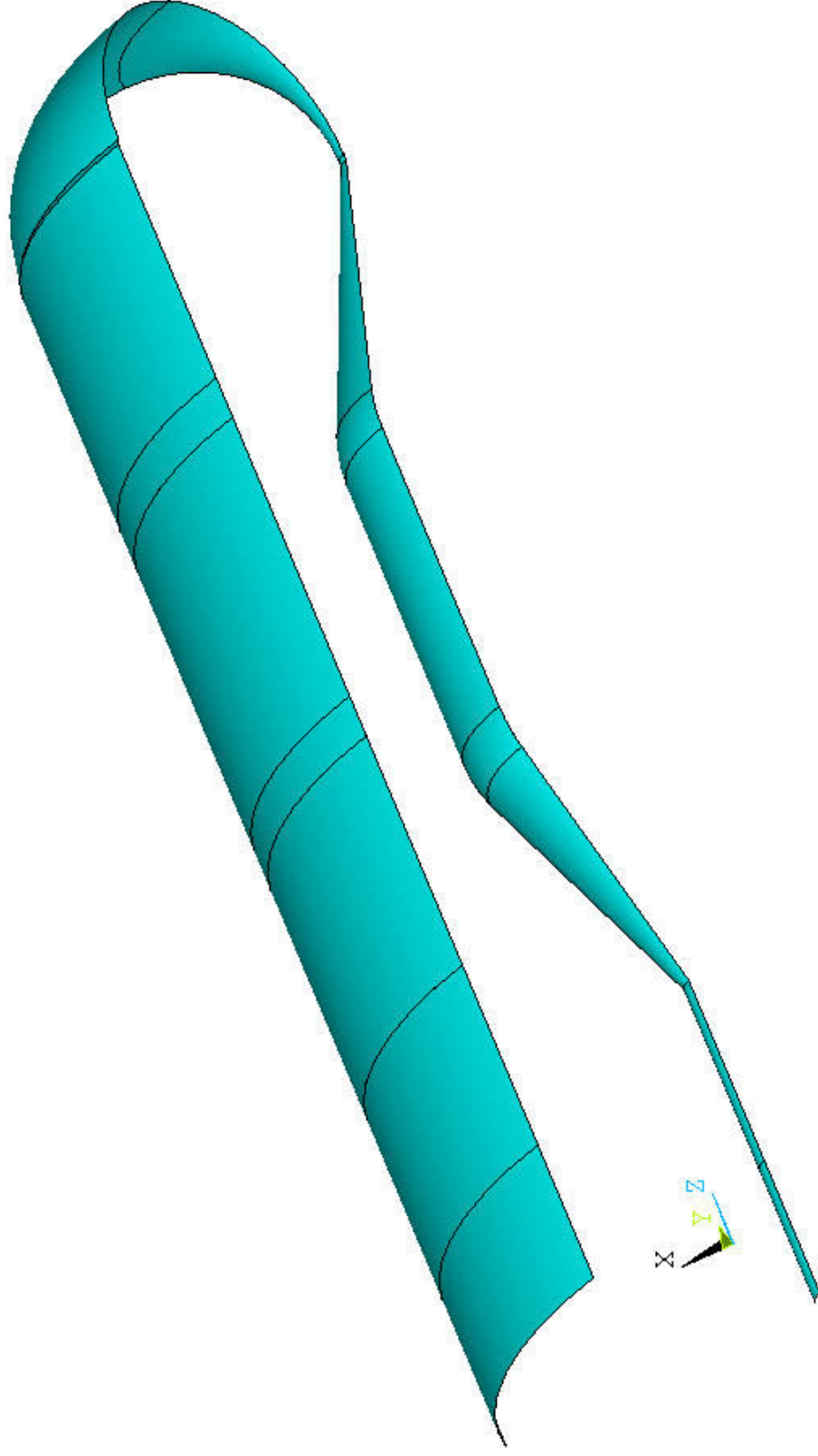
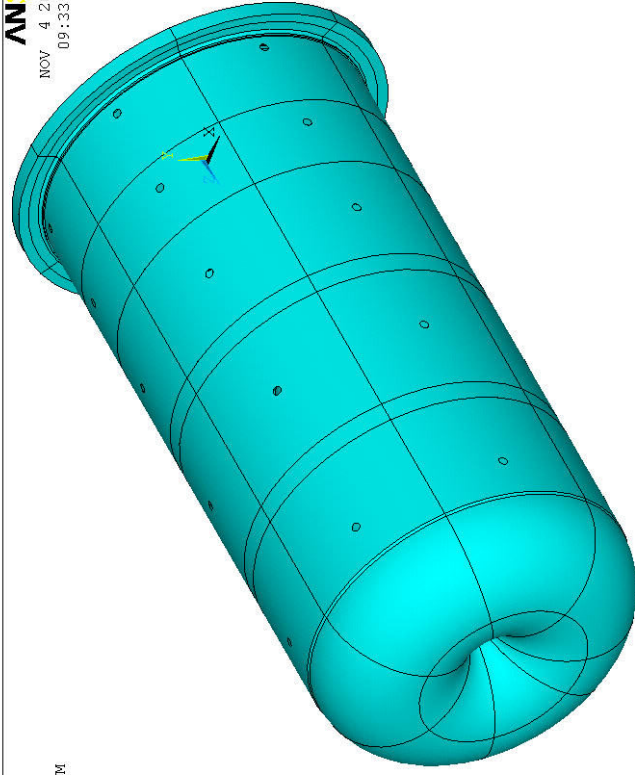


Preliminary study of support system for single
horn

Bogdan Szybiński
Cracow University of Technology

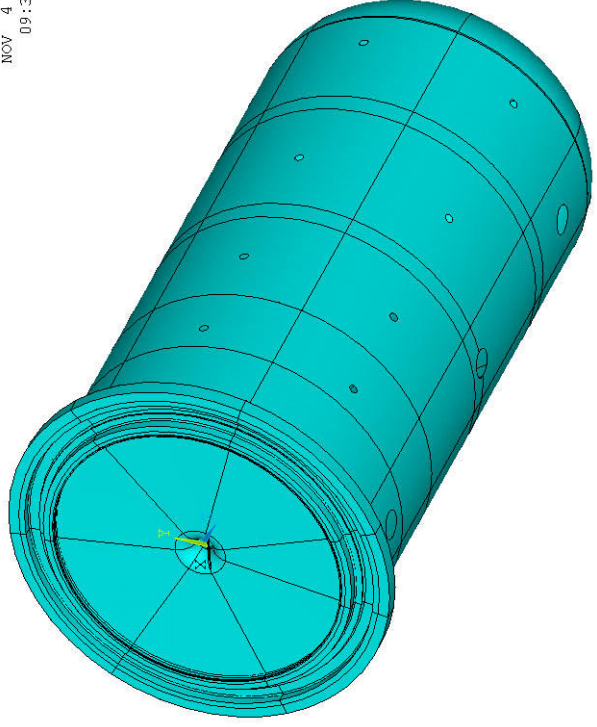


ANSYS
NOV 4 2011
09:33:51



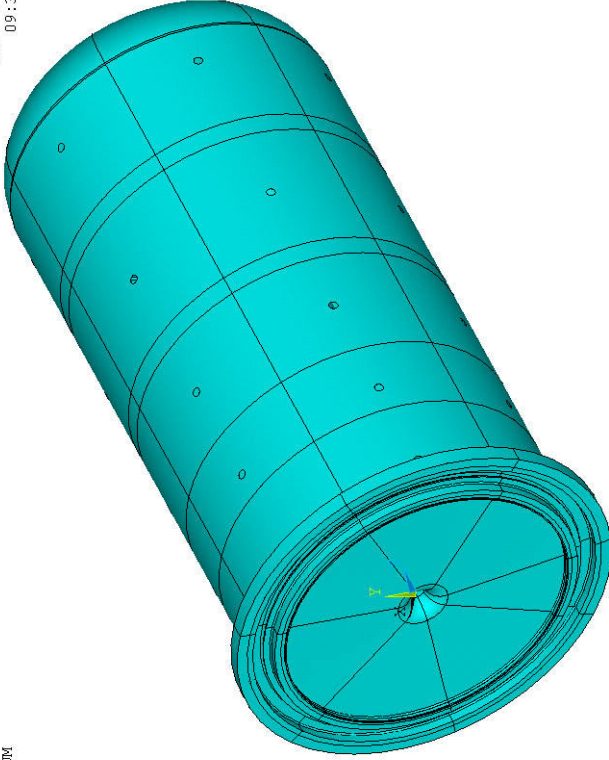
1 AREAS
TYPE NUM

ANSYS
NOV 4 2011
09:34:33



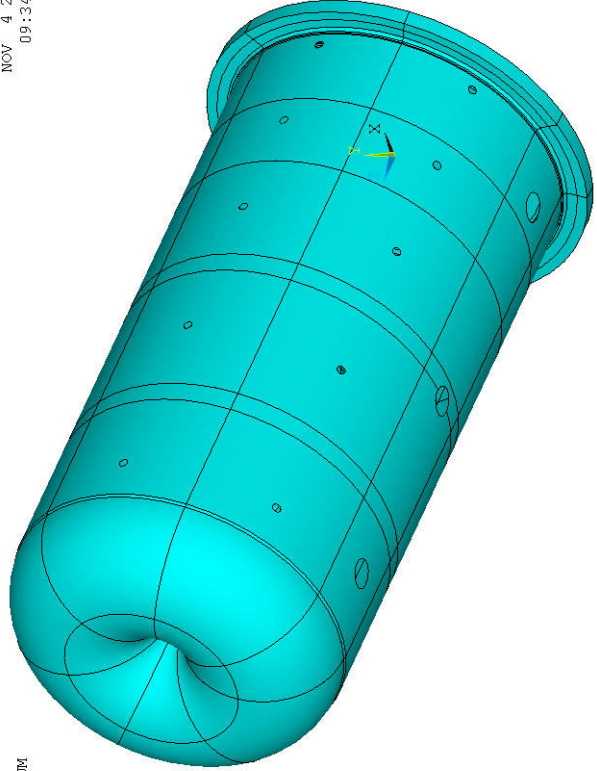
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TYPE NUM

