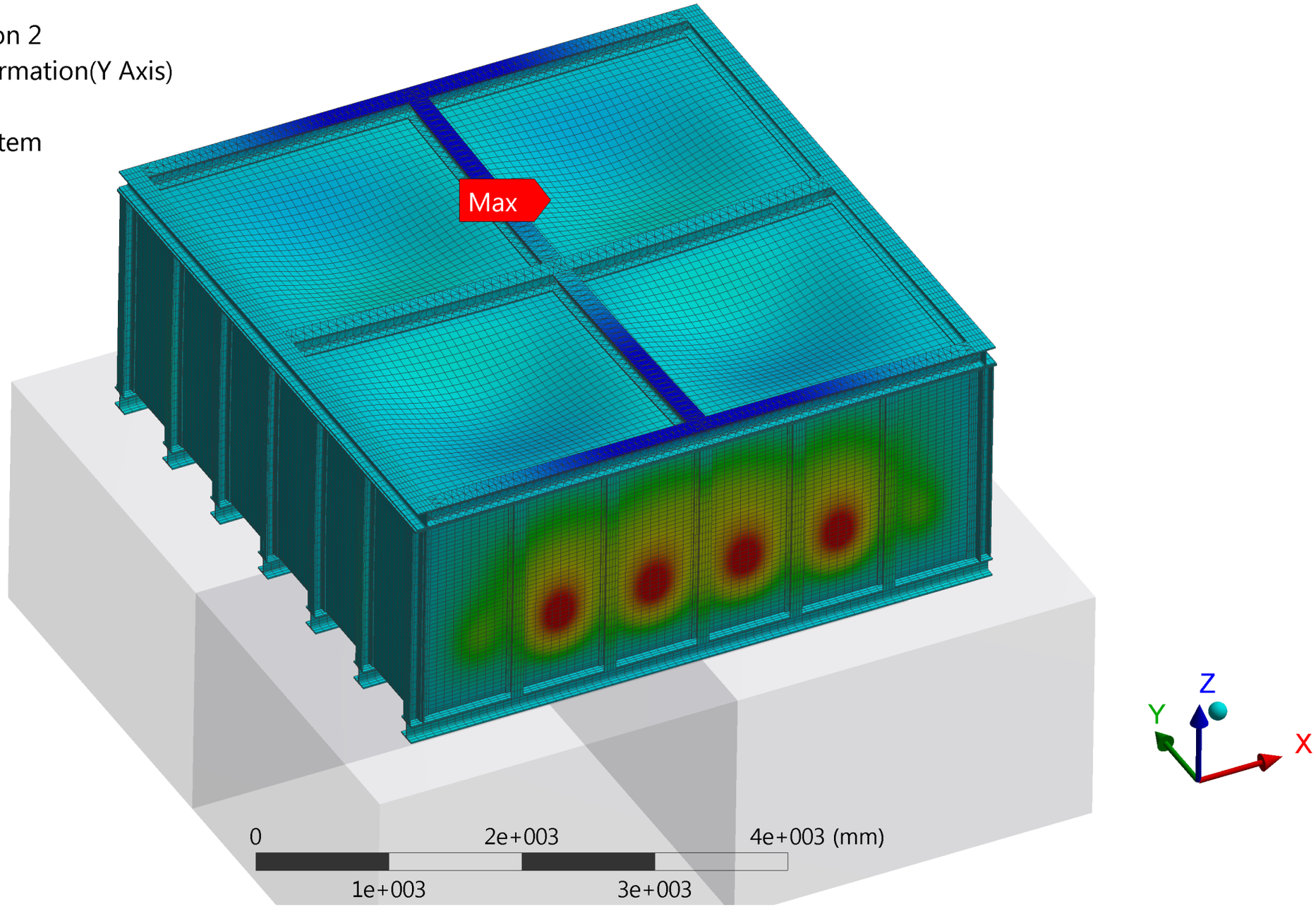




Deformation Y

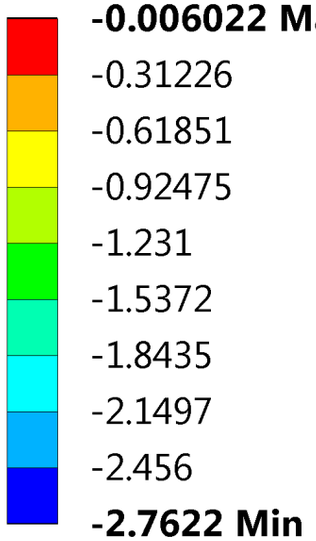
B: Static Structural
Directional Deformation 2
Type: Directional Deformation(Y Axis)
Unit: mm
Global Coordinate System
Time: 1
12/13/2017 11:13 AM