ANSYS
NOV 4 2011
09:33:22

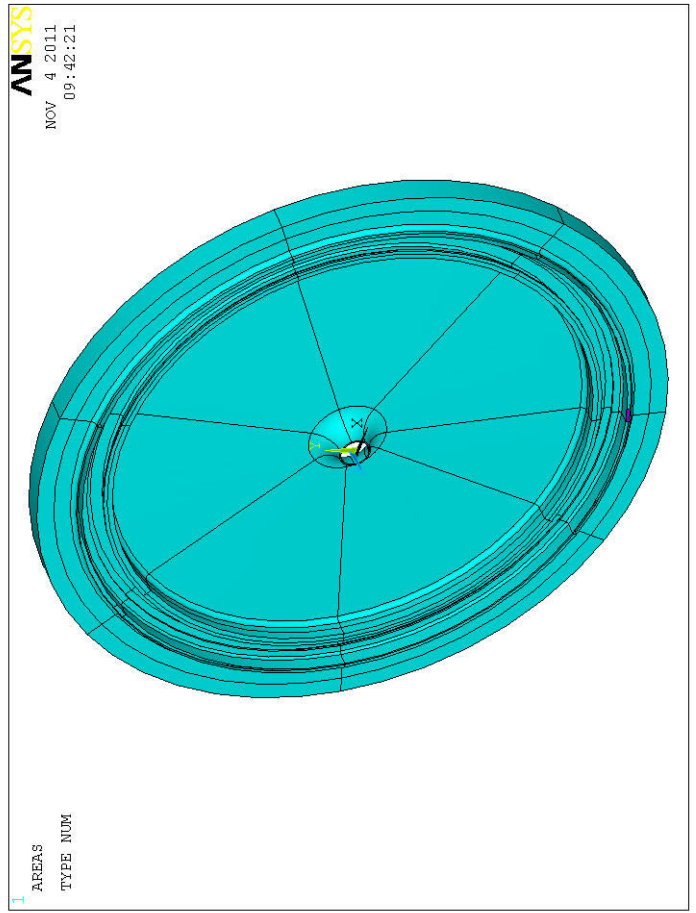
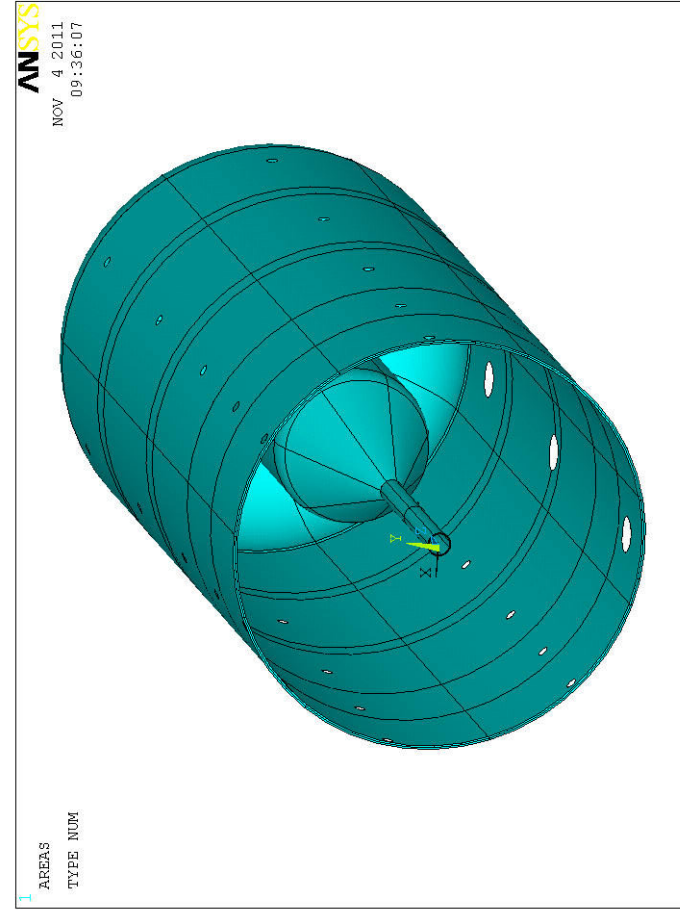
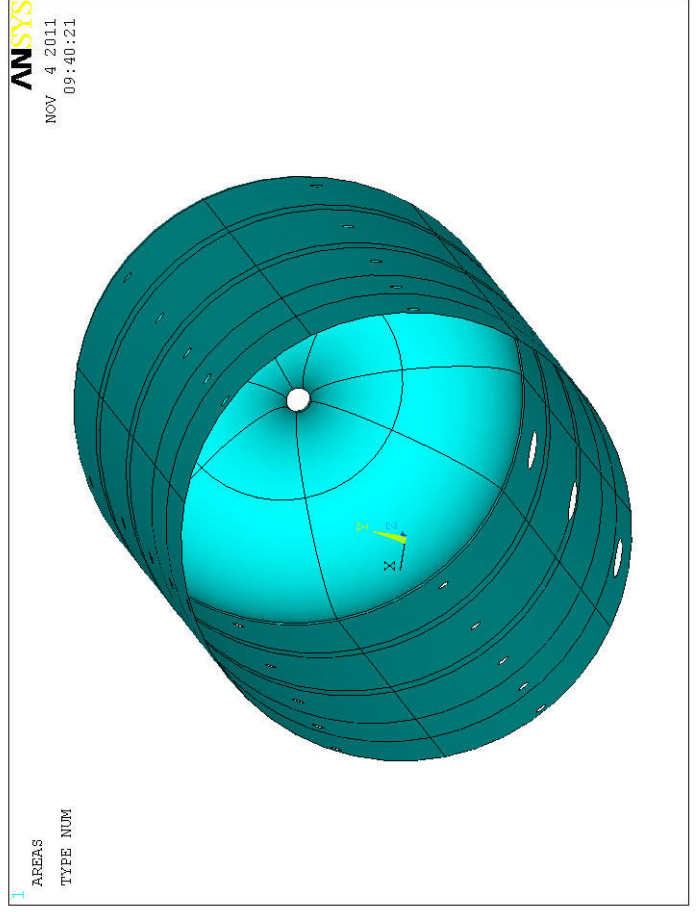
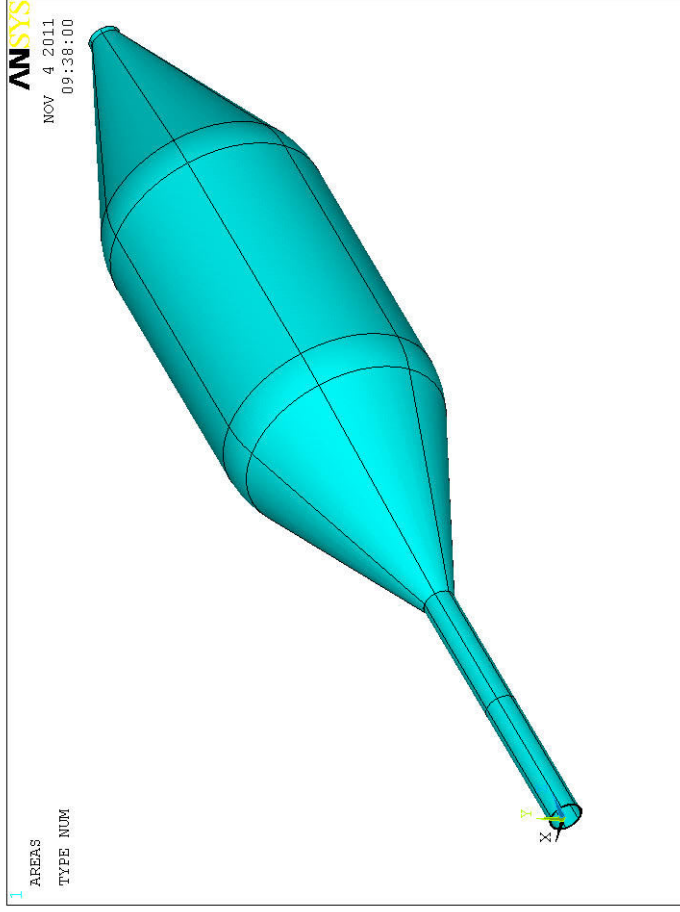


1 AREAS
TYPE NUM

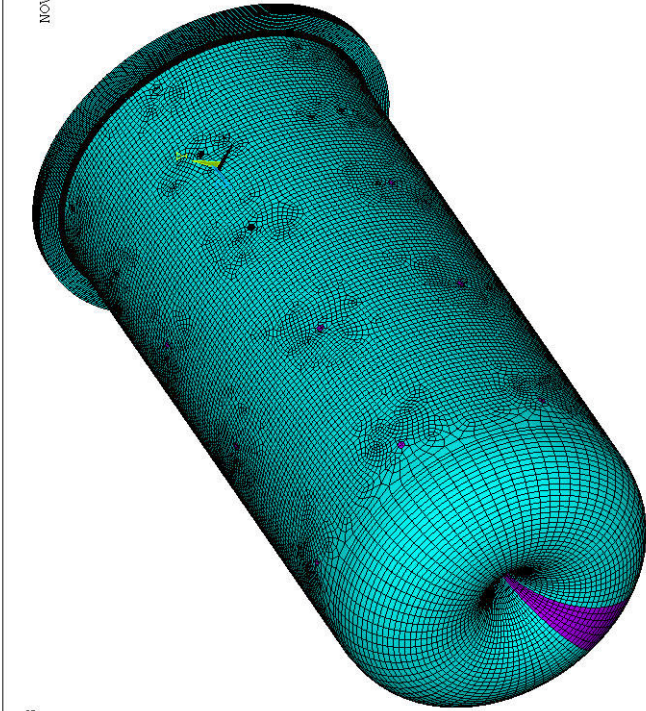
ANSYS
NOV 4 2011
09:34:13



1 AREAS
TYPE NUM

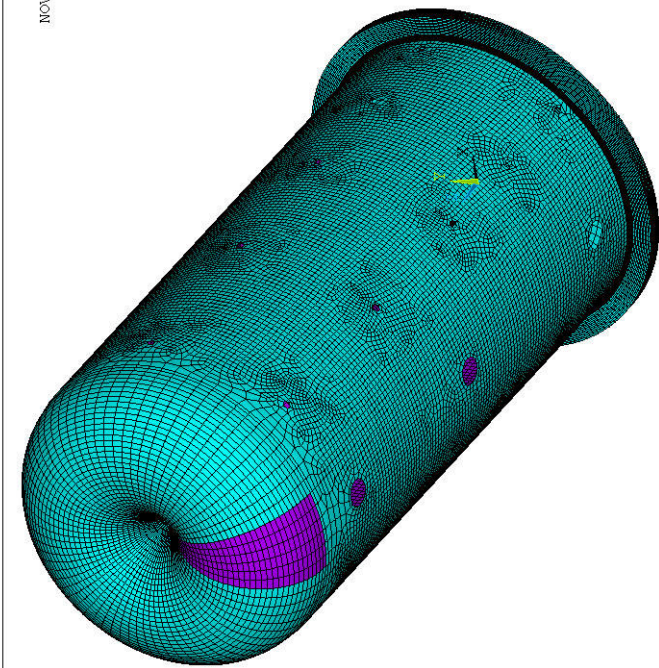


ANSYS
NOV 4 2011
09:46:58



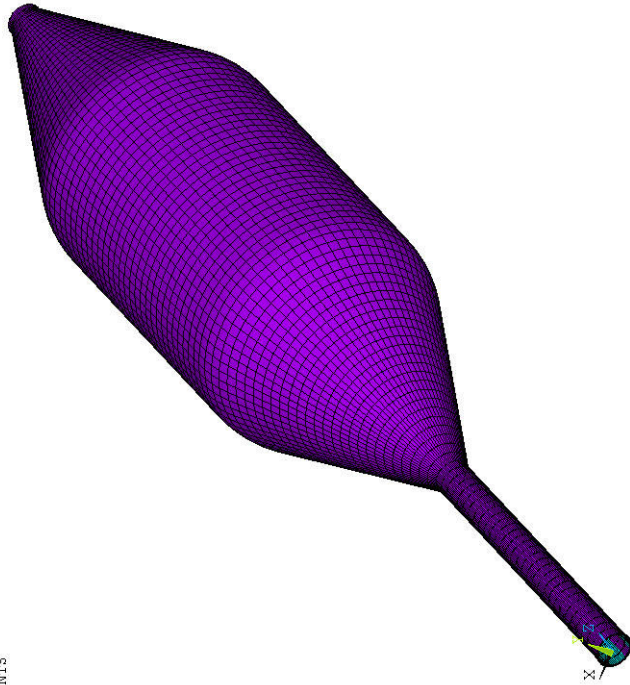
1 ELEMENTS

ANSYS
NOV 4 2011
09:47:22



1 ELEMENTS

ANSYS
NOV 4 2011
09:50:04



1

NODAL SOLUTION

STEP=1

SUB =1

TIME=1

USUM (AVG)