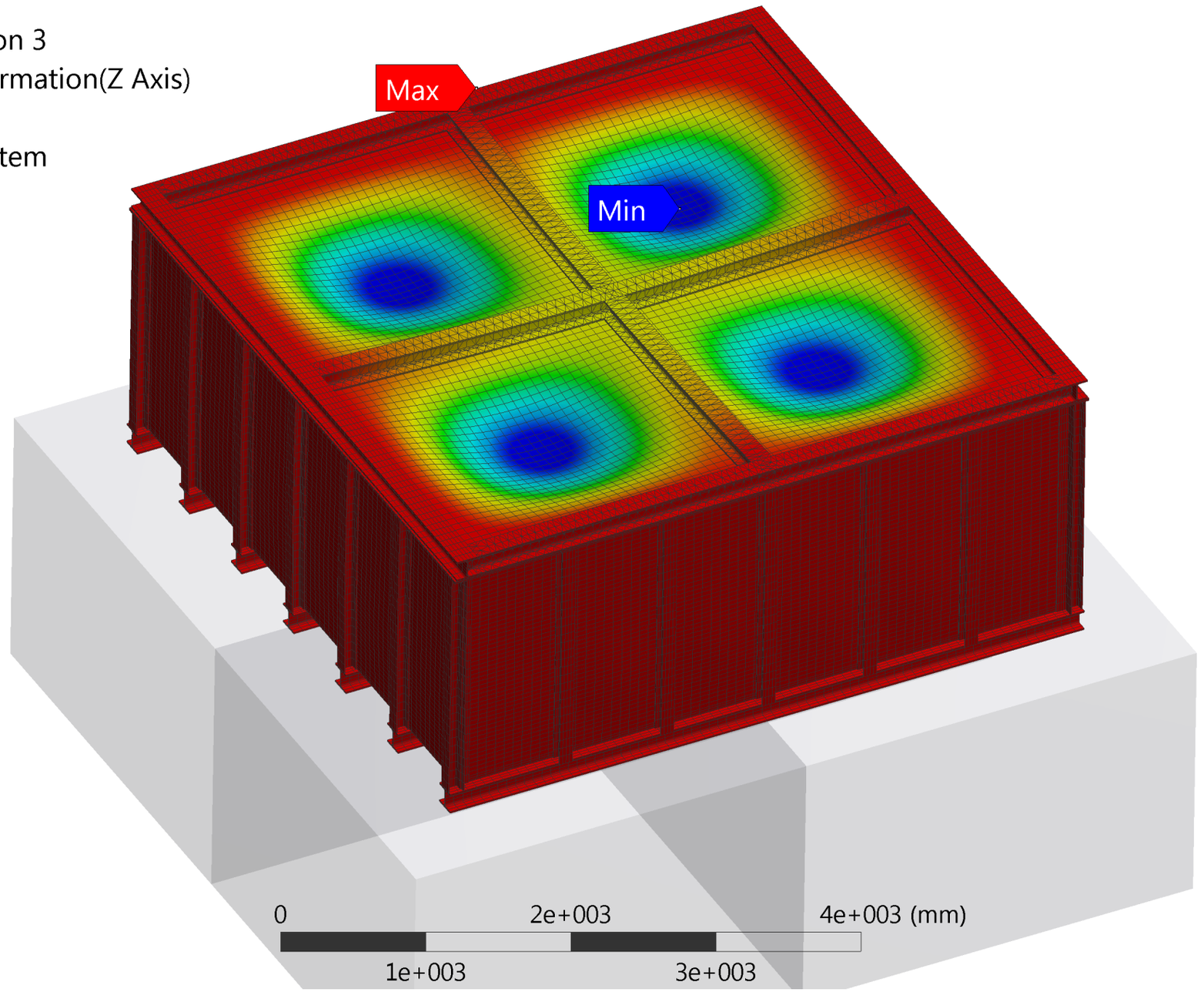


Deformation Z

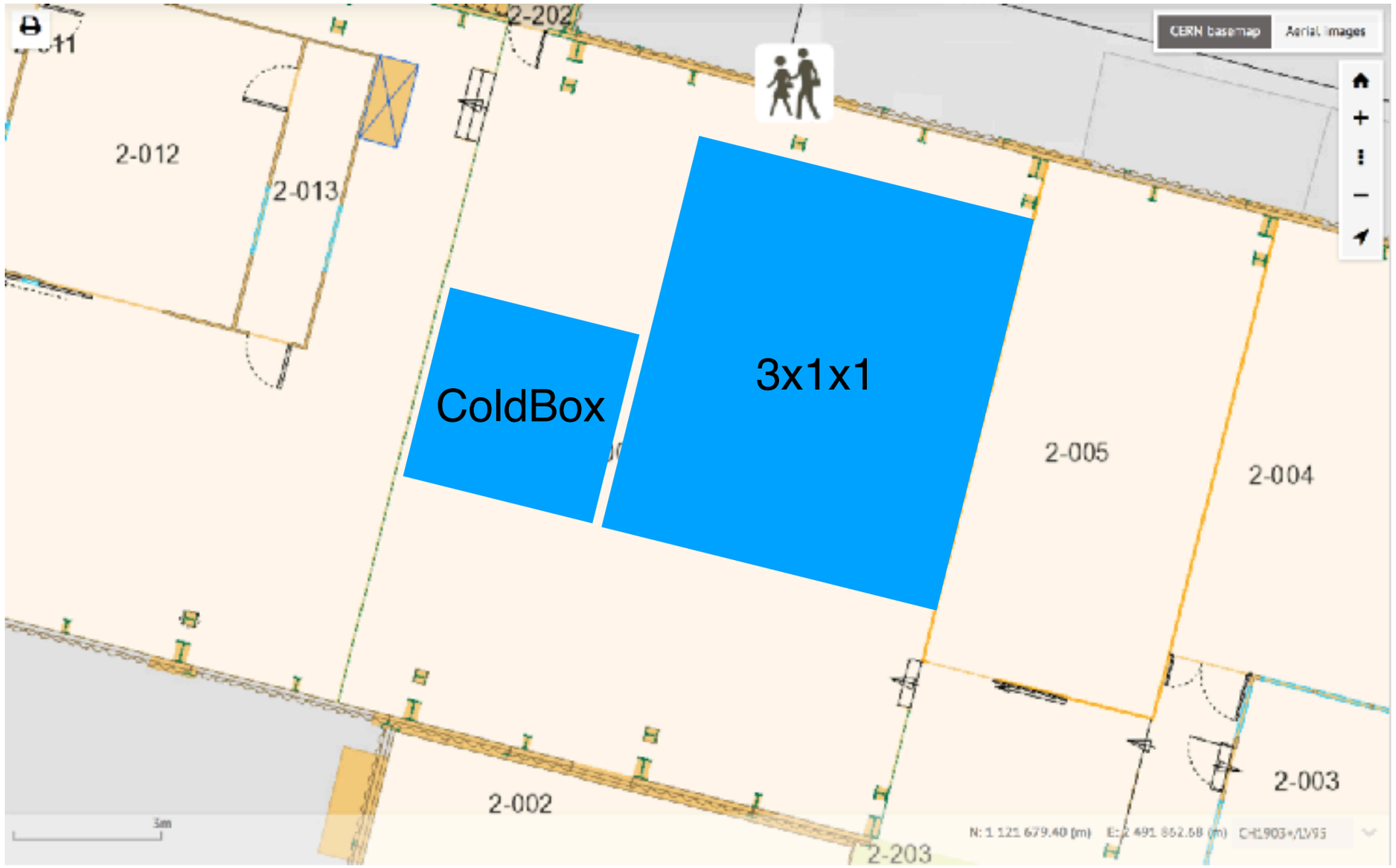
B: Static Structural
Directional Deformation 3
Type: Directional Deformation(Z Axis)
Unit: mm
Global Coordinate System
Time: 1
12/13/2017 11:13 AM



-0.006022 Max
-0.31226
-0.61851
-0.92475
-1.231
-1.5372
-1.8435
-2.1497
-2.456
-2.7622 Min



182/R-002


CERN basemap
Aerial images
2-012
2-013
2-202
ColdBox
3x1x1
2-005
2-004
2-003
2-002
2-203
5m

More calculation to be done

To be defined
- cryogenics needed
- foam installation
- internal membrane
- roof penetrations