RSYS=0

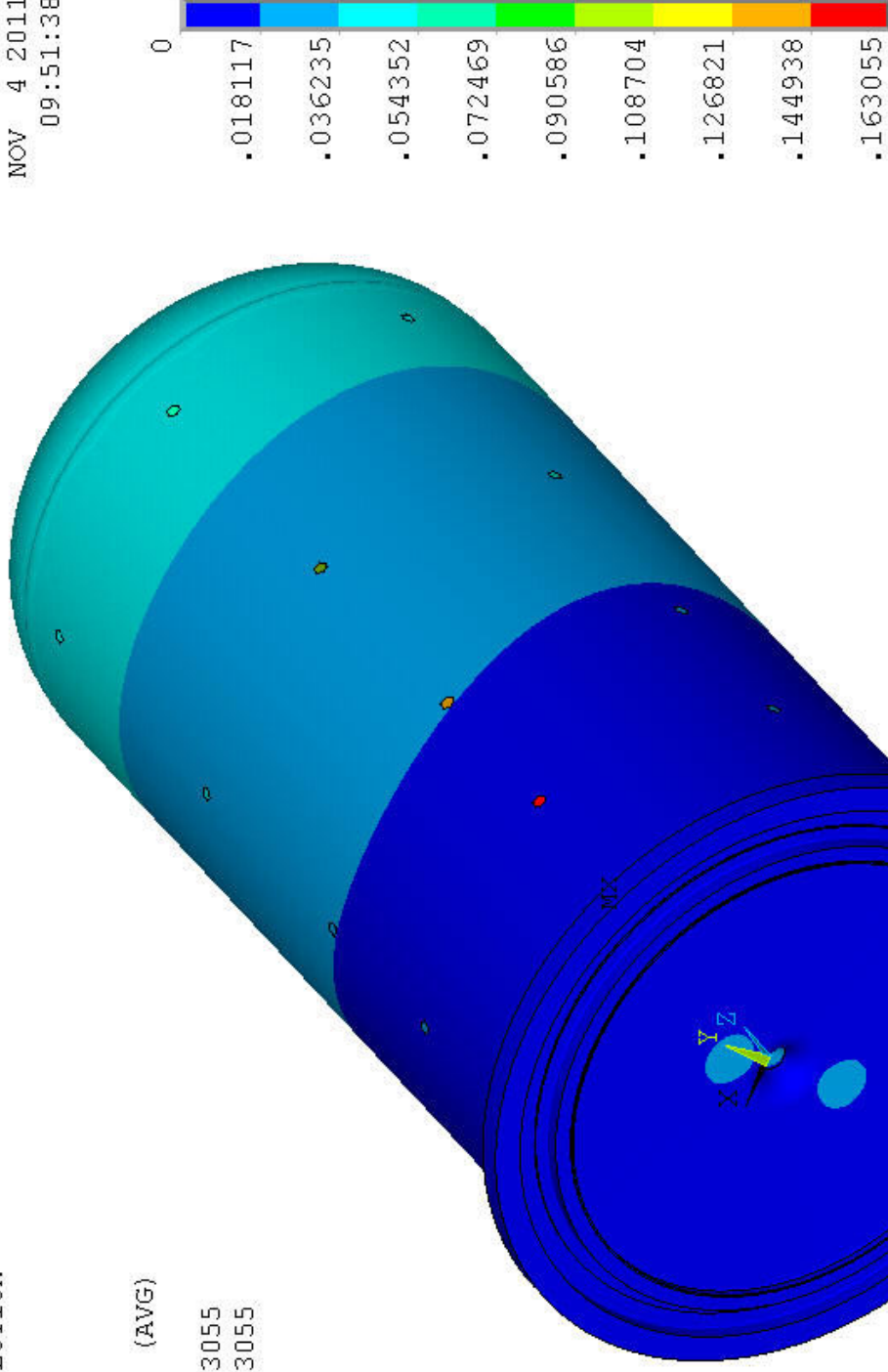
DMX =.163055

SMX =.163055

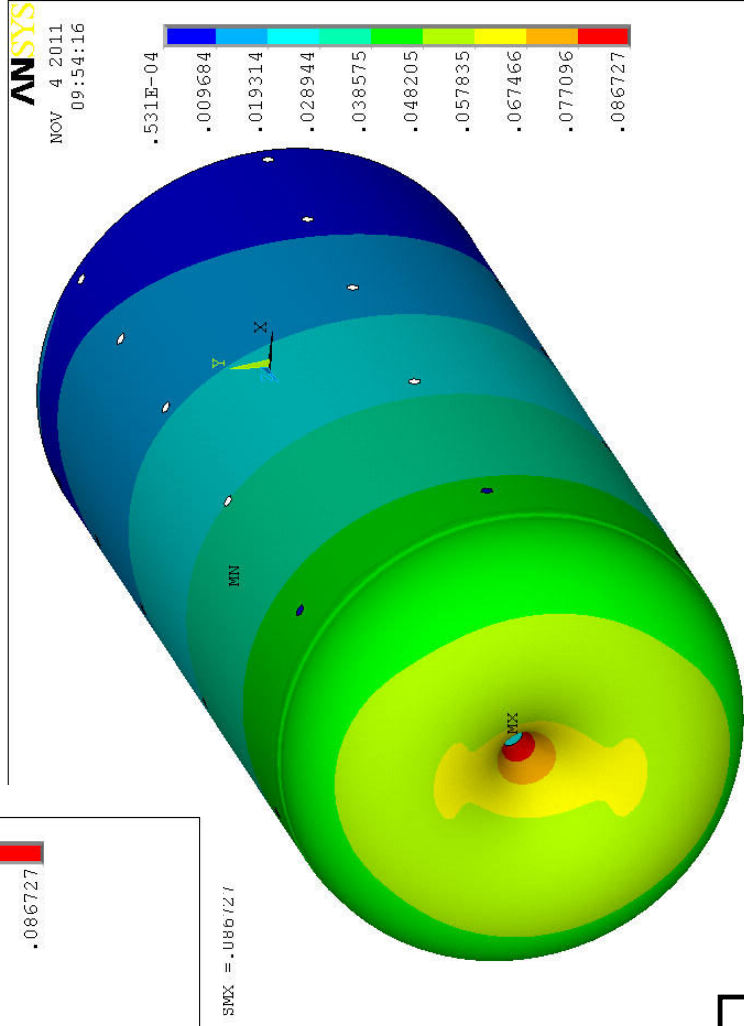
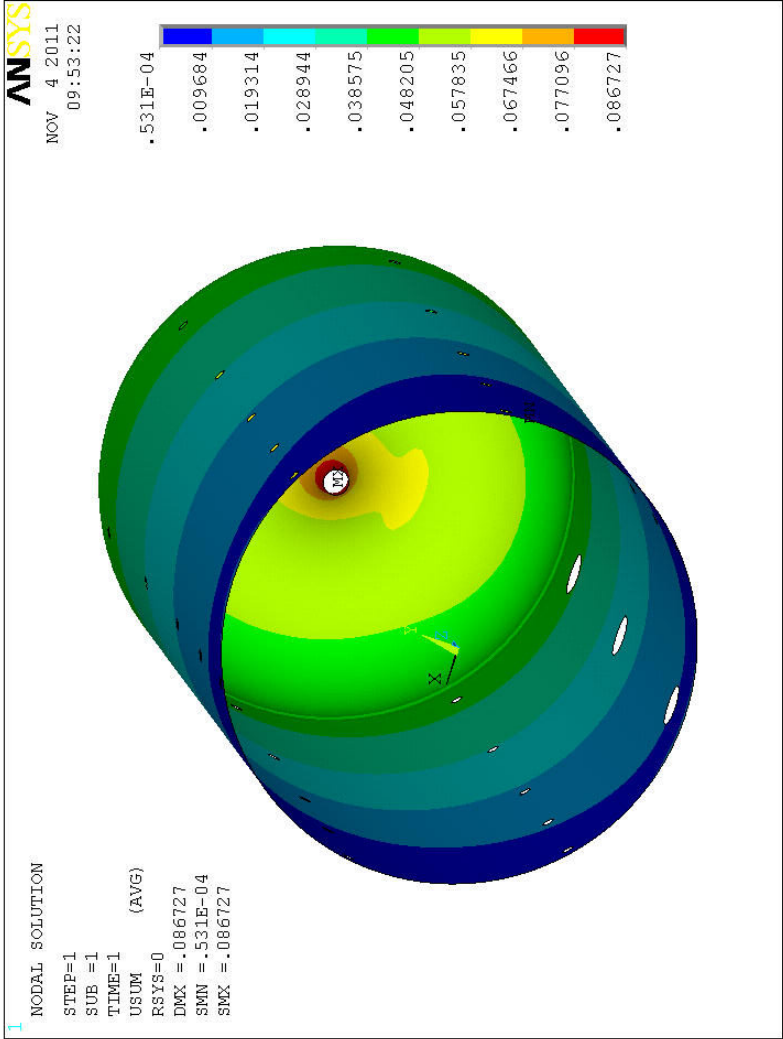
ANSYS

NOV 4 2011

09:51:38



Vector of displacements in *mm*



Vector of displacements in *mm*

1

NODAL SOLUTION

STEP=1

SUB =1

TIME=1

USUM (AVG)

RSYS=0

DMX =.163055

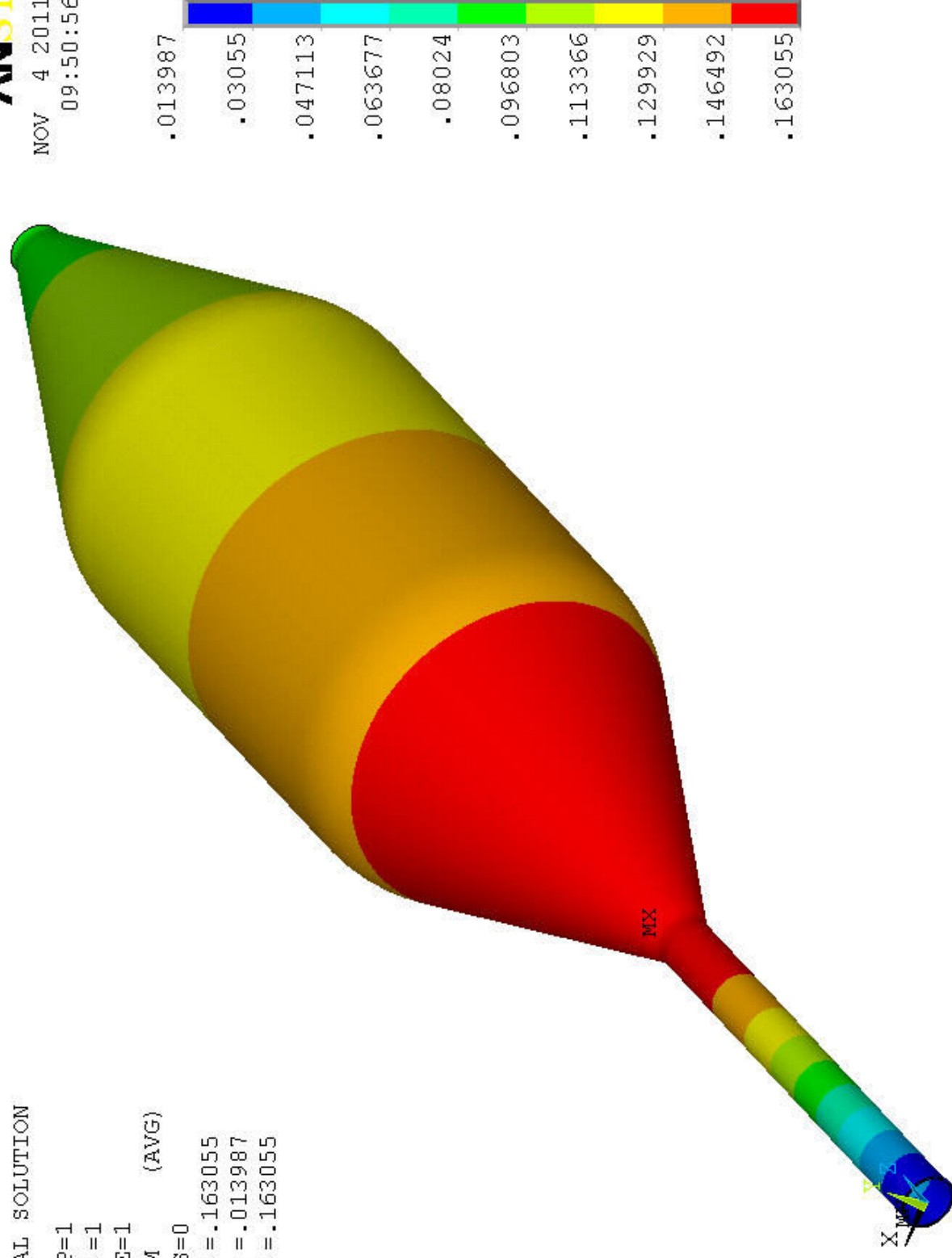
SMN =.013987

SMX =.163055

ANSYS

NOV 4 2011

09:50:56



Vector of displacements in *mm*

1

NODAL SOLUTION

STEP=1

SUB =1

TIME=1

UY (AVG)

RSYS=0

DMX =.163055

SMN =-.163049

SMX =.00601

ANSYS

NOV 4 2011

09:58:04

-.163049

-.144265

-.125481

-.106696

-.087912

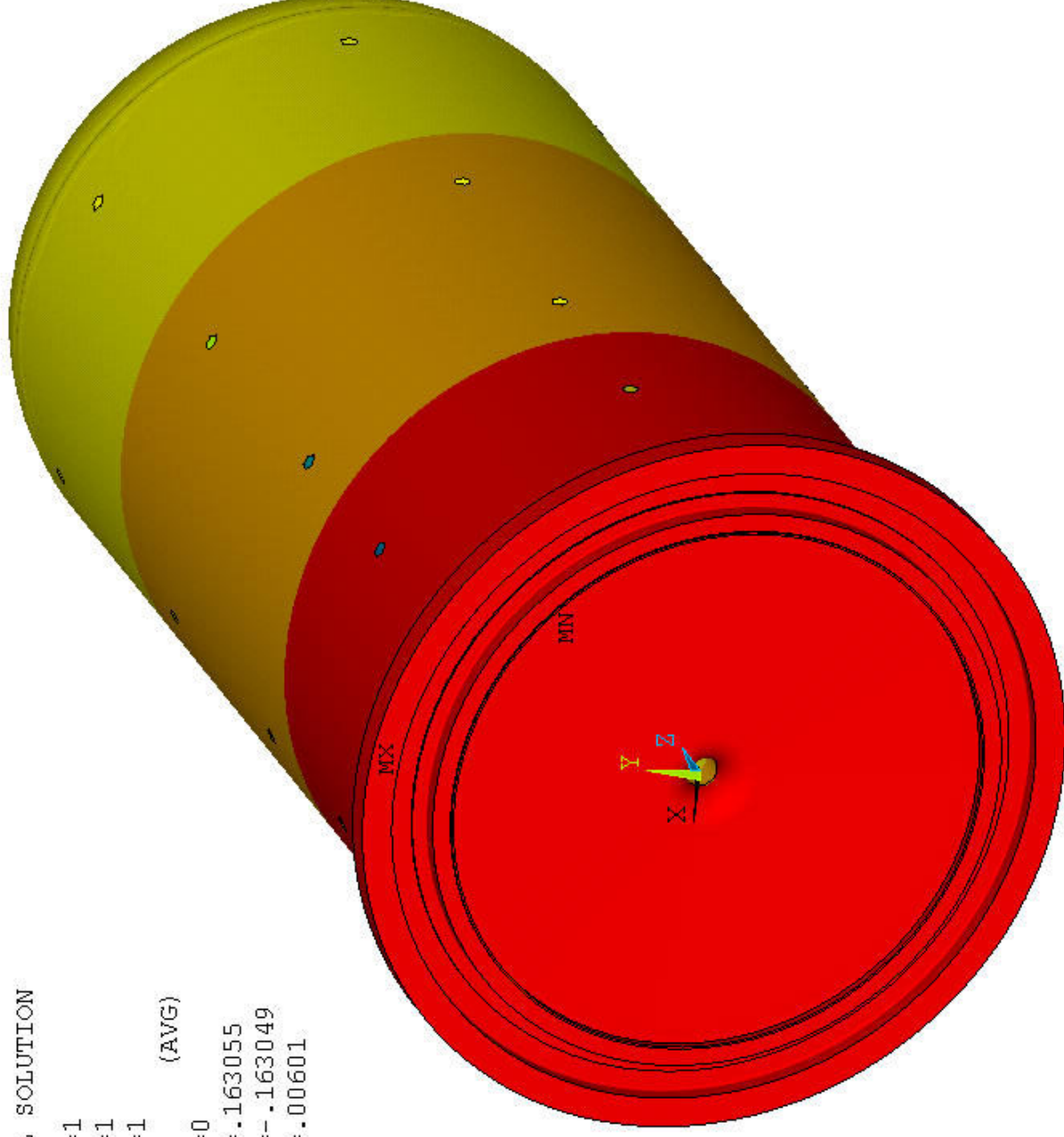
-.069128

-.050343

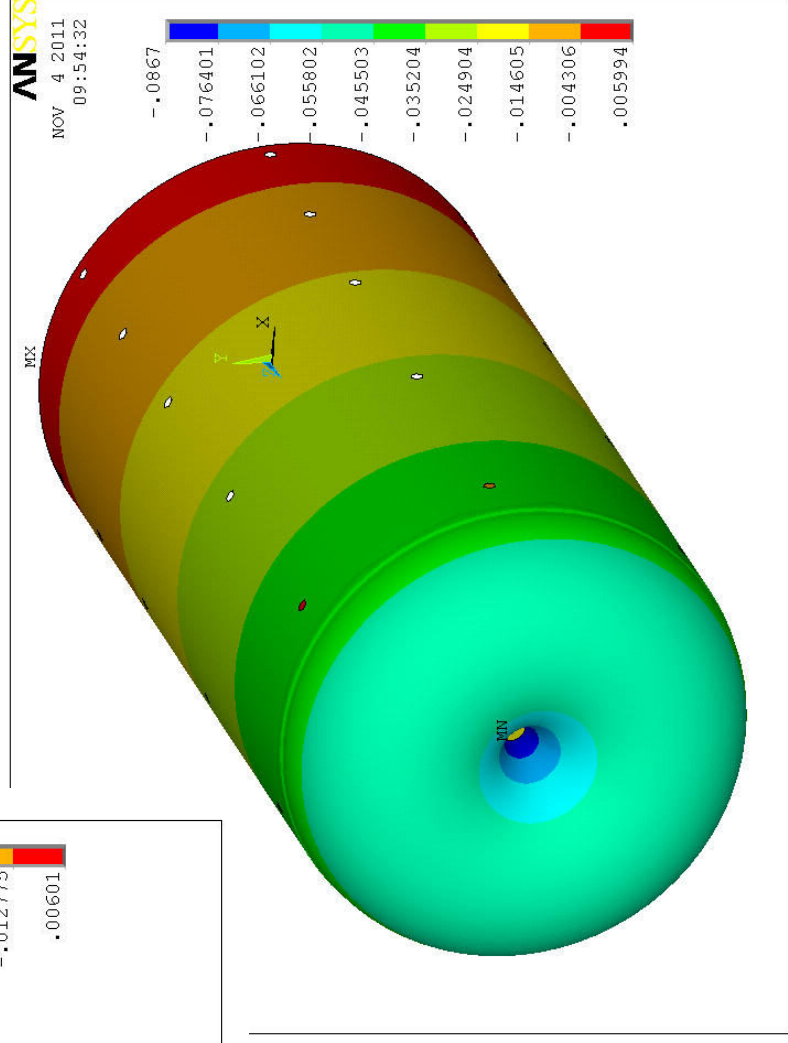
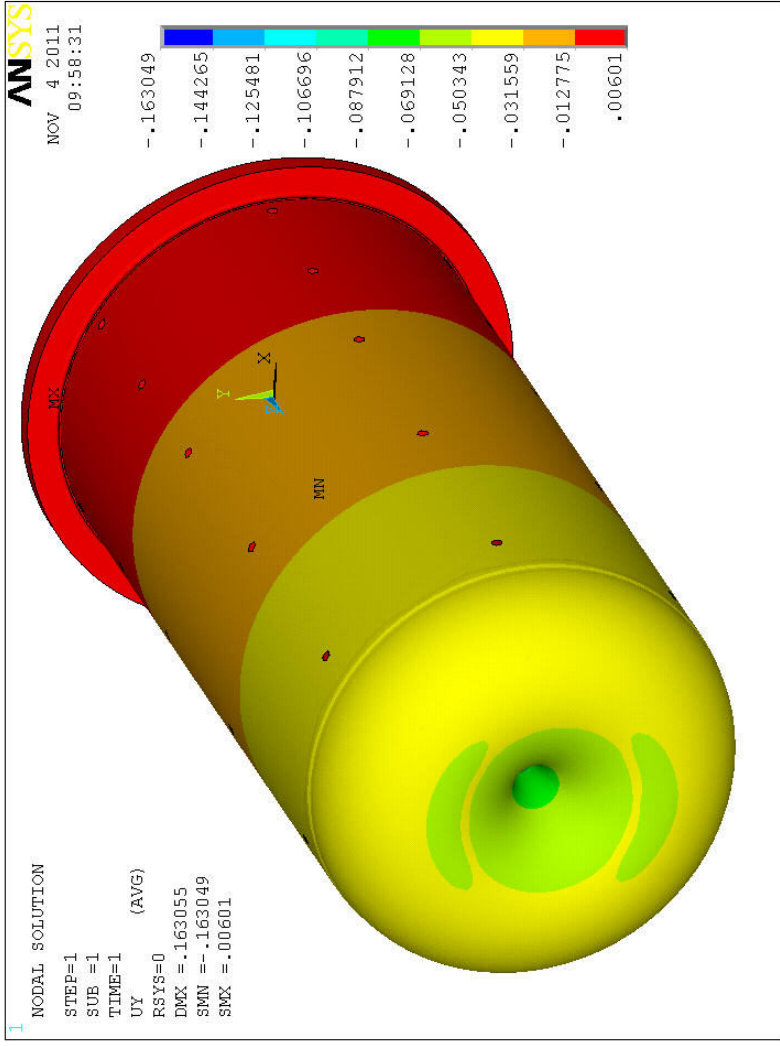
-.031559

-.012775

.00601



Vertical displacement in *mm*



Vertical displacement in *mm*

1

NODAL SOLUTION

STEP=1

SUB =1

TIME=1

UY (AVG)

RSYS=0

DMX =.163055

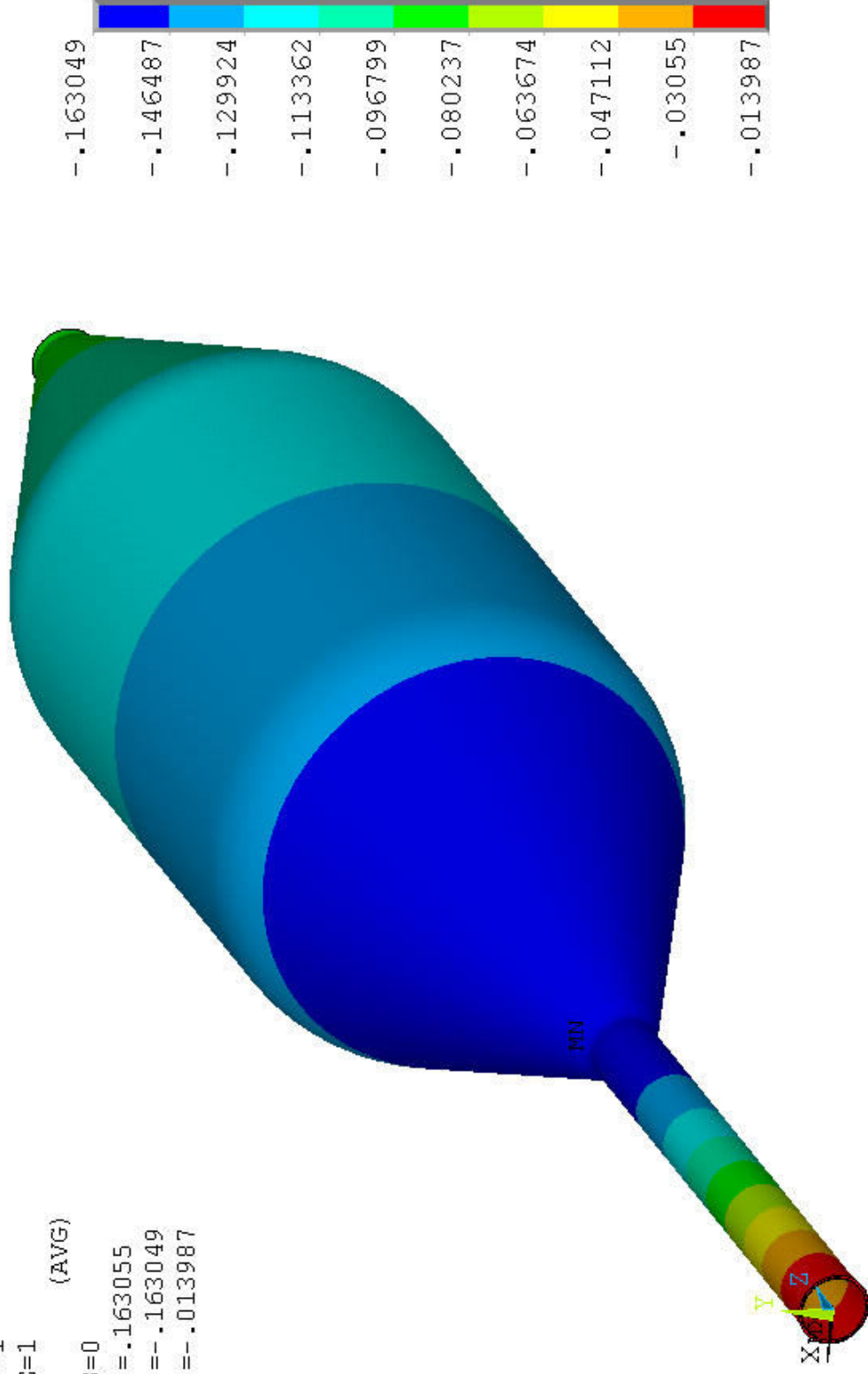
SMN =-.163049

SMX =-.013987

ANSYS

NOV 4 2011

09:57:22



Vertical displacement in *mm*

1

NODAL SOLUTION

STEP=1

SUB =1

TIME=1

SEQV (AVG)

DMX =.163055

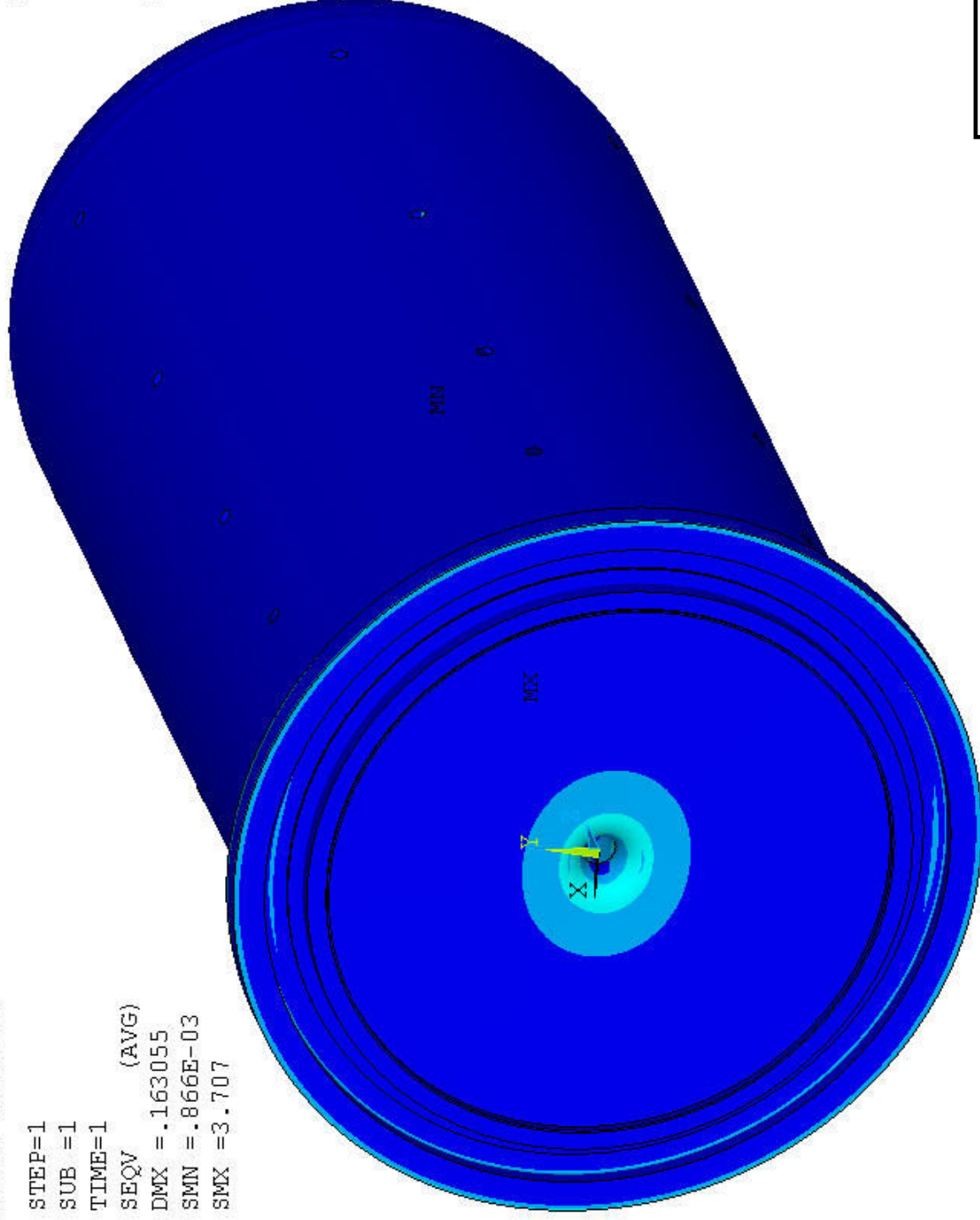
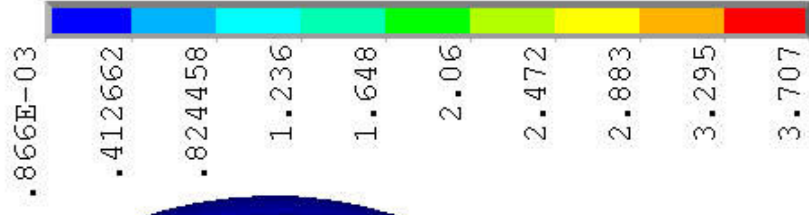
SMN =.866E-03

SMX =3.707

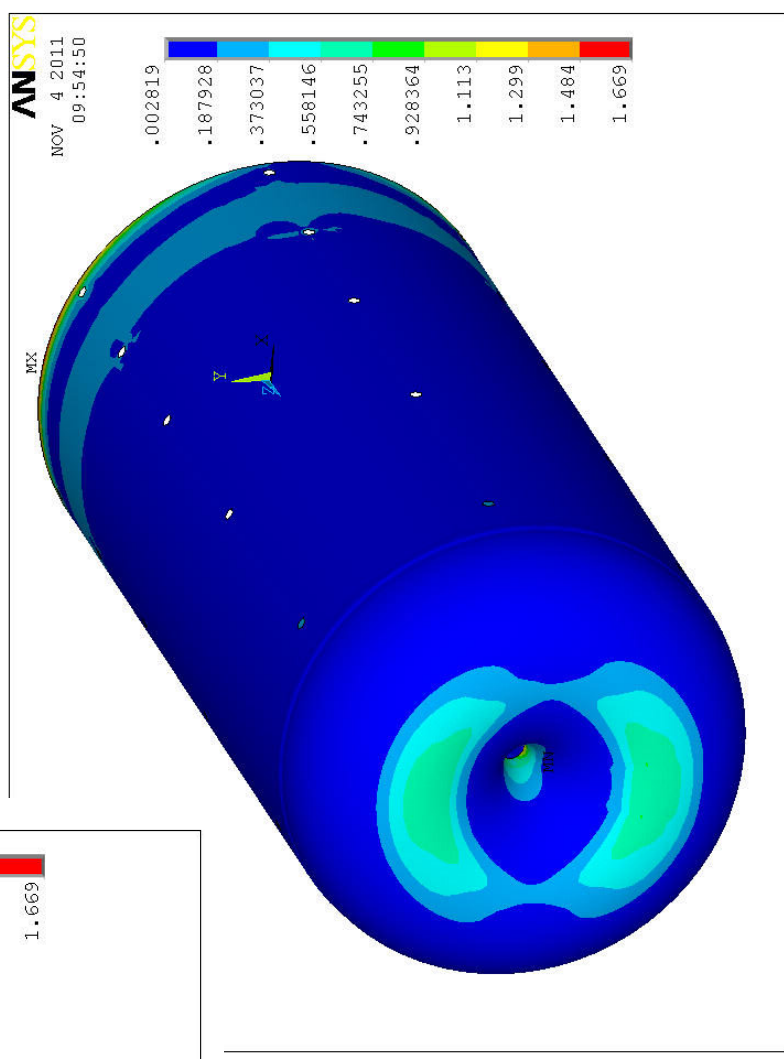
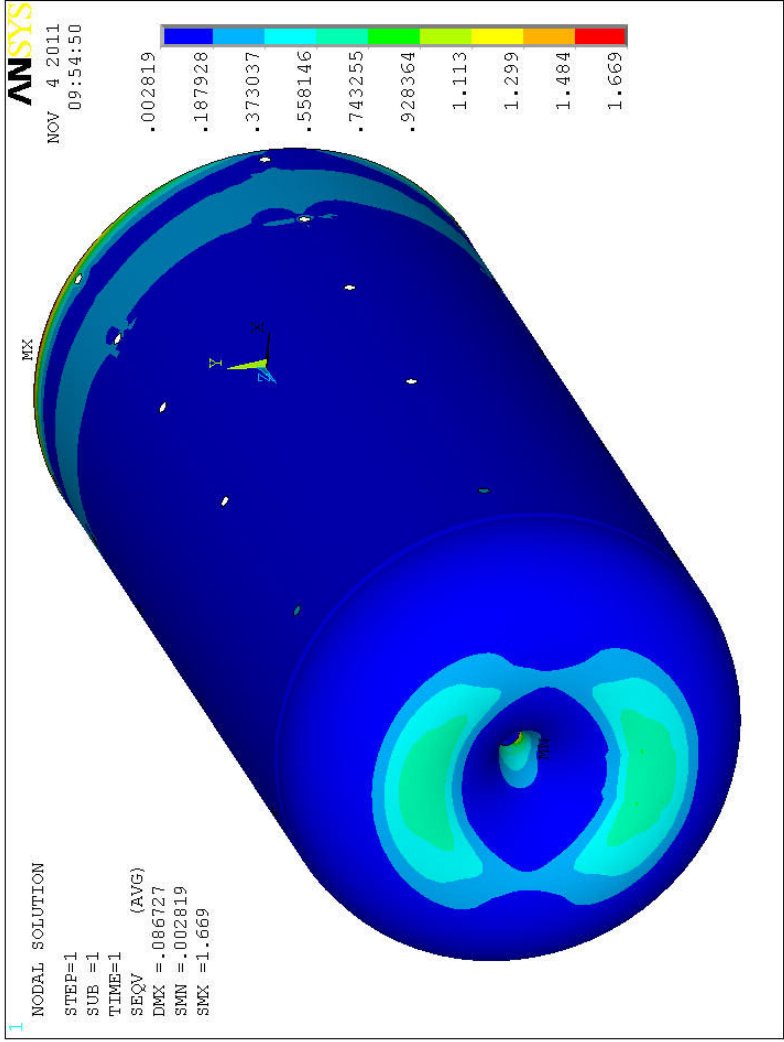
ANSYS

NOV 4 2011

09:55:44



Stress in MPa



Stress in MPa

1

NODAL SOLUTION

STEP=1

SUB =1

TIME=1

SEQV (AVG)

DMX =.163055

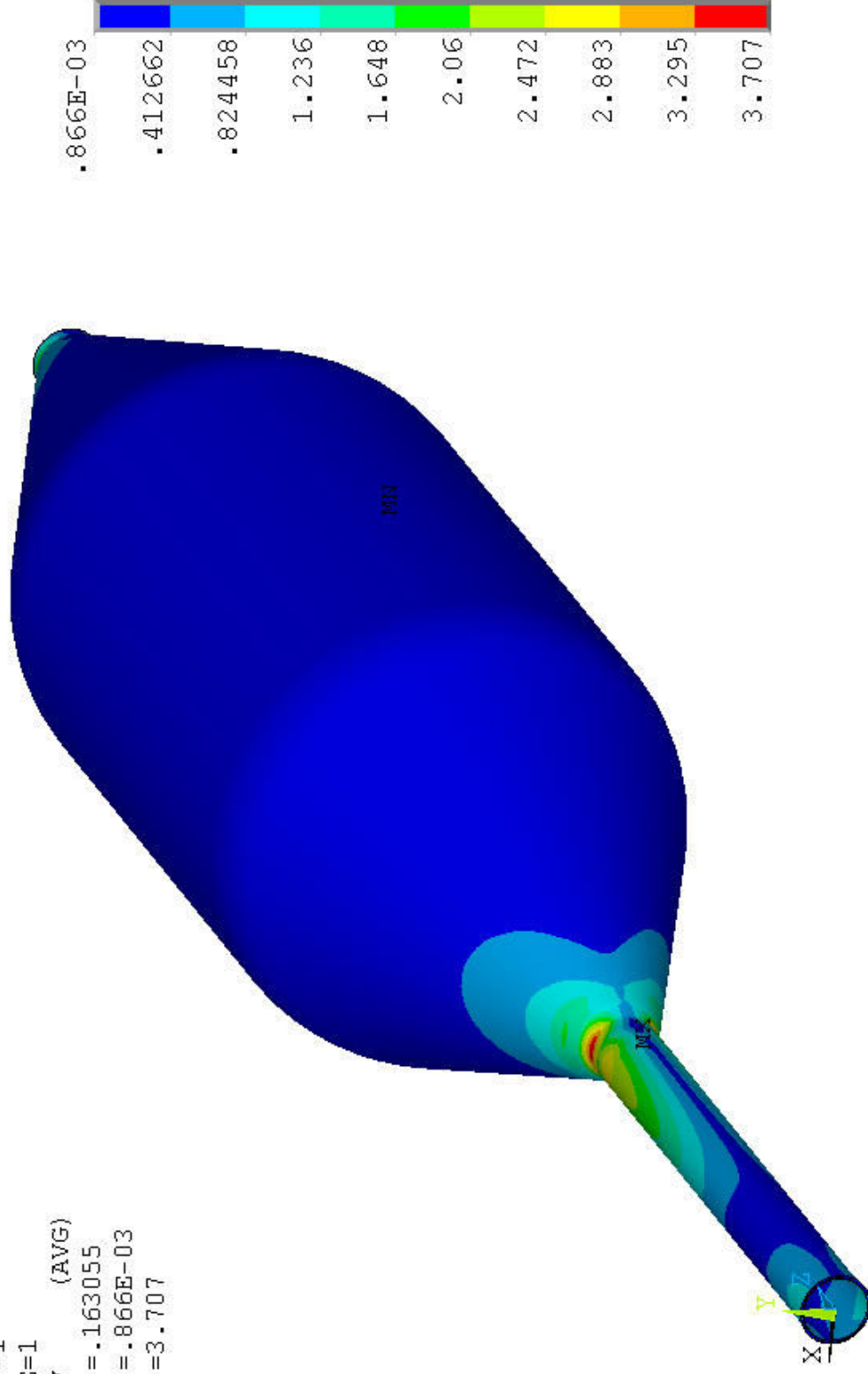
SMN =.866E-03

SMX =3.707

ANSYS

NOV 4 2011

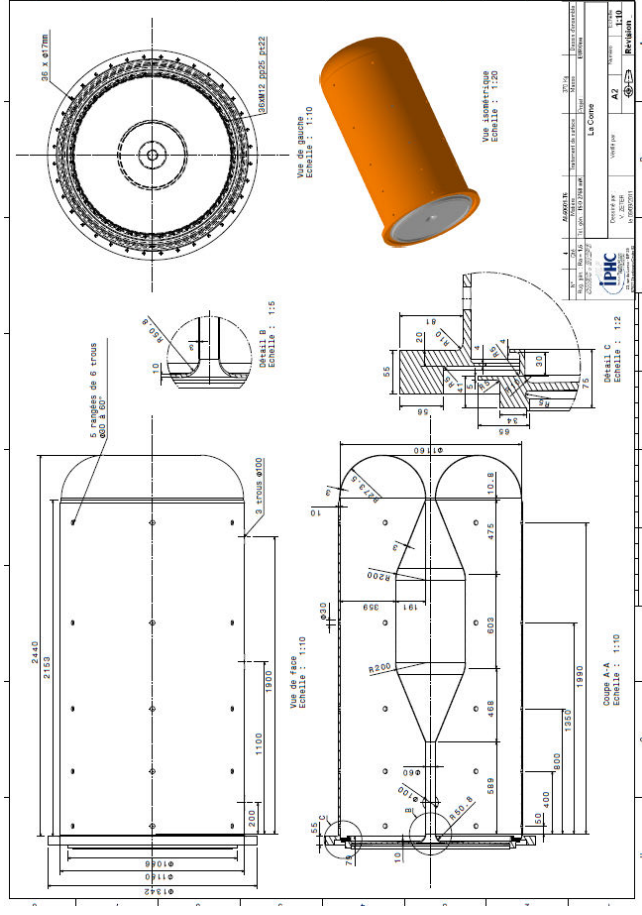
09:56:52



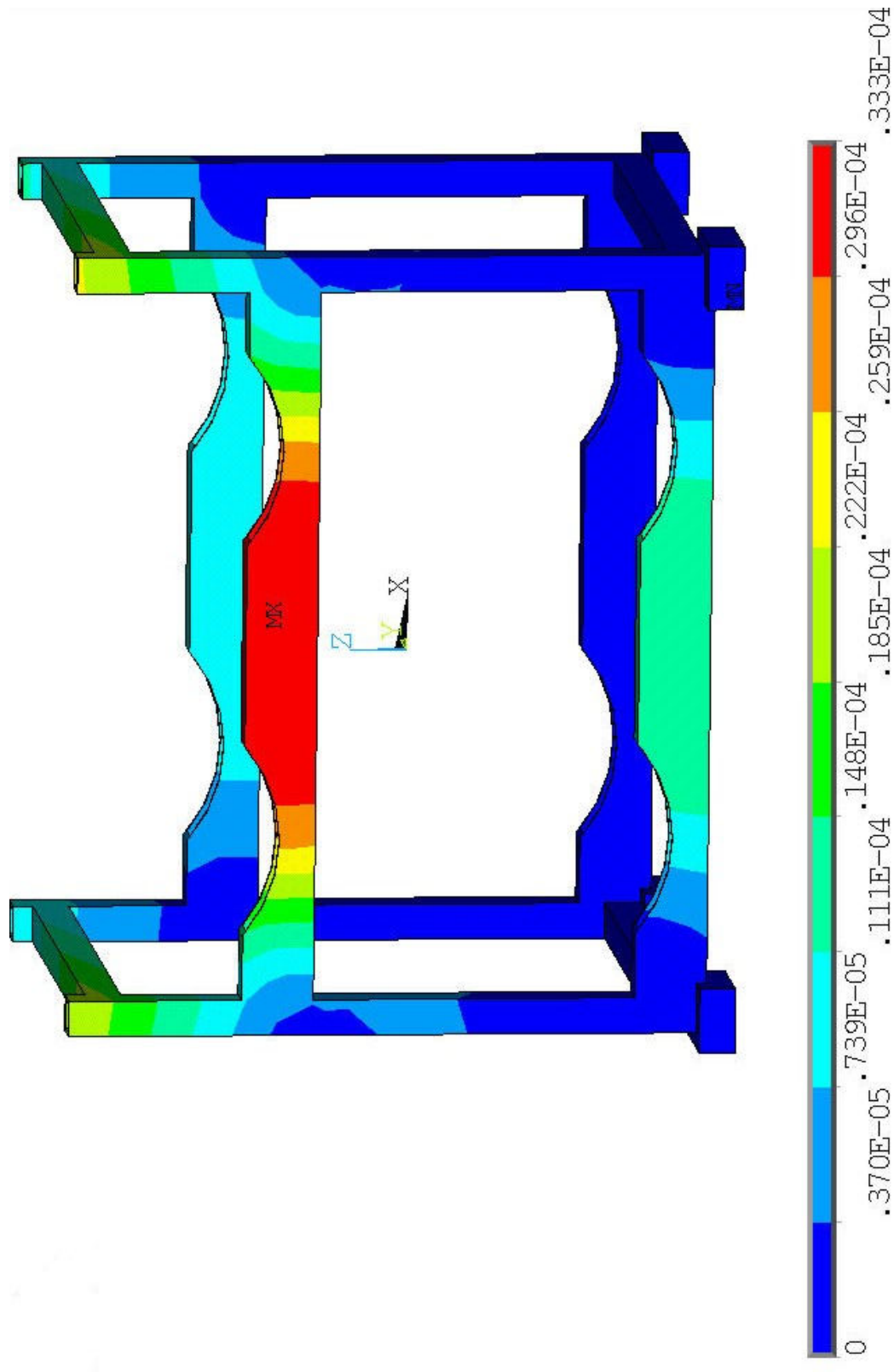
Stress in MPa

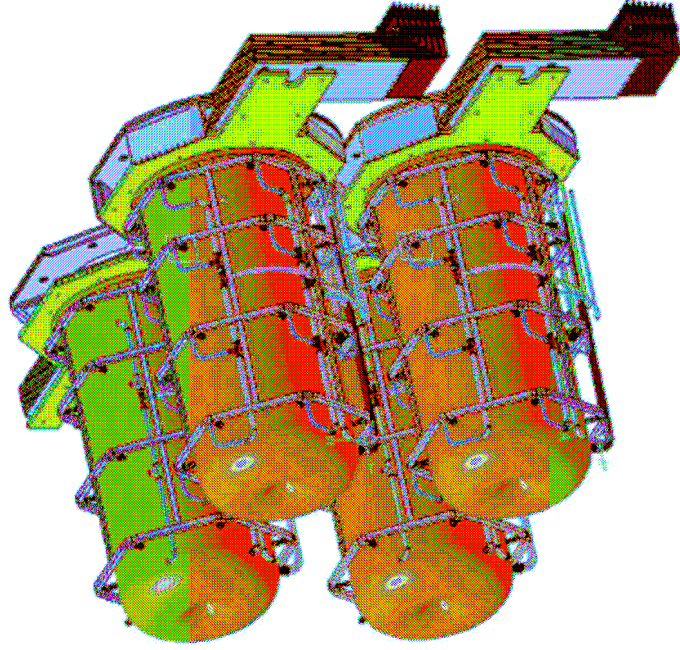
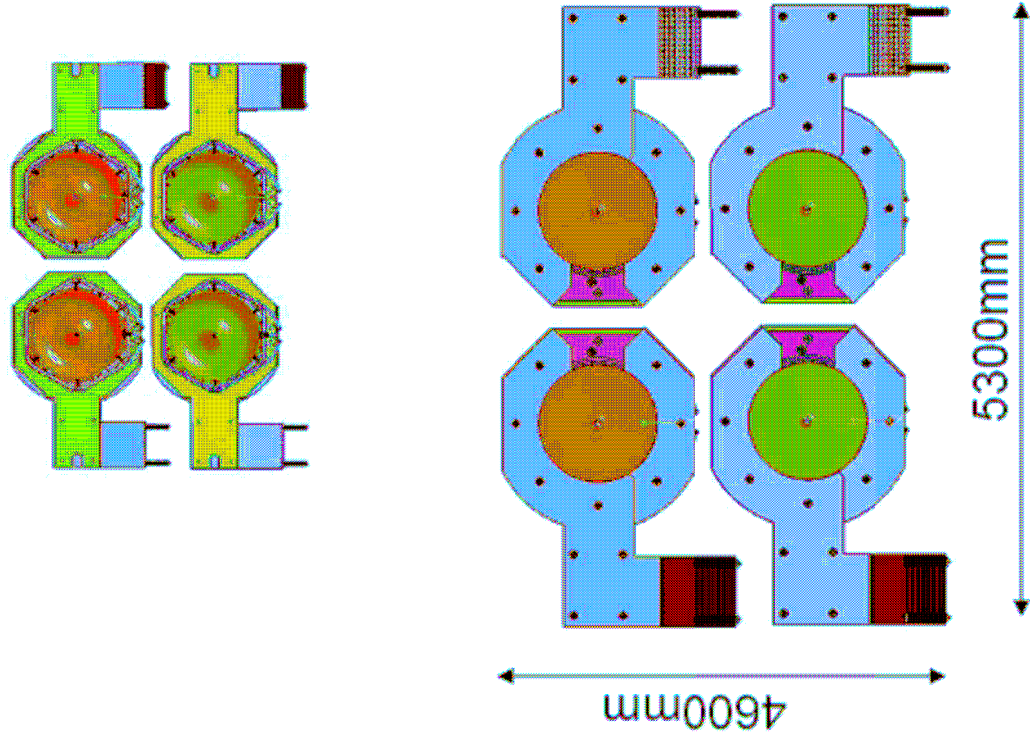
Support system of horn, questions:

- Separate for each horn or common for 4 horns
- System of horn positioning (compensation of deflections and tilt)
 - Frame + system of nuts
 - Frame + pulleys and elastic cables attached to ring placed on the outer horn shell



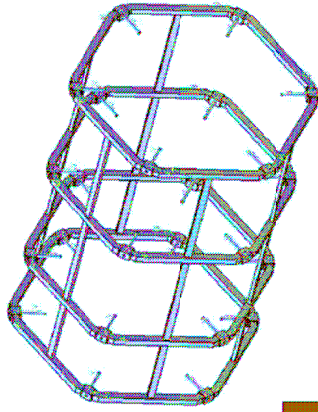
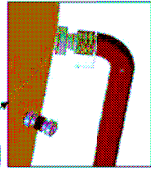
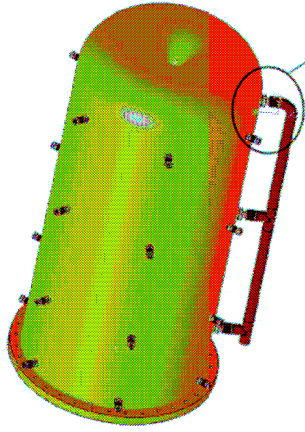
Support system – rigid frame





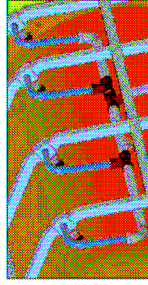
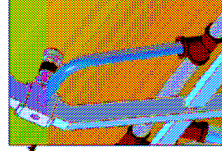
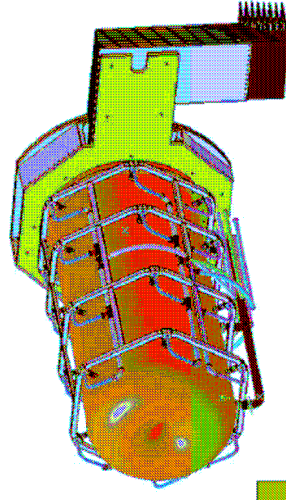
Vue provisoire des 4 cornes

Conducteur externe – les soufflets pour le circuit de refroidissement
et la sortie d'eau



La structure qui soutient la come et les
tuyaux de refroidissement

L'ensemble de la Come



Thank you for your attention